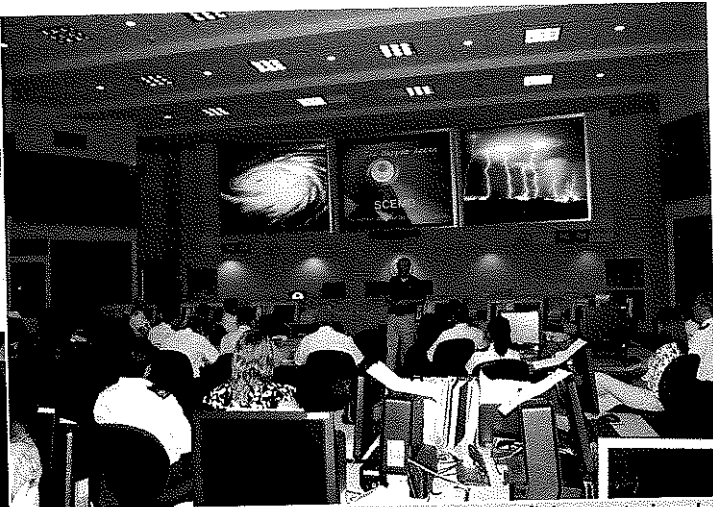


Operational Assurance

US/UK Flood Management Symposium



Above: the UK delegation split into strategic and tactical groups with the former visiting Columbia South Carolina and their State Fire Training Academy, Homeland Security 'Fusion Centre' and brand new State Emergency Operations Centre, the latter being described as 'everything an emergency manager could wish for'

CFO Paul Hayden reports on the first US/UK flood symposium held at the end of last year in North Carolina providing a much needed forum for improving tactical and strategic response to major flood events

IN RESPONSE TO A RANGE OF

operational challenges arising from extreme weather events, the Chief Fire Officers' Association has been working with a wide range of partner organisations across the UK, EU and US for a number of years. In researching responses to major flood events in particular, we have been working closely with fire and emergency management professionals from the US with particular assistance from the State of North Carolina. The operational concepts and principles emerging from this work were developed in the 2006 CFOA report, *Management of Major Flood Emergencies*, put into practice 'for real' during the summer floods of 2007, and now form the backbone of the government's national project to deliver a national flood rescue capability.

The success of CFOA's work was recognised by water and flood rescue organisations in the US, with the CFOA project team being awarded the 2008 Higgins Langley Award for swiftwater rescue programme development. In accepting the award, CFOA insisted that our key US partners and contributors were also acknowledged as forming an integral part of the team, giving a uniquely international flavour to the award.

The US Department of Homeland Security, State of North Carolina, and the Charlotte Fire Department, have continued to closely follow developments in the UK

and Sir Michael Pitt's review into the summer floods of 2007. During summer 2008, they expressed a keen interest in continuing the exchange of ideas between professionals so that they could learn any lessons from our recent experiences. To further this, they secured funding and State support for a week long workshop and exchange programme to further examine, debate and develop flood response and wide area incident command principles.

To fit in with an existing State-level emergency management meeting and major exercise, our US colleagues suggested running the workshop between October 13 and 14, giving us only about six weeks to organise a UK delegation. In true UK style, we were worried that we would need at least 12 months' notice with detailed programmes agreed in advance before we could attract any delegates, but our US colleagues could not see the problem: "How much notice do you get to attend an emergency?"

In the event, our US colleagues were correct and the 50 delegate spaces were quickly filled, even oversubscribed and had to be closed down upon reaching 60! I am sure that the offer from North Carolina to provide a range of high profile speakers and facilitate access to the latest State-level command suites attracted many delegates. The offer of three Black Hawk helicopters and the US National Whitewater Center for

