



COMMON/CSCAL/IBM ,NERR,NCH,NGAP,ISCAN,NBR,NGR,NSCAN1,NRO
1IYSEL,IYSEU,IYMAX,NTRACK,NSCAN,NES,NFAIL,MAXTR,N
2NBEGIN,NTK,NTRY,NMISS,NSSR,NFID,MAXMIM,NFIRST,NE
COMMON/CFID/MFX(20,3),MFY(20,3),NFDX(10,3),NFX(3,N
NTAB(2,20,3),NX(100,4),NY(100,4),XN(20),YN(3),ZB(1,N
R IDY(100,2),JDX(4),JDY(4),IHS(4),ICV(4),IFL(4),I
S NCF(16),IFS,NFS,FX,FY,JK,PIC,KPIC,NCOUNT,NBIN,MAXDV,MAX
T MAXN,CTA,CTB,MX,MY,JDX(4),JDY(4),JF,XF(2,3),YF(2,3)
DIMENSION NCTR(144),NCT(144),NCT1(144),NCT2(144),NCT3(144),NCT4(144),NCT5(144),NCT6(144),NCT7(144),NCT8(144),NCT9(144),NCT10(144),NCT11(144),NCT12(144),NCT13(144),NCT14(144),NCT15(144),NCT16(144),NCT17(144),NCT18(144),NCT19(144),NCT20(144),NCT21(144),NCT22(144),NCT23(144),NCT24(144),NCT25(144),NCT26(144),NCT27(144),NCT28(144),NCT29(144),NCT30(144),NCT31(144),NCT32(144),NCT33(144),NCT34(144),NCT35(144),NCT36(144),NCT37(144),NCT38(144),NCT39(144),NCT40(144),NCT41(144),NCT42(144),NCT43(144),NCT44(144),NCT45(144),NCT46(144),NCT47(144),NCT48(144),NCT49(144),NCT50(144),NCT51(144),NCT52(144),NCT53(144),NCT54(144),NCT55(144),NCT56(144),NCT57(144),NCT58(144),NCT59(144),NCT60(144),NCT61(144),NCT62(144),NCT63(144),NCT64(144),NCT65(144),NCT66(144),NCT67(144),NCT68(144),NCT69(144),NCT70(144),NCT71(144),NCT72(144),NCT73(144),NCT74(144),NCT75(144),NCT76(144),NCT77(144),NCT78(144),NCT79(144),NCT80(144),NCT81(144),NCT82(144),NCT83(144),NCT84(144),NCT85(144),NCT86(144),NCT87(144),NCT88(144),NCT89(144),NCT90(144),NCT91(144),NCT92(144),NCT93(144),NCT94(144),NCT95(144),NCT96(144),NCT97(144),NCT98(144),NCT99(144),NCT100(144),NCT101(144),NCT102(144),NCT103(144),NCT104(144),NCT105(144),NCT106(144),NCT107(144),NCT108(144),NCT109(144),NCT110(144),NCT111(144),NCT112(144),NCT113(144),NCT114(144),NCT115(144),NCT116(144),NCT117(144),NCT118(144),NCT119(144),NCT120(144),NCT121(144),NCT122(144),NCT123(144),NCT124(144),NCT125(144),NCT126(144),NCT127(144),NCT128(144),NCT129(144),NCT130(144),NCT131(144),NCT132(144),NCT133(144),NCT134(144),NCT135(144),NCT136(144),NCT137(144),NCT138(144),NCT139(144),NCT140(144),NCT141(144),NCT142(144),NCT143(144),NCT144(144),NCT145(144),NCT146(144),NCT147(144),NCT148(144),NCT149(144),NCT150(144),NCT151(144),NCT152(144),NCT153(144),NCT154(144),NCT155(144),NCT156(144),NCT157(144),NCT158(144),NCT159(144),NCT160(144),NCT161(144),NCT162(144),NCT163(144),NCT164(144),NCT165(144),NCT166(144),NCT167(144),NCT168(144),NCT169(144),NCT170(144),NCT171(144),NCT172(144),NCT173(144),NCT174(144),NCT175(144),NCT176(144),NCT177(144),NCT178(144),NCT179(144),NCT180(144),NCT181(144),NCT182