



LIDAR SAVES LIVES

USING LIDAR TO SCAN AN AREA BEFORE ENTERING IT CAN HELP EVERYONE FROM THE MILITARY TO THE EMERGENCY SERVICES

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Most surveyors don't think of themselves as a life-saver. They may get called it from time to time by a grateful client, but literal life-savers?

Yet, thanks to LiDAR, more and more surveyors are doing just that. And they're doing it by doing what they always do: giving accurate spatial information about an environment.

In this issue, we look at two such applications in two very different environments. On page 32, in the first of a two-part article, Emma Thomas looks at how surveyors are helping to clear landmines in the once-war torn country of Angola. Landmines can remain long after not just the people who placed them have gone, but after the conflict in which they were placed has passed. The enemies the mines were designed to kill are now not only unnecessary but a threat to the people left behind



– perhaps even the people who placed them.

The job of clearing mines is very dangerous, since by their nature, landmines are designed to be hidden. But using UAVs, LiDAR and some very clever post-processing (which we'll look at in more detail next issue), surveyors can now find those hidden mines without anyone's life being put at risk.

Meanwhile, surveyors in the US are scanning buildings such as universities and sports grounds that seem perfectly peaceful. This isn't because of a past threat such as a landline or even a current

threat, but so that they hopefully can save lives in the future when those buildings are no longer as safe as they were and fast responses are needed. You can find out how they're doing it on page 42, where Malgorzata Krol talks to the Fort Worth police department in Texas.



RAISING THE BAR

A STRATEGY REFRESH FROM THE GEOSPATIAL COMMISSION AIMS TO HELP THE UK UNLOCK BILLIONS OF POUNDS IN ECONOMIC BENEFITS

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Publication of "The UK Geospatial Strategy 2030" marked the Commission's first refresh of the vision and proposals it put forward in 2020.¹ The past three years have, indeed, seen much progress in realising the power of location data, with initiative such as the National Underground Asset Register (NUAR), investment in the Public Sector Geospatial Agreement (PSGA), and new programmes in the transport and property sectors leading way.

The 52-page document² sets out the Commission's priorities for the rest of this decade and includes a raft of proposals that will identify challenges and opportunities for location data in the health sector; publish findings from the Earth Observation pilot (see editorial in the Summer issue); research how geographic changes affect employment; establish a Land Use Analysis Taskforce, and work with universities to publish best practice

in embedding geospatial learning into data science and geography courses. In the short term, the Commission proposes to convene an international geospatial conference in 2024.

Importantly, the strategy aligns with the UK Science and Technology Framework, published earlier this year³, and which posits that science and technology will be the major driver of prosperity, power and history-making events this century.

¹ *Unlocking the Power of Location: The UK's geospatial strategy 2020 to 2025*. June 2020 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894755/Geospatial_Strategy.pdf)

² *UK Geospatial Strategy 2030: Unlocking the power of location*. June 2023 (<https://www.gov.uk/government/publications/uk-geospatial-strategy-2030>)

³ *The UK Science and Technology Framework*. Mar 2023 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1140217/uk-science-technology-framework.pdf)

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Cover: The Slovenian Centre for Excellence in Space Sciences and Technology and computer modelling company C3M are making a name for themselves by developing high-quality 3D 'digital twin' models of river basins. Used worldwide, these 3D river models will be instrumental in balancing the often-conflicting activities of economic development and environmental sustainability (see page 36).



Fueled by unusually warm water, Hurricane Idalia roared into the Gulf of Mexico just after midnight local time on August 29, 2023, and within hours, strengthened to a monster category 4 storm before slamming into Florida's coast near Apalachee Bay on the morning of August 30, bringing disastrous flooding and winds of up to 130 mph. The Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Terra satellite acquired this 250m resolution image of Idalia around 11:35 a.m. Eastern Time on August 29. At this time, Idalia was moving north and the National Hurricane Center (NHC) reported wind speeds of about 85 miles (135 kilometers) per hour. Image: MODIS Land Rapid Response Team, NASA GSFC