

# Bulletin

of the Rutherford Appleton Laboratory

17 Jan 1983 No.1

## Nimbus 5 is Ten

A small celebration was held on Saturday, 11 December at the Department of Atmospheric Physics, Oxford, during which data was received, via the NASCOM link, from the Selective Chopper Radiometer, which on that day had completed 10 years in orbit.

Launched in December 1972 on NASA's Nimbus 5 weather research satellite, this 16 channel instrument is a joint Oxford University-Heriot Watt University-Reading University project, the engineering design and management being provided by RAL. Measuring the temperature profile of the atmosphere up to 45km in height, sea surface temperature, water vapour content and other cloud information, it has provided data used in world weather research programmes.

During the 10 years in orbit the 4 filter wheels have changed through a  $90^\circ$  movement  $1.25 \times 10^9$  times all in step and the reflecting chopper mirror motor has completed over  $10^{10}$  revolutions (10 thousand million revolutions).

Data from this experiment was provided on a daily basis until after the SAMS experiment was launched in October 1978 on Nimbus 7 but is now only provided when requested. SAMS also measures temperature profiles plus abundances of various atmospheric constituents and is still working.

World weather programmes are designed to expand observational capability and promote both our understanding of atmospheric processes and our ability to predict them. At Oxford University, for example, these data have been used for studies of the dynamics of the atmosphere, the statistical distribution of different cloud types,



A toast to a successful collaboration from (left to right) Roger Honeyman (Reading) John Delury (RAL) Geoff Marshall (Oxford) Peter Curtis (RAL) Bert Hadley (RAL) Jim Williamson (Oxford) John Houghton (Director Appleton) Clive Rodgers Howard Roscoe and Marie Corney (Oxford). **82 RB 5763**

global variations in humidity and various other atmospheric phenomena including waves and airglow. Many institutions in the UK, Europe and the USA have made use of the processed data from Oxford.

The experience gained over the years is now being put to work in present day meteorological forecasting and in the development of other space projects which are attempting to push forward our knowledge of weather phenomena.

## IRAS Launch

Barring accidents IRAS will be launched on 26th January at 2.20am from the Western Test Range in California. We are making arrangements for staff and visitors to witness the launch activities at Chilton. The Voice Communications and Control Centre Displays are being relayed to the Lecture Theatre, where a presentation

will be given, starting about 1am and finishing with the first Chilton pass just before 4am.

If you would like to be present would you please contact Betty Denton or Margaret Ellis on Ext. 5518 as soon as possible. If the response is overwhelming, numbers may have to be limited and the invitations will then be issued on a "first come, first served" basis.

Eric Dunford

## New Year Honours

We offer our congratulations to Professor John Houghton, awarded the Honour of CBE in the New Year list, and to Mr Bill Russett of Physics Apparatus Group who was awarded the British Empire Medal.



# INTERNAL Events

## HEP SEMINARS

R61 CONF.RM - 1100hrs

19 Jan Prof F Wagner/Munich  
'Non Perturbative QCD and the  
Quark Model'

## NIMROD LECTURES

R61 CONF.RM - 1400hrs

17 Jan Dr D H Saxon/RAL  
'Spin Rotation Measurements in  
the Reaction  $\pi^+ p \rightarrow K^0 \Lambda$ '

## SAFETY FILM

LECTURE THEATRE - 1200, 1240 & 1320hrs

19 Jan 'You Can Save Lives'  
A new film on emergency first  
aid.

# EXTERNAL Events

## PHYSICS & GEOPHYSICS COLLOQUIA

H H WILLS LAB - BRISTOL - 1700 hrs

24 Jan Dr R N West/E Anglia  
'Fermi Surfaces with Positrons'  
31 Jan Prof Sir Charles Frank, FRS/  
Bristol  
'Orientation Mapping'  
7 Feb Dr A F Gibson/RAL  
'Lasers with Beer Bottle Optics  
or The Applications of Optical  
Phase Conjugation'

## SHEP SEMINARS

SOUTHAMPTON - 1400hrs

21 Jan J Mandula/St Louis  
'Quark Pair Condensation  
and the Pion'  
28 Jan R Hughes/CERN  
'Thermal Effects and Accelerated  
Observers in Quantum Field  
Theory'



The next lecture in this series will  
take place in the LECTURE THEATRE on  
Thursday, 27 January, at 3.00pm.

'PROJECT UNIVERSE'  
by

Dr J W Burren

The UNIVERSE project is an  
investigation into high speed  
networking and distributed computing  
with a view to providing an early  
look at the type of communication  
systems that will be used in the  
automated factories and offices of  
the future. The project is a  
cooperative venture involving, in  
addition to RAL, Cambridge University,  
Loughborough University and University  
College London from the academic  
sector together with British Telecom,  
GEC-Marconi and Logica from the  
industrial sector.