(144),NCT183(144),NCT184(144),NCT185(144),NCT186(144),NCT187(144),NCT188(144),NCT189(144),NCT190(144),NCT191(144),NCT192(144),NCT193(144),NCT194(144),NCT195(144),NCT196(144),NCT197(144),NCT198(144),NCT199(144),NCT200(144),NCT201(144),NCT202(144),NCT203(144),NCT204(144),NCT205(144),NCT206(144),NCT207(144),NCT208(144),NCT209(144),NCT210(144),NCT211(144),NCT212(144),NCT213(144),NCT214(144),NCT215(144),NCT216(144),NCT217(144),NCT218(144),NCT219(144),NCT220(144),NCT221(144),NCT222(144),NCT223(144),NCT224(144),NCT225(144),NCT226(144),NCT227(144),NCT228(144),NCT229(144),NCT230(144),NCT231(144),NCT232(144),NCT233(144),NCT234(144),NCT235(144),NCT236(144),NCT237(144),NCT238(144),NCT239(144),NCT240(144),NCT241(144),NCT242(144),NCT243(144),NCT244(144),NCT245(144),NCT246(144),NCT247(144),NCT248(144),NCT249(144),NCT250(144),NCT251(144),NCT252(144),NCT253(144),NCT254(144),NCT255(144),NCT256(144),NCT257(144),NCT258(144),NCT259(144),NCT260(144),NCT261(144),NCT262(144),NCT263(144),NCT264(144),NCT265(144),NCT266(144),NCT267(144),NCT268(144),NCT269(144),NCT270(144),NCT271(144),NCT272(144),NCT273(144),NCT274(144),NCT275(144),NCT276(144),NCT277(144),NCT278(144),NCT279(144),NCT280(144),NCT281(144),NCT282(144),NCT283(144),NCT284(144),NCT285(144),NCT286(144),NCT287(144),NCT288(144),NCT289(144),NCT290(144),NCT291(144),NCT292(144),NCT293(144),NCT294(144),NCT295(144),NCT296(144),NCT297(144),NCT298(144),NCT299(144),NCT300(144),NCT301(144),NCT302(144),NCT303(144),NCT304(144),NCT305(144),NCT306(144),NCT307(144),NCT308(144),NCT309(144),NCT310(144),NCT311(144),NCT312(144),NCT313(144),NCT314(144),NCT315(144),NCT316(144),NCT317(144),NCT318(144),NCT319(144),NCT320(144),NCT321(144),NCT322(144),NCT323(144),NCT324(144),NCT325(144),NCT326(144),NCT327(144),NCT328(144),NCT329(144),NCT330(144),NCT331(144),NCT332(144),NCT333(144),NCT334(144),NCT335(144),NCT336(144),NCT337(144),NCT338(144),NCT339(144),NCT340(144),NCT341(144),NCT342(144),NCT343(144),NCT344(144),NCT345(144),NCT346(144),NCT347(144),NCT348(144),NCT349(144),NCT350(144),NCT351(144),NCT352(144),NCT353(144),NCT354(144),NCT355(144),NCT356(144),NCT357(144),NCT358(144),NCT359(144),NCT360(144),NCT361(144),NCT362(144),NCT363(144),NCT364(144),NCT365(144),NCT366(144),NCT367(144),NCT368(144),NCT369(144),NCT370(144),NCT371(144),NCT372(144),NCT373(144),NCT374(144),NCT375(144),NCT376(144),NCT377(144),NCT378(144),NCT379(144),NCT380(144),NCT381(144),NCT382(144),NCT383(144),NCT384(144),NCT385(144),NCT386(144),NCT387(144),NCT388(144),NCT389(144),NCT390(144),NCT391(144),NCT392



