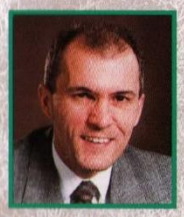
eCHO

THE NEWSLETTER OF THE CULHAM AND HARWELL SCIENCE AND ENGINEERING CENTRES DEC 1996

A merry Christmas and a happy New Year to all our readers



"1996 has been a pivotal year at both Culham and Harwell. We have been celebrating Harwell's Golden Jubilee looking back over 50 years of scientific, technological and commercial achievement. But we are ending the year looking firmly and confidently towards the future, with the launch of the first phase of commercial redevelopment. This will position Harwell as a pre-eminent international centre for high technology business for the next 50 years.

Culham has been further boosted by the extension of JET until 1999, by the approval for UKAEA Fusion's exciting new MAST project now underway and by the addition of NDT and Telerobotics to AEA Technology's activities at the site.

AEA Technology must also be congratulated for one of the smoothest and most successful privatisations. They are now important tenants at both Culham and Harwell and I wish them continuing success in the future.

To all at Culham and Harwell, to your families and to our friends and neighbours in the local community, I send my very best wishes for a Happy Christmas and successful New Year."

Stephen White

Stephen White
Head of Site Culham and Harwell

THIS MONTH:

2 New company – RGIT **3** Harwell improvements **5** JET Ambassadors
6/7 What's on at Christmas & New Year **9** Welfare lends a hand **12** Christmas puzzles

Vol 8 Issue 6

noticeBOARD

Blood Donations

The National Blood Transfusion Service local centre at the John Radcliffe Hospital wish to thank all those who so generously donated blood during their visit to Harwell in April.

A total of 348 donors volunteered including 52 first time donors.

Harwell Junior Badminton Club

The Harwell Junior Badminton Club welcomes all junior players to its club held every Saturday morning in the Air Hall. The club is run in two sessions from 9.00 am to 10.15 am for ages 8 to U-12, and from 10.15 am to 11.30 am for ages 12 and over. Both sessions offer coaching and general play with the emphasis on learning with enjoyment.

For more information contact Alan Stevens, R6352; Brendan Breen, N311; or Dave Bolus H5105 or just turn up on a Saturday morning.

E-Meal's Last Orders

The E-Meal trial system has been terminated due to sales not reaching the level required for it to be financially viable.

Post Early for Christmas

Last dates for inland post are first-class: Friday 20 December and second-class: Wednesday 18 December.

Christmas and New Year Holiday Arrangements

Over the Christmas/New Year period the following services will be available:

Harwell

Buses

Harwell buses will depart at 1510 on Tuesday 24 December.

Post

There will be one delivery and one collection of mail on Tuesday 24 December. Any mail which is urgent should be taken to the Post Room (B404) before 1430 hours.

For details of courier services on Tuesday 24 December please contact the Post Room on H5880. On Friday 27, Monday 30 and Tuesday 31 December the Post Room will be open and incoming mail will be sorted. It should be collected from the Post Room between 0800 and 1100 hours; it will be not be delivered to individual buildings. Outgoing mail should be taken to the Post Room where it will be sent off site.

Catering

The Restaurant will be serving lunches between 1200 hours and 1300 hours on Tuesday 24 December but the upstairs Blenheim Restaurant will be closed. The Restaurant Shop will close at 1200 hours on Tuesday 24 December. Normal service will resume on Thursday 2 January.

Telephone

The switchboard will be manned on 27, 30 and 31 December.

Culham

Post

There will be one delivery and one collection of mail on Tuesday 24 December. It you have any urgent mail or would like details of courier services on Tuesday 24 December please contact the Post Room on C3263. On Friday 27, Monday 30 and Tuesday 31 December the Post Room will be open and mail will be sorted. You should collect it from the Post Room between 0800 and 1100 hours. Outgoing mail should be taken to the Post Room.

Catering

On Tuesday 24 December the Culham Coffee Shop will be open between 0800 hours and 1300 hours, the Restaurant will be serving brunches between 0930 hours and 1300 hours and the Shop will be open from 0830 hours to 1300 hours.

Telephone

The switchboard will be manned on 27, 30 and 31 December.

All services will return to normal on Thursday 2 January.

Welcome RGIT



Senior RGIT executives meet members of the UKAEA's Occupational Health Service (l. to r.): Alex Muir, Chairman, RGIT; Kay MacAnulty, Senior OH Nurse, UKAEA; John Cadger, Finance Director, RGIT; Captain John Watson OBE, Managing Director, RGIT; Dr Jon Spiro, Senior OH Physician, UKAEA; and Dr Bill Freeland, Medical Director, RGIT.

Occupational Health Services at UKAEA sites including Culham and Harwell are being divested to the Aberdeen-based company, RGIT Limited. RGIT Ltd. emerged from the Robert Gordon Institute of Technology in 1972, its main business originally being to teach survival techniques to personnel on oil and gas platforms in the North Sea. Since then, the company has developed into providing occupational health services across a broad spectrum.

UKAEA's Senior Occupational Health Physician, Harwell-based Dr Jon Spiro, welcomes the move on behalf of all staff providing OH services to companies on UKAEA sites, which include AEA Technology, JET, Procord and local business parks.

"I am certain there is much knowledge and experience we can share", said Dr Spiro. "RGIT's work with off-shore clients and in survival training will be invaluable to us. We anticipate furthering the mutual aims of providing a high quality and cost-effective service to our customers."

Dr Bill Freeland, RGIT's Medical Director, is equally enthusiastic about the move which also involves OH services at Winfrith and Risley and includes BNFL and oil companies, BP and Esso.

"All of us at RGIT are keen to meet and work with UKAEA staff and settling down to develop and extend the already very well respected service provided on all four UK sites", said Dr Freeland.

ECHO 1997 *Publication Dates*

Issue	Copy deadline	Published on
February	Mon 20 January	Wed 5 February
March	Mon 17 February	Wed 5 March
April	Tues 18 March	Wed 9 April
May	Mon 21 April	Wed 7 May
June	Mon 19 May	Wed 4 June
July	Mon 30 June	Wed 16 July
September	Tues 19 August	Wed 10 September
October	Mon 22 September	Wed 8 October
November	Mon 20 October	Wed 5 November
December	Mon 24 November	Wed 10 December

Front Cover pic. Winter scene at The Manor House Gardens at Farnborough by Eric Jenkins.