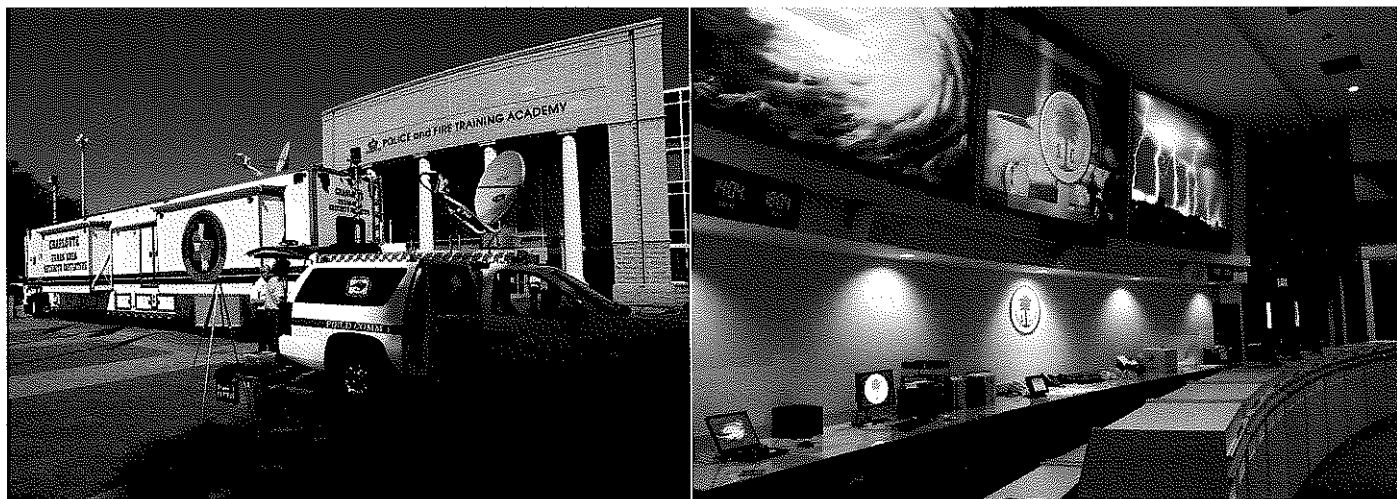
our exclusive use along with a range of rescue craft for practical training exercises on the Nantahala and Catawba rivers was just the icing on the cake!

To enable a number of UK delegates to attend free of charge, our hosts secured funding to meet all workshop costs, including training course fees, transportation within US to field exercises and visits, venue hire and for those undertaking practical sessions, hire of boats, other equipment and suitable PPE. UK delegates only needed to meet their own personal expenses, subsidised 'government rate' accommodation, and travel to Charlotte, North Carolina.

Given the multi-agency thrust of CFOA's flood response work, and with an eye to the likely government response to the Pitt review that was due to be published in December 2008, it was quickly decided to extend the invitation to our key partners including Defra, Environment Agency, Met Office, RAF SAR, Coast Guard, RNLI and Mountain Rescue Council. Through the CFOA Inland Water Strategy Group (IWSG), we were also able to ensure that we had both strategic and tactical delegates from all English regions, Scotland, Wales and Northern Ireland.

A key element of CFOA's flood response work has been to 'stitch together' frontline responders and strategic incident managers along with weather and environmental

by Paul Hayden



Left: the command structure in the US has flood response teams working alongside USAR. Right: the State Emergency Operations Center is a multi-agency, multi-disciplinary strategic command suite. The State EOC is rather like a 'Super' Gold, sitting above LRF Gold and beneath national COBR(A)

specialists. To reflect this, the visit was deliberately planned to span two tracks, a strategic track involving UK Gold/Silver commanders and government officials, and a tactical track, with firefighters and frontline rescuers from the voluntary sector. The programme was arranged to enable both tracks to undertake parts of the programme as a single group. This provided frontline rescuers with an understanding of the command and co-ordination frameworks within which they would be working and provided strategic managers with an opportunity to join tactical delegates 'in the water' to get a firsthand appreciation of the flood working environment.

