

ROB BUCKLEY

EDITOR

robertbuckley@geoconnexion.com



Editorial:

Rob Buckley, Editor - GeoInternational
robertbuckley@geoconnexion.com

Peter FitzGibbon, Editor - GeoUK
peterfitzgibbon@geoconnexion.com
+44 (0) 1992 788249

Alan Plumley News Editor
+44 (0) 1438 715124
news@geoconnexion.com

Columnists:

GeoInternational

Louise Friis-Hansen, FIG
Roger Longhorn, GSDI
Alistair Maclean, Quarry One Eleven
Geoff Sawyer, EARSC

GeoUK

Andy Beckerson, Modern Surveying
Terri Freemantle & Steve Spittle, Observations
Diane Sandeman, AGI News

Publisher:

Mai Ward
+44 (0) 1223 279151
maiward@geoconnexion.com

Advertising:

Micki Knight, Sales & Marketing Director
+44 (0) 7801 907666
mickiknight@geoconnexion.com

Mailing Address & Subscription Enquires:

GeoConnexion Limited,
PO Box 594, Cambridge,
CB1 0FY, United Kingdom
+44 (0) 1223 279151
info@geoconnexion.com
subscription@geoconnexion.com
www.geoconnexion.com

Design:

AT Graphics Ltd
www.atgraphicsuk.com

GeoConnexion International

ISSN: 1476-8941 is published by GeoConnexion Limited ten times a year (with combined November/December and July/August issues) and is fully protected by copyright. Nothing in it may be reprinted or reproduced wholly or in any part without the written permission of the editor.

CHANGING OPINIONS

PUBLIC PERCEPTIONS OF SURVEYING AS A DULL, IRRELEVANT ACTIVITY NEED TO BE CHANGED FOR THE SAKE OF SURVEYING'S FUTURE

I think it's fair to say that people don't always have the most positive opinion about surveying. Some think it's dull, with people stuck out in fields with poles and pieces of tape, measuring how far it is to the nearest tree for no really well explained reason. And that's if they think about surveying at all.

This misconception isn't harmless. It can stop future surveyors – today's children – from wanting to join the profession. So this issue, we attempt to show that surveying not only has far-ranging, even life-saving benefits for everyone, we also try to show – gasp! – that it can be exciting, too.

A 13-year-old girl, Stephanie, is separated from her dad, who's away from home for more than six months. She'd like to send him a message. The problem? He's an astronaut on the International Space Station.

The solution? Surveying. With the help of car firm Hyundai and the lateral-thinking team at George G Boghossian and Associates, Stephanie got to send her father that message – by writing it in letters 300m and 30m wide in the Nevada desert. You can find out how this record-breaking communication attempt fared – and whether Stephanie's father was able to read her message from 400km away in space – on our article by John Stenmark on page 20.

The Czech Republic's Krkonoše National Park wants to expand tourism to the area, particularly to Mount Sněžka, the highest mountain in the republic. Among its many projects, it's considering renovating the funicular that carries people to the top of Sněžka. To do so, it needed an accurate survey of the area, including an accurate measure of the height of the mountain.

But access to vehicles is restricted, winds can be high, and the terrain is large and bumpy, with movement on foot restricted to specific paths. So how could such a survey be conducted economically and quickly? UAV specialist Upvision quickly came up with a solution, albeit a risky one. Co-founder Jakub Karas explains what he did and why he did it on page 28.

Accurate surveying frequently saves people's lives – on land, at sea and even under the sea. On page 30, Blakelee Mills reports

on two diving projects in the Netherlands. In the first, a team of four divers went looking for wrecks... but only three returned. When the authorities couldn't find the missing diver, they turned to a search-and-rescue team with its own surveying equipment. Could the team succeed where others had failed – but without endangering their own lives?

The same team went searching for wreckage themselves, looking for a ship's anchor and chain that could have damaged chemical and gasoline pipelines, polluting waters and potentially killing both wildlife and people. Thankfully, they were able to locate the anchor, with the help of surveying equipment to make their search safer.

Millions of people around the world trust in the safety of trains every day. But if a train crashes, the loss of life and damage can be extreme. So for companies such as France's SNCF, surveying is a vital, everyday activity that can prevent tragedies. How do they survey the lines? Not with the usual theodolite or total station, but in the most exciting way possible – trains! Equipped with LiDAR, the mobile laser-scanners race up and down lines, looking for problems with the rails that could cause accidents.

But trains have their limitations and SNCF has been considering branching out into other modes of transport to plug gaps in their survey data. Could LiDAR mounted on UAVs make France's railways even safer? On page 24, Flavien Viguier, Pierre Assali, Ursula Riegl and Philipp Amon report on a pilot project to investigate that very question.

Despite all this excitement, the spectre of poles and tape still hangs over surveying. But soon the phrase 'there's an app for that' will be familiar to surveyors around the world, as smartphones and tablets become increasingly commonplace. An iPad for surveying? That sounds more fun. Are we there yet? Almost. On page 36, Lydia Lin looks at what surveyors need to do to be able to include them in their toolkits when conducting RTK GPS surveying.

As any surveyor knows, surveying can be fun. What's needed now is for public perceptions to catch up with reality.

I hope you enjoy the issue.