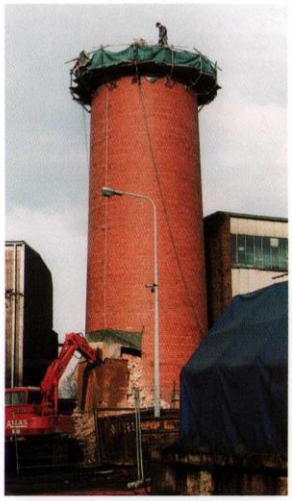
Massive savings from Harwell improvements



Remedial work on drains is currently underway and due to be complete by January.

Major improvements and substantial savings of more than £1000 a day have resulted from Harwell's programme of infrastructure renewal. Predicted to have cost £22M, the work has taken some 235,000 man-hours of effort since July 1994 and is beginning to pay dividends.

Stephen White, Head of Site, said "We are paving the way for Harwell to remain as a major centre for high technology business for the next 50 years. We couldn't achieve this without bringing our basic utility systems up to modern standards, reducing costs, improving environmental impact and passing ownership and operational responsibility to the public utility companies. The progress we have made on infrastructure renewal over the past few years will benefit everyone working here and takes us closer to our development goals for the site."



The boilerhouse chimney has been taken down brick by brick and the rubble removed daily from a hole in the side.

Work on upgrading the water distribution system to meet water bye laws is now complete. All buildings now operate on stand-alone boilers and are being serviced directly from Thames Water. The reservoirs in buildings 317 and 494 were shut down at the end of October and await demolition.

Andrew Graham of AEA Technology Engineering Design Group, who are managing the project of behalf of UKAEA said, "An amazing 60% reduction in the amount of water used on site has been achieved. This is partly through demand and process changes, but the majority comes through upgrading the system and is double the saving we forecast. That's £1000 per day being saved on water alone!"

Further benefits are being seen from the new system. With supplies metered at each building users can now monitor and control their use of water, electricity and gas supplies. Water is now fresher and more consistent in quality as it is no longer stored on site. Reductions in maintenance costs and improved environmental impact will result from the removal of the steam distribution system.

Following a survey of the foul and surface water sewers earlier this year, repair and refurbishment work needed to bring the drains up to modern standards has been underway and is due to be complete by the end of January. Sewage should eventually be transferred to Thames Water's Didcot Sewage Plant marking the end of the transfer of all main services to outside utility companies.

Work on improving the landscape is scheduled to begin next year. In a programme of low-maintenance landscaping, herbaceous borders will be planted and the overall amount of grass reduced.

Co-ordinating around the landscaping, the existing street lighting will be upgraded to meet modern standards. A new standardised signage system will be installed, designed to meet the needs of first-time visitors to the site.

During November, work has been in progress dismantling the 45m high boilerhouse chimney, a once-familiar mark on the Harwell landscape. The boilers were shut down a year ago, after 40 years of use, following the installation of the local heating plants.

Steeplejacks knocked 355 cubic metres of bricks one-by-one down the inside of the chimney. The bricks, removed daily from the a hole in the side of the chimney, will be crushed and recycled as back-fill on other jobs. The whole boilerhouse site will be made good and ready for re-use or landscaping.



The old central boilers have been removed from the boilerhouse and will be sold off.

Launching the next 50 years

The climax to Harwell's 50th Anniversary Year culminates in a Development Launch Day on 12 December.

Over 200 people from the local business and civic community have been invited to the Cockcroft Hall to hear about future development plans, see the site's new 'marque' and the opening of the Marketing Suite.

Said Steve Moss, Harwell's Marketing Manager, "Plans for the Redevelopment Launch have been under tight wraps until now; but it is fitting as Harwell celebrates 50 years of illustrious history that we now unveil our plans for the next 50 years. Richard Page MP, Parliamentary Secretary for Industry and Energy will be the guest speaker."

The Launch marks the climax to Harwell's Jubilee year, which started with live broadcasts on local radio on New Year's Day, special features in the press and a Jubilee Charity Ball. In May over 200 VIPs gathered to hear Sir Alan Cottrell's Commemorative Lecture at the Anniversary Dinner. An exhibition of the history of Harwell has been on show at Harwell, Rutherford Appleton Laboratory and in the neighbouring towns and villages. The Recreational Association's Fireworks display kept up the 1996 theme and a special 24-page issue of ECHO was published in November.

Details of the Redevelopment Launch, together with pictures, will be published in the next issue of ECHO, due out on 5 February 1997.

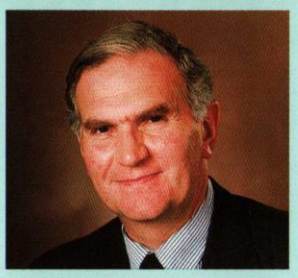
eCHOBRIEF

UKAEAC publish Annual Report

The 1995/96 annual report of the UKAEA Constabulary (UKAEAC) which protects nuclear sites on behalf of UKAEA and British Nuclear Fuels and URENCO, has been published by UKAEA.

In his final report as Chief Constable, Hugh McMorris gives an "up beat" message that the Force is in good shape despite the ever increasing demands being placed upon it.

The Force has been heavily committed to its core tasks of protecting special nuclear materials and classified information. In addition officers were called upon to respond to a variety of incidents, crimes and anti-nuclear demonstrations. The most notable of these demonstrations took place at Sellafield on Easter Monday 1995 and involved 250 demonstrators.



Tony Pointer was appointed new Chief Constable of UKAEAC 14 July this year.

For the first time in many years the overall strength of the Force (483 posts) did not reduce during the period under review. A modest recruitment exercise took place in April and some further recruitment will also be taking place in the coming year.

ETSU boosts Armenian energy

A project managed by ETSU, "UK's Know How Fund", is providing support to help attract foreign investment to develop Armenia's energy sector.

