

# D-Day dead remembered

Over 250 people braved heavy showers to attend the annual D-Day commemoration service at Harwell on 5 June. The chief executives of UKAEA and Rutherford-Appleton Laboratory were among those who laid wreaths at the RAF Stone.

The service remembered those airmen and paratroops who gave their lives flying out from RAF Harwell the evening before the D-Day invasion to liberate Europe. In June 1944, squadrons of Albatrosses, Hurricanes and Stirling bombers



Piper, Alan Ryder, from Princess Rasknough



Members of the Guinea Pig club toured Harwell before the ceremony.

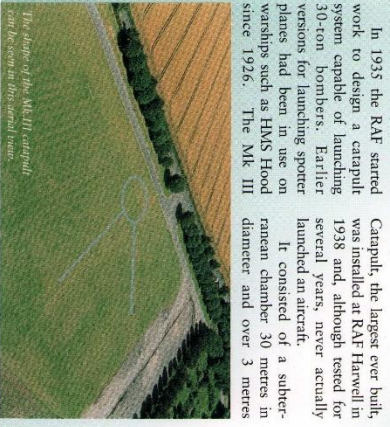
took off from RAF Harwell towing gliders packed with troops, dropping them behind enemy lines to make safe the invasion beaches for the Allies. Carrying their standards, representatives of the Regimental Glider Pilots, Parachute Regiment and Oxfordshire units of the British Legion marched onto the stone led by Piper Alan Ryder from Princes Rasknough. The sun shone as Rev Chris Stott, Rector of Harwell conducted the service. Colours were dipped as Joanne Greely, from the Abingdon Town Band, played the Last Post and Reveille. Representatives from the various organisations laid wreaths and group captain

members from the Blond Meindoo Research Centre (who pioneer work in plastic surgery). The tour included stops at Hangar 8 and DIDO. John Mckosow of UKAEA and Bert Westwood of RAL laid wreaths on behalf of their staff. A platoon of army cadets from Didcot acted as marshals and Harwell's British Legion Club provided refreshments.

## Catapult pit excavation

The 60-year old RAF Catapult Pit, located under the rugby football pitch at Harwell, is to be emptied of its backfill and refilled with freshly quarried materials.

In 1935 the RAF started work to design a catapult system capable of launching 30-ton bombers. Earlier versions for launching sport planes had been in use on warships such as HMS Hood since 1926. The MK III



The shape of the MK III catapult pit has been an distinctive feature.

It consisted of a subterranean chamber 30 metres in diameter and over 3 metres deep. Leading off from this were a V-shaped pair of 85 metre long trenches. The catapult gear was mounted on a turntable with a roof flush with the ground and could line up with either of the trenches. The launch mechanism consisted of several pairs of Rolls-Royce Kestrel engines modified as

compressors and a 1.7 metre diameter telescopic ram running the length of the trenches. The idea was that the bomber straddled the trench, which had a slot cut into it to take the hook mechanism, and the pneumatic ram launched the aircraft. The main components became worn out through testing at 2000 psi pressures and the catapult was never completed. The main cylinder of the ram and the air reservoirs were removed in 1944

to be incorporated into a smaller version at Farnborough. In the late 1940s Harwell staff lobbied John Cockcroft, Harwell's first director, to convert the pit into a swimming pool, but in 1950 he decided to have it filled in. The catapult's 2,500 tonnes of reinforced concrete have remained buried to this day and the only sign showing up as brown grass in hot summers (see photograph).

Work will start next year to remove 1,800 cubic metres of materials from the structure and replace it with fresh. Tests have shown the presence of a small amount of natural uranium ore in one location, so the material will be carted out under a weatherproof structure. The original RAF concrete will be left in-situ and the area restored to its original amenity status.

# ECHO

THE NEWSLETTER OF THE CULHAM SCIENCE CENTRE & HARWELL BUSINESS CENTRE

JULY/AUGUST 1999

## Forensic Alliance gains police approval

The Culham-based Forensic Alliance, part of AEA Technology, is the first commercial organisation to become an official supplier of crime scene DNA profiles to the police.



Forensic scientist amongst meticulous chemical tests to locate latent traces of blood on a suspect's clothing.

Alliance scientists are now able to take samples of blood, saliva and other material from crime scenes and add the DNA profiles to the national DNA database for comparison with samples taken from suspects and convicted criminals. The Association of Chief Police Officers (ACPO) has written to all chief constables informing them of the DNA and other forensic science services available from Forensic Alliance. Managing director, Russell Soodkdale, said, "We have already provided forensic science support to numerous police forces, producing results specially for

investigating officers who are anxious to catch criminals before they strike again. We can now work even more closely with the police to ensure that criminals are quickly brought to justice".