* 70044772 *

The Laboratory staff, together with a small group of friends and colleagues, gathered together to give him an informal luncheon party and afterwards Mr Christopher Jolliffe, one time Director of Science Division, SRC presented him with a hall-marked sterling silver tumbler cup (a copy of a travellers' winecup in use during the sixteenth and seventeenth centuries).

piece constructed from parts of the Atlas and 1960A computers, and the original Atlas Visitors Book containing evidence of the national and international groups with whom the Laboratory has been in contact.

In making the presentation, Christopher Jolliffe referred to the happy choice of Jack Howlett as Director of the Laboratory, after the very difficult negotiations in 1961 which led to the purchase of the Ferranti Atlas 1 and the decision to make this powerful computer available not only to AERE and the high energy physicists of RHEL, but to ensure that other disciplines in the UK universities would also have a substantial share of the new resource.

Supporting the good wishes, Bob Churchhouse,

continued on p. 2

INTERNAL EVENTS

PROPOSAL TALKS

Wednesday 10 September
10.45
R61 Conference Room

Proposal No. 171: "A Proposal to Study High P_T Physics with a Larger Aperture Hadron Spectrometer", HARVARD/ILLINOIS/LAWRENCE BERKELEY/LIVERPOOL/RUTHERFORD/SCANDINAVIA. Talk to be given by Dr M Albrow/RL

Proposal No. 172: (at approx. 11.45) "A Proposal to Study $\bar{p}p$ Annihilations at 150 GeV/c using a Rapid Cycling Bubble Chamber and Downstream Particle Identification", CAMBRIDGE/MICHIGAN. Talk to be given by Dr R E Ansorge/Cavendish Lab.

RUTHERFORD LABORATORY LECTURE

Thursday 11 September
15.15
Lecture Theatre

Archaeometry: the Physical Sciences applied to the Arts

Professor E T Hall, M.A., D.Phil/Director, Research Laboratory for Archaeology & the History of Art

NIMROD SCHEDULE

CYCLE 5 2.9.75 - 23.9.75

MACHINE PHYSICS

HIGH ENERGY PHYSICS

Team	Beam	Experiment	State
BRISTOL/SOTON/RL	K15a	No. 120: K^-p differential cross-sections.	Setting up
CAMB/RL	$\pi 12$	No 114: $\pi^-p \rightarrow K^0\Lambda^0$ differential cross-sections and polarisation	Data
BIRM/SURREY/RL	K17	No 113: Experiments with stopping Kaons	Data
IMP. COLL/RL	$\pi 8a$	No 128: Meson production near threshold	Data
RL	$\pi 11$	No 154: Radiobiological Experiment	Data
OXF/ROME/RL	T1	Test beam facility	Tests

* * *

formerly head of Programming Group and now at Cardiff University, reminded everyone of the rapid growth of computing and computers and the great influence that the Laboratory had exercised under Jack Howlett's leadership.

In thanking everyone for the gifts and the flowers to his wife, Joan, Dr Howlett noted that he had now worked for his living for 40 years almost to the day, and described the exhilaration of a young numerical analyst working for the LMS railway when his hard won hand calculations proved correct as a 50 ton steam locomotive was run up to leave the rails at the predicted 105 mph! He referred to the debt he owed to Professor Douglas Hartree, the distinguished numerical analyst, his supervisor at Manchester University and to the early days at Harwell when he was invited to set up the computing section. He was still capable of wonderment at this remarkable device - the computer - and hoped that the initiatives and flexible approach to new problems which had marked the years of development of the Laboratory would continue to flourish under the new organisations to be established by SRC.

Later, in accord with local custom and at the request of the girls from Data Preparation,

he was taken away to be dressed in an "emperor" costume complete with a laurel leaf crown, and given a scroll, which took the form of a diploma "for long and faithful service" and amongst other well applauded qualities for "being the best boss we've ever had!".

In switching the Atlas console to a display "70044772" (idling in execution ...) Dr Howlett completed the final plans for Atlas; the console was to be on permanent display in the reception lounge. It is clear however that in his retirement Jack Howlett will be far from idle and he looks upon the years ahead as yet another phase of working for his living. Already he has a full calendar and will still play an active role in the computer world. With a truly international circle of friends and acquaintances, he will indulge his capacity to lead an interesting and varied life. He has spent the past ten days or so in the USA discussing plans for a new national computational chemistry centre and in this connection he has given a talk for the National Academy of Sciences entitled "The Atlas Computer Laboratory - a British national computing resource". After a short holiday, he will be off to Bulgaria and then to ...

* * * * *

OVERSEAS VISITS Miss A Curran to CERN 1 - 3 September for discussions on administrative matters.

Mr D D Cohen to CERN 14 - 24 September to work on Neutron Counter Calibration Experiment.