The Fund will be providing business planning and project management skills to EnergyInvest, an organisation established by the Ministry of Energy to attract more investment to the Armenian energy industry. ETSU will provide this organisation with comprehensive training to give it the skills required to develop project proposals for Western investors and secure funding. It will also help in setting up a Projects and Investment Department.

Three project areas which have been prioritised for assessment are the manufacture of gas and water meters, non-ferrous pipes and insulation materials from local raw materials.

The project, which is due for completion by June 1997, will draw on ETSU's wide experience of programme management and energy projects in Eastern Europe.

NRPB research mobile phones

A report prepared by a committee chaired by NRPB scientist Alastair McKinlay is likely to form the basis of a major European plan for research into health aspects of the use of mobile phones.

The committee was asked by the European Commission to prepare an action plan for comprehensive research into the effects of radiofrequency radiation on health. The Commission intends to decide before the end of this year how the proposed action plan can be integrated into the European research and development programmes.

The European Commission issued the following statement on 20 November:

"There is no evidence of any health risk emerging from mobile phones, but the results of present research are inadequate to draw firm conclusions on this issue. Further research is therefore required."

Dr McKinlay is Head of the NRPB's Non-ionising Radiation Department and Vice-chairman of the International Commission on Non-ionising Radiation Protection.



NRPB scientists Roger Blackwell and Simon Mann in the NRPB electromagnetic fields laboratory. The cone-shaped unit is used for calibrating instruments and measures the emissions from mobile phone aerials.

Harwell features in Millenium tapestry

The GLEEP reactor will feature in an ambitious 100-panel tapestry for the Millennium celebrations.

About a thousand embroiderers, throughout the UK, are forming into small teams each responsible for making a 2 metre long panel, one for each year of the 20th Century. Among the topics depicted for the year 1947 will be Britain's first nuclear reactor – GLEEP.

The completed work, approximately 255 metres in length, will go on a 10-year world tour, starting with the Australian Olympics in 2000 AD. Half of the profits raised during the tour, will go to 'War Child' – a new children's charity started as a result of the Yugoslavian conflict – and half to charities chosen by the embroiderers.

After the tour the Tapestry will be donated to the nation, in the year 2010.

British Airways Winner



Nicola Marling collects her prize tickets to Paris.

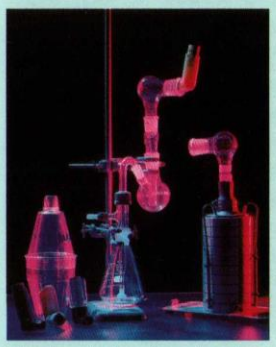
Winners have been named for the British Airways Roadshow held at Harwell Restaurant on Thursday 17 October. Nicola Marling of AEA Technology won first prize, a trip to Paris. Second prize, a BA suitcase, was won by Andrew Maunder, ETSU and third prize, a BA sweatshirt, went to Andy Astill, AEAT.

Improved Inhaler could benefit millions

Scientists from AEA Technology's Aerosol Science Centre at Harwell have achieved a breakthrough in the design of asthma inhalers which is expected to alleviate the symptoms of millions of sufferers.

The new inhaler design greatly improves the flow of the drug to the lungs. The drug is dispersed in a shorter, wider plume than in the standard inhaler, allowing the drug to penetrate far deeper into the lungs, so increasing the benefit to the asthma sufferer. The modification was achieved by inserting a cone in the inhaler restricting the flow of gas and slowing down the drug when the inhaler is fired.

Mr John McAughey, Manager of Health-related Aerosols at AEA Technology's Aerosol Science Centre, said: "So far, there has been a great degree of interest in the inhaler. We are hoping that with the new generation of asthma drugs it will prove to be of great benefit."



Laboratory test equipment used to develop AEA Metered Dose Inhaler.

The modification developed by AEA Technology will be of potential benefit to the three million asthma sufferers in the UK, which includes 1.3 million children. Children will in future be able to use modified versions of the small inhalers currently used by adults.

CCLRC appoints new Commercial Director

The Council for the Central Laboratory of the Research Councils (CCLRC) has appointed Dr Allyson Reed as Commercial Director.

In this new post Dr Reed is charged with expanding the Laboratory's commercial opportunities by providing a professional marketing focus and strategically identifying new international business opportunities. The post has been created in response to CCLRC's commitment to encouraging technology transfer and the exploitation of its major facilities by industry through commercial contracts, following its becoming an independent body in 1995.

Dr Reed is excited about the new role. "I look forward to adding a new dimension of commercial focus to the existing scientific excellence," she said. "This is an interesting time of change for both industry and research with increasing emphasis on the need for timely, effective innovation."

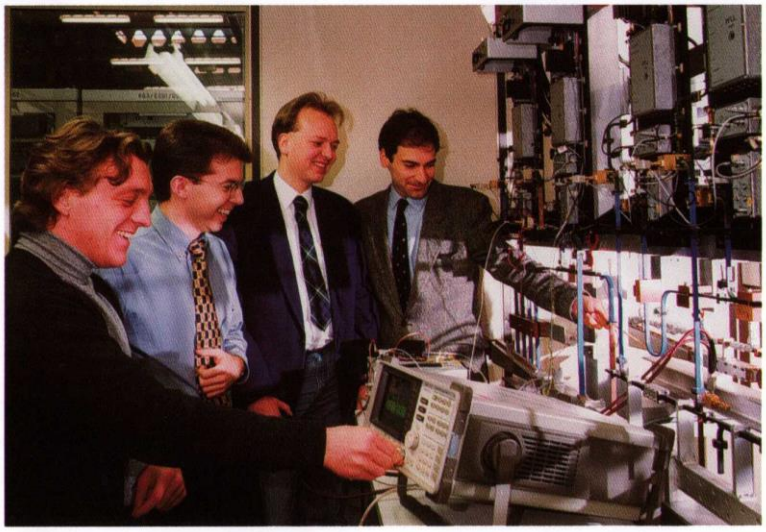
Prior to joining CCLRC on 2 December, Dr Reed worked at Oxford Instruments as Commercial Manager.