The project centres around the  
construction of a high-speed network;  
each site has Cambridge rings for  
local communication and the long  
distance communication is provided by  
a broadcast satellite channel. Some  
200 computers are connected to the  
network.

The talk will describe progress to  
date with construction of the network  
and the experimental programme that is  
being carried out on the network.

FOR YOUR DIARY: The next lecture is  
an addition to the original programme  
and will be on Monday, 7 February 1983,  
at 10.30 by Dr P Williams (SERC) and  
entitled 'Engineering in SERC'.

## Film Badge Notice

It is PERIOD 1 colour strip ORANGE.  
Please check that you are wearing the  
correct dosimeter, and that ALL old  
ones are returned.

Next Film Change  
Monday, 31 January.

## Found

Large sum of money!

Please contact Personnel, Room 70, R20.

## Sales to Employees

The sale of scrap metal and plastics  
will take place, subject to the usual  
conditions, on 21 January at the R40  
scrap compound from 1200-1230hrs.

## Missing

John Magraw (R25, Ext 5626) would be  
grateful if the persons who borrowed  
his Avometer 8, Serial No 96 897-469  
RAL No R010667 and ECKO Industrial  
Fan Heater, Type EH17 RAL No R010748,  
would return them.

A 240 volt 'Scintilla' Saw, Serial No  
6R00496-2-5E has disappeared from R18  
Electronics Workshop.

Would anyone knowing where it is please  
contact Alan Hopgood, Ext 6633.

P Banks of R8 would also be grateful  
for news of a Model 8 AVO, Serial No  
126024-C-861. His extension number  
is 5478.

## Library Notice

The 4 books listed below have been  
stolen from the display of new books  
in the main library.

More than the cost of replacement  
(£25) and the extra work for library  
staff, stealing books inconveniences  
the scientific staff. Following  
similar thefts from the Atlas library  
we withdrew the display of new books  
but this is a popular service and it  
seems unfair to penalise the honest  
majority for the activities of a very  
small number of selfish people.

Carter and Huzan "Computer programming  
in Basic"

Stephenson "Beginner's guide to  
Basic programming"

Green "Digital techniques  
and systems"

Middleton "Digital logic  
circuits, tests and  
analysis"

## ARCHIVES

At present there is no Archivist in  
the Laboratory. All Archive enquiries  
should be directed to the Librarian,  
Mrs E Marsh, Ext 6668, until further  
notice.

## Thanks

Bert Reed wishes to thank all friends  
and colleagues who he did not see before  
leaving, for their kind wishes and gifts  
and for the lovely bouquet given to his  
wife, Elizabeth.

Good luck, and a Happy New Year to you  
all.

Tim Packer expresses his thanks to all  
who contributed towards his, much  
appreciated, retirement present. He  
sends his best wishes for the future to  
those friends he did not manage to see  
before he left.

Ray Tucker would like to say thank you  
to all at Chilton who helped him  
during his stay at RAL and for the  
splendid "send-off". He sends his  
good wishes to all concerned.

## '100' Club

The December draw took place in R58  
on 5 January, the winning tickets  
being drawn by Mr Pateman of R25.  
The first prize of £125 (Ticket No 64)  
was won by Mr Martin Bennett, R18,  
and the second prize of £25, by  
Mr A V Wells, R18 (Ticket No 75).



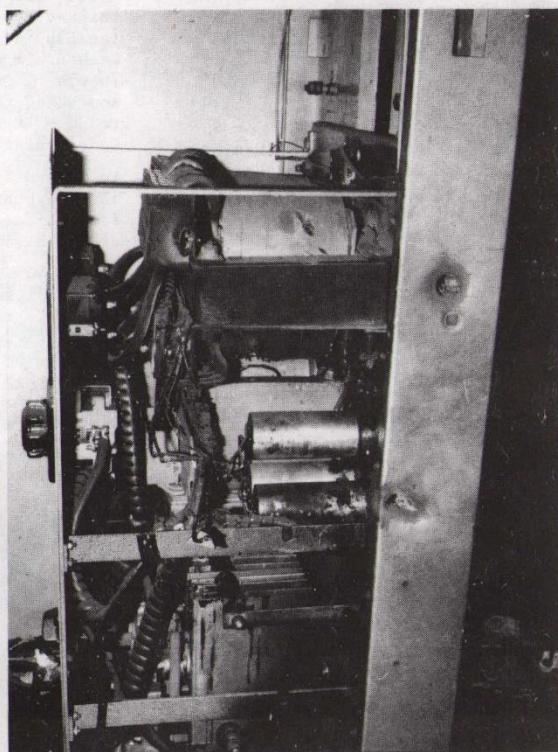
# Back in Business

Only months after the ending of hostilities in the Falklands the SERC's Ionosonde is back on the air. One of a network of about 100 such stations dotted world wide, the information on the ionosphere it collects, is used in planning of global radio communication services and upper atmosphere research.

