

# Stemming the flow – why UK flood response must not suffer cuts

David Lane discusses the lessons learnt from Exercise Triton, cost implications and the importance of moving forward with emergency response in order to prevent loss of life

Six years since Exercise Triton, and a shocking quote emerges: "I know it's only a table top exercise, but I had no boats and had to leave hundreds to drown, if it was for real, heaven help us all." This has led to a personal quest and thousands of miles travelled in the search for answers.

Three years have flown by since the floods in 2007, when thousands of people were rescued and when subsequently Sir Michael Pitt found the UK wanting in flood preparations to respond to a major event. Internationally, media headlines leave us in no doubt as to the need for a cohesive disaster response wherever these may occur: in Taiwan Typhoon Morakot killed hundreds; Ugandan landslides triggered by heavy rain, killing at least 86 people and leaving hundreds missing. Severe hurricane force storms devastated the French coast, resulting in at least 50 deaths with winds of up to 90mph, flooding homes whilst sea walls failed.

## Progress Report

The UK is making progress, such as the National Flood Emergency Framework (NFEF). There is clear support for the Met Office and the Environment Agency establishing formal arrangements to provide specific flood risk advice to local emergency responders, and professional partners in the lead up to a potential flooding incident. The launch of the Flood Forecasting Centre on April 1, 2009 represented an important first step in this process. The Environment Agency (EA) supports the need for the NFEF to add value to the current multi-agency flood planning arrangements by clearly defining the roles and responsibilities of government departments and agencies for all flood risks and at all geographical levels; carefully planning potential arrangements to ensure that they fit in with the Environment Agency's strategic overview role.

The Flood Resilience National Enhancement Project (FRNEP) seemingly continues apace. Recalling that up to £2 million was made available up to March 31, 2011 to carry out the project in the government's response to Sir Michael's final report, several outputs and milestones were defined that are stated to be met through four distinct but interlinked workstreams:



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- Quantifying current capabilities and rescue capacity to create a national register of capable flood rescue assets

- Making more effective use of existing flood rescue capabilities through a comprehensive multi-agency Flood Rescue Concept of Operations, team typing and accreditation systems, supported by a flood rescue 'operations manual' and national 'standards' for training and equipment – it is understood the draft Concept of Operations document is now circulated for comment

- Identifying any capability gaps and making recommendations for addressing them

- Ensuring certainty, clarity and consistency in major flood rescue approaches, by communicating and testing the outcomes of this project with all Local Resilience Forums, statutory and voluntary flood rescue providers.

Defra, with the Welsh Assembly Government (WAG), will conduct a wide ranging and publicly engaging emergency exercise across England and Wales on March 4-11, 2011. Exercise Watermark, the Environment Agency, is scheduled to deliver it. Testing all emergency plans and the arrangements to respond to severe, wide-area flooding, using scenarios based on severe weather conditions including flooding from the sea, rivers, surface water and reservoirs; one of the biggest exercises to take place nationally. Answering one of Pitts' recommendations would be to hold a national flooding exercise at the earliest opportunity; to test the new arrangements, which government has put in place to deal with any potential flooding and infrastructure emergencies. It should show how the government and the wider emergency planning and response community have learned the lessons from 2007 and other flooding incidents and put them into practice.

The Flood and Water Management Act 2010 which received Royal Assent on April 8, 2010 can be summarised as taking forward some of the proposals in three previous strategy documents published by the UK government: *Future Water*, *Making Space for Water* and government's response to Sir Michael's Review of the 2007 floods. The Act also gives effect to the Welsh Assembly

## Water Rescue Focus

Government's Environment Strategy for Wales, *New Approaches Programme and the Strategic Policy Position Statement on Water*.

Roy Harold, (Vice-Chair of the CFOA IWSC) reports that recently Merseyside FRS, with AM Dan Stephens as the project lead, have taken the UK lead on 'Watersave', the joint UK/NL/Czech EU funded project to design a standard flood rescue module within the EU civil protection scheme.

This builds on the work of Hereford and Worcester FRS within the European Flood Exercise 'EU Floodex' project (EUF) located in and led by the Netherlands in which the UK, Estonia, Germany, and Poland participated. The National Resilience Assurance Team (NRAT) helped prove the concept of a Typed Major Flood Module response. NRAT and NSAT staff managed and coordinated the UK's multi-agency, multi-disciplinary resource in line with UK FRS national resilience arrangements.

Under this the NRAT provide a key operational role in advising at both strategic and tactical levels at Gold, Silver and Bronze level of commands, the CLG emergency room, the FRS National Coordination Centre; also managing the strategic holding areas (SHAs) – a vital lilypad for delivering assistance across boundaries. The UK's FRS National Resilience Capabilities programme led by CLG and the role of NRAT in delivering equipment, training, procedures and operational support is pivotal to its successful implementation and continued operation. The NRAT capabilities within the multi-capability response in September 2009 highlighted that they are flexible and can be utilised in a wider range of scenarios than anticipated. Providing through the enhanced Command and Control, a robust support system for multi-agency operations like major floods; also their FRSNCC being an excellent place to locate the UK's flood resource asset Register and 'Mutual Assistance Protocols' for invocation.