JET Ambassadors meet science students

Four young scientists from JET recently met students at the schools where they themselves originally studied, as part of the European Week of Scientific and Technological Culture.

The programme of visits to schools, called the "Science Ambassadors" Project, aims to make the EU's scientific projects better known amongst young people around Europe. The Ambassadors talked to the students about possibilities on offer in fields such as astronomy, physics, biology, chemistry and energy, with the hope of enthusing them in a career in science.

The Science Ambassadors Project has been organised and funded by the European Synchroton Radiation Facility at Grenoble in France, with the support of the European Commission. At the closing seminar at Grenoble the Ambassadors from around Europe discussed how links between European research centres and the educational system could be improved.



L to R: JET Ambassadors, Dr. Laurie Porte, Dr. Ray Monk, Dr. Akko Maas and Dr. Nicholas Deliyanakis.

UKAEA hosts first Common Purpose day

On Tuesday 19 November, 50 members of the Oxford Common Purpose group met at the Harwell Restaurant to discuss the evaluation of success in the education system.

The UKAEA was invited to host the first of several one-day seminars in the nine month 1996/97 programme. On the day, speakers from the Oxford universities, the Open University, Oxfordshire County Council and the Heart of England Training and Enterprise Council addressed a mixed audience representing the private, voluntary and public sectors in Oxfordshire.

Ian Rodham, of UKAEA's Property & Management Services said, "The Harwell day led to some lively and thought-provoking debate and set the tone for the new season". Richard Dendy, from Fusion at Culham, is the other UKAEA representative on the 1996/97 Oxford Common Purpose Programme.

Common Purpose exists as an independent educational programme which aims to provide decision makers with an in-depth understanding of their local community. This is done through a series of intensive but enjoyable themed days leading to the development of strong networks and partnerships.



L to R: Richard Dendy, UKAEA Fusion, Culham, Karen Mackley, Director of Oxford Common Purpose and Ian Rodham, UKAEA Property Management, Harwell.

AEAT and Fusion support young physicists

UKAEA Fusion sent three of its research scientists to present papers to a meeting of young physicists at the Royal Society, London, recently. Entitled "Highlights of British Physics Research and R&D", the meeting was organised by Dr Eric Wharton; AEA Technology also supported the event providing one of the keynote speakers, AEAT's Chief Scientist, Professor Marshall Stoneham, FRS.

Opening the meeting, Sir Arnold Wolfendale, FRS, immediate Past President of the Institute of Physics and a former Astronomer Royal, stressed the importance of understanding physics phenomena in depth and also the need for young scientists to be able explain results, theories and ideas to various audiences including the non-scientific general public.

Among the 75 Posters presented during the day, Fusion's Dr Richard Buttery spoke on "Limits on Instabilities on Fusion Tokamak Performance" and Neil Conway and Rob O'Connell on "Doppler Spectroscopy on Tokamak Plasmas".

Next year, the meeting will be hosted by Rutherford Appleton Laboratory, provisionally on 2 October 1997.



Fusion's Dr Richard Buttery explains his Poster to Dr John Alison and Leslie Askew, winners of the Rolls Royce Prize.

SAFETY FACTS

Lost time accidents Culham/Harwell	C	H
Recorded since last issue	0	0
Total this year	8	16
Total reported to HSE '96	4	9
Total days lost in '96	37*	202
Minor accidents (no time lost)		
Recorded since last issue	19	12
Total this year	52	163

*One day not previously accounted for added to the total

There were no radiological incidents but one non-radiological incident reportable since the last issue of ECHO.

Fan failure

During maintenance tests of one of two stand-by electrical generators a cooling fan failed causing some damage to the generator's radiator system. The generator was taken out of service for repairs and the cause of failure investigated.

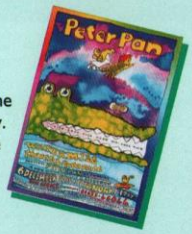
Out & About Dec-Jan

Harwell Christmas Carols
Wednesday 18 December
Harwell's Christmas Carol Service takes place this year in the Darcy Lounge in the Restaurant at 12.30 pm. All welcome.

Steventon Choral Society Present: Christmas Round the World
18 and 19 December
Steventon Choral Society present two Christmas concerts, starting at 7.30 pm in Steventon Village Hall. Admission £3 including mince pies and mulled wine. Tickets in advance from 01235 835568.

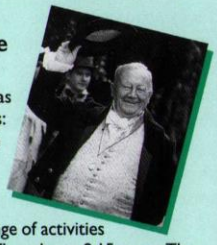
Dick Whittington at the Playhouse
6 December – 12 January
Dick Whittington, starring Brian Hibbard and Michael Fenton-Stevens at the Playhouse, Oxford. Performances 7pm (mats: 2 pm), tickets £9 - £14, 01865 7986000.

Red Riding Hood in Wallingford
10-25 January 1997
The Sinoden Players present their 49th pantomime at Wallingford's Corn Exchange Theatre, 7.30 pm (mats 11, 18, 25 January at 2.30 pm). Tickets available from Box Office, 6 and 7 December, 10 am to 4 pm, then Fridays and Saturdays, 10 am to 12 noon, 01491 825000.

Peter Pan at the Watermill
6 December – 11 January 1997


A new adaptation of the classic story at the Watermill Theatre and Restaurant, Newbury. Performances 7 pm (mats 2.30 pm), tickets, price £6 - £13.95, from 01635 46044.

Charles Vance Presents Cinderella
20 December – 18 January 1997
Producer Charles Vance brings his 159th Pantomime to the Wyvern Theatre at Swindon, starring Bernie Clifton and Jess Conrad. Performances 7 pm (mats 2 pm); tickets £9.50 and £8.50 from box office on 01793 524481.

Pickwick – Starring Harry Secombe
23 December – 1 February 1997

Harry Secombe in Pickwick, The Christmas Musical, at the Apollo Theatre, Oxford. Tickets: £7.00 to £23.50 (concessions available) from Box Office on 01865 244544.

Didcot 18+ Group
Didcot Eighteen Plus Group provides a wide range of activities for 18 - 30 year olds. Meetings are held every Thursday at 8.15 pm at The Fleur-de-lys, East Hagbourne. For further details, contact Adrian on 01235 810361 or Janice on 01235 520246.

