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the newspaper for AWE's neighbours

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# connect



AWE director Haydn Clulow, second left, shakes hands with Bruce Morris, chairman of Lab Impex. Also pictured are AWE's Iain Smith, left, and Charles Murray

## AWE innovation leads to commercial link-up

**A super-sensitive** detection system that helps safeguard AWE's employees and operations has proved so effective it's being launched as a commercial product.

The innovative Criticality Incident Detection System (CIDS), which monitors levels of radioactive particles in the air, will be sold through a partnership with Lab Impex Systems.

AWE's managing director Andrew Jupp said the business is continually striving to enhance its world-class safety, security and environmental standards.

"This new system further improves on the already high performance of its predecessor by enhancing reliability and minimising false alarms to a level even lower than previously achieved within the nuclear industry," said Andrew.

"I am really passionate about AWE

delivering innovative high performance through our excellent people and technologies and exploiting wider opportunities as they present themselves."

CIDS' market launch has been made possible through a new intellectual property licence deal with Lab Impex Systems.

It follows on from a deal struck two years ago by the companies to announce an intellectual property agreement for the launch of new equipment designed for monitoring radioactive particles in the air.

"This further licence is a clear demonstration of our strong working relationship," said Andrew.

AWE's technology transfer executive Digby Thomas said: "Innovation is an important part of everyday life at AWE, and in many cases the result of this is also of commercial value beyond the requirements

of the UK's nuclear deterrent programme.

"Where these opportunities occur, AWE is keen to engage with industry to derive greater value for money and for the benefit of the wider UK economy."

Chairman of Lab Impex Systems Bruce Morris said: "We are confident that the AWE innovation will be commercially successful worldwide, building on our achievements in international sales to date.

"This is a strategic step for both companies; we at Lab Impex Systems are very excited by the opportunity of working closely with the AWE innovation team on this project. This agreement is seen by both parties as very significant and is also in sync with Lab Impex Systems' ongoing efforts to effectively contribute to the safety requirements of nuclear facilities, in the UK and internationally."



# Institutions back development work

AWE's professional development programme was reaccredited for the next three years, with no conditions, during a joint review with the Institution of Mechanical Engineers (IMechE) and the Institution of Engineering and Technology (IET).

AWE's HR director Shan Martin was presented with a certificate by Mark Morgan, IMechE regional development manager for the South East, while head of engineering (product) Dave Murray was presented with a certificate by Dan Sanders, IET regional development manager for the South of England.

Mentors, learners and AWE heads of profession, who all played a part in the reaccreditation process, attended the presentation ceremony at Aldermaston.

Professional development of staff and links with key institutions and associations is fundamental to ensuring AWE's engineers are able to increase their knowledge and experience.

Dave Murray said: "The reaccreditation of our scheme by these two institutions reaffirms to me the very highest standards of developmental support we give to our



Mark Morgan, left, presents the IMechE certificate to Shan Martin, while Dan Sanders, right, presents the IET certificate to Dave Murray

current and next generation of engineers – which I believe is a major strength of our engineering community."

The IMechE and IET are two of six professional institutions that accredit AWE's professional development programmes in science, engineering and technology.

AWE engineering outreach capability manager and lead on the reaccreditation, Greg McNally, said: "I would like to extend my thanks to the impressive team of learners

who put together the submission and hosted the reaccreditation event and the celebration.

"But most gratitude must go to the learners and mentors who keep the programme functioning through the years – across all parts of AWE. We have a system and a structure, but it only operates through the willingness of those involved, so to mentors and learners I extend my thanks and, of course, the expectation that it will continue unabated to the next accreditation."

## Cash boost for charities

AWE's two chosen charities for 2012 have each received a cheque for £10,400.

Every year, AWE picks a local and national charity to support. Last year, the company chose Children 1st West Berkshire, which provides a vital stepping stone for those leaving foster care. The Dame Kelly Holmes Legacy Trust was the national charity choice.

Children 1st West Berkshire, which is also known as Cornerstone after the name of the house where the young adults are based, aims to bridge the gap between officially leaving care and taking the daunting step of achieving independence and self-sufficiency.

Michele Maidment, secretary of AWE's Community Committee, said: "The work of both these charities is hugely important and has a massive impact on the lives of young people and their futures. We're delighted to be able to support them in this way."



