

# Decommissioning drones take to the sky

## **Challenge:**

To accelerate the uptake of Unmanned Aerial Vehicles (UAVs) across the NDA group

## **Solution:**

Review of UAV technology, legislation and existing experience across the NDA group; Development of community of UAVs users within nuclear decommissioning

Benefits	Safer, faster and potentially cheaper access to external and internal spaces for a wide range of functions. These include building inspections, radiation monitoring, photography, security
Status	Completed
R&D driver	Delivering innovation
Research organisations	Wood plc.

## **Details**

Drones range from delicate birdlike machines to heavy-duty models weighing more than 150 kg. While typically carrying cameras, they can deploy a huge array of different equipment that allows them to analyse and interact with the world around them. Flight mechanisms, navigational controls and power systems are equally varied.

Both fixed-wing or rotary blades are widely used, as well as self-navigating and pilot-controlled drones. New and improved power sources have also been developed that allow them to fly longer and carry heavier cargoes. Even shape-changing drones are being developed to allow them to fly in congested areas.

Future research will push the boundaries still further, driving down costs and extending the length and complexity of the flights they can undertake. For nuclear decommissioning, such versatility offers enormous potential to save time and costs associated with inspecting the facilities across NDA sites. Drones will also reduce risks for employees involved in activities such as working at height or inside highly radioactive buildings.

Across the NDA group, a variety of different drones have been flown to carry out a range of different tasks. They have inspected pipelines, tall chimneys, roofs and radioactive facilities. They have collected high-quality visual images, measured the temperature of vessels, found areas of radioactivity and accurately mapped legacy facilities. The information has eliminated working at heights and radiation dose to operators. Compared to traditional manual methods, there have been savings in both time and money.

A spherical in-flight drone

Production of the report brought together users to share their experience, hear about the latest developments in technology and legislation and identify further opportunities for the use of drones. The final report has also been used to highlight the use of drones to the wider NDA group. Demand for drones is growing every week as new groups recognise they can be used on nuclear sites and that they can solve their problems.

## **Further reading**

This case study is part of the [Direct Research Portfolio Report 2018 to 2019]

Also available is the previous [DRP Report 2017 to 2018](#)

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## **Facilitating nuisance calls lands Cambridge director with ban**

Gregory Francis Rudd (53) was the sole director of Keurboom Communications Limited. The company was incorporated in May 2014 and supplied wholesale, self-managed telecom solutions to the call centre market.

Between April 2015 and June 2016, however, the ICO received over 1,000 complaints from members of the public about nuisance calls.

Further enquiries by the ICO found that, between October 2014 and March 2016, up to 99.5 million automated marketing calls were made, through Keurboom's lines, to people who had not provided their consent.

The calls, made over an 18-month period between October 2014 and March 2016, related to a wide range of subjects including road traffic accident claims and PPI compensation. Some people received repeat calls, sometimes on the same day and during unsociable hours.

This is a breach of [Privacy and Electronic Communications regulations](#), which state that automated calls can only be made to persons who give prior consent to such a call from that specific caller.

The telecoms company could not provide information proving that people had consented to receive the calls, and in 2017, the ICO issued Keurboom a then-record £400,000 fine.

Following the ICO's Notice of Intention to issue the above penalty, Keurboom entered Creditors Voluntary Liquidation in March 2017, and the ICO referred

Gregory Rudd's conduct as director to the Insolvency Service.

On 12 December 2019, the Secretary of State accepted a disqualification undertaking from Gregory Rudd after he did not dispute that he failed to ensure Keurboom Communications complied with its responsibilities under PECR regulations.

Effective from 2 January 2020, he cannot, without the permission of the court, be involved in the formation, promotion or management of a company, directly or indirectly, for 6 years.

Mark Bruce, Chief Investigator for the Insolvency Service, said:

"This ban is a warning to other directors, who contribute to the scourge that is nuisance calls, that there are severe repercussions for such behaviour.

I would like to thank my colleagues at the Information Commissioners Office for their hard work and co-operation in achieving this outcome."

This ban follows two other recent disqualifications secured for breaches of Privacy and Electronic Communications Regulations as a result of collaboration between the Insolvency Service and ICO.

In late September, [Charlotte McKeever of Advanced VOIP Solutions](#) received a 7-year ban, and in December, [Jason Gambling of The Legend Alliance Ltd](#) also began a 7 year disqualification.

Gregory Francis Rudd is of Cambridge and his date of birth is in February 1966.

Keurboom Communications Limited (09030006).

Mr Rudd signed a Disqualification Undertaking for 6 years on 2 December 2019, which comes into effect on 2 January 2020.

