CRISIS RESPONSE JOURNAL

VOL:11 | ISSUE:2 | DECEMBER 2015

WWW.CRISIS-RESPONSE.COM

PROTECTION | PREVENTION | PREPAREDNESS | RESPONSE | RESILIENCE | RECOVERY

WATER POLITICS

CLIMATE, SECURITY, HEALTH, PEACE

PLUS: Terrorist attacks in Ankara and Paris; Chemical weapons in Syria and Iraq; Fire Services and social engagement; Disaster risk reduction and resilience; Critical infrastructure protection; Research & Development, a round-up of cutting-edge technologies

CRISIS RESPONSE

IN PRINT | DIGITAL | ONLINE

The *Crisis Response Journal* is available by subscription only

Subscribers receive our quarterly hard copy, along with iPad or Android tablet version. A full archive of all past and current articles is also available to all subscribers

Choose the right subscription plan for you, from Individual Full, Digital Only, Institutional & Corporate or Student

Visit our website for around-the-clock news, blogs and events updates

www.crisis-response.com

Editor in Chief
Emily Hough
emily@crisis-response.com

Chief Scientific Editor
Ian Portelli, PhD, Msc
ian@crisis-response.com

Urban Resilience Editor
Andy Marshall
andy@crisis-response.com

Design and Production
Tim Baggaley
www.graphicviolence.co.uk

Subscriptions and Administration
Emma Wayt
emma.wayt@crisis-response.com

Web Administration
Rhys Jones
rhys@crisis-response.com

Director
Colin Simpson
colin.simpson@crisis-response.com

Subscriptions
Crisis Response Journal is published quarterly; it is available by subscription in hard copy, digital and online
Tel: +44 (0) 208 1661690; subs@crisis-response.com

Back issues
Existing subscribers: £25 (US$45; €36) per hard copy issue (free-of-charge with online access)
Non subscribers: £40 (US$72; €58) per issue
Tel: +44 (0) 208 1661690
backissues@crisis-response.com

Published by Crisis Response Journal Ltd
PO Box 6269, Thatcham, RG19 9JX, UK
Tel: +44 (0) 208 1661690; mail@crisis-response.com
www.crisis-response.com
COPYRIGHT Crisis Response Journal Ltd 2015
Articles published in *Crisis Response Journal* may not be reproduced in any form without the prior written permission of the Editor in Chief
Printed in England by Buxton Press
ISSN 1745-8633

Resources, links, pictures, videos and more are available for subscribers in our digital and online editions
www.crisis-response.com
join the *CRJ* LinkedIn group
follow us on twitter @editorialcrj

contents

News 4
Comment 8
We hope total infrastructure breakdown won't happen in Europe but, nevertheless, we must be prepared for such an eventuality, warns Prince Michael of Liechtenstein

Incident analysis

Disasters at the Hajj 10
More than 1,000 people were killed in two unrelated incidents at this year's Hajj, reports Tony Moore, who investigates what happened

Rally bombings in Ankara 14
Tony Moore describes how suicide bombers killed 102 people at a peace rally in Turkey

Paris attacks: A chronology 16
Christophe Libeau outlines the events that occurred in Paris on November 13, 2015, describing emergency services' activities

Paris attacks: Resource management 18
Christophe Libeau describes how the Paris Fire Brigade manages its manpower and resources during times of extreme emergency

Paris attacks: On the frontline 20
Incident Commander Michel Rimélé gives a personal account of response operations during the terrorist attacks in Paris

Features

Today's CBRN landscape 22
The CBRN threat – or at least the perception of it –has never been more in the spotlight, says Hamish de Bretton-Gordon, but the international community can prepare itself and be more resilient

Command decision dilemmas 24
Dr Dave Sloggett looks at the issues that arise in command decision-making at dynamic events, such as terrorist attacks

A continued threat 26
The nature of the terrorist threat is evolving – response and planning must adapt too, says Roger Gomm

Senior management engagement 28
The reluctance of senior business leaders to engage in crisis preparedness must be addressed, according to Dominic Cockram

