



No. 149

October 1973

RENAMING CEREMONY

Staff are reminded that this ceremony is on 7th November 1973 when the Secretary of State for Education and Science, the Right Honourable Mrs. Margaret Thatcher, will unveil a commemorative plaque and portrait in the Entrance Hall. This will take place at 10.15 hrs. and all Staff are cordially invited to attend.

LASER TRACKING OF SODIUM RELEASE

On October 14th at Andøya, Norway, an R.S.R.S. team consisting of Messrs. Sandford and Hammond, using a dye laser, successfully tracked sodium vapour released from a rocket payload prepared by staff at University College, London. This is the first occasion on which this technique has ever been used, the laser in fact acts as a radar transmitter, and its narrow beam is scanned over the sodium cloud by a steerable mirror situated outside our trailer. The scan lasts up to 3 minutes and is then repeated until the signals become undetectable, so that neutral winds can be measured by following the movement of the cloud in time. The following information is based on a telegram from the range.

Petrel rocket P100 was launched at 0001 U.T. and the payload burn was seen intermittently through gaps in cloud cover at the launching site. Staff at the laser tracking site at Skibotn were unable to see anything but, using their instrument in the 'blind-firing' mode, they located the sodium trail and obtained strong echoes from it. Despite some interruptions, echoes were recorded clearly until about 1700 seconds after launch and, possibly, faintly for some 650 seconds more.

It was judged that winds near the apogee, following some magnetic activity, had enhanced the expected rate of decrease of echo strength caused by trail diffusion and degradation of the laser signal. Nonetheless, it is hoped that detailed analysis of the results obtained will yield valuable information particularly relating to wind data at high altitudes.

All in all the experiment may be considered a very successful initial trial of payload, techniques and all facilities involved.

SKYLARK ASCENDING

The first Skylark flight in the High Latitude Auroral Substorm Campaign took place on 16th October. The Skylark and a Petrel were launched from the And/oya range at 2043 hrs. local time.

Initial results are good and the P.C.M. telemetry system prepared at R.S.R.S. worked well throughout the flight. Launching totals to date (18.10.73) are 1 Skylark and 3 Petrels.

THE LUNATIC FRINGE

"Hello Radsearch One; Hello Radsearch One; are you receiving me? You are only hearing us weakly? Well I wonder why that is? I'm sorry, I missed that; will you repeat please? Really, I see no reason to be offensive. We couldn't buy a bigger one, there was no money left in that category. Anywhere where are you now? What do you mean we ought to know - the radar isn't working all that well, you know. You're up there, you ought to know where you are. What? You're preparing to go into lunar orbit!! According to us you've still got another 34,000 miles to go. Just check that program over will you, it doesn't seem to be working too well; they're getting ready for orbital insertion. I don't know - last time I saw it it was in the file. No I don't know the number. I know there isn't much time, they're there already. Oh! Just get him back will you, somebody, the radar's packed up altogether. Hello radar control, are you there? Hello! Oh you are. The radar seems to have packed up. Yes I expect you do. What's wrong? Well have you tried pulling it out and shoving it in again? Oh well, it must be more serious. Get the lads on to it. Yes, yes, alright, I expect you are. Hello Radsearch One, were you trying to communicate? What do you mean is there a padre in the house? Oh I see, ha-ha; things aren't as bad as that yet surely? How are things going? You don't know your altitude! What's wrong with the altimeter? Oh! Oh dear that was an oversight wasn't it. You're right of course, there isn't. Well can you guess it? No I can't say I have tried it. Well we'll have to think of something - you just keep on going round for a bit and we'll see what we can think up. Hello radar control. Yes? Oh dear that's bad. Can we get another? How long? Well can't you send somebody over? Give them a ring and tell them to have it ready, and we'll let them have an order number. Yes? Oh you have. Can you make the alteration right away? Well make it clear that it's urgent - they can't start a routine service at a time like this! Hello Radsearch One I'm listening. Oh good! Right let us know when you begin descent. Yes radar control.

Oh well get them to telex the price. Another £35!! That's torn it - now it'll have to go up to Headquarters. Will they let us have it without the order? Oh that's jolly helpful of them. Yes Radsearch One? You've worked it out from the orbital time - good show. Just a minute. Hello yes, ground control here. What? Well can't the auditor wait? Well it's hard enough to find the numbers on these things without having to do it during descent. Yes Radsearch One? Oh you heard that. I can't really tell him that, he's got his job to do. You refuse to do it. Right I'll pass it on. He refuses to do it. Well let him put it in his report. What? You do that and goodbye. Yes radar control? Oh no! Have you rung the SEB? Two hours! What are they doing, building another generating station? Tell them to get it back on again, peoples' lives may be at stake. They promised faithfully not to do this during this week. What about the Diesel generator? Only enough to park the dish! Can you correct by hand? What? Who's Garth? Oh it's back on again thank God for that at least! Well correct it from TIM. Yes Radsearch One? The retro won't fire! Are they working on it? Any clues? It isn't!! I knew the delivery was late but I was sure that it had been put in. In that case you'll have to turn it round and use the other one. You should have enough to get off again. You won't be able to see? I can't help you there, you're the man on the job - couldn't you put space suits on and stick your head out? What? If that's how you feel you think of something better! Hello radar control. Yes. Oh? Why can't it go through? They won't accept The Conditions! I thought they were letting us have it without an order! Well appeal to their patriotism. Hm. You're right there; well appeal to their publicity mania. Yes Radsearch One? You're down!! Just a minute while we make an announcement. "Hello Appletonians, this is ground-control. Radsearch One has just landed safely. All the crew are well. End of message"