Seasonal Celebration at Sonning
3 December – 11 January 1997
The Hiss & Boo Comedy Music Hall and Variety Show present Old Time Music Hall at the Mill at Sonning. Performances 8.15 pm, (dinner from 6.30 pm). Tickets, including dinner £19.95 - £30.95 from 0118 9698000.

Abingdon German Club Welcomes New Members
Abingdon Anglo-German Club welcomes anyone with an Anglo-German interest. Forthcoming events include:
Friday 10 January 1997
Leider Recital, by David Howard-Jones and James Leal
Friday 7 February 1997
"The destruction of the Idols. Pagan cults in Roman Germany and Britain and their elimination." Christianisation of Germany and Britain in Roman times, by Eberhard Saur, Dept of Archaeology, Oxford. For further details telephone: Mona Bradley (Chairman) Abingdon 533887.

Book Now for 1997 Charity Ball
Friday 7 March 1997
Tickets are now on sale for the annual Harwell Charity Ball, Harwell Restaurant. Formal dress (black tie) please. Tickets, including hot buffet, live band and disco, £13.50 from Yvonne Johnston H6995.



Chris

Social Club Christmas Calendar

Annual General Meeting

The AGM of the Harwell Laboratories Recreational Association will be held on Wednesday 12 January 1997 in Room 1 of the Harwell Social Club, commencing at 12.30 pm.

Nominations forms for positions on the Management Committee are available from the Recreational Association Office, B161, Harwell, extension H3296.

Proposals for consideration at the AGM should be submitted in writing, and seconded, to the Association Secretary by not later than Tuesday 7 January.

Xmas Quiz Night

A Quiz Night is being held in the Harlequin Bar of Harwell Social Club on Tuesday 10 December at 7.30 pm. Teams of four may enter at a cost of £4 per team. Contact Neil Mansfield on 01235 834338 (evenings) or on 833945.

Wine Tasting

A free wine tasting event will be held in the Harwell Social Club on Monday 16 December from 12 noon - 2 pm. A selection of French and Portuguese red and white wines from smaller vineyards will be offered: purchases may be made.

Christmas Eve Social

An end-of-year disco will be held on Tuesday 24 December at Harwell Social Club from 12 noon to 3pm. Limited cold food will be available.



Christmas Closure

The Social Club will close at 3 pm on 24 December and will re-open at 12 noon on 2 January. The Management Committee wishes all members "A Merry Christmas and Happy New Year and looks forward to your continued support in 1997."

What's on at Christmas & New Year



Christmas Menus at Culham and Harwell

Harwell Restaurant Staff Party Special

Seafood Cocktail
Minestrone Soup
Saute Vegetable Pancake
with Chive and Capsicum Sauce

★★★★★

Traditional Roast Turkey
with Festive Trimmings
Lamb Steak
with Honey and Mint Sauce
Winter Vegetable Casserole
with Cheesy Dumplings
Halibut Steak Bonne Femme

★★★★★

Christmas Plum Pudding
with Brandy Sauce
Seasonal Fruit Salad
Fresh Cream Profiteroles
with Chocolate and Tia Maria Sauce

★★★★★

Luxury Mince Pie

★★★★★

Fresh Ground Coffee
with After Dinner Mints

Available from 1 December to 20 December 1996
Daytime only, £9.50 per person inc. VAT

For parties of 10 or more people tables may be reserved in the Blenheim Room.

Culham Conference Centre Christmas Menu

Asparagus Soup with mini Cottage Loaf
Crispy coated Garlic Mushrooms with a Garlic Dip
Fresh chilled Melon Cocktail

★★★★★

Roast Turkey served with Sage and Onion Stuffing, Chipolata Bacon Roll and Cranberry Sauce
Paprika Pork
(Pork fillet served in a Creamy Paprika Sauce)
Baked Trout served with Almonds, Butter and Lemon Juice
Vegetable Roulard with Creamy Mushroom and Tarragon Sauce

★★★★★

Roast Potatoes • Pomme Marquay
Cauliflower • Button Sprouts
Batton Carrots

★★★★★

Christmas Pudding
or Sweets from the Trolley

★★★★★

Coffee with After Dinner Mints
Mince Pies

★★★★★

£12.50 per head

Available in the Conference Centre
16 - 20 December 1996. Bookable in advance
Also available: Christmas Lunch on 19 December in the main restaurant.

Harwell Film Society 1997 Season

Programme for the start of 1997:

7 January	*Carrington*	*21 January*	*Quiz Show*
4 February	*Apocalypse Now*	*18 February*	*The Usual Suspects*
4 March	*Ed Wood*	*18 March*	*Goldeneye*
8 April	*Il Postino (The Postman)*		

All films are shown in the Cockcroft Hall, Harwell Laboratory, starting at 7.45 pm. Non-members can purchase tickets at the door for £3. Membership enquiries to Linda Chipperfield on C4097 or 01235 464097.

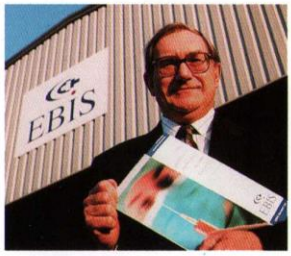


Record month for EBIS

Operating at full capacity 24 hours a day, EBIS Harwell Limited had their most productive month in October since their pioneering operation came on stream early last year. The electron beam irradiation service was initially set up in 1994 to develop a new commercial application for Harwell's Electron Linear Accelerator located next to the Fermi Gate.

EBIS'S business is the sterilisation of a wide range of medical materials and instruments, typically, syringes, wound dressings and complete procedure packs containing all the swabs, dressings, etc., required for a particular surgical operation.

Harwell's original 136MeV accelerator was once the most powerful pulsed neutron source in the world; it now forms the basis for two accelerators designed and built by AEA Technology. The fully-packaged cartons of medical products are conveyed out of EBIS's non-sterile warehouse and into a shielded tunnel, where they are subjected to a double-dose of accurately calculated and directed electrons. The whole operation is very closely monitored and logged.



