



APPLETON LABORATORY NEWSLETTER

Nos. 165/166

February/March, 1975

SPINNAKER RUN



The shipping forecast for Friday 11th October, the date of the Annual Civil Service Interdepartmental Offshore Race, was good enough for the course to be set for Cherbourg. Somehow going to Cherbourg always seems more popular than the heavy weather course in the Solent. The number of SRC crew was smaller than the previous year, as was the boat. Richard Hilken (Atlas Laboratory), Philip Moore (Daresbury Laboratory) and I crewed with two others in 'Planet', a 30 ft Pioneer class boat. Acting with caution, since we were away from moorings only an hour before the race started at 1700, we were 20 seconds late across the start line off the Albert Sailing Club at Southsea. However, within an hour we had crept up to fifth place running under spinnaker in a pleasantly fresh breeze.

At dusk the wind increased, and as we left the Isle of Wight to starboard we had the wind close on the stern and began to roll, and occasionally gybe, on the following sea. Four times we put the spinnaker up; it required all five men and each time the 730 sq. ft. of sail had to be rebagged carefully. The first time a weak shackle eventually opened, the second time an apparently good sheet parted under the strain, the third time haste was greater than speed, and the fourth time all went well - for about an hour! Then, at about 22.30, with only the duty watch on deck, it was noticed that we had a "wrap-around" on the forestay. With all hands called on deck we took turns for an hour fighting to separate the bucking sail from the forestay and fore-halliard as water broke over the heaving deck. Eventually we had to press on southwards without getting the sail down, not being able to set a genoa since both forestay and fore-halliard were fully encapsulated with spinnaker. It probably cost us three hours in the race, but even with the mainsail alone we romped along in a cold clear night.

After a 14 hour (and 20 seconds) race we arrived in Cherbourg with dawn breaking, secured to a 10 ft. diameter Naval buoy (with some evident protest from the Naval station on shore!) and removed the spinnaker without even a minor tear after hauling the skipper to the mast head on the bosun's chair. Meeting in the waterfront bars, most other crews had stories to tell of troubles they had had with spinnakers, one having burst entirely. It seems that of the fleet, we carried ours the longest, even before the "wrap around" - we were out to win, and might have done with reasonable luck! Our final position was ninth out of sixteen; 2 hrs. 26 mins. 16 secs., behind the leader. On the way back we were challenged by the other Pioneer class boat to an impromptu race. Their dismissing our claim that we could have won the southward run cost them 10 francs on the return trip!

DELAY LINE

or

APPLETON TO APPLETON IN SIX DAYS

Once upon a time (mid-February it was) a little Billet-doux swam out of the Typing Pool and paddled along the Internal Mail Stream. She was just an Internal Memo, inscribed simply to Mr. so-and-so - no address, no stamp, no frank, not even "Official Paid". As she swam she got bolder, swam further, and further
..... All at once she was swept away by a savage torrent into a harsh whirlpool of mailbags, red post vans, sorting offices. She was fished out, half drowned, thumped by a heavy-handed sorter and left for dead in the Dead Letter Office. To her own, sweet little motto "Open carefully - Re-use with label" was now added - indebibly, in purple - the terrible message

INCOMPLETE ADDRESS - UNDELIVERED FOR REASON STATED - RETURN TO SENDER

And so it was that, cruelly marked, she was brought home by a kind postman. A final thump from the red Registry rubber-stamp revived her. After all of six days, back she was in dear old Applab

STAFF NEWS

Congratulations to :

Sally Cutts and Michael Laugher on their wedding on 14th February at Maidenhead.

Helen Corder and Bob Young on their engagement which took place on 7th March.

Barbara Dorman and Alan Buck, who became engaged to be married on 11th March.