AWE's James Tapper, Andrew Watkins, Phil Haycock, Paul Evans and Peter Morton present the cheque to Andy Lunnon, Katherine Childs and Laura Childs from the Dame Kelly Holmes Legacy Trust



St Bartholomew's students with AWE staff and their teacher Richard Costambeys, right

## Orion impresses students

AWE hosted a team of students from St Bartholomew's School in Newbury following their win in last year's A-Level Science Challenge.

St Bartholomew's prize included a tour of Orion, AWE's new laser facility.

John Ansell, AWE's schools liaison representative for the school, said: "The students really enjoyed the trip around

the Orion facility. They were impressed by its size and the amount of engineering required to support the scientific research."

Phil Powner, one of the organising graduate team, said: "We have a fantastic facility that will hopefully have inspired these students to pursue a career in science and technology."

# HSE 'content' with changes

AWE appeared at Reading Crown Court earlier this year and pleaded guilty to a single offence of the Health and Safety at Work etc Act 1974 – following a fire at AWE Aldermaston in August 2010.

After the hearing, AWE's director of science, technology and production Dr Graeme Nicholson said: "AWE always takes its health and safety responsibilities extremely seriously. We accept that on August 3, 2010, we did not meet our usually high standards.

"We regret the occurrence of the fire. We are sorry that a member of our staff was injured and for the disruption caused to local residents. The company immediately instigated a full, independently chaired investigation, the results of which we shared with our Local Liaison Committee and members of the public. We accepted all the recommendations.

"Over the last three years, we have worked hard to implement these recommendations and those made by the Health and Safety Executive. We are pleased that the HSE has acknowledged our commitment to addressing these issues and the improvements we have made. In respect of explosives safety, the HSE's overall assessment positions us as 'one of the best in the UK'.

"Lessons have been learned and we remain committed to achieving the highest

standards in safety performance. We will continue to work openly and collaboratively with all our regulators."

The company returned to court for sentencing on May 28 and received a fine of £200,000. It was also ordered to pay costs of £80,258 and £2,500 compensation to an employee.

In his summing up, Judge Richard Parkes QC said that there was strong mitigation in AWE's favour, namely the company's full co-operation with the investigation at all times, and its prompt and responsible remedial action.

He added: "That included the adoption and implementation of all recommendations made by the independent investigation and by the HSE, and the immediate suspension of the lacquer preparation process.

"In addition, it has conducted extensive research into development of an alternative process that would, it is hoped, reduce further the risks of electrostatic discharge by avoiding the use of dry NC.

"It is right to add that HSE is content with the improvements which AWE has made, and accept that the company is now one of the best in class as far as its response to specific actions is concerned. HSE now assesses AWE overall as among the best in the UK in terms of health and safety procedures."

## Site visit 'inspirational'

Pupils who have benefited from AWE's long-established mentoring scheme increased their knowledge of engineering during a visit to the Aldermaston site.

During the visit, Year 10 students at The Costello School in Basingstoke watched a slide and DVD presentation from knowledge engineer Ken Sherratt on the history of the UK's nuclear deterrent.

AWE's head of engineering (product) Dave Murray then welcomed them and spoke about his time at AWE, where he began as an engineering apprentice.

Dave said: "I was pleased to be asked to act as senior sponsor for the visit and to meet the students.

"It is encouraging to see there are still many youngsters who are interested in a career in engineering or science. I also acknowledge the excellent work by the AWE mentors who put in much of their own time to help such students throughout the local area."

Liz Merrin, the school's senior science technician, said: "It was an inspirational day for tomorrow's potential engineers, listening to the history of previous discoveries. It was an excellent introduction to what careers are available to these young people."

The students were given a guided tour of the educational collection during which they were introduced to managing director Andrew Jupp and shown the latest laser scanning and digitising technology.

The whole group saw themselves scanned and that image replicated as a 3-D digital model.

Helen Auld, AWE schools mentoring scheme co-ordinator, said: "It was fantastic to be able to share our educational collection with these students.

"We have been mentoring GCSE students there for over five years and this close link has benefited both the students and the volunteers from AWE who have taken part."



The students visiting the educational collection



More than 90 schools are involved in AWE's Schools Liaison Scheme which aims to promote science and engineering. Here's the latest news about three successful events...

