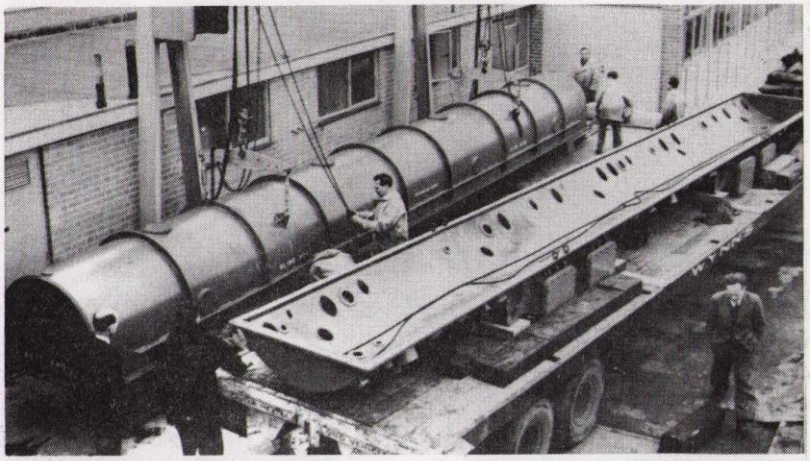
Rutherford Laboratory

26 August-9 September 1974

bulletin 17

ANOTHER NIMROD LANDMARK

The Editor is grateful to Vaughan Wordingham for the following account of the happenings on a sunny Sunday morning early in August 1974.



Early on Sunday morning, 11 August, one of the Linac Tanks emerged from its former home in the PLA Building, where it had been stored since the PLA closed down in 1969, and was transported into the New Injector Building to start its new life as Tank No 2 of a new linac for NIMROD.

This movement heralded the start by Nimrod Division of an intensive programme of installation work which will continue through into 1975 and eventually provide NIMROD with a 70 MeV injector, thus enabling an extracted proton beam intensity of about 10^{13} protons per pulse to be achieved.

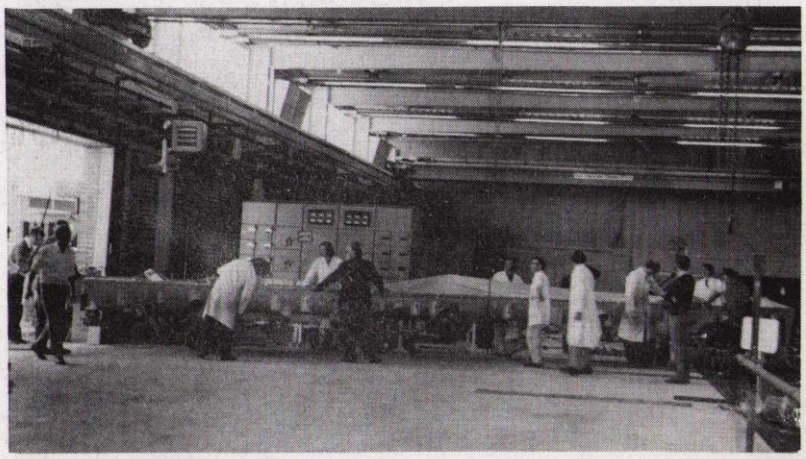
The new injector is an Alvarez type of accelerator consisting of four radio frequency cavities popularly known as tanks. Tanks 1 and 4, which are similar in design to the corresponding parts of the 400 GeV accelerator at FermiLab, USA, are being manufactured by Morfax in the UK and are due later this year. Another tank from the PLA will be used as Tank 3 and will be transported to the new building in about three months time.

Photographs:

Top- The arrival of Tank No 2 vacuum vessel from the manufacturers on 9 January 1957

Centre- The main part of Tank No 2 vacuum vessel on its way to its new home, August 1974

Bottom- The lower section arriving at its new home, August 1974



We hope to publish progress reports on the new injector from time to time-Ed.

INTERNAL EVENTS

NIMROD LECTURE SERIES

No lectures have been arranged in this series at the time of going to press. However there is still the possibility of lectures being arranged at short notice so please continue to watch the small portable notice boards for details.