SALES TO EMPLOYEES Sales of scrap metal/plastic as set out in RLN 12/73 will be made on the following dates:-
5 September and 19 September

Training Concessions 1975-76

Employees of the Rutherford and Atlas Laboratories may now apply for training concessions for courses at local Colleges and application forms for this purpose are available from Local Admin Offices. Prospectuses for the Abingdon and Reading Colleges and timetables for the Science and Engineering Departments at Oxford Polytechnic can be seen in Local Admin Offices and the Library. South Berks College prospectuses are not expected until the end of August. The Training Officer, Mr T F Gubbins, will be available after 20 August to advise prospective students.

Prospective students should note the following arrangements for enrolments: -

OXFORD POLYTECHNIC
Department of Science

SOUTH BERKS COLLEGE OF FURTHER EDUCATION
Department of Technical Studies

ABINGDON COLLEGE OF FURTHER EDUCATION
Department of Engineering and Science

OXFORD POLYTECHNIC
Department of Engineering

READING COLLEGE OF TECHNOLOGY
Departments of Electrical and Mechanical
Engineering

Enrolment on first day of class.

Former students of the Department should use the pre-enrolment forms distributed with examination results.

It is hoped to have enrolment cards available in Training Section by the end of August and these must be completed by Friday 12 September.

Mr G L A Taylor will take enrolments and discuss problems with students in the Board Room, Building R20, at 3 pm on Monday 8 Sept.

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

HARWELL EDUCATION CENTRE COURSES 1975-76

Over 300 copies of the AERE Course booklet have been distributed in the Rutherford and Atlas Laboratories. Copies can be seen in DAO's Offices, the Library and Training Section. Recipients are asked to retain their copies for use in 1976-77 since probably only a supplementary timetable will be issued for that year. Applications from Rutherford and Atlas Laboratory staff to attend AERE courses must be made on Form N552 to Training Section, Building R20, and not direct to AERE, although enquiries may be made to the telephone extensions mentioned in the booklet.

SRC MANAGEMENT COURSES 1975-76

Copies of the SRC Course Programme are expected towards the end of August and they will be distributed as for the AERE booklets.

CIVIL SERVICE COLLEGE COURSES 1975-76

Civil Service College course booklets have been distributed to appropriate Group Leaders. The booklets can also be seen in the Library and a synopsis of those courses likely to be of interest to SRC staff is about to be published as an SRC Training Notice.

RUTHERFORD LABROATORY BULLETIN

Published by the Scientific Administration Group

Editor: H F NORRIS

Deadline
for

GENERAL & SOCIAL NEWS

INTERNAL & EXTERNAL EVENTS

Insertions

Tuesday 1600

Wednesday 1200

Room 42 Building R20
Rutherford Laboratory
Chilton Didcot Oxon

Abingdon 21900 Ext 484

Telephone Number Changes

CHANGES	BLDG	RM	EXT	DIV	
GILL P	RI	1.33	228	CA	CA
COUPLAND MRS J	RI	6.93	333	CA	
BIZZELL J P	RI	1.27	420/6644	CA	
FALLON G R	R9		558	ENG	
LOACH B G	RI	2.59	451	EPIC	MI
ABINGDON 20005					
FLOWER P S	R 50	13/14	6112/6659	NIM	PD
BELLIS J	R 20	46	6299	ADM	FA
CHARLES MISS J G	R 20	87	319	ADM	GA
VENN G N	RI	203/204	6605	NIM	
HARRISON MISS L A	RI	203/204	6605	ADM	GA
MOIR J	R 34	03	338	NIM	PD
BROCK MRS V J	RI	1.95	360	CA	OPS
SARMA H N	RI	G 55/56	6270	HEP	VIS

CHANGES	BLDG	RM	EXT	DIV	
GOURLEY E T	R9		6647	ENG	ESD
NOBES M	R9		558	ENG	ESD
DEWAR P A	AL	F 131	344	AL	BSG

ADDITIONS

FERRYMAN A P	RI	1.95	360	CA	OPS
STEEDMAN D A	RI	2.35	455	CA	
REEM	RI	360	360	CA	OPS
GASCOIGNE MRS K A	AL	G.18	6393	AL	ADM
COOKE MRS L G	RI	2.9	443	ADM	GA
ROWLAND D E	R 20	50	570	ADM	FA
SAUNDERS B J	RI	1.87	6248	HEP	VIS
BUCHANAN MISS I	AL	F.30	6619	AL	BSG

RUTHERFORD LABORATORY LECTURE

We start a new series of Rutherford Laboratory Lectures on Thursday 11 September at 15.15 hours in the Lecture Theatre when the speaker will be Professor E T Hall, MA, D.Phil, Director at the Research Laboratory for Archaeology and the History of Art, Oxford. This Laboratory was started under Dr Hall in 1954 and initially sponsored by Professor Cherwell and Professor Hawkes.

