

Fire Risk Assessment – from property to people

Two studies sponsored by the Nottinghamshire Fire and Rescue Service, one into the assessment and management of risk, and the other on effective communication, picked up the top two prizes in this year's Fire Related Research and Developments Conference (RE13), reports **Pete Murphy** and **Kirsten Greenhalgh**



FIRE/Gore Research Excellence Award winners Craig Parkin, Peter Murphy and Kirsten Greenhalgh with FIRE Editor Andrew Lynch

The FIRE magazine/Gore Research Excellence Award went to Peter Murphy, Kirsten Greenhalgh and Craig Parkin, who are investigating the medium and long-term strategic risks within Nottingham and Nottinghamshire as part of the integrated risk management planning (IRMP) process. This represents the latest stage in a long-term collaboration between NFRS and the two universities in Nottingham.

FIRE has been reporting the progress of this research since it was first presented at the 2011 conference. Here, Pete Murphy and Kirsten Greenhalgh explain the background to the programme, and the emerging issues highlighted by the latest phase of the research.

Genesis

The genesis of our research lies in the Fire Services Act 2004 and the introduction of the IRMP process. This radical legislation fundamentally changed the approach to Fire

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Risk Assessment and Fire Service deployment in England and Wales, from a system that based its operations around an assessment of risk to property, to a system that based its operations around an assessment of risk to people and communities.

The new system also reinforced the strong tradition within fire services of policy and decision making based upon a robust and effective evaluation of available data and information, ie, with strategy and delivery being ‘evidence-led’, resting on robust, transparent and quality-assured performance data that is systematically investigated and situationally appropriate.

In order to implement this new approach, the previous government supported new databases, tools and techniques designed to help services implement the new process (ODPM 2006). The level of sophistication of these new assessments was only made possible because of recent significant improvements in digital mapping and

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increases in computer processing capacity.

Our research has been focused on assisting and facilitating the efficient and effective introduction of this people-centered, evidence-led approach to risk assessment and consequential service reconfiguration. It has reviewed the strategic positioning of the IRMP within the National Framework for Fire and Rescue Services and at its implementation at the local service level in Nottinghamshire. New national frameworks for Scotland, Wales, Northern Ireland and the Republic of Ireland, all published in the last year, have adopted this approach and it is likely that a number of countries across Europe and further afield will seek to adopt a similar approach.

Our research has adopted an holistic perspective in that it looks at the impact of the national framework for the management of fire and rescue services and compares it to other previous and contemporary public sector performance regimes operating at both national and local levels. It not only critically appraises existing systems but demonstrates how they can be improved and how they can learn from each other.

Phase 1 – Assessing Immediate and Short Term Risks

In 2009 NFRS established a Knowledge Transfer Partnership with Nottingham Trent University to evaluate the effectiveness of community safety activities in reducing risk to people and communities. At the same time it embarked on a review of service deployment across the county based upon a comprehensive re-assessment of fire risk to local communities and the new IRMP process.

As Pete Murphy stated in his interview with Editor Andrew Lynch at RE13: “The 2004 Fire Act made us change our approach to risk and how we respond to it. In some parts of the county and the country, the pattern of risk will change significantly, while in other parts it will change marginally, but the pattern of risk will change everywhere, across every part of the country, and gradually, the services are going to have to evolve to take account of that.”

The research team were initially invited to collaborate with NFRS and the fire authority on the implementation of the IRMP as part of its Fire Cover Review (FCR) project. The FCR was carried out between 2010 and 2012 and was, in effect, the outcome of the first comprehensive IRMP process for the county as a whole. Its inception predated the recession and the restrictions on public expenditure, but its analysis and implementation were undertaken during the current period of ongoing austerity in the UK. Its strategy and implementation was not however centred directly on the service’s response to austerity, or based on the theory and practice of what has become known as ‘cutback management’ (although significant reductions in expenditure, did have to be achieved, as in every other fire service), rather its response retained

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the centrality of the revised level and patterns of risks facing local communities.

