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ISSUE 3/SUMMER 08



the newspaper for AWE's neighbours

# connect

## Keeping you in touch with AWE

**Welcome to** the summer issue of Connect – the newspaper to keep you up-to-date with events and news from the Atomic Weapons Establishment (AWE).

Connect is published by AWE plc, which operates the sites at Aldermaston, Burghfield and Blacknest for the Ministry of Defence (MoD).

AWE has been central to Britain's defence for

more than 50 years. It provides the nuclear warheads for the country's strategic deterrent – the Trident missile.

The company looks after the warheads throughout their lifecycle, from initial research and design, manufacture, support while in service with the Royal Navy, and finally decommissioning, recycling and disposal.

In 1998, the UK ratified the Comprehensive Test Ban Treaty and no longer conducts nuclear tests – either above or below ground. So, in order to maintain the nuclear stockpile safely and reliably, AWE must invest in new facilities to continue to underwrite the safety and performance of Trident.

The next issue of Connect will be out in the winter, so keep a look out for it.



**Positive move...** AWE staff, together with local councillors, unveil the new roundabout at Aldermaston Gate

## On the right road...

AWE's travel plan, including a car-sharing scheme, aims to minimise the effects of additional staff and traffic

**People living** near AWE in Aldermaston can't fail to notice the roadworks that have been going on for the past year – but the good news is the end result will deliver huge benefits.

AWE is a thriving company with a growing workforce, but we take seriously the knock-on effect this has on our neighbours.

As part of the overall Sites Development Plan, and specifically when planning the new Gemini office complex,

we assessed the impact the additional staff and traffic would have and developed a travel plan.

Our travel planners have introduced ideas, such as a car-sharing scheme, to help reach our targets.

Dave Murray, head of travel and transport strategy, said: "Our single vehicle occupancy rate was at 85 per cent and we have pledged to get this down to 65 per cent by 2012."

"We're about halfway there, and we're

conscious there is a lot more work to be done.

"We have received many positive comments on the completion of the Aldermaston Gate roundabout, from local councillors, businesses and residents, as well as AWE staff. The programme is keeping to schedule and budget and we look forward to completing the remaining highway improvements over the next 12 months."

● **Turn to page 2**

## Travel plan answers residents' concerns

### From page 1

Another roundabout is planned for the main gate and that work will continue through until August – Dave anticipates the work at the A340 Gate (opposite Youngs Industrial Estate) will be completed in spring 2009.

All work will be finished before the 1,400 staff move into Gemini.

The travel plan also meant some environmental improvements, such as the 300-metre footpath from Calleva Business Park – put in at the request of local residents.

And at the Falcon Triangle there

will be traffic lights, a pedestrian crossing and a cycle footpath.

Heath End roundabout (next to Calleva Business Park) will have an express lane so vehicles can flow around more easily, making it more convenient.

The estimated cost of the works is

£5 million, and AWE will contribute up to another £2 million for other traffic projects in support of the local community.

Dave said: "We've been delighted with progress and the good working relationships developed with local councils, the police and residents."

# Building a better future at Aldermaston



Taking shape... the Orion laser facility, above, and the Gemini office block, right

**It has been** a busy time at AWE Aldermaston for new buildings – as two of the most prominent, Orion and Gemini, take shape.

Orion, our new laser facility, will replace HELEN in 2010 and the modern office block – Gemini – is due to be completed in 2009.

And in February, AWE was delighted that an important planning application was granted for work to start on replacing its High Explosives Fabrication Facility (HEFF) at its Aldermaston site.

The application reflects a "tidying up" of the site because the work will be consolidated in one building, rather than spread across several.

The construction phase is

expected to take two years.

AWE planning consultant Chris Simkins told West Berkshire Council's Eastern Area planning committee: "The application is about consolidation and modernisation. There is nothing new here: we aim to carry on doing highly-regulated work in a modern facility."

The facility will replace existing operational fabrication facilities and will use similar, but generally improved, processes through modern, efficient equipment.