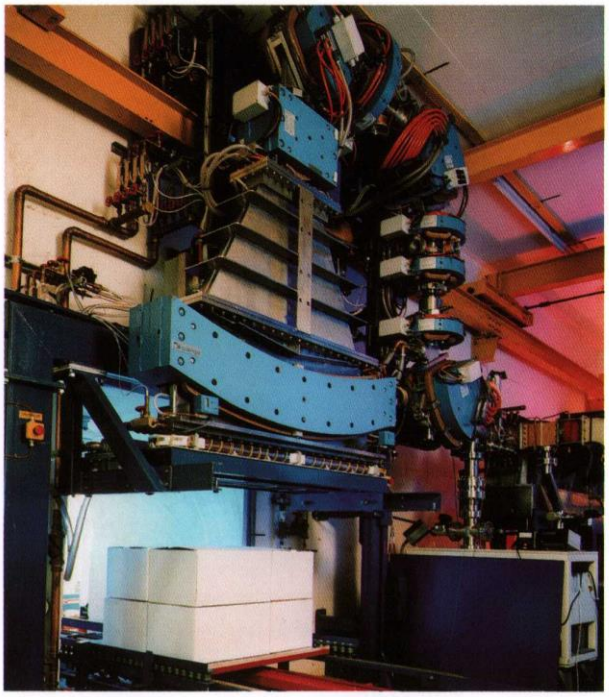
EBIS's Managing Director, David Martin

In less than two years, EBIS has won a significant share of the sterilisation market with customers throughout the country. The electron beam process is preferred by many manufacturers to the more established gamma ray irradiation and it has the additional environmental advantage of not needing large radioactive inventories.

"Our process is faster and much more flexible", explains managing director David Martin, "we can tailor the dose precisely to the requirements of the customer. This ability is already important to a number of our customers and, as it is likely to become mandatory in a few years, we will then have a clear advantage."

EBIS is jointly owned by private investors and AEA Technology. AEAT's Electron Beam Department provides the linear accelerator and technical expertise required to operate it under the direction of Dr David Findlay.

"Having converted one of the tools we used to use for nuclear physics research and created from it a viable commercial operation, we have probably undergone one of the most dramatic changes in what used to be the Authority", commented David, who has worked on linear accelerators since joining UKAEA in 1978.



The linear accelerator used for sterilising medical products by EBIS.

Birds benefit from paper donation

Winter waders at Cholsey Marsh Nature Reserve, near Wallingford, will be benefiting from a recent donation from the UKAEA at Harwell. A new "scrape" will be dug at this bird haven on the River Thames, providing them with a valuable habitat.

Staff at Harwell provided £1000 for the Berks, Bucks and Oxon Naturalists Trust (BBONT) from the proceeds of the Procord waste paper recycling scheme. The "scrape" will be excavated by mechanical digger and will allow the winter flood water to be held for longer so encouraging the reed beds to grow more. This will help attract more waders and other wintering birds as well as those passing through in the spring.

Richard Spowage, the BBONT manager for Cholsey Marsh, said, "Although only a small site, Cholsey is extremely important for birds. Thanks to this donation by UKAEA, we will be able to carry out work that will enhance this unique site."

Human visitors to Cholsey Marsh this winter will be able to see corn buntings, snipe and teal. In spring, ten different species of warbler set up home in the reed beds, giving enjoyment throughout the summer as they raise their young.



Richard Spowage, BBont Manager for Cholsey Marsh and Nick Hance, UKAEA PR Manager at Cholsey Marsh.

BLUEBIN

BLUE BIN TALLIES IMPROVE

Blue bin tallies improve for the second month running, with 11.14 tonnes collected in October. "This is a 9.4% improvement in the weekly average over the September figure of 12.73 tonnes which covered five weeks", reported Procord's Brian Monnery.

Staff are reminded that the blue bins should not be used for disposal of cardboard, plastic or telephone directories.

Welfare Fund lends a hand

"Luckier than Most", will be the title of AEAT ex-employee Richard Ramsden's first book, based on his thoughts and experiences since developing chronic, progressive multiple sclerosis over 15 years ago. Richard, who received help from the Harwell, Chilton and Culham Welfare Fund whilst employed in Consultancy Services at Culham, feels that he has been fortunate in the level of support he has had from other people. He is keen that his story is told.

Whilst Richard was at Culham the Fund decided to award him a grant to buy a page turner, a device which turns pages of books, reports and other documents from a remote access control attached to his wheelchair. The page turner was developed by Harold Wroe, an ex-Rutherford engineer, who now makes these for a living.

"The page-turner enabled me to be so much more independent at work," enthused Richard. "Previously I was unable to read reports etc. without assistance from other people."



Stephanie: "Comfort on wheels at last".

Since his retirement 12 months ago, Richard has enjoyed writing as a hobby and wishes to write a book that is both popular and has a message. The page-turner has enabled him to carry out the research needed for his book so much more easily.

"I hope to use my disability to interest people in the plight of those who are less fortunate, particularly those in the Third World." said Richard. "I consider that through all the support I have received since being diagnosed with MS I have been luckier than most."

Another recipient of support from the Fund, who has volunteered to have her story told is 22 year old Stephanie O'Connell, daughter of AEAT employee Dan O'Connell from ETSU. Stephanie, although in constant pain, has a great zest for life. She was awarded a grant to help towards the cost of a new, specially adapted wheelchair, having raised a considerable amount of the cost herself and through her family and friends. Since having the wheelchair, she has become active in helping consultants all over the country develop robotic tools for the disabled. She was delighted to take part in the children's television programme "How To" on 2 December, demonstrating a robotic arm.



Richard Ramsden and Harold Wroe with the page turner.

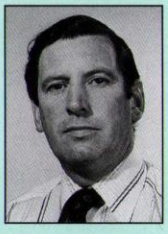
The Fund is administered by Chilton Counselling Ltd (formerly the site Welfare Service) on behalf of the Committee whose Chairman is John Hedderley of UKAEA.

