



NEWSLETTER

No. 147

GO SKYLAB GO

In the grey dawn the Saturn 1B stood above the launch pad, lit by searchlights. We waited on a low hill, three miles of swamp and coastal lagoon between us and the "bird". The surface of the lagoon was rippled by alligators, and cranes and pelicans were flapping around. Midges, too - but one hardly noticed those - and we were supposed to look out for snakes. The sun rose almost directly behind the rocket, but the morning mist and cloud thickened slightly and blotted it out.

We were in the group of astronauts' families and friends, a hundred or so people. Many of them sported the Skylab II motif, which had been designed largely by the Garriotts: Leonardo da Vinci's drawing of the human figure, with a background representing the sun's surface and the earth's surface. It symbolizes the Skylab investigations: solar physics, earth resources, human physiology.

The launch 'window' was only ten minutes. The next day, if needed, there would be a one-minute opportunity, then none for several days. Luckily the countdown proceeded faultlessly, and on our hilltop, a television set kept us informed of its progress. The minutes rushed past, and the start of the final sequence at T-2 min. came almost as a surprise. Then the final counting; a brilliant light bursting from the rocket on ignition at T-3 sec.; LIFT OFF!

As the Saturn accelerated upwards, suddenly the roar hit us. The rocket was lost to view in the clouds long before the second stage ignited. There was a general feeling of elation. A few minutes later, it was announced that "the vehicle" was ninety miles up, three hundred miles downrange and "looking real good". I did a quick calculation and passed the news to Helen Garriott: "He's done it! He's in the F region."

H. Rishbeth

Note: The astronauts Bean, Garriott, Lousma are the second crew to occupy Skylab so they call themselves Skylab II. But NASA HQ count the initial unmanned launch of the laboratory as 'mission I' so on that reckoning Bean and Co.'s launch was 'mission III' of the Skylab series.

ARD walk the Ridgeway - (From A.R.D. Newsheet)

"Walk the Ridgeway, it's not very far - only 24 miles at the most - an easy and interesting day." So, on Sunday last, 11 enthusiastic people climbed into a Tappin's mini-bus at 8.00 am at the AERE shopping centre for the journey to the Ridgeway near to Avebury, where we arrived an hour later. The first miles were very pleasant with beautiful views over rolling downs and cornfields. Unfortunately, to cross the M4 motorway meant about 4 miles along a road and the day was getting hotter. An unexpected Inn at the end of the macadam meant a refreshing but long stop for lunch. Our ace walker, Terry Paget (who keeps fit through Culham tennis) had a few pints and left at a cracking pace with a friend and we didn't see them again. They arrived at Harwell at 8 pm after hardly stopping. The next stage of the walk, up to the White Horse at Uffington was not too pleasant. The Ridgeway here was narrow and bounded by deep hedges and on such a hot day the path became steep, the hard-baked chalk burnt our feet and there were stops for foot repairs and amputations. Nevertheless, we all arrived at White Horse Hill about 4 pm. It was here that we began to check and then doubt our theoretician leader's arithmetic. With sinking hearts we realized that we still had 13 miles to walk, although we had already done 19. So undoubtedly the wisest person of the day was Marion Hayes, who with good Scotch sense declared herself "just a wee bit tired" and retired very gracefully. It was cooler after that and we had nice views again but Jeff Payne and Robin guy retired a little after that and managed to get a lift direct to their vehicles. Jeff, footsore but extremely noble, drove his car up the Wantage/Hungerford Road with precise timing as the stragglers were just crossing at this point. The hero! of the day was undoubtedly Prab Gondhalekar, who refused the offer of a lift and gallantly carried on for the last 6/7 miles. He (and Peter Stott) arrived at Harwell in the dark but even more remarkably still, he cheerfully hopped around work on the Monday (but declared perhaps he would take up sailing in the future).

FAMOUS LAST WORDS:-

"It will never happen to me"

At least three members of our staff know this adage is not always true. One fell on a staircase in a confined space and struck his head against some pipework with considerable force. Luckily he was wearing a safety helmet and escaped serious injury.

Another member of staff was working on a mast when he was struck by a 2BA bolt accidentally dropped from above. This bolt struck his safety helmet with sufficient force to dent it but the wearer escaped injury.

Yet another member of staff was using a chipping hammer without wearing goggles. A small piece of metal flew up into his eye but luckily this was removed without injury. It could have caused serious injury, all because he was not wearing the goggles provided.

These incidents actually occurred - so it does pay to take precautions. It could happen to you.

SAFETY HELMETS AND GOGGLES ARE AVAILABLE FOR YOUR USE. WHY RISK INJURY? .

STAFF NEWS

Congratulations to:

Dr. Martin Bowman on his engagement to Miss Joan Pratt of Slough
Mr. G. L. Addison now Senior Principal
Miss W. Harrington " S.O. (Act.)

