



the newsletter for AWE's neighbours

# Connect



AWE has its own fire and rescue service

## Emergency experts ready to deal with any situation

In addition to its role in supporting UK national counter-terrorism and nuclear defence, AWE also has a 24/7 capability for incident response across its two main sites at Aldermaston and Burghfield.

AWE has its own fire and rescue service and medical response team at both sites, working with the Ministry of Defence Police. These are ready to respond to any incident on site, ranging

from someone feeling unwell in the workplace to a potential severe weather event.

A dedicated team of emergency response planners work with other AWE teams such as the site operations and facilities management teams as well as external agencies, including regulators, the Office for Nuclear Regulation and the Environment Agency, local authorities, government and civil emergency services,

to make sure resources are available for any eventuality.

Planning like this means AWE can also support its business requirements, shift management and specialist functions, while maintaining an overview of the availability of support services and resources and carry out any actions necessary to minimise the impact of events occurring off-site.

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## WELCOME TO THE AUTUMN EDITION OF **CONNECT**, WE HOPE IT FINDS YOU IN GOOD HEALTH.

This issue highlights how we've been busy, both inside AWE and outside in the wider community.

The lifting of Covid restrictions has allowed us to better resume our face-to-face work with local students, schools and education business partners. You can read on pages 6 and 7 about some of the inspiring activities we've been involved in to stimulate and educate the next generation of innovators.

AWE staff have also been reaching out to the community with our new volunteering approach, which aims to give something back to local charities and community projects.

Some really exciting projects and research have seen our experts working with a range

of academia, research institutions and industry. Such developments are essential in knowledge sharing and promoting best practice. You can read more about this innovation on pages 10 and 11.

If you want to be part of our exciting mission, then there's never been a better time to start working at AWE. We offer a range of opportunities – from those starting out in their first role, to others switching career or looking for that next challenge.

All our latest vacancies can be found on our website [www.awe.co.uk](http://www.awe.co.uk) and you can read about what's on offer on page 5.

As always, we welcome feedback on this issue and suggestions for future editions – contact us at [communityandschools@awe.co.uk](mailto:communityandschools@awe.co.uk)

**The Editor**

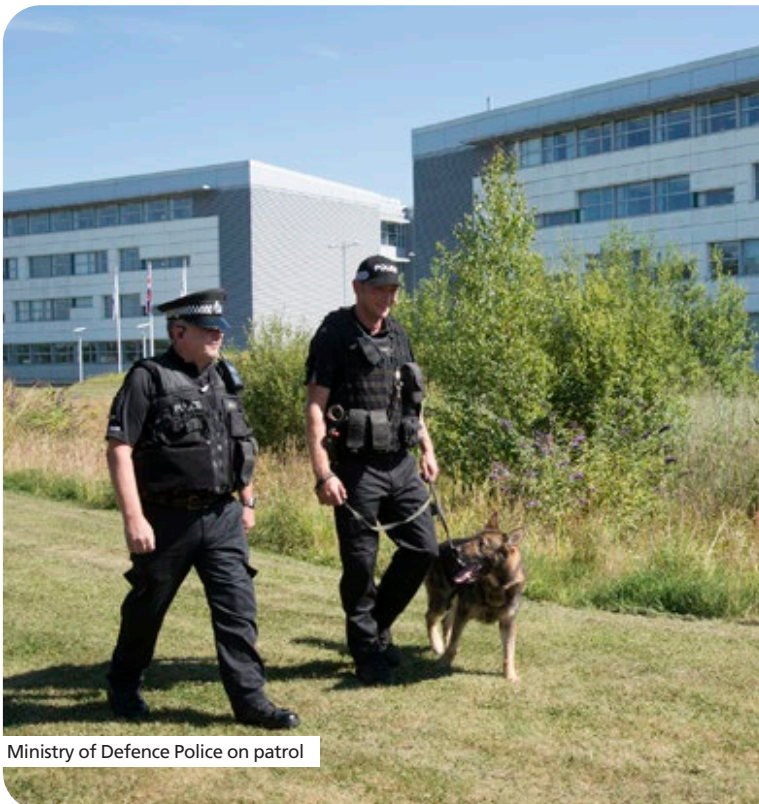
## CONTINUED FROM P1

Part of this work includes regular training, including site exercises, which use test scenarios to put equipment and people through their paces. These are fast-paced and

demanding and require the same level of response as if the event was happening for real.