Operations in the facility will continue to be regulated by the Health and Safety Executive's Explosives Inspectorate, the Environment Agency and the MoD.



## World-class excellence is partnership's vision

**A ground-breaking** agreement between Imperial College, London and AWE has led to the formation of the Institute for Shock Physics. The new Institute – a first for the UK – will specialise in the development of expertise in hydrodynamics, the science which explores the response of materials to the high pressures

generated by extreme shocks in a variety of environments. Housed in Imperial's Faculty of Natural Sciences, the Institute will undertake experimental, theoretical and computational shock physics work.

The Institute's vision is to be a world-leading centre of excellence in fundamental shock physics.

"Hydrodynamics is one of the key areas of research vital to enable the continued verification of the UK's nuclear deterrent in the Comprehensive Test Ban Treaty era," said AWE managing director Don Cook.

"The Institute will not carry out any defence research but it will

nurture the talent to help us ensure the UK remains at the leading edge of this crucial area of science."

Work at the Institute will help scientists gain a better understanding of the conditions found at the core of the Earth or other planets, the impact of meteorites on other bodies and even the generation of tsunamis.



Trophy treble... delighted AWE staff celebrate three RoSPA wins

# Safety success is triple triumph

**AWE is** celebrating after winning three major health and safety awards from the Royal Society for the Prevention of Accidents (RoSPA).

A team from the organisation was applauded at the ceremony in Birmingham after winning outright the International Dilimun Environmental Award and the National Defence Sector Award.

The AWE team also won the Astor Trophy for the corporate management of occupational health, for a second time – and can boast it is the only company to do this since the Astor Trophy was created in 2000. This is a magnificent achievement and AWE has now won major RoSPA awards for eight consecutive years.

Heather Young, director of Assurance, said: "Continued recognition from such a respected

independent body as RoSPA underlines the company's continual commitment to improve our health and safety approach across our sites.

"These awards represent recognition of our desire to achieve our goal of world-class standards in safety management."

The RoSPA awards are not just about reducing the number of accidents and cases of ill-health at work; they help ensure that organisations have good health and safety management practices in place.

David Rawlins, RoSPA awards manager, said: "AWE plc has shown a commitment to protecting the health and wellbeing of its employees and others. We hope other businesses and organisations will follow its lead and strive for continuous improvement in health and safety management."

## Schools challenge out of this world

**Ever wondered** what life is like on another planet? This has been the question AWE put to primary-aged pupils in the spring – getting them to bring their intergalactic dreams to life.

The idea behind the new competition for 10 and 11-year-olds was to get them to come up with a blueprint for an extraordinary planet. Through this, youngsters have explored the fun, adventurous side of science and technology.

The competition was open to primary and junior schools on AWE's Schools Liaison Scheme. Judging took place at the end of May and the winning entry was from Nathan Cox, 10, of Chalk Ridge Primary School in Basingstoke.

Nathan's planet was based on the theme of recycling and reusing fuel and waste; even the name of his planet, Thera, is a recycled version of Earth. The judges were impressed with the level of science and thought behind Nathan's entry.

Headteacher Donna Shave said: "We were delighted for Nathan. He'd worked very hard on the concept. The idea of the science competition really inspired children in Years 5 and 6 and got them to think beyond the syllabus. The generation of ideas and the support from parents was fantastic, as this was an external homework project. AWE really put science at the forefront of the minds of many more pupils here, and they had a great time working on the project."

Nathan and 90 of his classmates enjoyed their prize: a trip to the Science Museum in London, where AWE hired the Space Gallery for the evening for pupils to explore and admire the exhibits. After that they were whisked away to the IMAX cinema to see a fascinating film about space.

AWE's Corporate Affairs manager Lindsey Appleton said: "This was the first time we ran the competition and we were delighted with the response. It's been a way for AWE to reach out to schools and help them develop their pupils' interest in science and technology in a new creative and, hopefully, fun way. It means students can really begin to see just how diverse science is and how much there is to get from it."