Manchester: United 30
County Fire Officer Peter O'Reilly describes how GMFRS is striving to position the fire service as a health asset

Social safety not social unrest 32
A Swedish rescue service's engagement with local communities after civil unrest has paid off, write Ulf Nilsson and Attila Jensen

Balancing civil security and defence 34
Todd M Rosenblum's insight into treading a tightrope between policy, perception, reality and saving lives, based on his experience at the Departments of Homeland Security and Defense

Civil-military: Working together 38
Rebecca Sutton presents some perceptions of civil-military relations and humanitarian assistance in West Africa, garnered from an innovative course held recently

Developing resilience 40
Are we putting enough into preparedness and capacity building before a disaster? John Holland investigates

Terrorist attacks in Paris p16

MI | DICOM | F Pellier

Community engagement p32

Räddningstjänsten Syd

BritishRedCross
The Worshipful Company of Firefighters
VIMPEX Advancing Rescue Technology

Cover story: Water politics

Cover image: Jorgen McLeman

Disaster diplomacy 42
We must learn to use disaster diplomacy better, because it is a great tool for more effective disaster risk management, says Dr Albrecht Beck

Getting to the scene safely 44
The benefits of Emergency Vehicle Preemption systems are detailed by Anthony Hildebrand

Global road safety crisis 46
Road risk is a global problem of 'epidemic' proportions, with crashes killing more people than malaria, explains Emma MacLennan

Will Smart Cities dream of resilience? 48
Smart Cities are being addressed as a series of silos, making them vulnerable, according to David Prior

Networking for protection 51
Simona Cavallini, Julia Friedl and Margherita Volpe introduce a new sustainable networking meeting point for Critical Infrastructure Protection in Europe

Keeping the power on 52
Tony Kingham argues that societies should be investing in permanent, multi-faceted solutions to protect critical infrastructure

Water

Water for peace and resilience 54
Adapting the UNDAC system 58
Floods in Sierra Leone 62
French Riviera Floods 64
Reducing motorist deaths 66
California drought update 68
From policy to emergency response 70
Reducing coastal risk 74

Technology

Research & Development 76
Dr Ian Portelli and Megan Mantaro introduce a new regular section, prompted by the popularity of *CRJ*'s online R&D blogs, and look at a new location referencing system in more detail

Drones in the emergency services 78
UAVS are one of the most talked about technologies of the last 12 months: Andrew Griffiths presents some practical considerations for first responders who might be considering investing in this technology

Ham radio in Belgium 80
Emily Hough looks at how amateur radio operators in one province of Belgium are working with authorities to provide emergency communications in the event of a major blackout

Monitoring critical buildings 83
Evangelos Sdongos and Dr Angelos Amditis describe a system that provides near real-time damage assessment of buildings' condition and damage after a disaster such as an earthquake or terrorist attack

In Depth

Advanced situational awareness 86
Legal liability in nuclear accidents 90
Effective decision-making records 92

Regulars

Events 94
Looking back 96
Europe 97
Frontline 98
Emily Hough speaks to Henri Ladyi, who demobilises rebel militias, especially child soldiers, in DR Congo

Coastal protection p74

Mathijs van Ledden

Demobilising child soldiers p98

Peace Direct

LEADER Tomorrow's technology today

holmatro mastering power

GORE-TEX

comment

The final push for a climate deal at COP21 was ongoing as *CRJ* went to press. Meanwhile, rainfall of near biblical intensity had lashed many areas, including Sierra Leone, India, the UK and France.

The theme of this issue is water, including flooding, of course. Time and time again, our expensive defences built to protect communities and infrastructure seem to fail, our models and predictions become overwhelmed by ever more extreme climate events. As Patrick Lagadec has often stated: Are we fighting the last war?

