

News story: Drone rises to the challenge

The lightweight RISER drone uses lasers to self-navigate deep inside hazardous facilities where GPS signals cannot reach, and has already been used successfully at Sellafield.

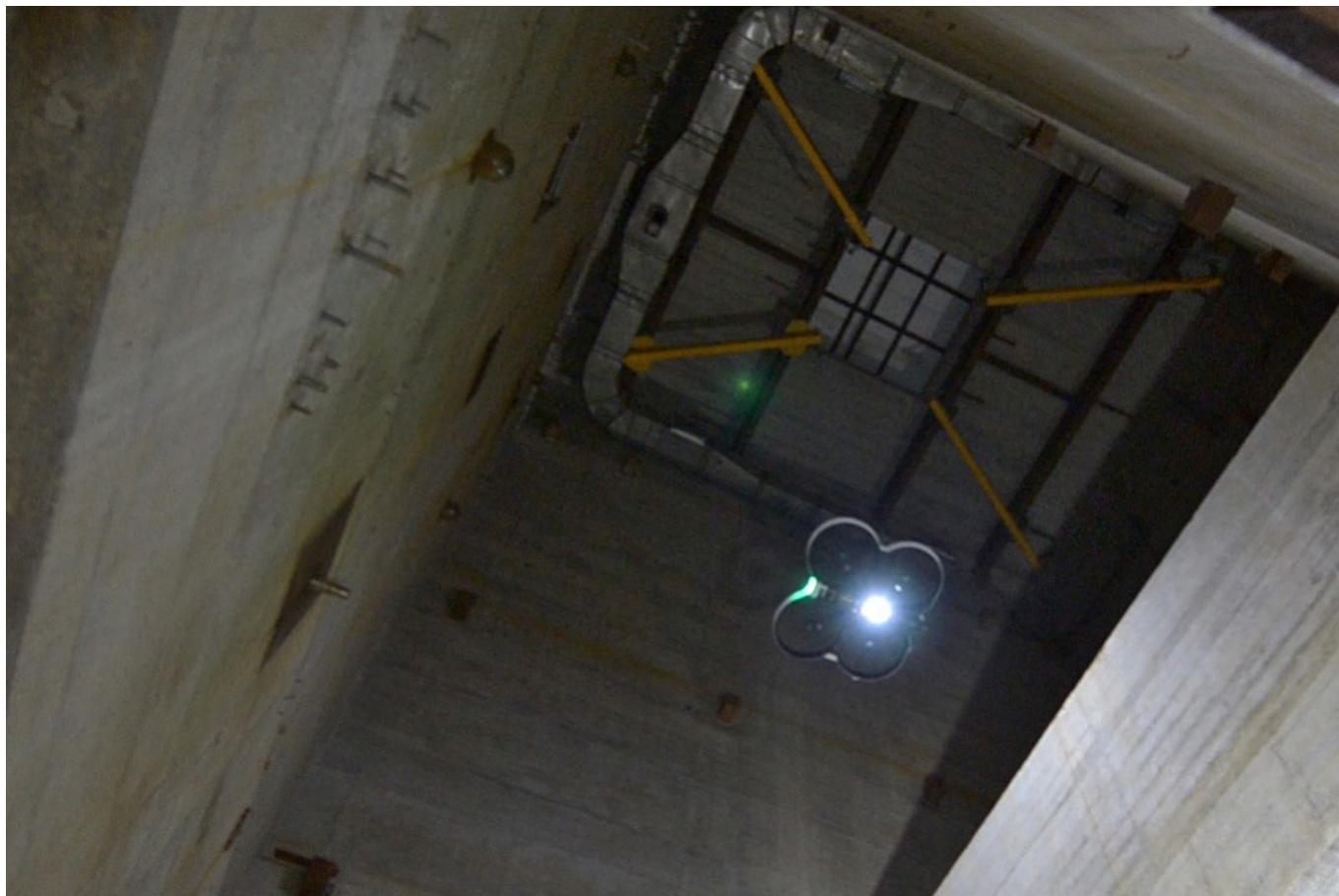
RISER carries a sophisticated radiation detection and mapping system which has been collecting vital information about conditions in the remaining Windscale Pile chimney. More than 60 years after the 1957 fire, the chimney remains highly contaminated.

Using remotely operated equipment is the only way to establish how the chimney can be cleaned out and finally dismantled.

RISER – Remote Intelligence Survey Equipment for Radiation – combines two separate pieces of cutting-edge technology: drones and radiation-mapping software. Each received Research and Development funding through the NDA and fellow government agency, Innovate UK.

In 2009, Createc's N-Visage™ radiation mapping software project was boosted during its critical early stages by a £50,000 investment from the NDA's R&D portfolio.

Three years later, the NDA joined other government organisations to invest further funds in a wide range of innovative nuclear projects. This led to the collaboration between Cockermouth-based Createc and aerial systems specialist Blue Bear, from Bedford. After a series of on-site trials at Sellafield, RISER was put into decommissioning action.



In action at Sellafield

The NDA's Head of Technology, Prof Melanie Brownridge, said:

We are thrilled to see RISER put to work in Japan, and delighted that our early-stage support for the N-Visage system enabled Createc to develop its potential further.