Helen Corder now Senior Machine Operator

B. M. Turner now Craftsman II

Welcome to -

J. N. Urquhart	S.O.
K. W. Pavitt	H.S.O.
R. K. Hudson	H.S.O.
P. L. Davies	S.C.S.
W. E. Sartain	Craftsman I
K. J. Sheridan	Gardener II
K. V. Buchta	S.O.
Miss J. Richardson	C.O.
R. Browning	H.S.O.
G. A. Stevens	Craftsman I

Resignations -

Miss A. L. Palmer	E.O.
Mrs. I. Harris	Typist I Part-time

Other Changes -

R. Downton	P.T.O. I from Daresbury to Appleton	
A. D. Stevens	H.S.O. Changed from Div. 2 Group 2 to Div. 4 Group 3	
P. P. Reader	S.S.O. Changed from Div. 3 Group 3 to Div. 5 Group 2	
Mrs. J. Coombes	A.S.O. Changed from Div. 5 Group 3 to Space Research Group	
D. G. Carter	H.S.O. Changed from Div. 3 Group 1 to Div. 1 Group 2 (IUE Group)	
J. A. Gourlay	H.S.O. Changed from D6 Group 4 to D2 Group 2(b)	
R. Downton	P.T.O. I Changed from D6 Group 1 to D3 Group 1	
D. A. Bryant	P.S.O.)	
D. S. Hall	S.S.O.)	
R. W. Mason	S.S.O.)	
T. Edwards	H.S.O.)	
D. R. Lepine	H.S.O.)	Changed from Space Research Group to D3 Group 5
G. M. Webb	H.S.O.)	
M. J. Smith	S.O.)	
Mrs. J. Coombes	A.S.O.)	
K. Feldmesser	H.S.O. Changed from D4 Group 4 to GTS Group)	Ionospheric
G. M. Johnston	S.S.O. Changed from D4 to GTS Group (Falklands))	Group
R. K. Burdett	S.S.O. Changed from D3 Group 1 to D1 Group 1	
M. J. Clowes	Craftsman I Returned to duty at Chilbolton from France	

LABORATORY NEWS

A one day Colloquium entitled "Some Aspects of Satellite Control and Data Processing" was held at the Culham Lecture Theatre on Tuesday 25th February. About 100 people attended, including representatives from all the S.R.C. Laboratories. The majority of the papers presented were concerned with Ariel-5, but there were also papers about Ariel-4, Copernicus, TD-1, Miranda, and the Nimbus series of satellites.

In his opening address, Mr. Dalziel described the growing complexity of satellite data handling, and the increasing role played by the Appleton Laboratory in this type of work. At the end of the day's proceedings, Mr. Hardy of the Royal Aircraft Establishment thanked the Laboratory for a most interesting and useful day, and said that he felt there should be further conferences of this type in the future.

Dr. King and his Group are to contribute an exhibit describing their current work to the Royal Society Soiree on 8th May.

The proposal for an X-Ray Polychromator Experiment (XRP), submitted in collaboration with the Mullard Space Science Laboratory and Lockheed Palo Alto Research Laboratory, has been selected by NASA to proceed to a Phase B Definition Study with a view to flight on the Solar Maximum Mission (SMM) satellite in 1979/80. The Phase B study will be non-competitive for the experiment covering this area of science. This means that, provided the Study proceeds successfully and the Mission continues to be supported by NASA, we will be involved in building and flying a major experiment on this satellite. SMM is designed to study solar flares and related phenomena. In addition to the X-ray experiment it will include up to eight other experiments for co-ordinated studies of the sun over a wide range of wavelengths and particle fluxes. The proposal for the X-ray experiment has been selected in the face of severe competition from four other experienced solar X-ray groups. All those involved in the preliminary studies and preparation of the proposal are congratulated on this success.

The S.R.C. Solar System Committee has recommended approval for us to proceed with Phase B studies for the XRP experiment to be flown on board the Solar Maximum Mission satellite.

(A.R.D. NEWS)

We have heard from Woomera that the flight of SL 1301 took place on Tuesday, 25 February. This was a payload containing three grazing incidence spectrometers and telescopes, and was designed to record spectra from both the disk and above the limb of the sun. On this occasion the limb slit was set above the west equatorial limb. Early indications are that the flight has been successful; the flight films have been recovered and processed and appear to contain useful data.