With Aldermaston covering around 303 hectares and Burghfield 91 hectares, and

with approximately 6,000 employees, it is reassuring to know that experts are on duty at all times, ready and willing to deal with any situation that crops up.



Ministry of Defence Police on patrol

Like all nuclear-licensed sites, AWE is subject to the Radiation (Emergency Preparedness and Public Information) Regulations 2019 (known as REPPiR). Every AWE facility has measures in place to prevent a radiation emergency taking place and rigorous emergency response procedures which are exercised regularly.

West Berkshire Council and AWE have developed a public information booklet that tells you what to do in the unlikely event of an emergency at the AWE Aldermaston or Burghfield sites.

The REPPiR booklet can be found online at West Berkshire Council's website [westberks.gov.uk/awe](http://westberks.gov.uk/awe) as well as the AWE website at [www.awe.co.uk](http://www.awe.co.uk). Details can also be found on emergency planning zones and the alerts and actions regarding an emergency.

# Delivering in a sustainable way

Earlier this year, AWE published a report highlighting its commitment to issues of Environmental, Social and Governance (ESG) and delivering its core mission in a responsible and sustainable way.

The report covers many core ESG topics including protecting the environment, safety and security, employee wellbeing, governance processes, diversity and inclusion, suppliers and communities, and safeguarding the future of science, technology, engineering and mathematics (STEM).

Since publishing its first



Andy Scargill

*Responsible Business* report in 2020, AWE has established targets in alignment with the Ministry of Defence's Climate Change and Sustainability Strategic Approach.

You can read the full ESG report and more on our approach and targets at [www.awe.co.uk/responsible-business/](http://www.awe.co.uk/responsible-business/)

*"Our ESG goals present challenges, but we are focused on setting ambitious targets and creating a rigorous roadmap to support our journey."*

**Andy Scargill**  
Executive Director Liabilities

## Covenant promise to armed forces leavers

It was a proud moment for AWE when, during Armed Forces Week, our CEO Alison Atkinson signed the Armed Forces Covenant as a promise to support forces leavers in our business.

The signing was supported by Navy Director Submarines Rear Admiral Simon Asquith and the Director General of the Defence Nuclear Organisation, Vanessa Nicholls.

The covenant is a pledge to make sure that those in the armed forces community are treated fairly in the society they serve, and their skills and abilities recognised.

Alison says: "We will continue to strive to make our workplace one of the most supportive available to veterans, reservists and their families and our commitment is to further advance and expand this activity to make sure forces leavers are encouraged to continue to develop and thrive within AWE."



Alison Atkinson, right, signing the covenant with Vanessa Nicholls and Rear Admiral Simon Asquith



### REMEMBERING HER MAJESTY THE QUEEN

Everyone at AWE was saddened by the death of HM Queen Elizabeth II. In common with all public bodies, we observed 10 days of National Mourning – during which time the flags on our sites were lowered to half-mast. We also reflected on the time she visited AWE in 1979. Here, Her Majesty is pictured at our HELEN laser facility during the visit.



# Graduates finally get together

Our graduate community celebrated the easing of Covid restrictions with a fun-filled day.

Joining AWE during lockdown presented our new graduate cohort with additional challenges, particularly in terms of being able to meet face-to-face and fully network.

Once restrictions were lifted, a group of graduates set about organising a day of team-building, along with mental and physical challenges, covering everything from welly wanging to problem solving.



Graduates organised a day of team-building



Both former apprentices, Steve Bowles, left, and his dad Rodney. Steve's son Harrison is now also an apprentice

## Former apprentices enjoy return trip

In the last edition of *Connect*, we highlighted the 70th anniversary of our Apprentice Academy.

As part of the celebrations, some of our former apprentices came back to visit. Most of them were apprentices during the 1950s, with some even from our second intake in 1953.

During their visit, they walked round our anniversary timeline display – which showcases the scheme's history – met current apprentices, toured the workshops and, after lunch, saw our historical collection.