# Science event inspires Costello pupils to win

More than 80 pupils aged between 11 and 13 attended AWE's Secrets of Science event at Tadley Community Centre.

The day, which showcased physics and chemistry demonstrations, was designed to encourage young people who enjoy maths, engineering and science to consider taking these subjects further, and to engage their interest in a practical way.

It involved a range of activities that made the pupils aware of how interesting science and a career in related disciplines can be. It supported the national curriculum, with the chance to win a prize at the end of a competition which was run concurrently.

The pupils were thoroughly impressed with the demonstration of wave physics, using a 1.5-metre gas burner called a Rubens' tube to make flame waveforms. There was also a seismology activity and the chance to make a mini volcano or a lava lamp at the chemistry stand.

Matt Childs, one of the AWE graduates who organised the event, said: "It was fantastic to see the pupils interact with the wide range of science demonstrations and appreciate that science can be fascinating.

"I hope that events like this inspire the next generation of scientists and engineers."

Zoe Lambden, from AWE's Skills Academy, gave a talk on engineering, before moving on to the challenge called the "egg drop".

She said: "We split the group into two teams of five and briefed them on what we wanted for the end product – a device capable of catching an egg from a set height without it breaking or even cracking. We gave the students a bag of set materials which included



Dr Alex Nipress gives pupils from The Costello School an introduction to seismology

cotton wool, tissue paper, A4 paper, lollipop sticks and a glove.

"Each group had a different idea and throughout the day we were very impressed with some of the engineering designs that were used."

Professor Andrew Randewich, head of plasma physics at AWE, said: "I was very impressed with the level of interaction between the schools and the presenters. Many of the questions asked were pertinent and thought-provoking, and the enjoyment and enthusiasm of everyone at the event was very clear to see.

"We hope the event has helped to inspire a new generation of scientists and engineers who may one day come to work at AWE,

perhaps even on the Orion laser, or with our collaborators in industry or the wider academic world."

During the day, the groups were scored based on their participation and ability to answer questions put to them at each demonstration stand.

The overall winners were from The Costello School in Basingstoke. They received a cheque for £300 – they also won the best overall team prize. In second place was The Hurst Community College, Tadley, with a cheque for £200, and in third place, with a £100 cheque, was Kendrick School, from Reading. The other school which took part in the event was Bishop Challoner Secondary School, Basingstoke.



Apprentices from AWE's Skills Academy run through the "egg drop" challenge, as eager pupils look on



Kendrick School receives its cheque from AWE's Schools Liaison chairwoman Philippa Kent, left



St Joseph's School deep in concentration

## Primary schools take water challenge

AWE has supported pupils from West Berkshire primary schools by sponsoring the Primary School Science Challenge.

Pupils from Curridge Primary School, Thatcham, Downsway Primary School and Long Lane Primary School, Tilehurst, and St Joseph's Catholic Primary School, Newbury, were visited by scientists who wowed them with fun experiments involving

marshmallows, lava lamps and volcanoes.

The events have been organised by the Education Business Partnership (EBPWB).

Following on from these visits, the students can take part in a science competition and work in teams to create their own experiments, based on the theme of water. They will also create step-by-step guides in order to explain how

their experiments work, and what they demonstrate. School staff will select two teams as finalists and they will be judged by AWE scientists.

Anna Jarratt from St Joseph's Primary School said: "All our children were inspired by their morning with the AWE scientists.

"It has stimulated the children's curiosity to know more."

## Egg task is cracked

Schools from Berkshire and Hampshire put their design and engineering skills to the test when they competed in AWE's Girls Engineering Challenge.

The theme of the event, which aims to encourage girls to consider engineering as a future career, was Easter.

A team of AWE's apprentices put together the three tasks – to build a device to catch an Easter egg safely; to build a tower to hold the eggs; and to construct a marble run. Advice and help were available from the AWE Skills Academy apprentices and staff.

The event, for 12 to 13-year-olds, demonstrated the importance of teamwork, material selection and planning – all vital aspects of a career in engineering or science.

AWE's Samantha McRae,

a second year mechanical maintenance apprentice, and one of the event's team leaders, said: "The day was very successful and the whole team really enjoyed it.