Professor Hall has kindly supplied the following summary of his lecture which is entitled:-

"Archaeometry: the Physical Sciences applied to the Arts"

Until some twenty years ago there was little effort involving the development of scientific techniques designed to help archaeologists and art historians. During the last two decades however, there has been an increasing number of laboratories that have become involved in these activities which comprise three main areas of endeavour: field survey techniques, non-destructive analysis and examination, and dating using physical methods.

The Research Laboratory for Archaeology and the History of Art in Oxford has been responsible for the initial development of many of these techniques and three particular methods will be discussed and examples given.

UNIVERSITY POSTS Applications are invited for the post of PROGRAMMER in the Department of Physics to work on the magnetic spectrograph - MARS - in the Cosmic Ray Group.

Applications are invited for the post of Lecturer in Engineering Science from a date to be agreed, preferably on or before 1 January 1976. Preference will be given to candidates with experience in structural mechanics.

Both these posts are at the University of Durham and further details, in particular in respect of the Engineering Science post, can be obtained from the Editor.

FILM BADGE NOTICE It is Period 9. Colour strip - BROWN for 8y films and fast neutron packs. Please check that you are wearing the correct dosimeters and that all old ones are returned.

Next film badge change - 8 September 1975

CHRISTIAN FELLOWSHIP The first Friday of the month is set aside for prayer and intercession. The meeting commences at 12.30 in the R12 Conference Room and all are invited to come along, on 5 September.

On Friday, 12 September, the Rev Andrew Matthews of Chilton will be leading the fellowship in a time of worship. All are welcome to come along at 12.30 in the R12 Conference Room.

B.A. MEETING AND VISIT The British Association for the Advancement of Science is taking place during the period 27 Aug - 3 September at the University of Surrey. Thirty-six members of the B.A. Physics and Mathematics Group will visit the Rutherford Laboratory during the afternoon of Tuesday, 2 September.

On Friday 29 August the Chairman of the SRC Professor Sir Sam Edwards will open a day long general symposia - the first of its kind - on the work of the Research Councils. His talk will be followed by a discussion and then a general forum composed of the Heads of Research Councils. Later in the day, eminent speakers from the various Research Councils will talk about some of their current projects.

ROAD RECONSTRUCTION For about 5 weeks from 8 September, road reconstruction will necessitate the closing of a stretch of Becquerel Avenue, near its junction with Fermi Avenue. When the work begins notices will be displayed at gates, and traffic diversion signs will be erected to show the following arrangements.

The Romney Gate will be closed at all times. The Library Gate will be open from 7.15 am to 5.30pm for

- (a) goods vehicles
- (b) official and private vehicles travelling between the Main Site and the Reactor Site.

Access to Building 383 (MRC) will be from Fermi Avenue via access roads around Building 566(NRPB)

In-muster and Out-muster Two-way traffic on Library Avenue will be permitted except during in-muster and out-muster. Buses only will be permitted in the Bus Park during out-muster. Staff must not take cars in or out of the Library Gate during in-muster or out-muster.

LOST & FOUND The following record number of items either lost or found, reads more like a British Rail lost property advert. Maybe its something to do with the long hot summer! Please contact either Mrs S A Fones or Mrs R Rimen, Personnel, R20 regarding any of these items.

Sum of money, new Library plant room, mid July
Papermate biro, East car park R1, end July
Silver coloured metal bracelet, R1, end July
Key, Red external car park, end July
Ring, R20, beginning of August
Sum of money, R25, beginning of August
Sum of money, near Restaurant Shop, early August
Sum of money, shift bus area R2, mid August
Sum of money, RL canteen dining area, 21 August
Pair of sun specs, near sub-station 10, 21 Aug
One odd cufflink, main stairs R25, 21 August