Instructor Andy Salter welcoming former apprentices to the workshop



Ron Gammon next to an archive photograph of him back in his apprentice days

# Reveal your potential...

If you're thinking about an apprenticeship or graduate programme, then now is the time to get your application in at AWE! Find out how you can join us at [www.awe.co.uk/careers/future-careers/](http://www.awe.co.uk/careers/future-careers/)

## Apprenticeships

Our award-winning Skills Academy offers a wide range of career paths, whether it's engineering, science or one of our business functions. It's a great way of getting paid to learn, plus you don't incur any student debts. You could even apply for a degree apprenticeship like Liam (see below).

## Evolve – graduate programme

Our Evolve programme offers graduates the opportunity to be part of something a little bit special. We're looking to develop the best talent to support the critical skills we need now and in the future. If you're looking for an exciting role in engineering, science or corporate & operations, then we want to hear from you.

## First-class Liam celebrates his degree

Liam Jones, who was AWE's first degree apprentice in 2018, has graduated with first class honours.

Liam spent four years studying for a BSc in nuclear engineering, combining his work at AWE's Apprentice Academy with placements and time at the National College for Nuclear in Somerset.

This career path allows students to achieve a degree without tuition fees and build their skills and knowledge through AWE's award-winning apprenticeship scheme.



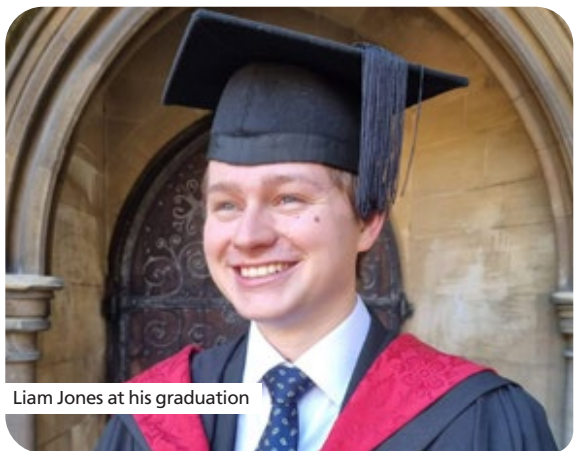
*"We turn metal and non-metal items into cool new projects. Someone ideal for an apprenticeship is anyone with a willingness to get stuck in and problem solve."*

**Ben, Precision Machinist Apprentice**



*"Coming in and being exposed to all these different areas, as someone who's just come out of uni, is a great way to get into the industry."*

**Prasha, Graduate**



Liam Jones at his graduation

Whatever stage you're at in your career, we're always on the lookout for talented and enthusiastic people to join AWE. We offer a great benefits package and an environment where people can learn, grow and contribute to the unique services and products that form our mission. For more details of what's on offer and how to apply, check out our career pages at [www.awe.co.uk/careers](http://www.awe.co.uk/careers)



Inspiring the next generation remains a key focus of AWE and by showing how much fun and creativity science, technology, engineering and mathematics (STEM) offers, we hope to encourage more students to consider STEM as a career and become the designers and innovators of the future. This year's outreach work with local schools and students has already seen plenty of STEM activities...



Tadley Primary School

## Primary schools rise to eco-friendly recycling challenge

Local students displayed their innovative streak as part of this year's AWE Primary Science Challenge, which saw them design and build their dream eco-friendly home made from recycled items.

After sifting through the impressive entries, our STEM

Ambassador judges decided the Hampshire winners and runners-up were from Burnham Copse Primary School in Tadley.

For West Berkshire, the winners were from Woolhampton Primary School, with Brimpton Primary School the runners-up.

The Challenge also saw interactive workshops for more than 300 local students with fun activities – including making wind-powered model cars and understanding carbon footprints – all aligned to the World Environment Day theme of 'Only One Earth'.



Challenge winners Woolhampton School



Southfield School



St Mary's School



St Nicholas CE Primary School



STEM Ambassadors with the Spheros maze at TeenTech

## Spheros the star of the show at high-tech festival

A tech-tastic time was had at this year's TeenTech with it proving as popular as ever, with 300 participating students from across Hampshire.

AWE was among 24 high-tech employers at the event, encouraging young people to consider STEM subjects and careers.