Well that's a relief; now we can relax for a couple of hours. Hello! Who are you? Oh well I'll try them. Hello Radsearch One, are you receiving me? Good. The auditor is over here to see if you're ready to do it now? Hello. Hello! .... Hello? ..... Hello,Radsearch One?.... Hello? ....."

F. V. Bale

OBITUARY

MR. R. NAISMITH

As briefly reported in last month's Newsletter we regret to announce the death of Mr. R. Naismith, a former member of our staff, at the age of 72.

Robert Naismith joined the Slough staff in 1925 with a background of university research in radio propagation. His early career was marked by publication of joint papers with a number of eminent workers in the field.

After a spell at Tromsø during the Polar Year of 1932 he returned to Slough to continue his work of building up the ionospheric observatory and improving techniques of sounding.

War time saw him Officer-in-Charge at Ditton Park and it was then he played an important part in starting an ionospheric predictions service, an activity which, together with further propagation research, particularly in connection with the effect of meteors, occupied subsequent years.

His career ran parallel with the development of ionospheric physics and he continued in this interest during the years after his retirement in 1961.

Just as it seemed to his friends that he was beginning to recover from the strain of nursing his wife during her prolonged and mortal illness, he collapsed and died.

The foundations of efficient ionospheric observatory technique are due in no small part to him. That his work could stand in company with that of Appleton is comment enough. That he provided an example of determination and unselfishness in caring for his invalid partner is surely testimony enough.

G.G.

THE DARWIN DEPARTS

A letter from Alan Smith in Stanley gives the following news:

"Some of the Newsletter readers who have served their time in these Southern parts may be interested to know of last month's final departure of RMS Darwin. She has been sold to Greek owners and sailed with a Greek crew for Montevideo where, amongst other things, she would have the kelp, which has grown several feet long in the two years at anchor, scraped from her bottom. She then heads for Ceuta, near Gibraltar and will ultimately operate amongst the Aegean Islands. There would, I am sure, have been many a moist eye watch her departure after 16 years in the Islands, but for the fact that one could barely see her beyond her own length through the driving drizzle".

STAFF NEWS

Congratulations to:

David and Lynda Kelley on the birth of their daughter Lisa-Marie on 28th September

Keith Gregory and Carol Kealy who were married on 8th September at Slough

Julie Richardson and Norman Coombes on their engagement

Welcome to:

D.J. Mackinnon	SSO	
E.C. MacKenzie	HSO	
A. Campbell	SO	Culham (ARD)
R.L.T. Street	SSO	
Miss P.A. Belcher	Typist II	Culham (IUE)
S.R. Denney	ASO	
Mrs. P. Rhind	Personal Secretary	Culham (ARD)
M.R. Witney	Craftsman I	
R.C. Redworth	Driver	
S. Beatson	Craftsman I	Chilbolton

Resignations etc.

J. Greengrass	SCS	
D.N. Halsall	SCS	
A. Price	SCS	
Miss M. Bramley	Vacation Worker	
H.W. Sanders	SCS	
Miss A.M. Robertson	Typist I	Back to UKAEA complement

Resignations etc. (Contd.)

Mrs. E.N. Stott	Personal Secretary	Secondment from UKAEA ends
P. Van Santen	SCS	
J.M. Emerson	HSO (USA)	
R. Magill	Vacation Worker	
G. White	Vacation Worker	
Miss S.E. Reed	ASO	
D. Appleton	PTO IV	
D. Stupperich	Vacation Worker	

ESRO

A. Peake	HSO
----------	-----

Other Changes

R. Christie	SSO	Changed from Div.3 Grp 1 to G.T.S. Group (Maintenance)
J.A. Crawford	SO	Left RSRS to return to college (still on complement)

SPORTS AND SOCIAL CLUB NEWS

HOCKEY

The mixed Hockey Team lost 2-1 to Chalfont St. Peter on Sunday 21st October. Several games have been arranged and it is hoped that some enthusiastic men will join the team in order to augment the skill of the ladies with some brute strength. Would anyone who is interested please contact Terry Paterson.