### International and Cross Boundary Working

We know major disasters are usually cross agency and cross boundary, so the vital theme of coordinated working continues with CFO Roy Wilsher's Exercise Orion (co-financed by the European Union), involving Hampshire and Lincolnshire Fire and Rescue Services, the Fire Service College, Technisches Hilfswerk (THW), Denmark and Eire and aimed at improving resilience in response to a worst-case scenario. Hertfordshire FRS is leading this international, multi-agency response to a catastrophic incident which will hit several parts of the country simultaneously. Exercise Orion will test the UK's response to this large-scale disaster to the limit, exhausting capacity to deal with it alone, and activating assistance from other countries through the EU civil protection mechanism, testing every aspect of the national coordination and Advisory Framework



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(NCAF). The four days starts on September 6, 2010, where live exercises will be held in Hampshire, and Merseyside, alongside simultaneous strategic Gold command exercises in Hertfordshire, Hampshire, Lincolnshire and Merseyside. The responses trigger the NCAF mechanisms including the CLG Emergency Room whilst at the same time building important relationships and interaction with the UK's EU partners.

It is vital work, given that increasing numbers of major and high impact natural disaster events will test all blue light agencies and categories of responders. Responding to these challenges will require enhanced multi-agency, multi-disciplinary and multi-jurisdictional working arrangements with improved arrangements to access mutual aid across the UK and all nations.

### Prevention and Response Costs

Research and collaboration should put us in an excellent position to meet the demands should the worst ever happen, but there are more immediate concerns. First responders do not operate in a vacuum, in the UK, post election, the *Financial Times* said that Defra had been required to identify efficiencies in flood management as part of the £6 billion in cuts – the financial problems everybody faces will not go away.

Nationally and internationally the costs of dealing with floods is billions, the UK floods of summer 2007 cost a total of £3.2 billion, including more than £2 billion in costs to homeowners and businesses. In 2002, repairing damage from the German flood disaster was estimated to be at least €25 billion (£16 billion).

It is estimated that five million people live and work in the 2.4m properties in England that are at some risk of flooding and at present, around £570 million is spent every year building and maintaining the defences required for them. Half a million of those properties are in the highest risk band, which means they are at risk of flooding due to extreme weather expected once every 75 years.

Not spending the money could have even bigger consequences. The annual cost of damage to residential and commercial property from flooding in England is estimated to rise from £2.5 billion to £4 billion by 2035 – without the extra cash for defences. Investing the money would save England some £180 billion over the next 100 years. However support grows: "Even at a time of unprecedented financial pressure, this is something that has to be given a priority," said Parliamentary Environmental Audit Committee chair and Conservative MP, Tim Yeo.

This is just the financial aspect; prevention is one thing but what of the lives that may be lost if the flood response 'plan B' is not there?



Left: 'Helo' air assets at EU Floodex '09  
Above: Simulated mass flood casualties

Have we forgotten that if the lessons we brought back to the UK prior to 2007 had not been voluntarily implemented 7,000 lives could have been lost?

### Cross-boundary Emergencies and Disasters

Disasters are often a recurring emergency, with a significant cost in terms of damage to the environment, infrastructure, the economy and sadly many times claiming human lives. This calls for action at all levels, in order to enhance preparedness and response to such situations, mitigating possible losses in the event of major natural or manmade disasters or emergencies wherever they occur. Community cooperation in the field of civil protection must aim to better protect people, their environment, property and cultural heritage. There is a long tradition for EU Member States to express their solidarity with other EU Member States and third countries affected by major disasters by providing civil protection assistance, we need to continue to show that we can improve resilience across boundaries.

We need to be innovative and consider different ways of working to address barriers to working across borders, be they organisational, jurisdictional or international, such as the use of helicopters for the transfer of high value, high competency personnel assets. Scarcity of resources and finances, the training cost pyramid, perversely, will make this equation actually work.

### Conclusions

Let us hope that the findings of Orion and Watermark will be acted upon, that the relatively small amount of £2 million made available to the FRNEP is spent with alacrity to enhance current capabilities and rescue capacity.

To quote Paul Hayden, former Chief Executive of Hereford and Worcester FRS in his EUF report: 'The design criterion used to

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develop a pilot UK Flood Response Module comes from an assessment of the hazards, risks and rescue challenges associated with a UK North Sea storm surge, recorded on the UK National Risk Register as risk H19. Effectively simulating Europe's worst credible flood event, a tidal surge in the North Sea as last experienced in the UK and Holland in 1953, resulting in over 2,000 fatalities.

'Returning to the rolling news programmes and the journalistic and public appetite for apportioning blame whilst a disaster is still unfolding, the defence most often used in recent times to explain why the public had been let down, has been that the events were simply unprecedented and that no government or agency could have predicted the issues and challenges arising. This excuse will be difficult to apply in the future to a major flood in the UK. We know with a high degree of probability that we will be impacted by an event requiring wide scale flood rescue, and we know from experience and research post 2007 about the type and scale of challenges that will inevitably arise. Despite this, work to improve flood rescue response and coordination in the UK remains unresolved, leaving us little better prepared to respond to a major event now, than when Pitt found us wanting in 2007.

'Whether the concepts and procedures put in place for Floodex will be developed further and formally adopted by government remains to be seen'.

In England we still have no statutory imperative for water or flood rescue for FRSS. I recall that after much research in the US and elsewhere I returned with the findings (particularly the major flood event Incident Management Techniques) to the UK full of optimism, however that was in 2005.

It is now 2010, an old aphorism holds that amateurs talk tactics, professionals talk logistics, staff resources, training and equipping the responders (along with true strategic planning) – because that is the key to long-term sustainable success.

No kit, no boat, no training, equates to no response – for the casualty, life and time will have all flown by.

### About the Author

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