As can be seen from the photographs taken by Alan F Smith on his tour of duty to re-establish the facility, the observatory suffered extensive damage during the conflict, one of the masts being razed to the ground.

A standby battery charger unit in the Observatory showing signs of extra ventilation produced by machine gun bullets.

*The SERC Falklands Ionospheric Observatory now also accommodating the HQ of the 37 Engineer Regiment.*



The fallen 23 metre mast, one of three supporting the Ionosonde aerial system. Probably brought down by shelling or bombing during counter invasion in June.



The East wall of the Observatory and aerial feeders, showing damage caused by anti-tank rocket and machine gun bullets when the building was a backcloth to the Royal Marine defence of Stanley on 2 April 1982.



## Gone Away

The seasonal wish, a Happy New Year, took the added meaning of a Happy New Life, to four of our colleagues who said their farewells at the end of last year.

### Edna

Edna Brind's retirement marked 'the coming of age of Computer Operations', said Paul Thompson, at a farewell gathering of Edna's many friends. 'She is the first operator to retire at RAL; one of the last breed of operators who would have a go at anything. We shall miss her.

Edna, who joined the Lab in 1966, worked on the Ferranti Orion until its shutdown, outlasted both 360/75 and 360/195S, and went on to work with the 3081. Her most lasting contribution to the Lab, however, was 'Edna's Edifice' (the 'little room' at the East End of R1) won after protracted negotiations, and opened with due ceremony.

Parting gifts of Waterford crystal and a painted elephant, both additions to Edna's collections, were received with delighted thanks, and the remark 'It has been nice working here - despite what I've said at times. Thank you all'.

### Bert

Herbert (Bert) Reed had even longer memories of Laboratory life having joined us in 1962, and the crush in R12 Conference Room at his presentation ceremony reflected the esteem in which he is held.

Gordon Walker, presenting mementos of a jig-saw and hedge trimmer on behalf of friends and colleagues, outlined Bert's long and distinguished career and pointed out the remarkable fact that Bert had in his 20 years worked on estimates for over 3,000 jobs. 'In a job which is rather in the nature of crystal-ball gazing and predicting the future, there is no substitute for experience and skill', said Gordon, 'you will be sorely missed'.

Mrs Reed, who was also present at the ceremony, received a bouquet of flowers.

On behalf of Elizabeth and myself', replied Bert, 'I thank you all for coming, for our gifts, and for your company over the years. We wish you a Happy Christmas and the best of luck in the future'.

### Tim

Tim Packer also arrived at Chilton in 1962. Now, after 20 years of commissioning, modifying, improving

and designing power supplies for both Nimrod and SNS, he has decided to turn his undoubted talent to another field. In the New Year he takes up an appointment at a residential centre in Aberystwyth, for mentally handicapped people, run by 'Cause for Concern'. There, he will be responsible for a workshop providing opportunities for the residents to develop manual skills to enable them to achieve fulfilment in their lives.

David Gray spoke for all when he thanked Tim for all he had done for the Lab in his years with us, and wished him every success for the future. 'What you are doing is something that many of us would like to do - if we had the courage. Congratulations on having that courage'.

To remind Tim of his time at RAL, gifts of a workmate and diagnostic equipment for his car, were presented on behalf of all his friends and colleagues.

'Thank you for coming', Tim replied, 'I didn't know I had quite so many friends. After 20 years one forms a real attachment for a place, and I'm sorry to be leaving you all, but I have strong links with the area and will pop-in from time to time. My best wishes to you all for the future'.



Edna Brind and Paul Thompson.  
83 RB 1005



Tim Packer (left) and David Gray.  
82 RB 5840.

### Charlie

Charlie Nowell, is also off to conquer another world, at GEC McMichaels.

Coming to Chilton from Slough at the time of the Laboratories' merger, Charlie has certainly made a big impression on his colleagues. 'In the short time you have been with us you have introduced us to a new dimension of craft-work', said Derek Moore, who was making the Farewell Presentation. 'The experience you gained working on the Vanwall racing car engine, plus the development of lapping and polishing machines, was obviously a good training ground for your work on Space projects and the Millimetre-wave Telescope'.

Charlie was then presented with a quartz watch and framed photo of himself at work, gifts for which he thanked everyone warmly. He was very pleased that so many friends and colleagues had come to see him off - he very much appreciated it, he said. 'I wish all of you, and all the projects on which we have been associated every success, and I shall be seeing you all from time to time', he promised.



Mr and Mrs Reed with Dr Gordon Walker.  
82 RB 1034



Charlie Nowell (left) and Derek Moore.  
83 RB 1028

# Bulletin

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