This year, our STEM Ambassadors were on hand to help students with venturing into virtual reality (VR) and programming Spheros (small rolling robots). The 12-14 years olds tackled simple tasks wearing headsets in a VR environment and used coding to control the Spheros around a maze

in the Challenge Zone.

The fun and interactive event focused on inspiring young people about STEM industries and challenging career stereotypes, with hosting from TeenTech founder, Maggie Philbin OBE, along with TV science presenter Dallas Campbell.

## STEM Ambassadors key to outreach work

Essential to our outreach work are our STEM Ambassadors who work with local students and schools to help inspire young minds and showcase the exciting world of STEM and the opportunities it can bring.

Two of our Ambassadors, Josie Coltman and Aaron Simpson, attended a STEM Day at Collingwood College in Camberley to raise awareness of STEM career pathways.

To help stimulate the students' curiosity, the AWE stand offered plenty of activities, including the ThinkFun Laser Maze game and the Expert challenges.

"It was great to meet the young people and see their enthusiasm and enjoyment in finding out more

about STEM and the options open to them," says Josie. "Events such as these allow us to reach out to students and attract future talent."



The AWE stand at Collingwood College



## Staff happy to 'give something back'

Since becoming a non-departmental public body (NDPB) in 2021, we've changed how we use public money to support charities.

We no longer have a charity fund but, following internal consultation, have introduced a new scheme offering our staff the opportunity to 'give something back' to the local community.

As charities and community projects are always seeking support, we've introduced a Time to Give scheme that, subject to approval, allows staff an agreed number of paid hours off for volunteering during work time.

This not only benefits the community, but allows staff to use their skills to make a difference and boost their wellbeing.

The scheme has proved popular and already seen staff supporting a wide range of community projects and charities.

## GIVING GIRLGUIDING A BOOST

A team of AWE volunteers helped with the removal of dated equipment at Thirtover Place, West Berkshire, which supports the charity Girlguiding.

The session proved a great team-building experience, with the equipment clearance helping to pave the way for the installation of a new adventure playground for young people to enjoy.

AWE volunteer Laura said: "I had a great time and really enjoyed working with everyone to do something useful."

Kim Prior of Thirtover Place, Girlguiding Royal Berkshire, said: "The volunteers were fantastic to work with – they were keen to get stuck in and worked well together as a team to navigate through a few difficulties.

"Their efforts mean we've completed work we've wanted to get to for a good couple of years and we're delighted with the results."



## Liaison committee is crucial local forum

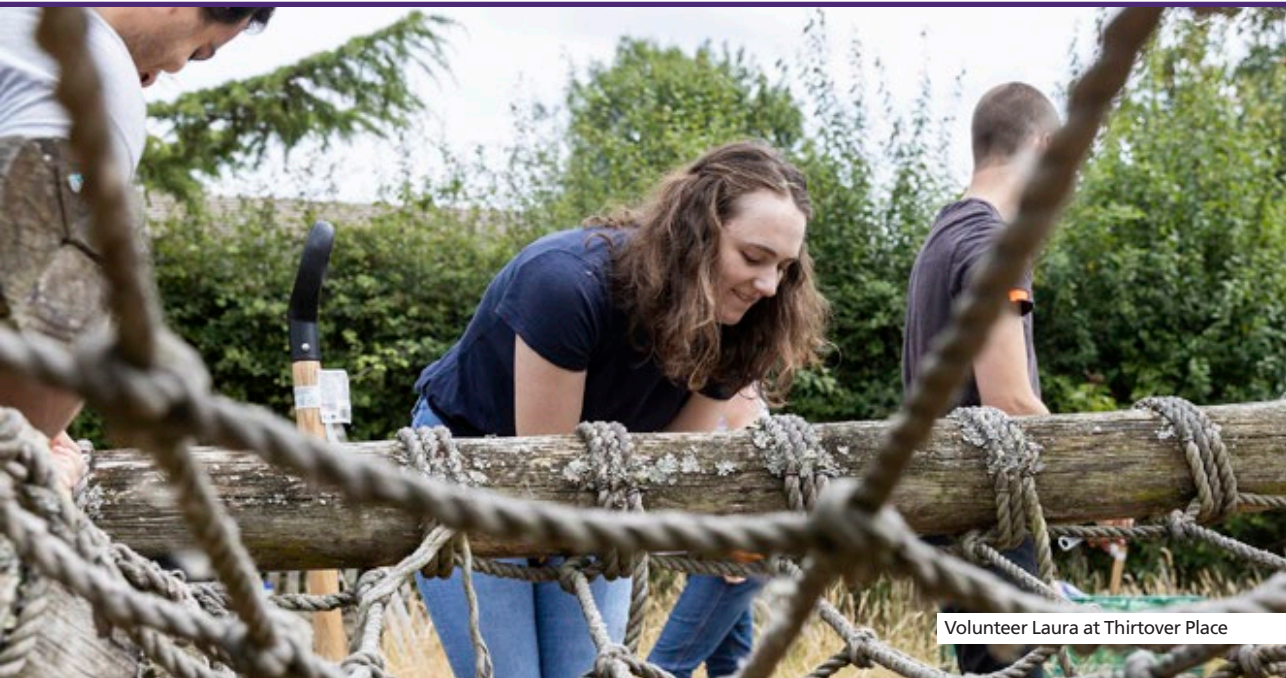
During the pandemic, our Local Liaison Committee (LLC) met online for discussions on relevant topics, making sure it continues as a forum for discussing, informing and listening to ideas and issues from the local community.