Well done... Nathan Cox receives his award from AWE's Brian Bowsher

# Construction material won't go to waste



**Recycled rubble...** re-using construction waste will reduce AWE's carbon footprint

## Volunteers' hard work in play area

**Children at** a school in Basingstoke were treated to a tidier outdoor play area thanks to a group of volunteers from AWE.

The deputy head of Saxonwood Special Needs School had approached local companies asking for help in sprucing up the grounds.

Lindsey Appleton, AWE's corporate affairs manager, said: "This school in Basingstoke has children with a range of physical and mental disabilities."

"The school likes to

make good use of the area and was looking for volunteers for a number of physical tasks to help clean, improve and restore the grounds."

The team of more than 20 put in a superb effort said Lindsey, working hard by sweeping up leaves, cutting hedges and varnishing wooden apparatus in the playground.

Many of the volunteers said they were keen to go back again to help finish off some additional jobs.



**Tidy team...** the AWE volunteers at Saxonwood Special Needs School

**During 2007**, AWE introduced an ambitious recycling scheme – which over the next five to eight years could save the company millions of pounds.

And our carbon footprint will be reduced as well, because the number of lorries coming on and off site will diminish.

The company will sift through, and re-use, construction waste from demolished buildings and other areas. What can be used again, for new buildings, will be kept as a resource.

By using construction waste in this way, AWE can aim for zero waste and reduce the amount that goes to costly landfill. There are several parts to the recycling initiative – the first was two years ago when several buildings were demolished to make way for the Gemini office accommodation.

A team looked at the way buildings were categorised before demolition or during refurbishment. They devised a plan to clean-up buildings using shot blasting – to make the building clean, thus saving on landfill costs.

The next part is to look at brick and concrete from demolished buildings and turn them into aggregates suitable for use as a sub base for roads or car parks. By not sending this waste off to landfill, the company can make major savings in landfill taxes.

AWE has also been working with local groundwork contractors John Stacey to recycle soil dug out from service/utility trenches. In the past, this soil would have gone to landfill, but is now mixed in with a soil stabilising compound which turns it into a material nearly as strong as concrete, which can be used in the construction process. This means more savings and less to landfill.

Surplus soil will be used to build bunds around the perimeter of AWE's sites. These earthworks will be grassed over and planted with trees, bulbs or shrubs to create an improved environment for wildlife.



**Switched on...** the eco-friendly cars and trucks are replacing diesel vehicles

## Orange fleet is a green move

**Since the beginning of the year,** AWE has been using a new fleet of eco-friendly vehicles introduced by EMCOR, our on-site facilities services partner.

The four electric trucks and four cars are replacing diesel vehicles and, because they boast zero emissions, this helps us reduce our carbon footprint. This means an on-site saving of 25 tonnes of CO<sub>2</sub> a year.

The vehicles have been made from a welded aluminium frame covered in plastic and glass, and when the bright orange cars reach the end of their life on site, the framework can be recycled, and other parts reused. The cars and

trucks will be used as escort and delivery transport across the Aldermaston site.

With a top speed of 20mph they will have no trouble sticking to the maximum speed limits across the site. Both versions can take a driver and passenger, and can go for 50 miles before recharging.

AWE's environment head Gareth Beard said: "Electric vehicles are one of the few ways for the world, the UK, and therefore AWE, to realise a sustainable future of transport. They are clean and have the potential to be powered by a diverse range of low carbon energy sources. Our on-site services partner, EMCOR, has made a positive step in the right direction."



**Water result...** a reed bed is floated on to Decoy Pond

## Reeds right to tackle algae

**Five floating** reed beds and 55 pillow-sized bales of barley straw are working their magic at AWE's Decoy Pond. The quality of the water discharged from the pond is subject to scrutiny by the Environment Agency, which, along with our own monitoring, last year identified pH problems at the pond – and found it to be more alkaline than it should have been.

"Working with the Environment Agency, we came up with the plan to

carrying out an initial survey which established that the problem was caused by blue-green algae which was stripping the pond of CO<sub>2</sub>," said AWE environmental adviser Paul Simpson. "Once we had established the cause of the problem, we considered our options to control the algae.