Day One

Delegates were collected and transported to Charlotte Fire Department's headquarters for an informal welcome by the Chief Fire Officer John Hannan and city officials. Deputy Chief Officer Jeff Dullin, known to many UK delegates from his appearance at UK conferences, then gave an overview of the week's programme and ran through all of the domestic arrangements.

I outlined the programme objectives and ran through a safety briefing, and documentary film maker David Lane presented film footage from previous UK FRS visits and the floods of 2007 and outlined plans for further filming during the week.

At that time, our hosts announced that it was time for an American Style 'tailgate' party: hamburgers, hot dogs, fixins, and sweet tea prepared on the world's largest mobile barbeque. Several city fire appliances came around to headquarters for lunch and to meet the UK delegation.

Day Two

At 0830 the buses were ready to take all of

the UK delegation to Charlotte's joint Police/Fire Training Academy for the day's sessions. Key input came from another US colleague, well known from his visits to UK flood conferences – Battalion Chief Tim Rogers. Tim gave presentations outlining the key flood lessons learnt in North Carolina, and the safety systems put in place to address them. Further US input covered the US Geological Survey Storm Water Alerting System, and River Basin Management arrangements and the links between hydro electrical and nuclear power companies and emergency responders in the Catawba basin. For US delegates, I gave an overview of the systems under development in the UK and the 2007 floods.

Day Three

The delegation then split into strategic and tactical groups, with the strategic group leaving at 0800 to travel to Columbia South Carolina to visit their State Fire Training Academy, Homeland Security 'Fusion Centre' and brand new State Emergency Operations Centre (EOC). All of these facilities were very impressive. The State EOC in particular was everything an emergency manager could wish for in a multi-agency, multi-disciplinary strategic command suite, and more! Although difficult to apply a direct read across to the UK, the State EOC is rather like a 'Super' Gold, sitting above LRF Gold and beneath national COBR(A).

Tactical delegates returned to the CFS Training Academy with input from Tim Rogers and the UK's Martin Bills from Nottinghamshire FRS on training standards and safety issues. Steve Hollis from Nottinghamshire FRS gave input on the UK's Specialist Boat Command concept, designed to ensure that safe systems of work could be applied within the UK command and control structures. Charlotte's Scott Zander then

gave a presentation on the way in which flood response teams work alongside USAR teams in the US, collapsed structures being a common challenge during major flood events. After safety briefings and PPE issue, the tactical group were then given the opportunity to gain some 'hands on' experience with Charlotte's USAR instructor team.

Day Four

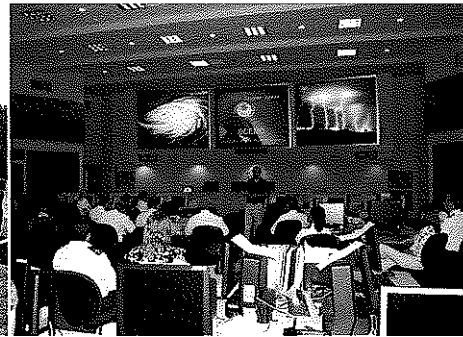
The two groups started the day by heading in different directions, the strategic group heading to Greer South Carolina to visit the US National Weather Service, the tactical group going straight to the US National Whitewater Center (USNWC).

For the strategic group, including the UK Met Office Public Weather Service Advisor Malcolm Weatherall (yes that is his real name), the input covered how recent developments have greatly improved the way in which weather warnings are coordinated and communicated with frontline responders and emergency managers in the US.

Improved liaison and understanding of each other's role and contribution has led to recognition that the scientists at the National Weather Service are an integral part of the public protection community, and FRS managers now have a much better appreciation of the impacts weather can have on operations and safety. Our CFD hosts explained that the enhanced early warnings they now receive, along with their own improved understanding of the impacts the weather can have on operations, has enabled them to put things in place ahead of a storm before it gets too late to do anything.