As reported in these pages in February 2013 our initial project found weaknesses in local and national performance data that required addressing in order to facilitate the development of robust and detailed risk profiles for the county’s local communities. However, the original research could only assess the available evidence and the policy options for the redeployment of services in the short term, whilst at the same time demonstrating that additional analysis would be necessary for the medium and long term.

IRMP and a Long Term Strategic Needs Assessment (SNA) for Nottingham and Nottinghamshire

The publication of the new Fire and Rescue National Framework for England in July 2012 (DCLG 2012) effectively confirmed that fire and rescue authorities and their fire and rescue services in England would continue to be required to periodically reconfigure the deployment of their resources as a result of the changed responsibilities and patterns of risk over both the short and long term. Having previously assessed immediate and short term risks, the authors have been commissioned by NFRS to undertake a Strategic Needs Assessment (SNA) of medium and long term risks for fire services under the new national framework. Despite considerable debate and speculation the new national framework confirmed and embedded the IRMP process and its people-centred and evidence-led approach.

The new national framework also clarified and clearly distinguished the roles of the fire and rescue authorities and the fire and rescue services, and during the forthcoming research the university researchers will become an integral and embedded part of the advice that the service provides to the fire and rescue authority. As explained in an earlier article (*FIRE* July 2013) NFRS invited the authors to contribute to the evidential base, the risk assessment and the formulation of medium and long term strategies for service reconfiguration and the deployment of resources.

The universities will therefore help to create both the evidence base and the development of the strategy to be recommended to the fire authority. As it is the fire authority, rather than the fire service, that makes any decisions on the final form of the strategy, and as the roles of authority and NFRS have been clearly separated, the research team are able to maintain the academic independence and ‘quality assurance’ of the research.

All three organisations also wish to ensure that any knowledge, learning, good practice or public value that is created through the project is openly shared with both the local and national fire and rescue and resilience communities as well as by academics and researchers interested in the emergency services. Through the placing



Nottinghamshire Trent University's Dean of Social Sciences, Katie Moore (right), presents student prize winners Robert Wilding and Freyja Nash with their award for best poster

of all findings in the public domain, and in effect sharing any intellectual property rights, it is hoped that this second piece of research will have as much impact as the initial 2011 study.

Emerging Issues

Although the current phase of the research is ongoing, the work already undertaken for the FCR and the scoping work for the SNA project, strongly suggests that three of the key issues that will need to be factored into the medium and long term assessments of local risks are:

- The planning and development framework and development proposals in the area
- Changes to the national infrastructure, and
- The impact of long term climate change.

From our initial investigations it appears that recent changes to the Planning and Development Framework are introducing less rather than more certainty into the future planning process for service delivery; while the impact of climate change is becoming more rather than less predictable. We hope to be able to report on these issues in future articles as and when the current phase of the project has been completed.

Our research has benefited greatly from extensive access to national and local databases, as well as to national and local networks within the fire and rescue and policy making community. It has also profited from a mutually beneficial level of trust and reciprocity between individuals which is gradually being developed into a mutually beneficial relationship between our local institutions. It clearly demonstrates how public value and systemic innovation can be created and enhanced by such

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mutual trust and cooperation. In our view it also shows policy makers, service deliverers and academics the importance of the state and the fire sector creating and actively facilitating a highly networked system of actors and agencies (public, private and third sector), from across the fire and emergency communities to work together collectively and creatively for the benefit of the our national and local communities.

References:

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2. ODPM., 2006, *FSEC Toolkit Review Manual*, TSO, London.
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4. Murphy, P., Greenhalgh, K., and Parkin, C., 2013. *A strategic needs assessment for Nottinghamshire. FIRE*, 105 (July/August 1354), pp. 24-26.

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Further details of the *Fire and Rescue Services Research Programme* can be found on the NTU website at http://www.ntu.ac.uk/apps/research/groups/22/search.aspx/academic_school or directly from the authors Peter.murphy@ntu.ac.uk or Kirsten.greenhalgh@nottingham.ac.uk