"If approved by the Committee, financial help is given by way of an interest-free loan or a grant, and every case must have a strong Welfare element," Denise Lewis, Secretary to the Fund explained and emphasised that all cases are dealt with in the strictest confidence. Employees past and present from the UKAEA, AEAT, RAL, NRPB and Procord can apply. Donations to the Fund are made voluntarily through monthly deductions from salary of a minimum of 25p and new contributors are welcome"

For more information or a donation form, contact Denise Lewis or Jacqui Jackson at Chilton Counselling Ltd., on Abingdon 433061 or Harwell ext. 3061.

Obituaries

Dr Norman Stott



Dr Norman Stott, former UKAEA Chief Medical Officer, has died aged 66, following a short illness.

In a medical career that spanned 40 years, he came to the UKAEA from the RAF in 1959 eventually to become the Head of Medical Services at Dounreay. In 1980 he left his native Scotland to become the UKAEA's Chief Medical Officer, based at Harwell.

During his term of office he became the Editor of the Journal of the Society of Occupational Medicine and left Harwell in 1985 to take up the post of Chief Medical Officer for the John Lewis Group.

Norman Stott is survived by his wife and three children.

Dav Aston

Dav Aston joined UKAEA in 1973 as a typist in the Marketing and Sales Department typing pool. She stayed with M&SD, moving into the Commercial Office, until 1985 when she moved to Nuclear Physics Division to work for Brian Symes. 1991 saw a move to Engineering Division, working for David Harris, where she stayed for a year before moving to Safety to work for Wyn Llewellyn.

Dav officially retired in 1994 but still worked with Dr Llewellyn a couple of days each week until her sudden death on 4 November 1996.

She will be remembered for her ready smile, willingness to help and calming influence on those around her and will be sadly missed by her many friends and colleagues throughout Harwell and Culham.

Dr Jim Valentine



Dr Jim Valentine, Laboratory Secretary of the Rutherford Appleton Laboratory from 1963 to 1990, died on 31 October 1996.

Dr Valentine became Laboratory Secretary just as the first of its many major research facilities NIMROD, was being completed. He oversaw the rapid growth of the Laboratory in its early days, putting in place an administrative system charged with operating advanced common-use research facilities for UK academic scientists. In 1979 Dr Valentine was responsible for the merger of the Rutherford Laboratory and Appleton Laboratory at Slough on the Chilton site. He is survived by his wife and three children.

Shoebox Appeal is a success

Two hundred and fifty four shoeboxes from Harwell, Culham and other UKAEA sites have been collected for donation to a Shoebox Appeal for children in Bosnia and Croatia.

Andy Spayes of UKAEA's Directorate of Nuclear Operations was responsible for starting the Culham and Harwell collection and was delighted with the huge response the appeal has raised.

"Its absolutely brilliant!" said Andy. "A friend of mine will be driving one of a convoy of trucks leaving the UK on December 13 taking shoeboxes containing Christmas presents to children in orphanages and refugee camps in Bosnia and Croatia. Originally I promised to send half a dozen boxes from family and friends. Then I started telling people at work about it and it just snowballed from there."



Staff from B.521, Harwell were among the many people on the Culham and Harwell sites to donate shoeboxes to the Bosnia/Croatia appeal.

The shoeboxes contain new clothing, sweets, toys, items for school and toiletries and are earmarked for a particular age and gender of child. Last year 3000 boxes were delivered and it is hoped that this year's consignment will be even bigger.

The appeal has been organised by a Suffolk-based charity and is in its fifth year of operation.

JET Cycle Ride '96

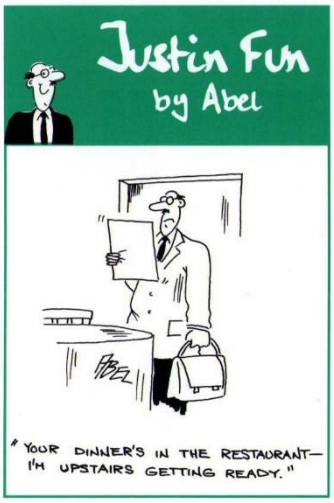
JET's annual cycle ride enjoyed another successful year in a ride which raised £1645 for charity.

Twenty cyclists from JET, Culham and Harwell, plus a few friends and relatives, followed a forty mile loop from the Uffington White Horse into the Downs via Lambourn, Aldbourne, Farringdon and back again. Everyone finished although some riders found the hills got steeper at the end! The finish was celebrated with cream teas much appreciated by both cyclists and a few errant wasps.

A cheque to the value of £1645 was presented to Abingdon's Kingfisher School for children with learning difficulties. It will be put towards their special Sensory Garden project which is designed to stimulate sensory-impaired children through their environment.



L to R: Wouter Suverkropp (JET), Clive Elsmore (JET), Andrew Bartholomew (Rotary Club), Rosie Jackson (Kingfisher School), Paddy O'Hanlon (Rotary Club).



November Crossword Winner: Elaine Hyde, ISS, Harwell

November Solution

		A		P		P	O	W	E	R		
T	E	R	R	A	C	E		H		O		
A		G		R		P	R	I	S	O	N	
D	R	U	G	S		P		T		S		
P		M		O	M	E	L	E	T	T	E	
O	C	E	A	N		R			R		M	
L		N			S		O	L	I	V	E	
E	X	T	E	R	I	O	R		A		R	
	R		R		L		C	O	N	G	A	
B	A	N	A	N	A		H		G		L	
	Y		S		G	R	I	L	L	E	D	
	S	W	E	D	E		D		E			