The tactical group were kitted out in full PPE for the commencement of practical training sessions at the USNWC with

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Photos: this page and opposite. The visit was deliberately planned to span two tracks, a strategic track involving UK Gold/Silver commanders and government officials, and a tactical track, with firefighters and frontline rescuers from the voluntary sector. This provided frontline rescuers with an understanding of the command and co-ordination frameworks within which they would be working and provided strategic managers with an opportunity to join tactical delegates 'in the water' to get a first-hand appreciation of the flood working environment

instructors from CFD. Although designed as an international standard centre to support the US whitewater Olympic team, FRS training had been considered and built into the design of the centre from the outset, with a range of channels offering a sequentially more challenging working environment. UK responders were able to practise a range of crossing, swimming, rope and boat operations in a safe and controlled environment.

Mid afternoon, the tactical group was joined by the strategic group on their way back from South Carolina. Although the programme intention had been simply to let the strategic group members observe the various operations, tactics and equipment in use, the CFD instructors extended an invitation for anyone who wanted an 'in water' experience to join tactical colleagues. With the prevailing October weather conditions in North Carolina being 85 degree sunshine, the offer was too good to refuse and was taken up by all the delegates!

The value of this experience was that it provided FRS managers and others with a first hand experience of the challenges and risks involved with water operations. An appreciation of this working environment is vital if managers responsible for considering responder safety and welfare issues are to do their job properly. Our RAF representative, a SAR helicopter pilot, not completely new to this type of environment, commented afterwards that even he had never fully appreciated just how exhausting rescue swimming could be in moving water.

Day Five

The strategic group had a full day put aside to spend at the CFD Training Academy with US FRS colleagues, with the first sessions of the day commencing at 0800. The day included input from US speakers on flood management and federal responses to major events. A fascinating and thought provoking case study was delivered by Tim Miller who had been the officer in charge of the Oklahoma bombing and an F6 tornado that caused widespread destruction across Kansas. Tim used detailed presentations to

describe the operational challenges posed by these major incidents.

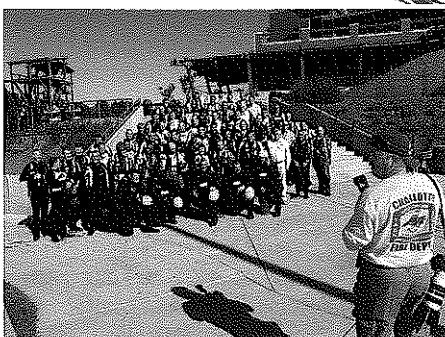
From a UK perspective, case studies were presented by CFO Roy Wilsher on the challenges arising from the Buncefield incident, and myself on the rescue challenges and national support arrangements put in place for the 2007 floods, outlining potential opportunities for specialist mutual aid and support between first world countries faced with major disasters. All of these case studies were interspersed with lively group discussions between the US and UK delegates.

The tactical group had a 0630 start heading to Burke County for boat operations training. To ensure optimum training conditions, the Duke Energy Company arranged a release of water from its hydroelectric plant. Using a range of rescue craft with CFD instructors, the UK delegates were able to experience and practise some of the systems of work developed in NC, before changing roles to demonstrate some of the systems developed in the UK. At the end of a full day's training on the river, the tactical group visited the City of Lenoir Fire Department, who provided shower and changing facilities.

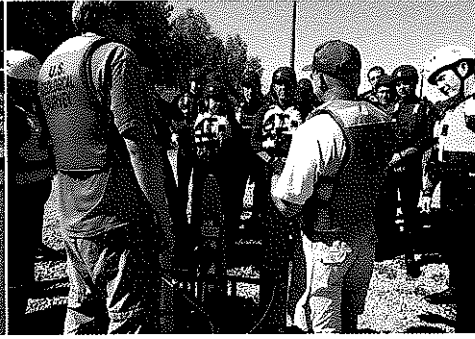
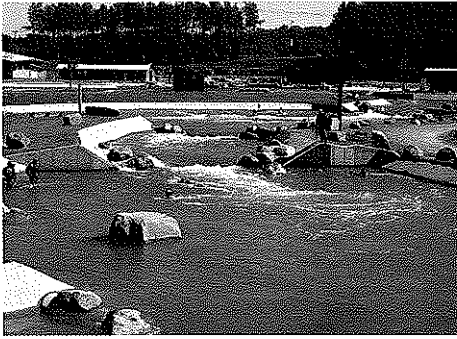
Having finished the day's command seminar at the CFD Training Academy, the strategic group travelled to Lenoir to join the tactical group and be hosted by the city and fire department. It was a full civic reception at Lenoir's Central Fire Station, complete with City Mayor and Chief Fire Officer Ken Brisco, US and UK flags, honour guard and renditions of each country's national anthems. The evening then quickly turned to 'Southern hospitality' and more barbeque and discussions. Whilst it has become almost 'uncool' in the UK to express genuine pride and passion in our profession, our hosts' enthusiasm was infectious and a number of FRS delegates could not resist crawling all over the various appliances and comparing notes with their opposite numbers on equipment and training.