Solely for the purposes consequential to the giving of a disqualification undertaking, he did not dispute the following:

- I failed, from 1 October 2014 to 31 March 2016, to ensure that Keurboom Communications Limited ("Keurboom") complied with its responsibilities under the Privacy and Electronic Communications (EC Directive) Regulations 2003 ("PECR"):
- From October 2014 to March 2016, Keurboom permitted (as a subscriber) its lines to be used to send up to 99,535,654 (91,497,411 after 6 April 2015) automated marketing calls to subscribers without their prior consent, in breach of Regulations 19(3) PECR.
- Between 29 April 2015 and 7 June 2016, the Information Commissioner's Office ("ICO") received 1,036 complaints. The ICO's enquiries revealed that the telephone numbers, which were the subject of complaints, were

allocated to Keurboom, and that it had accepted responsibility; both for the contents exchanged during the use of the numbers by its users and, generally, for complying with all legal and regulatory rules.

Disqualification undertakings are the administrative equivalent of a disqualification order but do not involve court proceedings. Persons subject to a disqualification order are bound by a [range of other restrictions](#).

Further information about the work of the Insolvency Service, and how to complain about financial misconduct, is [available](#).

You can also follow the Insolvency Service on:

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## [2020 vision for north-east rail network](#)

- Transport Secretary visits Newcastle, Durham and Blyth to highlight government's ambition for infrastructure investment and better journeys across region
- Grant Shapps sees progress on new £10.55 million Horden Peterlee station, set to provide 70,000 passengers with better connectivity
- 'Huge potential' of reopening Beeching lines, such as Ashington to Blyth passenger services as part of £500 million fund

Transport Secretary Grant Shapps committed to reinvigorating rail connections across the north-east today (6 January 2020), outlining how new investment will boost the rail network as the government looks to level up infrastructure across the country.

Visiting Horden Peterlee, a new £10.55 million project set to be finished in May 2020, Mr Shapps hailed the importance of expanding the rail network, ensuring passengers and businesses across the region have the frequent, reliable journeys they rely on.

Improving connectivity for an area currently with no station over a 20 kilometre stretch, Horden Peterlee will be served by 1 train per hour calling at all stations between Newcastle and Middlesbrough, and has been supported by £4.4 million from the Department for Transport's New Stations Fund.

The Transport Secretary will also visit Blyth to see first-hand the potential for restoring passenger services along the Ashington to Blyth line, undoing over half a century of damage following the Beeching cuts.

The government has confirmed it will establish a £500 million fund to explore reopening former routes which could benefit communities who lost vital

transport connections.

Transport Secretary Grant Shapps said:

2020 will be a year of action on the railways with the north sitting at the heart of the improvements.

Investing in new stations like Horden Peterlee will deliver more modern, reliable services for passengers. We are also ambitious to restore connections to communities who have lost out, and the Northumberland line has huge potential to deliver that.

Our focus is levelling up infrastructure across the country, ensuring passengers see the benefit of new trains, new stations and fairer fares.

In another boost to the region, London North Eastern Railway (LNER) passengers are also benefitting from a [single-leg fares trial](#), introduced last week on journeys from London to Leeds, Newcastle and Edinburgh, giving people flexible, simpler and better value-for-money tickets. This means no more single tickets priced at £1 less than the return.

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## [UKAEA announces fusion supply chain events for 2020](#)

UKAEA will be running a series of supply chain events during 2020 to showcase its major projects and highlight the contract opportunities they offer. With increased Government investment in fusion and new test centres working with academic and industrial partners, it is a great time to get involved and work with us.

Projects covered will include:

- STEP, the UK fusion powerplant project
- RACE (UKAEA's robotics centre)
- New Fusion Technology Facilities at Culham and at Rotherham
- The H3AT tritium research facility

- Opportunities at ITER, the international fusion experiment based at Cadarache, France
- Development of the Culham Science Centre campus

The first event will be held at the Manufacturing Technology Centre, Coventry on Tuesday 11 February and you can register interest at the link below.

UKAEA senior managers and procurement staff will be on hand to discuss the opportunities and how you can work with us.

If you are unable to make the first event, please visit the website to subscribe for future event updates.

<https://www.ukaeaevents.com/>

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## **Joint statement from President Macron, Chancellor Merkel and Prime Minister Johnson on the situation in Iraq**

We have condemned the recent attacks on coalitions forces in Iraq and are gravely concerned by the negative role Iran has played in the region, including through the IRGC and the Al-Qods force under the command of General Soleimani.

There is now an urgent need for de-escalation. We call on all parties to exercise utmost restraint and responsibility. The current cycle of violence in Iraq must be stopped.

We specifically call on Iran to refrain from further violent action or proliferation, and urge Iran to reverse all measures inconsistent with the JCPOA.

We recall our attachment to the sovereignty and security of Iraq. Another crisis risks jeopardizing years of efforts to stabilize Iraq.

We also reaffirm our commitment to continue the fight against Daesh, which remains a high priority. The preservation of the Coalition is key in this regard. We therefore urge the Iraqi authorities to continue providing the Coalition all the necessary support.

We stand ready to continue our engagement with all sides in order to contribute to defuse tensions and restore stability to the region.