**We are becoming known for solving the unsolvable!**

As the Forensic Alliance celebrates its first anniversary the organisation has outperformed all expectations to become the leading player in this highly specialist field.

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## OBE for ISIS director

Dr Andrew Taylor who works at RAL, has been awarded an OBE in the Queen's birthday honours list for his services to neutron scattering. Andrew is director of ISIS, the world's most intense source of pulsed neutrons and mions that enables researchers to explore the structure and properties of materials at an atomic level.

"This is a great honour for the facility and all those who have worked so hard to make ISIS the envy of the world. We at RAL have shown the way forward for the future of neutron scattering," he said.

Andrew joined RAL in 1973 after completing his BSc in natural philosophy and chemistry at Glasgow and his PhD in neutron scattering at Oxford. Following a second

ment to Leo Alamos National Laboratory in the USA he returned to RAL and became director of ISIS in 1993. Each year ISIS attracts over 1,500 visiting scientists from around the world and its diverse and important findings are reported in over 500 scientific papers annually. Recent highlights of the ISIS research programme include studies of areas as diverse as high tempera-



Andrew Taylor (left) is presented in the ISIS experimental hall with the Brian Fowler, who played an important role in realising the funding for ISIS during the 1970s and who raised the facility earlier this year. Fowler was a physicist who was also included in the honours list, now being married to Dr Ruth Taylor, UKAEA head of corporate communications. Future superconductors, surfactants and detergents, drug molecules and rechargeable batteries.

<p><b>This Month</b></p> <p>B220</p> <p>50 years on</p> <p><b>4</b></p>	<p><b>Nursery</b></p> <p>raises £400</p> <p><b>6</b></p>	<p><b>Charity Ball</b></p> <p>awards</p>	<p><b>D-Day ceremony</b></p> <p>8</p>
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Its work predominantly serves the police, although this is supplemented by projects for the defence sector, civil action cases and some contracts for commercial organisations.

Even in his short lifetime to date, the Forensic Alliance has gained an enviable reputation for cracking the 'stickers' - a colloquial police term for unsolved crimes, some of which date back several decades. The forensic technology at its disposal has led to a major breakthrough in unravelling a 15-year old murder case which had previously ground to a halt.



Specifically prepared extracts of stains on clothing are searched for information using high-power light microscopy.

Other high profile murder cases have relied on the results of the organisation to give a clearer insight into what may or may not have taken place. Drawing on the expertise of AEA Technology's serological unit at Culham helped to prove that school girl Billie-Jo Jenkins could not have bled blood onto the clothes of her foster father, who claimed to have found the youngster after she had been attacked. Inhalation toxicology reports gave a strong indication that the blood was transferred during the assault and not as a result of exhalation.

"We are problem orientated, not technology orientated," says MD Russell Stockdale. "In other words, we offer to solve any problem that can be solved and then consider which route is the best one to take. This is made possible by the enormous range and variety of technologies at our disposal."

## Thanks to blood donors

This National Blood Transfusion Service would like to thank all those who so generously donated blood during the clinic's last session in April. A total of 236 donations were made including 20 first-time donors.



Minute amounts of DNA from blood and other body fluids are prepared for amplification by PCR (polymerase chain reaction) before being probed for the national DNA database.

disposal. It's this lateral way of tackling a situation that is so fruitful. In court our work will also determine the line of questioning which will elicit the critical facts at the centre of the case.

"Statistical evidence like DNA profiling can appear pretty conclusive, perhaps narrowing down identity to one in 68 million or less. We are also very aware of the dangers of such conclusive results where chance contamination can have disastrous consequences. Our facilities are run to the highest standards and we have achieved ISO9002 and NAAVMS accreditation, and ACO validation."

"We have an overwhelming pride in what we have put in place and in our uniqueness. It wouldn't be untrue to say that the Forensic Alliance represents a sea-change in a profession which was in danger of being stifled. We've thrown open the doors and the windows!"

## The Alliance Partnership

With its headquarters located in building F5 at Culham the Alliance employs between 30 and 40 staff and can incorporate the unrivalled technical resources available at B551 at Harwell, for example.

Forensic Alliance offers a truly unique service which is arguably the most powerful combination ever of forensic science, analytical and DNA profiling skills. It has a tripartite structure which brings together three specialist arms: Forensic Access, AEA Technology plc and Celmark Diagnostics.