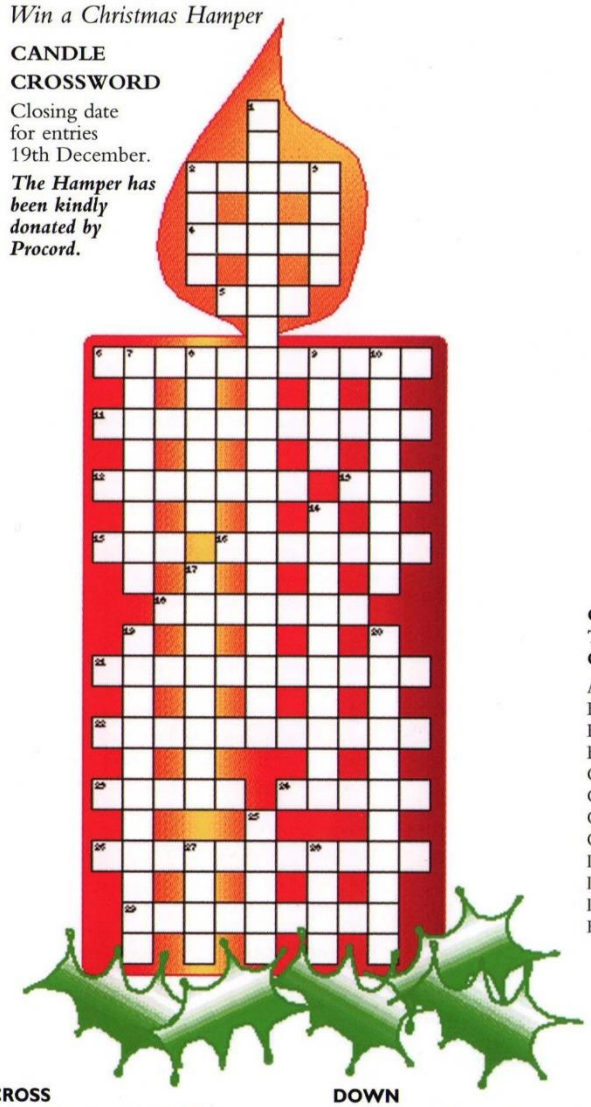
puzzle PAGE

Win a Christmas Hamper

CANDLE CROSSWORD

Closing date for entries 19th December.

The Hamper has been kindly donated by Procord.



ACROSS

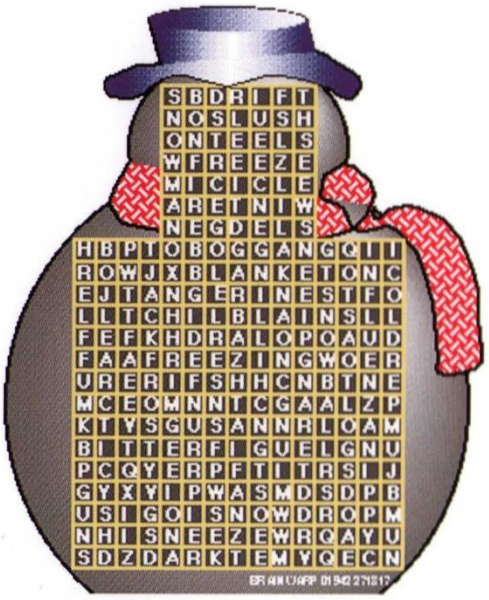
2 Seasonal signs for sailor in ship (5)
4 River dweller back to endless term (5)
5 Seasonal fruit provides basic clothing (3)
6 Party to obtain clothing – it's a gas (3,8)
11 Venus with time if about for a short while (4,7)
12 French cat at waterside by the manor house (7)
13 Roast stuffing for a whole goose (3)
15 Where there was no room for a public house (3)
16 Father Christmas' appearance followed teddy, dead I hear (7)
18 Universal love doesn't begin at home (7)
21 Key element of a great painting (11)
22 Previously, support eastern newspaper (11)
23 The mid-section sounds rubbish (5)
24 Employing humus in garden centre (5)
26 First Scout walloped Ben badly (5-6)
29 Yearn, upset after murder, for a place in Ireland (9)

DOWN

1 Tiger, ape and rat make rare pie given on first day of Christmas (1,9,2,1,4,4)
2 Pole now with winter coat (4)
3 Father the King (4)
7 Pipe up and laugh over New Year when Kings visit (8)
8 Surprises found in theatre at Scarborough (6)
9 Faithful model with herb (4)
10 North Easterly breeze stirred Scrooge (8)
14 Tips over, breaking ties with guitar (10)
17 In confusion thaws ton of trifles (4-4)
19 Sweet in a cooked state (5,6)
20 Hide then acts in film scripts (11)
25 Paint flowers (5)
27 Jellied dish containing peel, sultana and raisons (4)
28 Accompaniment of meal by Graves, possibly (4)

Just for fun...

SNOWMAN WORD SEARCH

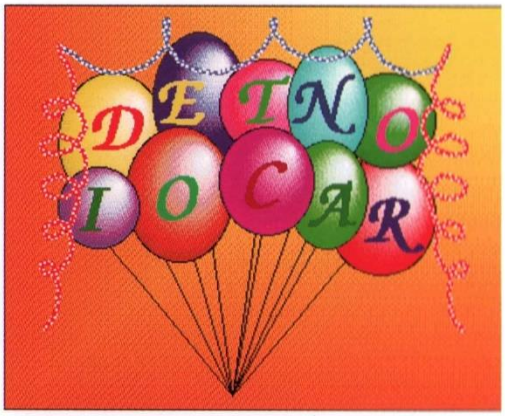


CAN YOU FIND THESE WORDS IN THE SNOWMAN? THEY'RE WRITTEN FORWARDS OR BACKWARDS, UP, DOWN OR DIAGONALLY.

ARCTIC	FIRE	LOGS	SNIFFLE
BITTER	FOG	MUFFLER	SNOWBALL
BLANKET	FREEZE	NIPPY	SNOWDROP
BONFIRE	FREEZING	NUMB	SNOWMAN
CARDIGAN	FRIGID	POLAR	SNUG
CHILBLAINS	HOT CHESTNUTS	SATURATED	SOPPING
CHILLING	ICE	SHIVER	TANGERINES
COLD	ICICLE	SLEDGE	TOAST
DARK	INFLUENZA	SLEET	TOBOGGAN
DRENCHED	JACK FROST	SLUSH	WIND
DRIFT	JUMPER	SNEEZE	WINTER
EAR MUFFS			

Just for fun...

DECORATION WORD PUZZLE



How many words of three or more letters can you make from the spelling DECORATION? Every word must include the central letter "C".

If you can find 75, thats a good try, 100 is very good, but we have over 140 on our list!

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