MOTOR CLUB

It would appear that it does'nt require petrol rationing to stop the wheels of transport turning. The Motor Club's order for oil and anti-freeze was despatched from the suppliers on the 17th October but had not arrived by the 26th. We can only hope that by the time it does arrive, frost will not have struck down those of the faithful, who have not transferred their allegiance to Woolworth or Boots.

Once again you are warned not to use anti-freeze containing Methanol. Woolworth and one of Holts' products do contain Methanol and are labelled accordingly. The use of British Standard numbers can be misleading. The B.S. for ethylene-glycol is 2537 and for methanol, 506, but the B.S. for anti-freeze prepared from ethylene-glycol and approved inhibitors are B.S. 3150, 3151, 3152. Most anti-freeze mixtures improve in these standards and may be applied to both cast-iron and aluminium engine components without ill effect. Royal Snowdrift anti-freeze is one of these.

P. Muzlish (Hon. Sec.)

BRIDGE CLUB

The first club evening of the season was held on 24 September in the Sports and Social Club Bar which will now be our normal rendezvous for club evenings and home matches.

The club has made a satisfactory start in its first season in the Great West Road League winning the first three matches. In these matches the swing on each hand is converted to International Match Points (IMP), a sliding scale which reduces the importance of very large swings, and another sliding scale is used to divide 10 League Points allocated to each match between the two teams according to the overall IMP swing. Up to now our team has been Barry Martin, Mike Johnson, Terry Paterson, and Tony Gibson. The results are:-

9 Oct.	R.S.R.S.	6	B.O.A.C. II	4
19 Oct.	West Ealing III	3	R.S.R.S.	7
23 Oct.	R.S.R.S.	9	Walls IV	1

The next match is the first round of the Felixson Cup on 29 October, and the next club evening is planned for the week commencing 19 November.

A. J. Gibson

TABLE-TENNIS

R.S.R.S. has started the season with two teams in the Slough League, the 'A' team in Div. 2 and the 'B' team in Div.3. It is hoped that both teams will be able to continue throughout the season.

R.S.R.S. 'A' have played 3 matches, won 1 and lost 2.

R.S.R.S. 'B' have played 2 and won 2.

The match on October 25th against McMichael "Cubs" was won due to a great effort by Piers Eggett who won his three singles matches. Unfortunately before the match started John Kitt was called away due to a family illness so R.S.R.S. 'B' started off 0-3 down. However Piers won his third singles match 27-25 in the third game to give us a certain draw and we won the doubles 22-20 in the third game having lost the first 7-21, giving us a 6-4 win.

P. Muzlish (Hon.Sec.)

LETTER TO THE OUTSTATIONS

Dear Colleagues

A few fore-cast shadows, generated by our coming change of name, are evident about the Station. Those whose care it is to ensure that the building is sound in wind and limb, not to say clean, bright and slightly oiled, may be seen peering and planning. Fingers are being rubbed thoughtfully over scratched surfaces; the stairs, scraped clean of the polish of over a decade, have become an object of remark to passers by who are, as they say, amazed at the lightness of tone. Most noticeable, however, of these outward and visible signs, has been a vanishing rather than a manifestation. The Mural is no more, that is to say it is, but it isn't. In fact it's more truly mural than ever, having been walled up.

The painting came new, with the new buildings into which we moved in 1956 and was, to start with, the subject of comment, much of it critical. Since those times we and it have learned to live together in a complaisant fashion. It made no demands for appreciation to the exclusion of others; we were happy that it should find fulfilment in the admiration of visitors, usually from overseas, usually scandinavian.

This occultation, then, is no punishment, no jacobean revenge for fidelity betrayed. Rather think it a preservative, a bulwark against time's ravages. Thus when eventual decay once more discloses it, it being so long hid will, re-emergent, be more wondered at .....etc., etc.

You've got to get the timing right, though, resurrect too soon and the world will dismiss the work as mid-century rubbish. Ripeness is all, and matters may come on very nicely in a century or two. 'An interesting example of scientific representational art..... unique record of cultural unity from an era of tranquility ..... echoes of a golden age'. Thus the Times in 2173 (wax tablet, circulation 70 copies - returnable).

A pity, come to think of it, that a Newsletter or two wasn't slipped behind the boards. Posterity will never know the literary treasures amassed for the common good by,

Yours sincerely

THE EDITOR

List of Reprints - October 1973

J. W. King

The determination of  $f_oF_2$  and  $h_mF_2$  from Satellite-borne probe data. I.T.U. Journal 1973 Vol. 40 No.7 pages 1-5

D. Eccles  
J.D. Burge

The behaviour of the upper ionosphere over North America at Sunset. J.A.T.P. 1973. Vol.35, 1927-1934

Internal Memoranda

NIL