## Obituaries

### Jack Howlett 1912-1999

Jack Howlett, the first and only director of the Atlas Computer Laboratory, died recently, aged 86.



Jack, a numerical analyst, was one of a select group who recognised the significance of computing and influenced the development of mechanical, and later, electronic computing.

He read mathematics at Manchester University before joining London Midland Scottish Railways where he taught computation and analysis to engineers. Between 1940 and 1946 he was a member of the Manchester University group which built a mechanical 'differential analyser', an analogue machine which at the time was Europe's most powerful calculating engine.

The group's work made a valuable contribution to the atomic bomb project and in 1948 he took charge of what became the Harwell-based AERE computing section within the theoretical physics division. He took over the position from Klaus Fuchs the infamous Kesteven spy.

To keep pace with the IBM Stretch computer, a British machine of similar power was needed and the Atlas project was born. Its aim was to develop a large computer to serve the needs of Relsys, Harwell, Culham and the UK universities! Jack became the director of the new laboratory in 1961 and the Atlas Centre.

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## Rail safety award

### AEA Technology/ has won a major award for developing the TPWS (Train Protection Warning System) which automatically applies the brakes to reduce the risk of trains passing red signals.

The Railway Industry Innovation Award was jointly won with Railtrack and equipment manufacturer Redfin MEL. TPWS has successfully completed 18 months of testing on the Bedford to Brighton line where trains have travelled over one million miles. TPWS uses track-side equipment to send a radio signal to the train's on-board computer as the red light is approached.



A TPWS fitted class 319 Thameslink train at Luton.

### Virtual timetables

Software developed by AEA Technology enables rail timetable planners to simulate new timetables and allow them to make rail infrastructure improvements on a computer to ultimately offer passengers the most reliable service. Called Timetable Generator, the new software is compatible with AEA's MENT software package which predicts the level of delays. Predictions suggest that passenger numbers in the UK will increase by 30% over the next 10 years. Railtrack, which has funded the software development, is responsible for developing new timetables and faces financial penalties for delays. As the only software of its kind, there is potential for overseas sales as other countries follow the British model of rail privatisation and seek to improve performance.

## Ukrainian ambassador visits Harwell

The ambassador of Ukraine, Prof. Vasylenko, is pictured here (centre) during his recent fact finding mission to Harwell. He requested a visit and was interested to learn about AEA Technology's current projects in the Ukraine and also discussed potential future work. The Loughborough-based ambassador was accompanied by Dr. Ian Jones, Malcolm Forger Price, Neil Gill, Prof. Kovál (scientific consultant) and David Key.



## 24-hour emergency hotline

### CARECHEM 24

### YOUR EMERGENCY RESPONSE PARTNER

The prestigious Queen Elizabeth II Conference Centre was the venue for the launch of a new 24-hour hotline which will provide emergency services with vital support in any chemical incident.

The National Chemical Emergency Centre (NCEC), part of AEA Technology's unvetted Carechem 24 to a specially chosen target audience. The launch took place at an industry event to celebrate the tenth anniversary of CIA's (Chemical Industry Association).

Responsible Care campaign which encourages responsible chemical management. Carechem 24 has been developed with CIA support. Companies who subscribe to the service will be able to use the NCEC emergency hotline as their 24-hour first response telephone number - a legal requirement of the Responsible Care obligations. If an incident takes place the emergency services can immediately contact the experts at NCEC for specific advice about remedial action.

## Ford favours AEAAT for reliability

The Ford Motor Company will use software developed by AEA Technology to test components and deliver new models to the market more quickly.

A \$600,000 deal has been agreed with AEAAT subsidiary, nCode International, to supply its nSoft software to Ford technical centres around the world. When developing prototype vehicles engineers will use nSoft to assess component durability. Data from strain gauges, accelerometers and other sensors is interpreted by the software. This helps to develop cars which are tough enough to withstand years on the road and increases product reliability. Ford chose to use nSoft because it has proved to be more reliable than contemporary software packages also because nCode offers a full customer support service. Many of the world's major motor manufacturers now employ nSoft fatigue analysis and lifetime prediction software. AEAAT has recently renewed a deal to supply nSoft to all Volvo vehicle companies including its truck, car and bus operations. Last year Chrysler agreed a contract for the software and other clients include US agricultural machinery manufacturers, John Deere.