Welcome to:

Miss B. Okolotowicz	Vacation Worker
R. A. Cawley	"
R. Magill	"
M. P. Vieyra	"
Miss M. A. Hayes	" (Culham)
Miss A. E. Davies	" (Culham)
L. V. Smith	C.A.
P. F. Blann	S.C.S.
M. E. Tamworth	"
Miss G. L. Davies	Vacation Worker
Miss M. Bramley	"
G. C. White	"
Miss A. L. Palmer	Ex.O.
T. F. Smith	C.O.
R. B. Young	A.S.O.
L. G. Peardon	S.C.S.
Miss K. M. Dickson	" (Culham)
Miss G. H. Halliday	"
D. Stupperich	Vac. Wkr (IAESTE)
Mrs. E. P. Mitchell	C.O. P/T (Winkfield)
M. J. Clowes	Craftsman I

Resignations:

D. M. Ellis	S.C.S.
Miss C. F. Lane	C.A.
G. C. Brown	S.C.S.
G. E. Ashwell	P.S.O.
M. S. Guest	Craftsman I
Mrs. C. C. Fisher	Cleaner P/T

Other Changes

G. M. Johnston (SSO) Transferred from RSRS to ESRO complement
Miss S. E. Reed (ASO) Made deputy shift leader
D. J. Sandcraft (Ex.0) Transferred from Winkfield to Accounts (RSRS)
D. M. Willis (SSO) Transferred from Div.5, Grp.4 to Div.4 Grp.3
D. R. Lepine (HSO) Transferred from Div.4 Grp.1 to Mr. Dalziel's Div. Grp.1
R. Walls H.Ex.0. Transferred from RSRS to RHEL (Duties at CERN)

SPORTS AND SOCIAL CLUB NEWS

CALENDAR

Saturday 22 September 1973 DISCO D.J. - DAVE JAMES
8.30 to 12.00 midnight Tickets - 25p each (including food)

Monday 5 November 1973 'GUY FAWKES NIGHT'

Saturday 15 December 1973 CHRISTMAS DANCE

Saturday 22 December 1973 CHILDRENS CHRISTMAS PARTY

Watch out for further details on the Notice Board (near the Library)

ACO SOCIAL EVENING

CRICKET

ACO came over determined to avenge the defeat they had received when we visited them last. However, we were equally determined that this would not be the case and emerged the winners for the second time.

We batted first and made 110 runs in our allotted 20 overs for the loss of 7 wickets (John Kitt 34; Barry Martin 31). When we took the field ACO were soon in trouble when some fine catches were taken by our side and (even after putting on two of our less recognised bowlers!) were unable to make more than 38 runs.

John Cathrew

'AT HOME TO RSRS': ACO EVENING

The return fixture for what has now become a regular event in the Sports and Social Club calendar took place on Thursday 26th July with the ACO visit to RSRS.

Our present run of good luck with the weather continued and an extremely enjoyable evening was had by everyone, both contestants and spectators. I was especially pleased to see the larger than normal amount of spectators, including a fair sprinkling of children, as this is essentially a family occasion. The more the merrier. After the sporting events everyone retired to the bar area, amongst other things to partake of an excellent salad buffet organised by the ladies of the committee. My thanks to the ladies for giving us all such an excellent meal.

The next Sports and Social Club event will be held in late September. We are hoping to arrange a 'Disco', so watch the notice board for details later in the month.

J. E. Allnutt

ACO EVENING -

TENNIS

Eight tennis enthusiasts from ACO were waiting to start playing at five o'clock and keen to make amends for their disappointing performance on their home ground in June. They looked like achieving this after two very evenly contested sets, but from then on R.S.R.S. took command to win the remaining seven sets, the last being played in near darkness when only two of the contestants - luckily one from each side - could see the new balls. The final score was 8 sets to 1. Our team consisted of Monica Kendall, Wendy Harrington, Wendy Willard, Yvonne Dias, Marie Bramley, Neil Bramley, Dave Stanley and Richard Smith.

R. W. Smith

TENNIS MATCH - RSRS V LONDON OFFICE

Three mixed pairs from London Office came down to RSRS for a Tennis Match cum Social Evening. The evening proved to be very successful both weatherwise and socially. RSRS won the match 7 games to 2 after some very close and exciting games.

Doreen Baldwin was kind enough to open the bar for us after the match for which we were very grateful, as it rounded off a very pleasant evening.

This was the second year we have held this match with London Office, and we hope there will be many more in the future.

Players from RSRS were:-

	<u>Results</u>
P. Gardner + Marie Bramley	6-2 6-2 6-0
E. Westbrook + Wendy Harrington	6-2 6-3 6-0
C. Whitlock + Yvonne Dias	6-3 3-6 2-6

Wendy Harrington

MOTOR CLUB

Price watchers reading "Civil Service Motoring" will have noticed that the price of lubricating oils went up by 10% in July. This means, of course, that the cost to staff will be increased accordingly after present stocks have been sold. As these were delivered in June the stock level is quite good at the moment. Oil is available to all staff at prices below those charged to individual CSMA purchasers.