(A.R.D. NEWS)

A proposal to NASA to participate in their Payload Definition Working Group to define solar shuttle payloads has now been selected. Our participation is on behalf of a consortium of UK groups including MSSSL, Leicester University and NPL.

(A.R.D. NEWS)

SPORTS AND SOCIAL CLUB NEWS

DISCO

March 1st was the occasion of the last grand event of this year's Sports and Social Club Committee. This time a Disco to herald the beginning of March and of Spring, although in this latter we were pre-empted by the unduly mild weather.

With good music, good company and good food, accompanied by plenty of liquid nourishment, the proverbial good times were enjoyed by those who came along.

Many thanks to all those who helped with the catering and with the bar.

Chris Gibbins

SPORTS AND SOCIAL CLUB COMMITTEE ELECTIONS

May I remind everyone that nominations are needed for six new members of the Sports and Social Club Committee for next year. If you would like to be at the hub of the Laboratory's social life, then why not put your name on the list on the notice board outside the Library.

Chris Gibbins

LETTER TO THE OUTSTATIONS

Dear Colleagues,

'I take it that you've seen the Yeti'. Thus a friend, on our meeting when about the lawful and several duties on which my masters see fit to send me. Undue surprise seemed inappropriate. Buildings and places have, as the ancients well knew, their own familiars. (A shop in my home town has been infested with bicycles these forty years and, despite vigorous efforts on the part of recent owners, continues so to be).

Thus, in surroundings which boast an elephant shed and, at one time, a ball room, why should we not have an abominable snow man? It seemed worth a look. 'Down the corridor, far end - you know - the old ball room'. The instructions were clear and, on my following them, there indeed it was.

Large, white, formed, yet rather formless, and replete with enough orifices to satisfy the most complex metabolism. A mechanism on the verge of becoming an organism. That it stood on four feet rather than two just shows how reports were distorted when coming all the way from the Himalayas. Come to think of it, I'm not sure how many feet it has, but four's good enough for a start.

At present it seems dormant, but I am reliably told that, before long, life will churn within it and, given good diet and gentle treatment, it will play the part of oracle and public prosecutor. Its task is to extract from wayward gas molecules confessions of anomalous behaviour and unnatural association among their hydrogen atoms 'to the great detriment of, and heresy against the Word as revealed in Kaye and Laby'. One should bear in mind that, like all the best heresy, it may eventually become accepted dogma ripe for overthrow by new thoughts in new times. For the present, though, I have every intention of showing the beast due deference. Politeness and respect have ever been the watch word of,

Yours sincerely,

The Editor.

REPRINTS FEBRUARY AND MARCH 1975

A.1036 R. G. Evans	Ultra-violet observations of the eclipsing binary star δ Pictoris from the TD-1A satellite.	Mon. Not. R. Astr. Soc.	1974 167	517-525
A.1043 C. Jordan A. Ridgeley	Solar limb and disk continuum intensities in the wavelength region 1450-1950 Å.	Mon. Not. R. Astr. Soc.	1974 168	533-541
A.1025 J. C. Samuel P. A. Bradley	A new form of representation of the diurnal and solar-cycle variations of ionospheric absorption.	J.A.T.P.	1975 Vol. 37	131-141
A.1049 W. C. Bain R. Rishbeth	Developments in ionospheric physics since 1957.	The Radio and Electronic Engineer	1975 Vol. 45 No. 1/2	1-10
A.1062 P. A. Bradley	Long term h.f. propagation predictions for radio circuit planning.	The Radio and Electronic Engineer	1975 Vol. 45 No. 1/2	31-41
A.1104 E. W. Acton	The British small sounding rocket programme	Journal of British Interplanetary Society	1975 Vol. 28	119-125

INTERNAL MEMORANDA

N I L