**AEA TECHNOLOGY**  
THE INNOVATION BUSINESS

**Annual results for the year ended 31 March 1999**

Turnover up **16%** to **£57.8m** (1998 - £308.4m)

Operating profit up **10%** to **£33.8m** (1998 - £307m)

Profit before tax up **3%** to **£29.8m** (1998 - £29.0m)

Adjusted earnings per share up **5%** to **24.7p** (1998 - 23.5p)

Recommended total dividend up **8%** to **10.4p** per share (1998 - 9.6p)

# Potty ideas win title for convent girls

**B**efore an audience of nearly 300 people, NOTRE, a team from Our Lady's Convent, Abingdon, won the Oxfordshire Young Enterprise (YE) finals at the John Adams Lecture Theatre, Culham.

UKAEA and JET co-sponsored the county finals that tested the entrepreneurial skills of Oxfordshire sixth formers managing their own trading 'companies'. Seven teams presented their companies, exhibited their wares and won a variety of shields and cups.

John Mckewon, UKAEA chief executive, accompanied by his wife Maureen, welcomed guests and presented the trophies. One of these, the UKAEA Cup for the best financial report, went to Wood Green School in Witney, Ron Corham (UKAEA) representing St Mary's School, Wantage as their business adviser, collected



Derek Robinson with the winning team and their hand painted pots.



John and Maureen Mckewon meet the inflatable aliens on offer from Wood Green pupils.

his school's Registration Plaque from Nigel Barfoot, the chairman of the YE Board. Derek Robinson, UKAEA fusion director, and John Mckewon toured the exhibition stands and were impressed with the business knowledge of the students. Headington School generated a massive 500%

# Synexus celebrates first birthday



The Synexus team at Harwell (from left): Carol Lloyd, Alison Buchanan, Michelle Whiteley, Minni Egberton, Karen Pennington, Julie Wray and Margaret Adams.

**S**ynexus at Harwell is the result of a merger, a year ago, between AEA Technology and the Edgeright Partnership of Chorley. This merger has formed the UK's largest clinical trials company with nine centres, employing patients via family doctors. All centres are staffed by a professional medical team dedicated to caring for the volunteers who are taking part in the studies.

Clinical trials involve closely monitoring people taking new drugs. These new drugs, or formulations of existing drugs, are tested in several places to ensure safety. Many tests take place before they are given to people and most studies use drugs that have already been proven to be safe and effective in hundreds of men and women. Altogether, Synexus currently has about 2,500 patients on studies in different phases of clinical trials at their nine dedicated centres.

profit selling CD-Roms giving information about Oxford and Oxford United FC; Wood Green School sold a variety of products that included inflatable aliens; Oxford High School sold personal alarm units capable of generating 130dB of noise from a miniature gas cylinder. The winning team, NOTRE, realised 6527 profit from its sales of hand decorated flower pots.

In his address, Dr Mckewon said: "All the teams tonight are winners, they have won that most valuable prize of gaining knowledge through experience. They will take that prize into their careers and have a head start over the competition."

Since 1963, when YE became a national organisation, Oxfordshire has emerged as one of the leading counties with a massive 60% penetration in eligible schools. Some 38 schools entered this year's competition, assisted by volunteer staff from over 50 businesses.



**T**hree students studying advanced GNVQ business studies at Our Lady's Convent School, joined AEAT staff to gather useful practical experience. Joy Stephens (pictured left) worked alongside AEAT's community involvement manager, Cathy Wright. Henrietta Collins (right) worked in the administration offices of AEAT QSA which supplies radioactive sources for medical and industrial applications. The third student, Siale Billington (centre) worked at AEAT's environment business at Culham. Over the summer months as many as 20 students will join AEA Technology to gain work experience with an international organisation.

# B220 Golden Jubilee

**T**he idea to construct a British radiochemical facility was conceived by Professor John Cockcroft whilst doing nuclear research at Chalk River in Canada during the 1939-45 war. Dr Bob Spence led the design and construction of what was to become 'Building 220' at Harwell and it became operational in July 1949.



The newly completed B220 as seen in 1949.

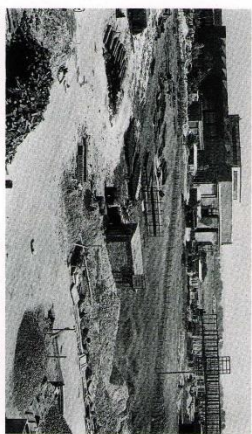
Working with a design team from the then Ministry of Works he created a unique facility that would provide safe working conditions for handling all types of radioactive materials. The basic design segregated different radioactive hazards into wings of laboratories in the building.