RAMP

The ramp behind the Elephant Shed is for use by Motor Club Section members only and any member wishing to use it must contact the Section Secretary. Members are requested to keep the area tidy by removing old oil cans and other rubbish.

TOOLS

These are available on loan to Section Members only and borrowers are responsible for loss or damage. A full list is given below:

Trolley Jack

Jacking Ramps.

(These are reasonably portable (they will go into a Fiat 600) and give 6 inches to 18 inches lift)

Axle Stands (1 pair)

Torque Wrench 20-100lb.ft.

Set of Hydraulic Pullers with 2 and 3 leg adaptors

Cylinder Compression Tester (similar to a tyre pressure tester which screws into the spark plug hole).

Tapley Brake Efficiency Meter

Colortune Carburettor Tuner

Twin-curb balancing device

RECENT ACQUISITIONS

Socket Set - $\frac{1}{2}$ ins square drive. A comprehensive set with Whit
A/F and Metric Sockets, including accessories such as ratchet wrench,
extensions and a deep plug socket.

Mini and 1100 hub puller

Set of clutch plate alignment mandrels

(The last two items were obtained and presented by Fred Salter of the Workshop).

Members desiring to borrow any of the tools should contact the Section Secretary).

P. Muzlish (Hon. Sec.)

LETTER TO THE OUTSTATIONS

Dear Colleagues,

You may well recollect that it has been the custom here since time immemorial - at least 1960 - for groups of staff to aid the circulation of the blood, gastric juices and the more interesting pieces of scandal, by a judicious post-luncheon stroll among the highways and byways of Ditton Park. During such promenades the features of the changing seasons are remarked, together with such phenomena as fungi, snakes, remains of small defunct animals and larger moribund motorcars.

Behold then, something different. Some ten days ago were discovered signs of man, by the trees near the Old Building. A small van sort of thing and one of those corrugated metal huts, direct descendants of the air raid shelters of thirty years back.

No-one set eyes upon the occupants, and the evidence gave little clue as to their occupation. Huts and vehicles such as those described serve all sorts; telephone engineers, diggers of holes, men who guard the same or 'the workmen'. These last being the familiars always to be found busying themselves with misty formless activities at the periphery of most constructional undertakings. They are the skirmishers of the engineering battalions, who scurry ahead of the main attack, trying the strength of the opposition and securing outposts such as unwanted ancient drains, streams and ditches which would otherwise give pause to the main thrust of bulldozer armament.

Their purpose was eventually discovered to be part of the activities of the Thames Conservancy, no less. They were ditchers, ditching (possibly hedgers hedging too?). Somehow or other their abode seemed unfitting, surely they should either gather in some tented mediaeval pavilion wearing kendal green, tricked out somewhat after the style of swan-uppers, or else go for the rural thing - clay and wattle, nine bean rows, and suchlike. All costs paid by the Worshipful Company of Bowyers or whatever. Anyhow, though unseen they are not inactive, as evidenced by ditches de-weeded and generally rid of excess of branches from nearby trees.

The changing scene leads fairly readily to reference to the resignation of Gordon Ashwell. After many years' association with us and N.P.L., during which time his research ingenuity has been expended upon many and varied subjects; he has joined a government group involved with monitoring the movements of wild life by D/F of miniature transmitters attached thereto. Plenty of problems here for his experimental techniques. If sealing-wax was not in use in his lab. I feel sure this was only because he discovered a more effective and cheaper substitute. Never one to shirk precision methods where needed, he does not scorn the help of tins, bits of brown paper and similar humble adjuncts. We wish him well, not least,

Yours sincerely, The Editor

List of Reprints - August 1973

G. N. Taylor H. Rishbeth and P. J. S. Williams	Multistatic incoherent scatter measurements of Ionospheric drift velocity.	Nature 1973 Vol.242 5393 pp 109-111
K. Burrows A. J. Rogers	A test of the wind shear theory of sporadic - E Formation	JATP 1973 Vol.35 pp 1709-1713
E. H. Bramley S. M. Cherry	Investigation of microwave scattering by tall buildings	Proc.IEE Vol. 120 No.8 pp 833-842
C. R. Readings E. Golton K. A. Browning	Fine-scale structure and mixing within an inversion	Boundary-layer Meteorology 4.D.Reidel Pub.Co.1973 pp.275-287
D. T. Gjessing A. G. Kjelaas and E. Golton	Small-scale atmospheric structure deduced from measurements of temperature, humidity and refractive index.	Boundary-Layer Meteorology 4.D.Reidel Pub. Co. 1973 pp 475-492

Internal Memoranda

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B.R. Martin, M. Waite
P.J. Smith and
M. Johnson