

Plastic and Disasters at Sea



This year, the UK has had several interesting and challenging initiatives to consider. One example is the Geospatial Commission that was launched late last year and has spent much of 2017 developing a structure and engaging with stakeholders through a consultation process. The consultation recently closed and it is hoped that the Commission will be available to provide updates at

GeoBusiness in May 2019. I believe that for anybody who wishes to gain insight or to contribute to our industry and profession, this event is a must.

Phish and Chips

I was prompted by some unusual email activity recently to take a little more interest in some of the cyber security themes and issues currently being aired. As no harm was done and with various filters, firewalls and security mechanisms in place, I wondered if the predicted introduction of Quantum computers would indeed render much of our security methods redundant. Quantum computers are thought to be so powerful and capable that they will be able to analyse and resolve almost all passwords so quickly that the passwords will no longer be able to act as a secure threshold. Of course, if everything is suddenly open to all, in some data lake of the future, then the vast increase in data could render standard systems, such as basic search functions, obsolete too. Email phishing attempts to bypass your security by targeting elements that you may consider to be private or to involve restricted access and therefore attempts to gain your acceptance and trust. Don't get caught out as your data and your clients' data should be protected and with the new GDPR regulations (the EU's Data protection rules) any breaches can have severe penalties.

The recent claim (Bloomberg Business Week 4th October 2018) that many IT servers in use, by large multi-nationals and defence agencies, have been compromised by a small microchip placed on their motherboards (the cluster of microchips and capacitors) by Chinese subcontractor manufacturers represents another approach where smart technology is working unseen. Our reliance on technology and smart technology is increasing so it's good that the main survey equipment manufacturers are using it to our benefit and developing tracking and reporting mechanisms to assist in the recovery of stolen equipment.

Coastal Zones

Coastal zones and shores as well as inland water ways have been in the news this autumn as the weather patterns and natural events have made an impact. The Indonesian earthquake that caused a significant Tsunami for the city of Palu represents a particularly distressing case as the location of the town at the head of a small bay meant that the tsunami waves would be higher due to a bowl effect reflecting waves off the adjacent shores. Also, the close proximity of the Palu-Kora fault means that any warnings, if given, will only provide for a few minutes of precious time to escape. Palu, a small densely populated city of less than half a million is situated in a beautiful region of Indonesian island of Sulawesi. However, as more and more people move into urban communities, such as these, it can put stress onto the local environment as well as our ability to manage any natural events that might impact the community.

Also quite recently was Hurricane Michael that hit the Gulf of Mexico coast of Florida, USA and caused severe flooding and disruption to the coastal communities and displacing many people from their homes (though a number elected to remain). A different type of event in terms of warnings so a lot less fatalities, but again the importance of location and spatial information, for mitigating disaster and aiding in moving people away from the worst effects of the storm, is critical.

Effective planning, management and education can all mitigate the worst effects of such disasters and surveyors are a critical component in developing and understanding the situation. Technology exists and applying it effectively can make a real difference, however, there is room for better links and communication between the technical experts and practitioners, the political groups, and the local communities, as well as funds so that the benefits and safeguards are sustainable. Coupled with any effort is the need to measure and report the activities and actions, through some metrics, so that surveyors can assess how their efforts are making a difference. Such a measure of progress will aid in sustaining the attempts to make improvements and demonstrate the effectiveness.

The UN-GGIM is the Geospatial professional's forum into the UN and I believe there is more opportunity to engage and link with this initiative from the practising survey community. The recent meeting in November to develop a number of strategic themes included that of the coastal zone management. Let's hope that engagement with the private sector and experts across various disciplines will enable a tangible and significant outcome to be developed and progress to be measured.

Young Surveyors and the Future: Mapping Plastic

You must have seen, or heard, of the concerns around the manmade plastic waste that now exists on all our seas and oceans and is

increasingly causing concern with regard to its impact on the environment. Although some 90% of all the plastic that reaches our oceans is from only 10 rivers, we don't really have a comprehensive and cohesive approach to mapping and monitoring this situation. FIG (the International Federation of Surveyors) Commission 4 (Hydrography) has teamed up with the Young Surveyors to develop methods to Map the Plastic. As our built environments, urbanisation and the global population steadily increase, with particular stress in coastal and near coastal areas, our ability to manage and sustain a healthy environment will become an ever greater priority. Understanding if the technology exists, how it can be applied cost effectively and the potential outcomes are key steps. So, although in its very early days, this project is a great example of how surveyors can contribute to our wider society.

As I've commented upon previously, there have been initiatives that are directed towards the development of pathways to encourage young talented people into our profession. Back in July, a number of apprentices enrolled onto the Geospatial Apprenticeship in the UK with more in September. Good news! If you have any experiences or ideas on how to promote our profession and encourage people into it then let me know. Meanwhile, as the call for papers to participate at GeoBusiness 2019 are out, it would be great to see more young professionals giving us their thoughts and experiences.

Finally, may I wish you all the very best for the festive season and a very happy new year.

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<https://www.gim-international.com/content/article/plastic-and-disasters-at-sea>