The laboratories are on the ground floor with all services on the windowless upper storey. A major safety feature to control radioactive gases required a ventilation plant on a colossal scale to provide clean air to the building. This removed contaminated air for treatment before discharging via a 'stack' chimney. The ventilation plant moves, heats and filters up to 200 tons of air an hour through ducts three metres across.

The task of construction was done by WE Chivers, a family business from Devizes, Wiltshire, who were to remain on the Harwell site for the next 20 years constructing most of Harwell's red brick buildings. Construction of B220 started in 1947, on the site of the aircraft gunnery range close to Hangar 10, and Cockcroft gave weekly talks to the foremen on the site.



Similar operations in the former HERMES facility in the 1950s - now decommissioned.



B220 was built on the RAF gunnery range to the west of Hangar 10. The steel skeleton was erected in 1948.

The building specification was very exacting and used materials such as lead and stainless steel that were in short supply at the time. It included such detailed attention to safety as recessed light fittings, rounded corners and use of strippable rubber paint on surfaces for ease of decontamination should this be necessary.

Many of the scientists recruited to carry out research work were the cream of post-war science graduates and even included some doing their National Service in the armed forces. One group of these Servicemen - The Harwell Fusiliers - still meets annually and visited B220 in 1998.

Research work carried out in B220 has covered all aspects of the use of radioactive materials in industry and medicine and includes their preparation, analysis and measurement of properties. The work has progressed from early pioneering work to supporting a mature nuclear industry. More recent studies have researched safe disposal of radioactive wastes in the UK and many other countries.

The design of B220 proved to be very successful and many additions have been made to it over the years to increase the range of specialist facilities required. A major addition completed in 1986 was to construct an extension of active facilities for remote handling of radioactive materials in concrete shielded cells. This remains one



Contemporary view of B220.29, the remote handling suite, extensively used by AEA's Nuclear Science.



Ian Roberts, director of Harwell, continuously calling the turf to start construction of the extension (B220.29) in the early 1980s

of the most modern facilities of its type in the world. The ventilation and other services were upgraded to modern safety standards in the period 1985-1995. The Site Lecture Room was located on the ground floor in B220 and was used as such until the Cockcroft Hall Lecture Theatre was constructed in the late 1990s.

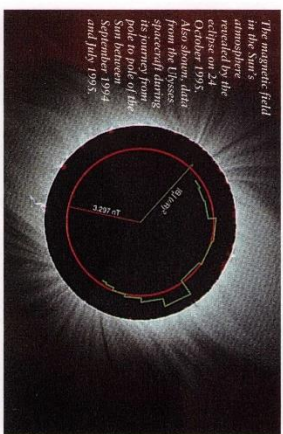
In line with the current UKAEA goal to restore its facilities to the original 'green field' environment when they reach the end of their useful life, many of the active plants within the building have been decommissioned - indeed staff occupy pleasant offices that were once contaminated radioactive laboratories! One major task involved development of a robot system to cut up 200 glove box enclosures for plutonium and other used radioactive materials.



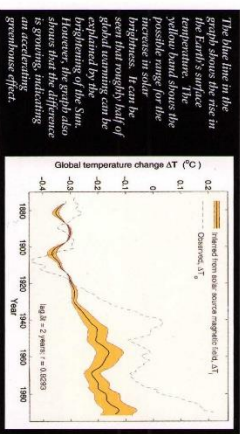
Scanning electron microscope used to examine radioactive materials in B220.

# Sun's effect on global warming

The magnetic field in the Sun's atmosphere is increasing at a dramatic rate. Using recent satellite observations of inter-planetary space, together with historical records from stations in Australia and England, scientists have shown that the Sun's field has more than doubled since the turn of the century. This discovery indicates that roughly half of global warming over the last 100 years is due to changes in the Sun. However, the Sun can account for less than one third of the more rapid change in recent years.

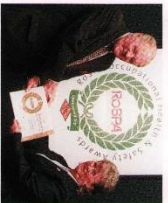


"The results indicate that almost all of the global warming up to about 1930 can be attributed to an increase in the brightness of the Sun," explains Professor Mike Lockwood of RAL, "but only about a half of it for the period between 1930 and 1970, and less than a third since 1970. This confirms that the beginning of man-made effects may be rather later than previously thought, but much more sudden."