"We also planted reed beds which take up nutrients, meaning there will be less available to feed the algae. Once they become established, the reeds will provide refuge for algae-eating water fleas and encourage them to multiply. The beds will also provide a refuge for

the fish from cormorants and herons."

Decoy Pond is home to many coarse fish including carp, tench, pike and roach. So, members of Aldermaston Angling Club, which has fished the pond for more than 50 years, are delighted by the improvements, delivered through collaboration between Utilities, company ISS Waterers Landscape and the Environment Agency.



**Read all about it...** North Walsham Primary School pupils with their new books

## Scheme does it by the book

Youngsters at a Hampshire primary school have furnished their new library with up-to-date science books thanks to AWE.

AWE has run its successful Books for Schools scheme since 2005 and any school registered on the scheme can apply for a £200 share of the £10,000 pot. The money is handed out on a first-come, first-served basis.

Jeff Maidment, deputy head of North Waltham Primary School, said: "With the cheque from AWE we have been able to replenish our existing stock and replace those books that were out of date. We are delighted to be part of this scheme."

Money can be spent on books, CDs and supporting computer software – the application process starts in November, run via the schools' contacts at AWE.

The schools liaison committee is made up from workers all across AWE who have links with local schools – there are now about 90 schools on the scheme.

The first 50 schools to return their applications, explaining why they want £200 for the school and what it will be spent on, get their share of the pot.



**Popular attraction...** the exhibition was visited by more than 5,000 AWE staff and contractors during May



**Kings of the castle...** John Eves and John Norrish receive their Ambassadors Awards from Don Cook

# Exhibition charts 50-year partnership

**The 1958** Mutual Defence Agreement was reached between the United Kingdom and the United States of America following the successful conclusion of the groundbreaking Grapple series of nuclear tests.

The agreement was signed between the two governments 'for co-operation on the uses of atomic energy for mutual defence purposes'. It remains a cornerstone of work at AWE to this day.

AWE has been delighted to mark the 50th anniversary of the '58 Agreement through an impressive exhibition, visited by over 5,000 AWE staff and contractors during May.

The exhibition, housed in a temporary pavilion, included a timeline charting the history of the agreement and AWE's partnership with the USA.

The content, which included hundreds of historical photos and background, charted the unique relationship between the two countries.

AWE managing director Don Cook, who opened the exhibition, said: "This major milestone acknowledges the crucial work accomplished in the past 50 years and also what will be achieved in the future."

"I firmly believe our close working relationship with the US has never been stronger."

The exhibition's premier at AWE Aldermaston will be followed by time on display at the MoD headquarters in London.

It will then go to the United States – firstly to Washington, where versions will be shown at locations including the British Embassy, the US Department of Energy and the State Department, and finally a five-month stint at the Atomic Testing Museum in Las Vegas, Nevada.



## Festival sponsorship hits the right note

**The beautiful** surroundings of Highclere Castle provided the perfect backdrop for an AWE-sponsored concert during the 2008 Newbury Spring Festival.

Managing director Don Cook hosted an invited group from across the company, including winners of the AWE Community Ambassador Awards, at the event which featured soprano Sally Matthews.

Welcome to Highclere by Lord and Lady Carnarvon, the group was given a tour of the castle's Egyptian Exhibition before the recital.

AWE's support of a concert at the Newbury Spring Festival, an important event on the local community calendar, was undertaken as a pilot for the possible development of a company sponsorship programme.

"It was a privilege to be involved in a small way with this festival which has become a cultural highlight for the local community," said Don Cook. "It was also an opportunity for us to say thank you to a number of people who have proved themselves to be real ambassadors for AWE."



**Top marks...** the Apprentice Academy teaching staff and, below, Advanced Apprentice of the Year winner Steve Purchell

# Apprentice Academy verdict 'outstanding'

**The Apprentice Academy** at AWE has a lot to celebrate – notching up an "outstanding" grading in an Ofsted inspection, and winning an award for Advanced Apprentice of the Year.

work and dedication to learning that has been received. We will try to embed the best practices learned here elsewhere in the organisation."