The subsequent collaboration with Blue Bear, again funded by the NDA through an initiative with Innovate UK, led to RISER. This shows the importance of funding innovative ideas through their journey from the drawing board to the market – not just for the NDA's decommissioning mission but for the wider UK and overseas economy.

The N-Visage™ tailor-made technology maps radiation with pinpoint accuracy, producing a high-definition 3D picture of contamination, quickly and safely. Developed and exhaustively tested over a number of years, it was first used inside one of the reactor buildings at Japan's Fukushima-Daiichi plant several years ago, and is now set to return, mounted on the drone. The system can be deployed through small openings, in tight spaces and high-dose environments. Dose to operators is reduced as the technology is remotely deployed.

The drone, or unmanned aerial vehicle (UAV), is less than one metre in diameter and navigates using its own internal 'collision avoidance' capability. Able to manoeuvre accurately inside complex industrial spaces,

data is transmitted to the mapping system and clearly displayed, highlighting areas of contamination.

Press release: Planting the seeds for a flood resilient future

A Sunderland school is more prepared for flooding after a rain garden planter was installed and the school's pupils created a flood plan as part of the Environment Agency's 'Flood Weeks'.

Community Engagement Officer Taryn Al-Mashgari helped the youngsters at Springwell Village Primary School develop a flood plan and 'grab bag' so they are prepared in the event of a flood.

And partners at Northumbrian Water installed a rain planter – which captures and stores rainfall from the school's roof – as part of its Rainwise initiative.

Youngsters at the school helped put flowers into the planter in an event on Friday 23 February and then 'tagged' the school with a flood warden logo designed by a pupil from Hetton Lyons Primary School.

This was done using Rainworks – an invisible spray which will only show the logo when it rains. It will remind pupils during key times to be aware of their flood resilience learning.

Initiative helps schools be prepared for flooding

A workshop held by the Environment Agency, Northumbrian Water and Northern Powergrid then also took place for parents and local councillors to see what the children have been learning and to see them demonstrate their newly-created flood plan.

It's part of an Environment Agency initiative to help schools across the North East be better prepared for flooding. Taryn works with children in all year groups to help them understand different types of flooding and how it happens.

They learn what to do before and during a flood, and what the flood warning symbols used by the Environment Agency mean. Taryn said:

It's important that younger people understand what flooding is, how it happens and what the different organisations that deal with flooding do.

We also teach them how to prepare for and what to do during a flood

in a series of interactive sessions where they design their own flood protection and describe how they would keep their favourite possessions safe.

It's absolutely devastating to be flooded and that's why we are working with schools and our partners to educate our future generations about what they can do to keep themselves and their valuables safe.



Spreading the word about managing rainfall

Northumbrian Water's Rainwise initiative aims to spread the word about how managing rainfall better can help increase capacity in the sewer network and encourages residents to make small changes around their homes and gardens.

Rain garden planters help reduce the risk of flooding by reducing the amount of water directly entering the sewer network, as well as slowing the amount of water that does.

Northumbrian Water's Project Manager, Chris Bond, said:

The Environment Agency's flood week gave us a real opportunity to work with the school to raise awareness of our Rainwise initiative and how it's important for families to manage rainfall better around their home to help reduce flood risk.

The planter captures rainwater from the roof of the school, which is then absorbed by the soil and plants and helps to take some of the pressure off our sewer network. It's been great working with the children to put in these plants, which builds their knowledge of flooding and creating new natural habitats.

For more information on Rainwise, visit [Northumbrian Water's website](#)

The Environment Agency is urging people to 'Prepare, Act, Survive' by visiting the [Floods Destroy website](#) and do three things to prepare for flooding.

- check your postcode and find out if you are at risk of flooding
- sign-up for free flood warnings if you are at risk
- view and save the 3-point flood plan so you know how to 'Prepare, Act, Survive' in a flood

News story: Devon dredging and disposal licence suspended

The MMO has suspended a marine licence for maintenance dredging of Exmouth Marina and disposal of related materials at the Sprey Point disposal site.

John Tuckett, Chief Executive Officer said:

"We are aware of concerns about Teignmouth beach and are working with other agencies to look into these.

"As a responsible marine manager we have taken a precautionary approach and suspended a marine licence for maintenance dredging of Exmouth Marina and disposal of related materials at the Sprey Point disposal site. This is until we are clear that materials found on Teignmouth beach are an aesthetic issue only.

"We are confident that an assessment carried out as part of the licence application process and in line with OSPAR guidelines, showed that the material is suitable for disposal at sea."

Further details about the marine licence are available on the [MMO's public register](#) (case reference MLA/2016/00372) and in a previous [update provided by the MMO](#).

Notice: TF9 3RZ, Mr. Michael Harrison: environmental permit issued

The Environment Agency publish permits that they issue under the Industrial Emissions Directive (IED).

This decision includes the permit and decision document for:

- Operator name: Mr. Michael Harrison
- Installation name: Vantage Farm Poultry Unit
- Permit number: EPR/AP3331CA

Notice: Y061 1TU, Allium Helmsley Ltd: environmental permit application advertisement

The Environment Agency consults the public on certain applications for waste operations, mining waste operations, installations, water discharge and groundwater activities. The arrangements are explained in its [Public Participation Statement](#)

These notices explain:

- what the application is about
- how you can view the application documents
- when you need to comment by

The Environment Agency will decide:

- whether to grant or refuse the application
- what conditions to include in the permit (if granted)