HEP SEMINARS
all at 11.00
Lecture Theatre

Wednesday 28 August: Exchange Degeneracy, Unitarity and Multiparticle Production - *M Bishart/Weizmann Institute*

Monday 2 September: Weak and Electromagnetic Annihilations at High Energy - *G Carl/Guelph*

Tuesday 3 September: Multiperipheral Factorization and the Bootstrap Idea - *A Bassetto/Padua*

NIMROD SCHEDULE

CYCLE 7 20.8.74 - 10.9.74 MACHINE PHYSICS HIGH ENERGY PHYSICS

Team	Beam	Experiment	State
CERN/ORSAY/OXFORD	P81	Hadron-Proton Spin	Date
RUTHERFORD LABORATORY	π11	Beam Measurements	Tests & Data
IMPERIAL COLLEGE/RL	π8A	Experiments on Narrow Bosons X^{o} (958) S* and Cross-Section Measurements	Data
BEAM DETECTOR GROUP	K15A	Parasitic Running	Tests
COUNTER GROUP B/ CAMBRIDGE UNIVERSITY	π12	$\pi^{-}p \rightarrow K^{o}\Lambda^{o}$ in the Range 1.4 - 2.0 GeV/c	Setting up
RUTHERFORD LABORATORY	π9	Polarisation in the $\pi^{-}p \rightarrow \pi^{o}n$, nn	Data
BIRMINGHAM/SURREY/RL	K17	Stopping Kaons	Data
OXFORD	P71		Tests

SOCIAL NEWS

CHRISTIAN FELLOWSHIP

30 August at 12.30 R12 Conference Room. All are welcome to come along to a book review led by Paul Burkimsher of Building R1.

6 September at 12.30, R12 Conference Room. David Astbury of Surrey University will be leading our monthly prayer meeting. All are welcome.

RUTHERFORD LABORATORY SOCCER 1974-75

There will be three competitions during the coming season, namely -

(a) Rutherford Championship - Rutherford and Atlas teams
(b) Rutherford Challenge Cup) Rutherford, Atlas & Harwell
(c) Rutherford League Competition)

The Rutherford Championship will start within the next 10 days and a schedule of matches will be available at the pavilion shortly. The 7 teams competing will be R9 Workshop, Transport, C & A Division, Atlas, Building R25, Taylors Contractors and Nomads. The initial matches will be on a league basis, each team playing its league members twice. The final will be between the winner of each league and will be played at the end of next month.

Anyone with suggestions, queries, players or money for the coming season should contact one or more of the following Rutherford Soccer committee members -

Chairman) Treasurer)	R Lawes	R1	Ext 527/246
Match Secretary	L Patton	R18	Ext 6115
Equipment) Pitch) Stewards	J Taylor	R18	
	M Ryan	R9	
Referee Liason	D Lucas	R1	Ext 264
Members	D Fleet	R9	
	J Holiday	R25	
	G Holt	Atlas	

TRAINING CONCESSIONS 1974-75

Prospective students should note the following arrangements for enrolments at local Technical Colleges.

OXFORD POLYTECHNIC: Department of Science SOUTH BERKS COLLEGE OF FURTHER EDUCATION: Department of Technical Studies	Enrolment on first day of class
ABINGDON COLLEGE OF FURTHER EDUCATION: Department of Engineering & Science	Former students of the College should use the pre-enrolment forms distributed with examination results
OXFORD POLYTECHNIC: Department of Engineering	Enrolment cards are available in RHEL Training Section and must be completed by Wednesday 11 September
READING COLLEGE OF TECHNOLOGY: Departments of Electrical and Mechanical Engineering	Mr G L A Taylor will take enrolments and discuss problems with students in the Board Room, Building R20, between 0930 and 1200 on Friday, 6 September 1974. PLEASE NOTE CHANGE FROM LAST YEAR.

The following students must enrol at the College in person at the times shown in the College prospectus:

Those who wish to attend other Colleges or other Departments of the above Colleges.

Those who wish to attend Oxford and Reading Engineering Departments but do not meet the above deadlines.

Those (other than prospective Reading Engineering students) who wish to discuss problems with College staff.