"From the smiles I could see on the girls' faces, they enjoyed the experience, too. It was amazing to see the ideas the girls came up with and how well they worked together."

The winning team came from Kendrick School, in Reading. It received a £300 cheque as well as vouchers and a prize shield. The runner-up was The Vyne Community School, Basingstoke.

The other schools which took were: Aldworth Science College, Basingstoke; Trinity School, Newbury; The Costello School, Basingstoke; Denefield School, Reading; and Bishop Challoner RC School, Basingstoke.



Above: The winning team from Kendrick School with one of their devices



Left: The team from Aldworth Science College



# Global think tank debates the future

The future of nuclear policy at home and abroad was debated at the third AWE-sponsored annual Project On Nuclear Issues (UK PONI) Conference.

The event, at the Royal United Services Institute in London, combined fresh perspectives with insights and experiences from established experts to explore the future of nuclear policy.

The conference attracts representatives from across the nuclear community, including the UK government, industry and academia, as well as international delegates.

AWE managing director Andrew Jupp said: "The aims of UK PONI are truly great and significant, going from strength to strength in such a short space of time."

"I am committed to making this event even more successful in the future."

"The presentations and contributions by the AWE team were first class and demonstrated the excellent work undertaken by our people."

Richard White, a member of the PONI management board, said: "I am delighted that such a wide-ranging and growing PONI community has debated the key issues that face the UK nuclear deterrent. The future of the project is very exciting."

The former secretary-general of NATO, Lord George Robertson, delivered a keynote address.

## Meters go out on loan to school

Staff and students at The Vyne Community School were given a demonstration in the use of radiation monitoring by AWE experts.

A radiological team visited the school in Basingstoke to train the science department in the use of radiation monitoring equipment.

The visit was arranged following an approach to the Schools Liaison representative Bruce Newlands.

Bruce said: "We were delighted to be able to give this support. I was asked if we would be able to help repair some old radiological equipment that the school had but, unfortunately, it was beyond economical repair and there were safer options available."

"So I then asked if it would be possible, through schools liaison, to purchase new like-for-like replacements and, although that wasn't possible, we are delighted to be able to loan two thermo scientific ratemeters."

In return, the school has donated its old radiological



Bruce Newlands, left, with Vyne Community School science technician Kevin Farr and AWE colleague Michael Trinder

equipment to AWE for possible inclusion in our educational collection, on site at AWE Aldermaston.

Philippa Kent, chairwoman of Schools Liaison, said:

"We were delighted to be able to help. AWE prides itself on working with local schools and colleges to encourage interest in science, engineering and technology."

## Gift will fund centre trikes

AWE's Community Committee donated £1,000 to a hospital centre which brings together specialist medics who help children overcome development problems or a complex illness.

The Dingley Specialist Children's Centre, attached to the Royal Berkshire Hospital in Reading, was nominated by AWE's Debbie Pink after it helped her granddaughter Isla Phillips. Isla is now two, but was first referred to Dingley when she was six months old.

Debbie said: "We have been grateful for the support and care she has received from Dr Sarah Hughes and her team. Sessions are always handled with patience and fun and, most importantly, there is lots of reassurance and support for us which, in turn, has given us confidence to help Isla at home."

Lynn Taylor, from the Reading and District Hospitals Charity, said: "The donation from AWE will enable the charity to purchase custom-built tricycles for needy children."



Two-year-old Isla Phillips, left, with grandmother Debbie Pink, physiotherapist Christina Calderon and consultant paediatrician Dr Sarah Hughes



AWE staff with some of the donated bras

## Bravo... support campaign is a winner

In some countries, wearing a bra can help women avoid a potential assault.

This is one of the reasons why AWE donated nearly 2,000 bras to the Bag a Bra campaign, which raises funds for the Hampshire and Isle of Wight Air Ambulance.

Most of the donated bras are shipped to West Africa for resale at affordable prices by street traders. Women there

wear bras outside their clothing as a mark of prestige. It shows they have money and are protected by their husband or a relative, and means they are less likely to be assaulted, especially in refugee camps.

June Leatham, community and corporate fundraiser for the air ambulance service, said: "We are really impressed with this incredible result from AWE. Our thanks go to everyone who kindly donated."