Once Covid restrictions were lifted, they had the opportunity to tour our Aldermaston site, visiting

our educational collection and meeting apprentices at our Skills Academy. This was particularly relevant due to it being the Academy's 70th anniversary.

More information on the role, membership and work of the LLC can be found online at [www.awe.co.uk/responsible-business/our-community/](http://www.awe.co.uk/responsible-business/our-community/)





Volunteer Laura at Thirtover Place



Jenny Boxwell, right, presenting the AWE cheque to, left, Jo Hilton, Lead Sister (Paediatrics and Neonatal), and Liz Josif, BIBS Fundraising Manager

## Baby group boosted by donation

AWE staff chose a local charity that supports babies and their families as the recipient of a £5,000 donation – from the remainder of our Charity Fund. BIBS (Babies in Buscot Support) gives support to families in the special care baby unit at the Royal Berkshire Hospital in Reading.

BIBS raises funds to support families with babies that are either premature or full-term but ill, staying in the hospital's Buscot

Ward. The charity provides emotional support via counselling, specialist equipment and family facilities, in addition to raising awareness of issues faced by those in the unit.

AWE staff could nominate local charities or good causes close to their heart and Dr Jenny Boxwell, Senior Project Manager, put forward BIBS due to the support the charity provided after she gave birth.

## Charity partner leads Makaton language sessions

Our staff were given the chance to understand and learn more about Makaton, a language that uses signs together with speech and symbols.

The session was organised by our N-Able-D working group, and headed up by Vicki, a horticultural therapist from Thrive, our charity partner. At this

gardening for health charity, Makaton is often used to communicate with some of Thrive's clients with communication or learning difficulties.

At the AWE session, Vicki taught

staff some simple Makaton words and phrases.

Currently, more than 100,000 children and adults in the UK use Makaton symbols and signs, either as their main method of communication or as a way to support speech.

As a large employer, we are committed to mainstreaming equity, diversity and inclusion in all aspects of our work. Our N-Able-D working group is one of a number of internal AWE groups focused on making sure the needs of different communities are heard and addressed.



**MORE COMMUNITY STORIES ON PAGE 10**

## Gardening therapy continues to blossom

Over the last few years, AWE has supported local gardening for health charity, Thrive, as its charity partner. Based just outside Reading, the charity uses gardening and plants to support its clients' health and wellbeing.

While our status as an NDPB has seen changes to how we support charities, AWE staff have continued to support the on-going partnership with Thrive and its invaluable work through individual fundraising or volunteering.



Thrive client Rebecca

## Teams celebrate top-five finishes

AWE was one of a number of companies competing in the 2022 UK Challenge.

Our teams travelled to the Isle of Man to run, cycle and kayak over some of the most beautiful, yet challenging, terrain that the island has to offer, with two of our teams making it into the overall top five.

The UK Challenge presented not only a great opportunity for team-building but also raised funds for its chosen charity, Invictus Games. Following the event, AWE's team raised nearly £800 through individual sponsorship.