SHORT COURSES AT READING COLLEGE OF TECHNOLOGY

Information has been received about the following short courses to be held in the Department of Electrical and Mechanical Engineering at Reading College of Technology:-

An Introduction to Integrated Circuits
Electrical Energy and the Environment
Electronics for Mechanical Engineers
Elementary Calculating Aids for the Office and Industry
Electrical Regulations for Buildings
Electronic Updating for Technicians
Opto-Electronic Engineering

Enquiries to Training Section, Building R20, Extension 555.

ANOTHER MILESTONE FOR AUTOMATIC FILM MEASURING

In some respects an automatic film measuring machine comes of age when it has measured a million frames. This significant event occurred for the Computing and Automation Divisions second Hough-Powell Device (HPD2) shortly before midnight on 31st July 1974.

After being re-equipped with a 200 mW Argon Laser to give a more intense and smaller scanning spot (8 microns), HPD2 measured some test events for the ISR muon experiment in 1972, before production measurement for that experiment and the Rome-Rutherford SI04 experiment commenced.

During 1973 nearly $0.5X10^6$ frames were measured from these two experiments plus a sample of CERN 2M Bubble Chamber events. Since December 1973, HPD2 has carried the measuring load, while HPDI undergoes major reconstruction (Having reached a life total of $3X10^6$ frames in a 6 year period).

In almost two years of productive measurement, the HPD2 has been fed on a mixed diet of visual spark and bubble chamber film. In addition to the ISR and SI04 experiments, large quantities of film from the CERN 2 Metre Chamber have been measured for the Rutherford, Durham and Imperial College Groups plus a large sample of Track Sensitive Target film from the Rutherfords 1.5 Metre Chamber.

Film from the new CERN Bubble Chamber BEBC, represents the next challenge and development work to solve the severe problems posed by such large chambers is in hand.

Any member of staff who wishes to view the measuring machines can contact R Lawes.

RUTHERFORD LABORATORY BULLETIN *Published by the Scientific Administration Group*

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Deadline for Insertions	GENERAL & SOCIAL NEWS	INTERNAL & EXTERNAL EVENTS
	Tuesday 1600	Wednesday 1200

PERIODICAL SAFETY TEST OF PORTABLE ELECTRICAL EQUIPMENT

The test carried out during July 1974 has now been completed. The current marker colour is RED and marked 'Do not use after Nov 1974.

Portable electrical equipment that is marked otherwise or has no marker should be considered unsafe and MUST NOT BE USED.

All such items should be returned if possible to Electrical Services Section, Building R18. Alternatively ring A Hipwell on Ext 573.

OVERSEAS VISITS

Dr S N Tovey, to CERN, 27 - 29 August, for discussion on future K collaboration.

Mr D C Salter, to ILL, 28 - 30 August, for technical liason with ILL staff.

Mr R R Powell, to CERN, 28 August - 10 September, for inventory and asset checking.

Dr D S Boyd, Dr J S Hutton and Mr A S Dunn, to Sicily, 1 - 21 September, to attend International School of Theory and Application of Computers at Erice.

Dr R A Rosner and Mr C J Adams, to the USA on 2 September returning respectively, 26 and 18 September, to visit various Labs for discussions and study of various computing facilities.

K C Sumorok, to CERN, 1 - 4 September, for discussions and attendance at EEC meeting.

Dr M M Curtis, Mr H Hurst and Mr G A Lambert, to Zurich, 8 - 13 September, to attend SEAS Committee Meeting and SEAS Anniversary Meeting. Mr Lambert will also visit CERN for discussions, returning on 14 September.

MISSING EQUIPMENT

The following item of equipment has been reported missing from Lab 1.27/1.28 or the HPD2 room, R1:-

Avometer Model 8, Ser No 11917 - 365 and is marked, H J Down.

Anyone with information on the present whereabouts of this item is asked to contact F R Jacobs, Rm 2.36, Bldg R1, Ext 6225.

M W Dean, Bldg R50, Ext 257 is asking for information on the present whereabouts of the following which is missing from Rm G14, Bldg R25:-

Avometer Model 8, Ser No 51350-1166.