## ROSPA safety award

The Royal Society for the Prevention of Accidents has awarded CIRC Rutherford Appleton Laboratory a gold award for its excellent safety record, for the second year running. In each of the last two years there have been only two reportable accidents at RAL, none of which was serious. This exemplary safety record compares very favourably with the national average amongst research institutes. Pictured



here is Fran Childs of RAL's health and safety group, receiving the gold award from Lord Brougham and Vaux, ROSPA's vice president.

## Nursery fete raises £400

Anniversary of the Little Stars Nursery at RAL raised nearly £400. Children and their families, nursery staff and friends enjoyed a warm sunny afternoon for the fete with attractions including face painting, a bouncy castle, toy stall, tombola, lucky dip, cake stall and live musical entertainment. It was the first fete held at the nursery and was judged a huge success with funds raised for Childline and the Kosovo Crisis Appeal.



Helen Hinks, deputy nursery manager, blowing bubbles with Richard Matousek, aged two years and four year old Ella Hankins.

## Ministers question time

The Museum of London Question Time style discussion organised by ETSU of AEA/ Environment. Ministers Michael Meacher and John Birtle met over 80 key energy users and suppliers to discuss how Combined Heat and Power (CHP) can benefit UK business, the environment and the consumer. The four other panellists included Charles Secret (Friends of the Earth) and Tony Boorman of the Joint Energy Regulator with Peter Day of the BBC as chairman.



DIT Minister John Birtle reaffirmed his commitment to CH and other environmentally friendly generation technologies

At a time when the government is undertaking many policy reviews which will affect large users of energy, the audience had plenty of questions and views. The issues considered most important were the Climate Change Levy and the Review of Electricity Trading Arrangements. Ministers reassured the audience that CHP and other environmentally friendly technologies would not be disadvantaged by these developments. In setting the energy trends for the 21st century, Michael Meacher emphasised that it was important to make



Peter Day (centre) of the BBC. In Business chaired the panel of ministers, industrialists and environmentalists.

# Harwell's 2020 vision

John Wilkins, Harwell head of site, gave staff an exciting glimpse into the future of the site up to the year 2020. About 60 staff watched the vision unfold in the conference room of B120 - which celebrates its fifth anniversary this year.

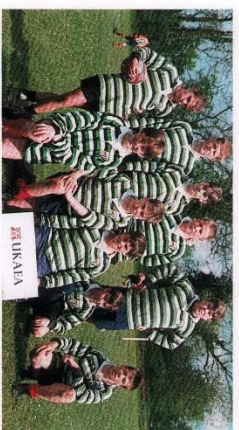
John said that UKAEA was currently spending around £20 million a year to transform the former nuclear laboratory site into an international business centre. Infrastructure costs were around half of this amount with decommissioning, waste management and other projects the remainder.

## UKAEA wins education award

The UKAEA at Harwell recognised as an 'Investor in Education' by the South Oxfordshire Education Business Partnership (SOEBP). On behalf of UKAEA, Stephen White received the award from SOEBP in a ceremony arranged for local companies regarded as making 'excellent contributions' to business-education links.

The citation acknowledged a particular and distinctive contribution to education in South Oxfordshire and highlights UKAEA's provision of quality work experience placements.

## Sponsored rugby festival



A recent mini and junior rugby festival held at Oxford RFC in A.Hinkley, UKAEA sponsored the Grove U13 team event. Teams from all over the county joined in the seven-a-side tournament on a fortunately sunny day. The matches were hard fought but a great day was enjoyed by players and spectators alike.

buildings on site will contain the remaining nuclear facilities.

He showed a variety of overhead slides to illustrate the successful decommissioning of major plants, such as the seven-storey chemical engineering building (B351) and said that two hangars were due for demolition as were the transport garage and restaurant buildings.

Explaining how Harwell's environment was being progressively restored he highlighted the work in cleaning up the ground waters and the imminent remediation of the RAF Catapult Pit and the Southern Storage Area.

Harwell's skyline would change as the BERO chimney was dismantled and new buildings appeared on the phase 1 redevelopment site. He also expected that 275 houses would be constructed on the Chilton Field site in a few years' time.

Considerable efforts were being made to repackaging Harwell's inventory of

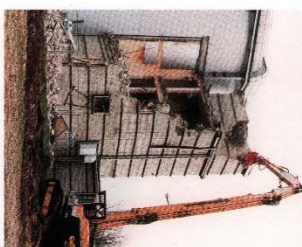
## Don't look down

Lucie Cotmore took her courage in both hands and abseiled down the sheer face of the J1's maternity building. She would like to thank JET and colleagues and friends who made the experience a worthwhile one. Lucie raised £630 for the Cancer Research Campaign.