One of AWE's teams crosses the finish line

AWE has a long and rich history of collaborating with others to mutually benefit our mission of supporting defence and national security. Combining our expertise with others continues to push the boundaries of research and innovation. Here, we feature some recent examples...

## Giant x-ray's big impact

A landmark commissioning project took place when AWE collaborated with the world's largest x-ray laser, the European XFEL (X-Ray Free-Electron Laser Facility) to investigate how materials respond to extremely high pressures.

At this advanced light source, researchers used an optical laser to aim shock waves, 30 million times atmospheric pressure, to learn more about materials and the inner workings of our universe by recreating extreme environments, like those at the centre of giant planets, here on Earth.

IMAGE: EUROPEAN XFEL / JAN HOSAN



The European XFEL (X-Ray Free-Electron Laser Facility)





The Orion laser facility

## Laser technology can benefit the wider industry

Patenting technology is a good way of sharing research from AWE so the wider industry can benefit from its potential through licences.

AWE Physicists David Hillier and David Winter were granted a patent for a technology they originally developed for the Orion laser facility to help it accurately measure signals from a range of beamlines.

The ability to measure signals across a high dynamic range is a problem for many other industries

where signal strength can vary significantly.

When Hillier and Winter were developing this device for Orion, they realised it could be used to help other fields using laser technology.

This innovation presents an exciting step forward for industries such as telecommunications, remote sensing and connected autonomous vehicles, so a team is exploring how this technology could be used across different applications.

## Underwater eruption studied by scientists

AWE geophysicists David Green and Alex Nippres were among more than 70 scientists around the world who analysed the atmospheric response to the underwater eruption of the Hunga volcano in Tonga in January 2022.

A fascinating paper published in *Science* magazine focused on this undersea volcanic eruption – one of the most powerful recorded, with audible sound detected more than 10,000 kilometres from the source, and the largest recorded by modern technology.

Several types of acoustic wave occurred immediately after the eruption, some relatively short-lived while others lasted for days, including Lamb waves, which are associated with large-scale atmospheric explosions from volcanic eruptions and nuclear tests.

AWE Blacknest is home to AWE's Forensic Seismology team. Here, techniques are developed to distinguish seismic signals generated by underground nuclear explosions from those generated by earthquakes. The article can be viewed at [www.science.org](http://www.science.org).



The front cover of *Science* magazine featured a spectacular photograph of the underwater Hunga volcano erupting



Amanda McKay

# 50-year Pride milestone marked with marches

June marked 50 years since the launch of the national Pride campaign. AWE marked this milestone with a series of events.

Our supporters were among the thousands who took part in the 2022 Pride in London Parade, with AWE people from across the business joining marchers from the defence sector. Locally, we joined in the celebrations at Reading Pride in September.



Our Quality Director Amanda McKay was guest speaker during June's Pride month, sharing her personal and professional

experiences as a trans woman.

Amanda, an avid supporter of AWE Pride, gave a talk that included reflections on joining the business and about transitioning later in life.



AWE's stand at the Reading Pride event

## AWE's proud history of nuclear defence

It has now been more than a year since AWE became a non-departmental public body (NDPB), wholly owned by the Ministry of Defence (MOD).

AWE's purpose remains the same – to maintain our nuclear warheads and provide the nuclear deterrent to protect national and global security.

AWE's work also contributes significantly to keeping the country safe by supporting the UK in the area of nuclear threat reduction. Our expertise provides a unique contribution to the national security of the UK in defending against radiological and nuclear acts of terrorism.

For more than 70 years, AWE has been playing this crucial role in nuclear defence and the 2021 Integrated Review of Security, Defence, Development and Foreign Policy saw the government reaffirm that the UK's independent

nuclear deterrent will remain essential to our security for as long as the global security situation demands.

Aside from our contribution to national security, AWE supports jobs around the UK through both direct employment and its

procurement spending in the supply chain.

AWE also brings wider and longer-term benefits to the nation through its contribution to science – you can read about our innovation on pages 10-11, plus STEM outreach work on pages 6-7.



A Trident submarine



Your comments and suggestions on Connect are always welcome – please email them to [communityandschools@awe.co.uk](mailto:communityandschools@awe.co.uk)