Day Six

Not to be outdone by the tactical team's 0630 start the day before, the strategic



by Paul Hayden



team were picked up from their hotel at 0500 for a trip to NC's State capital, Raleigh, and a meeting of the State Emergency Response Commission and visit to the NC EOC. I gave an overview to the Commission of the way in which the partnership between NC and CFOA had delivered positive and measurable benefits for communities on both "sides of the pond" and thanked the State Secretary, Brian Beatty, for his assistance over the previous four years.

After the meeting, Secretary Beatty went with the group to visit the State EOC and the head of the Emergency Management Division, Doug Hoel. The group had a tour of the EOC facilities and had the chance for frank discussions with their hosts about the all important political aspects of major incident management and in particular, the ways in which the links between local responders, State and Federal levels of support are managed.

The tactical group had a "lie in" until 0700 when they were picked up for a journey to the NC Air National Guard base at Salisbury where three Black Hawk helicopters were waiting for them. Their day included briefings on the programmes developed to integrate land-based rescue efforts and the air assets deployed by the Air National Guard. The NC Helo Aquatic Rescue Team (NC HART) system and its supporting training and development programme has been recognised as best practice across the US.

UK tactical delegates were able to play a full part in the exercises, although the strategic group who had planned to join them in the afternoon missed out on the experience when their bus was delayed on the interstate due to an RTC. It did not particularly help the mood of disappointment on the bus when a firefighter on the tactical group sent a text message to his principal officer colleague explaining in detail what a fantastic day it had been and what a shame it was that he had missed it!

Despite the early start, the programme moved late into Friday evening which finished with a closing meal at the delegates' hotel, again with full civic

protocols. US colleagues who had formed part of the CFOA team that had had been granted the 2008 Higgins and Langley award were presented with their certificates and formalities quickly gave way to informal discussions and exchanges of small gifts. A number of UK delegates had to make emergency purchases of additional suitcases to bring home their collection of T-shirts, caps and badges!

The visit has been debriefed on both sides of the Atlantic to ascertain key learning points and to evaluate the value of the trip. From a UK perspective, all of the delegates, from FRS and our partner organisations, have commented on the value of the trip in their personal development, their understanding of the issues, and the role and capabilities of the partners, various agencies represented.

We have also created a small cadre of firefighters and senior FRS managers in every part of the UK that have a common understanding of the challenges presented by major flood response. That common understanding is also present in key representatives from government agencies and voluntary sector organisations. Our task now is to use this experience as a starting point for delivery of a truly world class flood response/rescue capability for the UK.

Our US hosts put an enormous amount of time and resource into making the trip as successful as it was. However, they have reported a number of key benefits for themselves. Firstly, the recognition they have received from the UK has assisted them in communicating the success of their programmes to their own citizens in NC, and to the wider response community across the US. Secondly, they have seen significant growth in UK knowledge and capabilities over the past few years to the extent that they are now keen to learn about the new rescue methods and command systems we have developed.

Will there be a US/UK Flood Symposium 2009? Having said "never again" after trying to organise the last visit in just six weeks, there could well be if there is sufficient interest amongst the UK response community.

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