And this is a controversial question, but one that needs to be asked: When do areas become too dangerous for human habitation? Should relocation – as a strategy of last resort – be discussed more widely? Last year, the San Remo consultation, organised by UNHCR, examined the issue of planned relocation owing to sudden onset disasters, acute environmental degradation and longer term effects of climate change. It found that those working on climate change adaptation frameworks are often unfamiliar with the experiences of resettling communities, whether as part of dam projects or resettling refugees in other countries. "The silos which characterise work on this issue are immense," it said, which is worrying, given the virtually unimaginable long-term, generational, financial and human costs relocating vulnerable or untenable communities would entail.

It would take a brave – or possibly politically suicidal – government to tell large numbers of its citizens that it can no longer shield them from extreme climate events and that relocation is the least unattractive option.

In a draft document ahead of COP21, the UN proposed a climate change displacement co-ordination facility, to provide organised migration and planned relocation, as well as compensation to people fleeing rising sea levels, extreme weather and ruined agriculture. The reference was dropped from the draft.

But it is clear, though decidedly unpalatable, that relocation will have to be considered in some areas and the duty of all those involved in emergency preparedness, mitigation and response is to familiarise themselves with existing experience and consequences, and consider how this could affect them, their roles and communities.

Emily Hough

A continued and evolving threat

The 7/7 bombings in London were a wake-up call for the police and security services on the threat from Islamic militancy in the UK, writes **Roger Gomm**, and the more recent attacks – including those in Paris – have added critical impetus to the need for preparedness

On August 29, 2014, the UK threat level for international terrorism was raised to 'Severe', meaning an attack is highly likely; the threat remains at this level in the wake of the Paris attacks. At the time Assistant Commissioner Mark Rowley, the National Policing Lead for Counter-Terrorism, highlighted the need for organisations to ensure that they are prepared. "We need businesses to check that their security measures are effective and train their staff to detect potential threats and, if necessary, respond to an attack. Experience shows us that terrorists target busy, well-populated places to ensure that attacks have a maximum impact. Businesses, particularly those in crowded places, have an invaluable role to play in our fight against terrorists, violent extremists and other criminals. Their staff are often the first people to spot signs that something is wrong."

In November 2014 Sir Bernard Hogan-Howe, the Commissioner of the Metropolitan Police Service, noted that, with respect to potential terror plots: "We've said on average over the last few years it's been about one a year. But this year alone we think four or five."

Despite the efforts of the police and security services, the threat has not decreased, the UK remains at 'Severe'.

In mid-October this year, the head of MI5 warned that Britain faces an unprecedented terror threat from Islamic State and Al-Qaeda fanatics using the Internet to plot mass casualty attacks.

In a rare public speech, Andrew Parker, Head of MI5, said the threat from home-grown and foreign jihadist was: "On a scale and at a tempo" never before seen in his 32-year career. The director-general of MI5 said there was now a "greater ambition" among terrorists to carry out mass casualty attacks on Britain and warned that the threat: "Shows no sign of abating."

He warned: "It may not yet have reached the high water mark," and added that terrorists had ruthlessly exploited the explosion in modern communication technology, such as smartphones, and were using a "bewildering array of devices and digital platforms" to plot attacks.

He admitted for the first time that MI5 now had to carry out computer hacking attacks against terror networks to access their encrypted communication networks.

There are limits to what the state alone can achieve

This was at the time that GCHQ, MI5 and MI6 have opened their doors to journalists and revealed a number of state secrets of Britain's £2 (€2.7; $3) billion espionage systems ahead of the publication of the controversial draft *Investigatory Powers Bill*, which demands that the police and intelligence services be handed greater powers to access information from its citizens.

The increased likelihood of an attack from terrorist groups such as Islamic State contributed to the threat level moving to 'Severe'. Of particular concern are UK-born radicalised Islamic extremists, some of them returning from conflict areas such as Syria or Iraq, armed with the knowledge and skills to conduct terrorist activities.

Over the past year there have been a number of cases of young Britons travelling to join ISIL in Syria and Iraq, as well as the prosecution of the UK's youngest terrorist, a 15-year-old boy convicted of inciting another person to commit an act of terrorism overseas.

According to latest police figures, there were 338 counter-terrorism related arrests: 157 were linked to Syria and 56 were under 20 years old, which is a growing trend.