There was success in May at the South East Learning and Skills Awards for Steve Purchell, 19, who is studying mechanical engineering maintenance.

He won Advanced Apprentice of the Year – last year he was runner-up for the Apprentice of the Year. As well as studying hard, Steve also sits on the training committee and helps with apprentice fund-raising for charities.

The academy itself was a runner-up this year in the category of Large Employer of the Year.

The academy also won an award for Most Committed Employer to Learning in West Berkshire – presented by Richard Benyon, Newbury MP.

Marcus Hutchings said: "It's fantastic that we are able to bring back awards like these that reflect the company's commitment to training and development."

"We're delighted with Steve Purchell's win and it is well deserved; it shows the level of commitment that Steve puts in to his apprenticeship and AWE overall."



# Iron Age history put on display

**Investment has** been made to preserve and promote a historic site within AWE Aldermaston.

A programme of work over the past few years has helped to restore and preserve the character of Grim's Bank, which is a Scheduled Ancient Monument.

"It's a lovely, unspoilt area," said Environmental Projects Group project manager John Weatherley.

"We want more people to use and appreciate this area, which lies within Aldermaston's southern site boundary, and we also hope to increase the understanding of its history."

"The historical theory of the

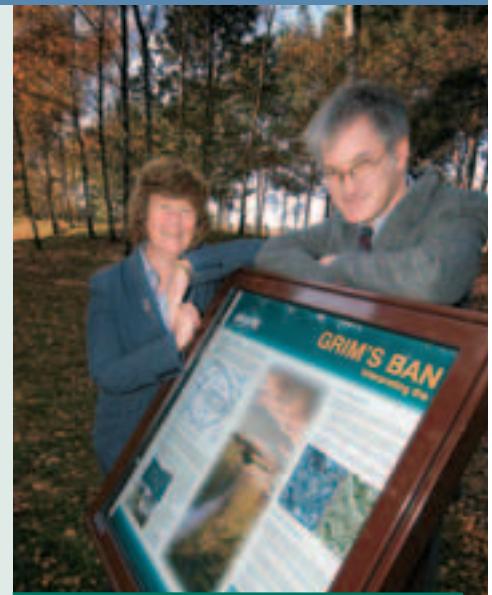
bank is that it was built in the later Iron Age as a landscape barrier or tribal demarcation by the local tribe inhabiting the area. As the importance of the Iron Age settlement of Silchester grew, it became part of a complex of large landscape boundaries. Later, it was consolidated into the defences for the Roman town of Silchester.

"Back in 2002 it was impossible to tell what Grim's Bank was. A couple of years later, low-level fencing was taken away, tree clearance undertaken, and debris from the base of the ditch, goat willow and other invasive growth was removed.