Michele Maidment, secretary of AWE's Community Committee, said: "This is an unusual but worthwhile cause, and we had no idea how much support we would generate for it. We were overwhelmed by the response from women across our sites."

Since the Bag a Bra day was launched in 2010, more than 110,000 bras have been donated.

# Cash rolls in for skate park

Skateboarders in Tadley have been given a boost with a £250 donation from AWE.

The money will be used to help renovate Thatcham skate park after it was nominated for a donation by AWE employee Thomas Evans, a keen skateboarder.

"I just wanted people to still have the chance to enjoy it as much as I have since it was built in 2005," said Thomas.

The existing skate park is around eight years old and made of wood. Weather conditions and heavy continued usage over the years has taken its toll and the wood is now rotting.

Paula McAuley, from the Thatcham Skate Park User Group, said the group was formed in July 2011 with the aim of rejuvenating the area. With additional help from Empowering West Berkshire, a proposal was submitted to Thatcham Town Council which agreed to provide £6,250 towards the refurbishment in October 2011. Since then the group has raised around £40,000.

Paula said: "Our goal is simple. We want



AWE's Sharon Vasic, third left, at the skate park with, left to right, Cllr Brian Barnes, Sharon Briggs, Cllr Sheila Ellison, Paula McAuley and Thomas Evans

to provide a safe skate park in Thatcham with access for all users regardless of their age, ability or preferred sport."

Sharon Briggs, from Empowering West Berkshire – which supports the voluntary,

community and charity sector in West Berkshire – said: "I am proud of how the group has worked together to achieve its goal of a new skate park. We want to thank AWE for its support in donating £250."



## Riding charity is given a cash boost

AWE has given a welcome boost to a local charity which helps disabled people learn to ride.

AWE's Community Committee presented £5,000 to Wellington and Dummer Riding for the Disabled, which has been used to buy new horse Domino and some extra equipment.

The group aims to provide therapy, success and enjoyment through horses and ponies for children and adults with a range of physical disabilities and learning difficulties. The group runs various sessions at Wellington Riding and at Dummer.

The charity was recommended to the community committee by AWE computational physicist Amy Sycha.

Amy said: "After going to see the Paralympics' dressage events last summer, I realised riding could be an activity that would suit my disability. I am hoping that, as well as being excellent physiotherapy, it will give me a freedom I've not experienced in many years since becoming disabled."

Each year, AWE staff are asked to nominate a good cause to receive this large donation – the company had more than 30 submissions.



AWE's Debbie Pink and Rachel Humphreys with stamps for Naomi House

## First-class delivery!

AWE has helped a popular local charity with an additional donation of several supermarket carrier bags of stamps.

Naomi House, based near Winchester, gives support to children and young adults with life-limiting conditions. The stamps are being collected by the charity so they can be sold on by the kilo to collectors hoping to find rare stamps.

The charity provides respite breaks, emergency support, hospice at home care and family support free of charge to local families.

Michele Maidment, secretary of AWE's Community Committee, said: "Naomi House is a worthwhile cause and close to the hearts of many of our staff."



AWE's Amy Sycha presents the cheque to Kirstie Stevens

# Family effort aids lodge

**Residents at** SeeAbility's Fir Tree Lodge in Tadley received a £1,000 donation from AWE – thanks to firefighter Nicola Dalton and her mother Ann-Marie.

Nicola has volunteered for almost two years at Fir Tree Lodge, while Ann-Marie – an external member of AWE's Community Committee – nominated the charity for the cash award.

Fir Tree Lodge, opened in 2007, provides specialist services for up to six people with sight loss and complex disabilities.

Nicola, who helps residents to sail in the spring and summer and also takes a young resident out one evening a week, said: "I am

so glad to know that this donation will make a difference and I look forward to hearing how residents decide to use it."

Karen Hebdon from SeeAbility said: "We are delighted to have been selected by AWE's Community Committee for this wonderful donation. The hours that Nicola spends with the people we support enriches their lives immeasurably."

Michele Maidment, secretary of AWE's Community Committee, said: "We are thoroughly impressed with the dedication and commitment Nicola gives to the charity so regularly. This shows that the donation of someone's time and practical help means

just as much to a charity as the donation of much-needed funds."



Nicola Dalton and her mother Ann-Marie, right, present the cheque to Karen Hebdon