## You could profit from designs on safety

UKAEA is running a safety poster competition with generous cash prizes for your creative ideas. The first prize is £300, second £200, third £100 with ten further prizes of £70. No artistic skills are required, just sketch your design and send your entry to: Safety poster competition, B151, Harwell, to arrive before 31 August 1999. Good luck!



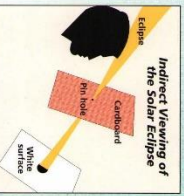
Demolition of the DIDO's 30-year old 'Waster' was completed earlier this year.

Intermediate Low Waste. Other projects will include the closure of the site's sewage works and transfer by a new pipeline to Didcot. He expected that the former Liquid Effluent Treatment Plant would cease operations at its former site and this would then be decommissioned.

John said: "There is a considerable amount of work being done and it was timely to provide the complete picture to our staff who want to know how we are changing the face of Harwell to become a leading business centre in the next century."

## Don't be tempted to watch eclipse

**A**mid the excitement of Active solar eclipse on 11 August, NRPB is advising people to take great care when preparing for this momentous event. The organisation warns that partial or even permanent blindness may result if proper steps are not taken. The safest and most inexpensive method of watching the eclipse is indirectly, by standing with your back to the Sun and projecting an image through a pinhole made in a large sheet of card onto a second white card placed in shadow, about a metre from the opening. (see illustration).



The Sun may only be viewed directly when wearing eyewear specially designed for the purpose. Sunglasses are not suitable. For more information on how to view the eclipse see the following websites: <http://www.ecclipse.org.uk> or <http://www.s4yprub.com>

## Mobile phone chairman named

**T**he Independent Expert Group is being set up to assess current research into the possible health risks from mobile phone use. The appointment of Sir William Stewart as chairman of the group has been approved by Tessa Jowell, minister of state for public health, and was recently announced by Sir Walker Bodmer, chairman of NRPB.

## Guidance booklet

**N**RPB has issued a booklet giving guidance on exposure to electrical and magnetic fields (EMFs). Previous guidelines were issued by NRPB in 1993 and have been widely used in the UK by government departments, local authorities, professional bodies and industry. The new advice updates these guidelines with new limits for exposure.

## Calling all golfers

**G**olfers of all abilities are invited to join a charity cup competition where you can play alongside comedian Sandi Toksvig. To be held at Hinkley Heights Golf Course near Oxford on Saturday 2 October, the day will raise funds for Ciliaham-based research charity, Action Against Breast Cancer (AABC). Players can enter individually or as a team at £25 per person. Generous prizes for the 18-hole four ball Strathford include vouchers for £200 (best score), £100 (runner-up) and £50 (best team score). The closing date for entries is 17 September, so call now for your entry form on 01865 321775.



## Cutting down on crime

**PC Robert Hughes**, is setting up a Community Policing Initiative. For more details, he and his colleagues at UKAEA Constarbury can be contacted on H3030 or H2501, but in the meantime ...

Crime can be cut by being vigilant at all times. Reporting crime, whether it's significant or not, really does help.

Remember, if you are leaving your vehicle on or off site, to inform the constabulary, so that it is not involved in silent hours security checks.

Inform the constabulary if you are working late or at weekends. Let us know where you are and how long for. If there's an accident or emergency then we will be aware of your presence and be able to offer assistance.

**Movement of property.** When you are removing property from site, please ensure that you have the relevant authorisation (ie, property passes) to avoid any misunderstanding.

Ensure that all personal belongings and all property are secure and, if left in your vehicle keep them locked away (out of sight, out of mind).



PC Robert Hughes

## Sale of found property

Items of found property held by the police for the statutory time which remain unclaimed by the owner and have been declined by the finder, are to be sold by the silent bid method. Items for sale will be on display at the AEA Constarbury police station, Bl, from 12noon on Monday 19 July to 9am on Friday 23 July. The sale takes place on Friday 23 July.

## £1,500 for having a ball



The Harwell charity ball committee presented a total of £1,500 to the very deserving local charities.

**A**t a very informal ceremony held at the Horse and Jockey Abersley, the Harwell charity ball committee presented a total of £1,500 to the very deserving local charities: Riding for the Disabled (Blenbury branch), Hearing Dogs for the Deaf, Air Animal Rescue (Caversham), Huntingdon's Disease (Oxford branch) and Farnie Hospital (near Wallingford).