In October the UK government's new one-nation *Counter Extremism Strategy* was launched to confront and defeat all forms of extremism. It included the extension of passport removal

powers to under-18s to prevent those at risk from travelling to join terrorist groups, and new measures to automatically bar convicted terrorists from working with children and vulnerable people.

The strategy strengthens the role of the Disclosure and Barring Service (DBS) to ensure anyone with a conviction or civil order for terrorist or extremist activity is automatically banned from working with children and vulnerable people, in the same way as individuals convicted of sexual offences against children. Around 5,000 children were in institutions affected by the Trojan Horse plot, where extremists gained control of several schools in Birmingham, UK. Separate barred lists are maintained for work with children and work with adults.

The new powers extend a measure introduced by the Prime Minister in July, following a successful trial, which enables parents to apply directly to Her Majesty's Passport Office to have the passports of children under 16 years old cancelled to prevent them travelling to join terrorist groups in Syria and Iraq.

Parents concerned that their 16 and 17 year old children are at risk of travelling abroad under the influence of extremists will be able to apply to have their passports removed and several under-16s have since been protected.

It also comes after a series of successful court order applications by local authorities to protect children at risk of travelling, either by their own choice or as part of a family unit.

The new Strategy follows the four key pillars set out by the Prime Minister, David Cameron in his speech in Birmingham in July:

- It will vigorously counter extremist ideology – making sure every part of government is stepping up to the plate;
- It will actively support mainstream voices, especially in faith communities and in civil society. That means supporting all those who want to fight extremism, but are too often disempowered or drowned out in the debate;
- It will disrupt extremists, aggressively pursuing the key radicalisers who do so much damage; and
- It will seek to build more cohesive communities, tackling the segregation and feelings of alienation that can help provide fertile ground for extremist messages to take root.

At its launch Prime Minister David Cameron commented: "I have said before that defeating Islamist extremism will be the struggle of our generation. It is one of the biggest social problems we need to overcome." He added: "The government's new *Counter Extremism Strategy* is a clear signal of the choice we have made to take on this poisonous ideology with resolve, determination and the goal of building a greater Britain.

"And a key part of this new approach is going further to protect children and vulnerable people from the risk of radicalisation by empowering parents and public institutions with all the advice, tools and practical support they need," the Prime Minister continued.

The UK government has a clear national security strategy: To ensure a secure and resilient country by protecting people, economy, infrastructure, territory and way of life from all major risks that can affect them directly. To support this, like most countries, the UK strives for 'resilience' – the ability to continue through disruption and adapt to longer-term change in order to attain strategic goals. However, there are limits to what the state alone can achieve. There are critical dependencies between public-private sectors and, as such, business and community preparedness and resilience are vital elements.

Risk misperceptions

Islamic State is unlike previous terrorist groups, requiring organisations to re-evaluate their current threat analysis. In a society where a story in the media can damage reputation and lead to financial losses, it is imperative that organisations act to not only protect their physical assets, but also their intangible aspects. The nature of threats is evolving and the way in which all organisations respond to these must adapt accordingly.

Many countries face budget constraints that prohibit the investment necessary to finance effective prevention, protection and recovery measures.

The impact of this is that pressure will mount on policymakers to reinforce the resilience of communities and individuals and to reapportion their share of the burden. In reality the benefits of investing in protective measures are often not seized upon by property owners, owing to their misperception of risks, their short-term outlook and the upfront costs of implementation. All governments should continue to strengthen public resilience by encouraging property owners to adopt mitigation methods through education of risks and ensure all organisations have a proven capability to respond to and recover from a terrorist incident. CRJ

Author

Roger Gomm *QPM is a former Public Order Commander in London's Metropolitan Police, with over 14 years of experience operating at strategic/gold, tactical/silver and operational/bronze at planned and spontaneous policing events. He is now an advisor, trainer and consultant. He is an Associate Lecturer, Cabinet Office Emergency Planning College, UK and a Member of* CRJ's *Editorial Advisory Panel.*