A Gentleman's bicycle, Ser No 5318, AERE No 426 is missing. Information on this item to Inventory Section, Bldg R20, Ext 570.

FILM BADGE NOTICE

It is Period 9. Colour Strip - PURPLE for βγ films and neutron packs. Please ensure that you are wearing the correct dosimeter and that all old ones have been returned.

FROM THE EDITOR'S NOTEBOOK

The sun is shining, it's high summer and it's holiday time, in fact Bank Holiday time. This year it also appears to be emigrating time, as a number of people have either left or are leaving shortly to start life anew in distant lands.

By the time this is published Anne & Alan Bishop will have departed to Canada. Their destination is Vancouver BC where Alan will be joining the TRIUMF cyclotron project working I gather on hydrogen targets. The latest news on this machine is that it is likely to accelerate protons for the first time by late September. Alan joined the Lab in 1964 and has spent most of his time around the Nimrod areas working on bubble chambers and items of such ilk.

Anne joined the Lab the same year working part time as a scanner moving later to data analysis work. Since 1970 she has worked full time, for the last 3 years as a Senior Machine Operator in the B/C Group. Most people will remember Anne for her sociai activities as apart from running the Rutherford Folk Club she was a keen member of the Lab's netball team and on a number of occassions played badminton for the SRC.

Both Anne and Alan say cheerio to the many friends they did not manage to see before flying off to Canada and the delights of British Columbia.

Ron Wimblett has just returned from Vancouver where he has been working on the Triumf cyclotron for the past 13 months. He has some interesting stories to tell and has agreed to write something for the Bulletin, and later on, an illustrated article for QUEST.

However, to return to the emigrating Nimrodians - we bid "Bon Voyage" to two members of Nimrod Operations and Electrical Engineering Group. They are both bound for "Down Under".

First to go was Peter Dodd who, with his wife and family sailed on 19 August for Melbourne, in Victoria. Peter started his career in Boy's Service in the Royal Navy and had a total of some 14 years service. He joined the Rutherford Laboratory in August 1964, directly after his RN service. Throughout his ten years at the Lab Peter had been a lynch-pin of the Nimrod MCR crew.

The Dodds are no strangers to Melbourne, Peter having been stationed there for some years during his Navy service and in fact his two older children are 'dinkum' Aussies having been born there. They are all looking forward to their new life amongst the koalas and kookaburras under the Southern Cross. Peter aims to carve out a new career, teaching Industrial Art.

The second to go will be Bob Marshall who, with his wife and family sail on 16 September. Bob, after an apprenticeship with the Marconi Company did his National Service with the Fleet Air Arm as Observer/Aircrew. He subsequently became a farmer, in Cornwall, and continued for several years in this sphere of endeavour. He directed his energies to more technical fields again and joined us in June 1966. During his time at the Lab, Bob has also been a crew member in the Nimrod MCR. He is a keen member of the Rutherford Lab squash team.

The Marshalls are destined for Perth in Western Australia and are looking forward to their life in the land of sunshine.

David Matthews a shift leader on the central computer is also departing about the end of the month to take up a post in the University of Saudi Arabia.

We wish them all good luck, good health and good fortune in their new countries, no doubt news will filter back in due course on how they are faring.

I was happy to welcome Carol Rivers to the Lab last week. Carol, who is the recently appointed editor of Quest, is keen to learn more of the Labs work and in particular to meet more people, and you are duly warned that she is likely to be very persuasive about material for use in QUEST.

Finally, I am delighted to announce that Margaret Pearson, the Editor of the Fermi National Accelerator Laboratory's equivalent to the RL Bulletin called "The Village Crier" has agreed to put me on the distribution list in exchange for the RL Bulletin. By the way the name of the Laboratory has already been shortened for general use and we shall follow this trend and refer to FNAL in future as the FermiLab. "The Village Crier" is about the same size as our Bulletin, reporting on a wide range of activities including, in a recent issue news of the FermiLab Golf League. Anyone want to buy a set of 8 Mac Gregor "MT" irons (2-9)? Who knows maybe the day will come when we shall be reporting on an SRC V FermiLab Tournament!