The Harwell charity ball has been run for ten years and has raised over £25,000 for local charities, all held within a fifteen mile radius of the Harwell site. This year's event with a Forties theme was held at the Harwell social club where 150 guests danced the night away.

The ball committee has collected a number of certificates that they would like to display. Anyone who can suggest a suitable place can contact Janice Beaman, Susan Bowman, Paula Mannred, Graham Murphy or Carol Smallbone.

## Landscaping – before and after



Stumps and trees have been planted across the site.

Hundreds of metres of fencing have been installed to prevent unauthorised access to disused areas and to prevent fly-tipping; twenty-two waste storage compounds have been constructed to contain bins and skips to improve safety and reduce the visual impact of the waste; large areas have been seeded with grass or wild flower mix and trees and shrubs have been planted throughout the site.



Before



After

**O**ver the past 18 months a major scheme of landscaping and safety and environmental improvements has been implemented by UKAEA. The work follows the demolition of various redundant facilities and the leasing of buildings to commercial tenants.

The areas where much of the work has taken place include the Maresfield Way reactor site, the site lagoons, B531 and the surrounding area and to the north of Thomson Avenue.

personnel and co-ordination with other nearby projects. As the landscaping becomes established and as further work takes place, it is hoped that Harwell's attractive environment will play a part in retaining and attracting tenants for many years to come.

## Cycle to work exhibition



From left Paul Stevenson, AEAAT (Chair, Harwell BUC), Jeremy Tate, AEAAT (Harwell BUC), Karen Bart, AEAAT Treasurer, Harwell BUC, Julian Gallop, KAL, Marcus Jones, AEAAT Secretary, Harwell BUC, and a passing cyclist.

**H**arBUG (Harwell Bicycle Users Group) adopted a different approach during the national Cycle to Work event this year. Rather than trying to get as many people to cycle into work as possible, and then be undermined by poor weather, the group decided to stage a lunchtime exhibition for all staff, whether on two wheels or two feet!

"The stall attracted a lot of interest with many people wanting to know more about the National Cycle Network paths currently being built in the area by Sustrans, says HarBUG's Marcus Jones. On display were maps of local national cycle network routes, information on Sustrans (the cycle network charity), maps and photos of routes around Harwell, how to join HarBUG and receive the cycle commuting advice pack, and how to sign up for the "Cycle Summer" commuter challenge.

Information on cycle routes to Harwell proved to be popular and HarBUG members are now developing detailed guides to help people cycle to work in the longer term it is hoped that site and convenient routes can be built to link Harwell to nearby communities and to the national network.

After work a 6-mile route took cyclists on a leisurely ride via the Etkinfield Way, the Upon railway path, the new cycle route to Milton and the ancient cobbled byway to The Fox at Steventon.

## Toughest triathlon yet



Triathlete Graeme Cox, who worked for J.C. at Harwell until recently, made the trip back to Oxfordshire to take part in the first ever Wantage Triathlon, sponsored by UKAEA. Here he gives us a competitor's eye view of this challenging discipline.

"We were lucky that the weather was dry but not too warm and the race was well attended – about 130 entrants – considering it was the first one. During the anxious minutes before the start there was a good atmosphere with most competitors talking about the 'king of the hill' contest.

As I was setting up my bike in the transition area, my back tyre inner tube split and with just half an hour before the start I had to take the back wheel off and change the tube. Some of my old club mates came to the rescue, but I was panicking for the ten minutes it took to do the repair!

The event was very well organised and the route was well marshalled. The 800m swim was a good start for me – I did a personal best. Wantage pool is nice to swim in than the north sea! Next, the 35km bike leg. This proved to be a tough, hilly route through some lovely Oxfordshire and Berkshire countryside. The highlight for me was reaching 44 mph on one of the downhill sections.

Finally the 10km run which again proved tough with some uphill sections. The king of the hill competition was a real challenge. Having swum 800m, cycled 35k (22 miles), and run 3 miles we were faced with a steep hill that seemed to go on forever and had to sprint as fast as we could along this stretch. Having climbed the hill there was well over 3 miles to run back. The course proved too hard for some. I saw a number of competitors walking on the run route (especially on the hill). After the race I was treated by the St John Ambulance volunteers for severe blisters. I am glad to report there were no serious injuries on the day. All in all it was the toughest race I have done to date. My time of 2 hours 7 mins 53 seconds earned me ninth place overall which meant I achieved my goal of finishing in the top ten. The winner finished over 17 minutes in front of me. I clearly need to train harder for next year!"