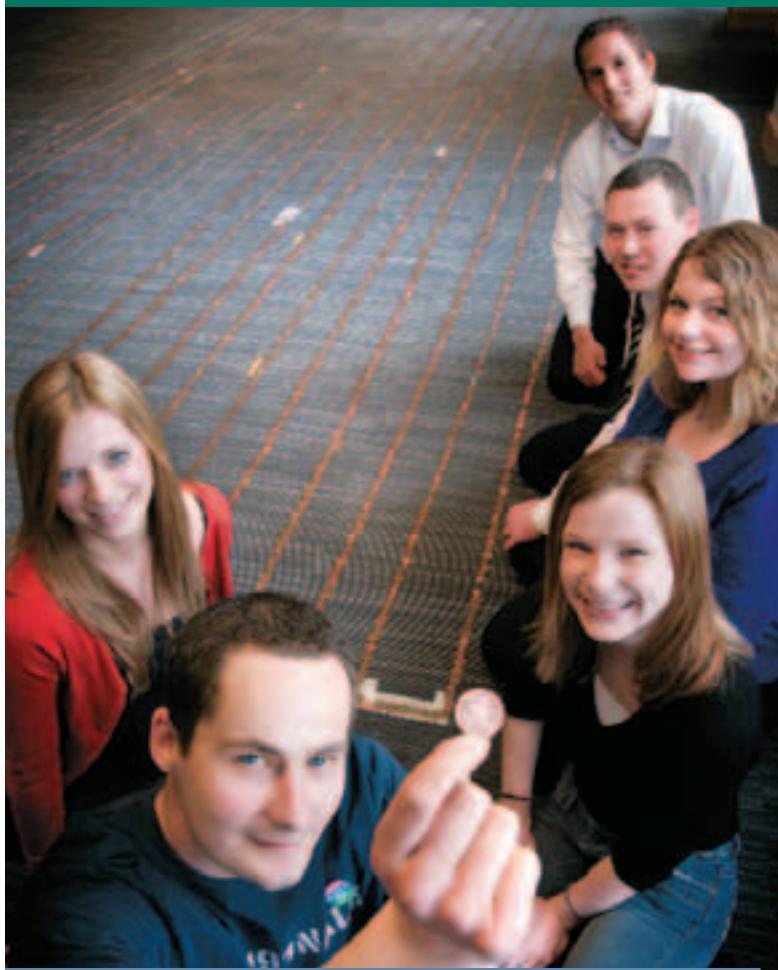
Since then, regular ground maintenance has been undertaken to retain and preserve its character.

"The Environmental Projects Group commissioned Atkins Heritage Specialists and Oxford Archaeology to investigate and characterise the ditch and bank.

"The set of information and interpretation boards was produced and is now located at Grim's Bank. The boards explain the change in landscape through time, the archaeology undertaken and the site interpretation, together with other literature on the history of the area."



**Sign of the times...** Laura Peacock and John Weatherley with the new Grim's Bank display panel



**In for a penny...** AWE graduates count the mile of coins

## Going the extra mile...

**AWE prides** itself on its charity-giving culture and over many years has raised thousands for local and national causes.

During 2006/7 almost £15,000 was raised for Age Concern Tadley and the Down's Syndrome Association.

This year, we are supporting Naomi House Hospice in Winchester and the Alzheimer's Society.

One of the latest fund-raising efforts was an eye-catching mile of

pennies, which raised more than £700 – but there are plenty of other events to come.

AWE scientist Matt Cheeseman said: "Laying out, sorting and counting all those coins was hard work, but we had a great sense of achievement at the end. We made just over £620 on the day, but since then we have had kind people dropping in more bags of change – and some people even donated £10 and £20 notes."

# Health campaign fits the bill

**A major** new summer initiative across AWE centred on health – with the launch of the first Get Fit@AWE campaign.

Staff sampled a range of different activities, including swimming, cycling, jogging and scenic walks off-site.

Tracy Thomas, health and wellbeing manager, said the idea was to promote long-term health improvements.

She said: "It's about getting people into the habit of doing regular exercise where it becomes second nature, rather than feeling like a chore."

"In the first week we started with light, gentle exercise options such as walking. As we move into the middle of the month we've included more impact sports, such as jogging, cycling and running."

Getting interested in team sports has been another idea to encourage people out of their offices, with taster sessions for bowls, tennis and croquet on offer.

There has also been an introduction to new age kurling – which is like traditional curling but instead of being played on ice,

competitors use smooth surfaces like a village hall floor.

Sample events of spin classes and other gym-based sessions were held at Woodlands Gym in Baughurst, and a shuttle bus has ferried staff there and to Tadley Swimming Pool during lunch hours.

"All the activities were scheduled during lunch, after work and in the evenings.

Free pedometers were given to people taking up walking challenges, and everyone signing up to an event has been given a questionnaire.

The health team wanted to compare their level of fitness and aspirations at the start of June, and ask the same questions at the end. Another follow-up will be done in three months to see how easy people have found it to stick to a new regime.

Tracy said: "Feeling healthier and better in yourself means you will be a healthier worker and have more energy and motivation. All of that helps improve morale across the company – staff benefit and the organisation does too."