

AIIMS Doctrine: have we got the fundamentals right?

By Geoff Conway, Principal Consultant, Crossbow Consulting Services.

ABSTRACT

The Australasian Inter-service Incident Management System (AIIMS) has been the foundation of Command and Control doctrine for fire and emergency services in Australia and New Zealand for over 20 years. The three key principles on which it is based, management by objectives, functional management structures and span of control are tried and tested ideas that have served the system well. However, given the number of major natural disasters in Australia and New Zealand in the past 15 years there is a huge body of lessons learnt on which to draw, and an opportunity to look again at these fundamental ideas and concepts to be sure they are meeting the needs of AIIMS users.

The Australian Inter-service Incident Management System (AIIMS) is founded on three key principles; *Management by Objectives*, *Functional Management Structures* and maintaining a manageable *Span of Control*. If principles are the fundamental truths on which other ideas depend then it is worth asking if these three ideas provide enough guidance for those who use AIIMS.

Understanding the three key principles is critical to the effective application of AIIMS. Without this understanding the system can, and on occasion has, become a rigid set of rules that do not readily support the 'all hazards – all agencies' model that is central to emergency management in Australia and New Zealand.

AIIMS identifies a number of attributes that describe other important concepts that guide the use of the System such as *adaptability* and *scalability*, and *uniform terminology*. Unfortunately these ideas are rarely discussed by those who advocate for, and train personnel in, the use of AIIMS yet some of these attributes are arguably just as important as the three principles. Much of the training material developed to support the teaching of incident managers about AIIMS does not examine these attributes closely, or discuss

how they should be applied in making AIIMS and the three principles work for any particular incident.

The Australasian Fire and Emergency Services Authorities Council (AFAC) AIIMS Steering Committee, the body charged with the custody and oversight of AIIMS, recently commissioned a comparison of AIIMS doctrine (AFAC, 2012) with other Incident Management Systems used in Australia and overseas. In particular it compared the systems used in New Zealand, the United Kingdom and the United States. The results of this analysis are revealing, especially in relation to the identification, explanation and application of high level principles and underpinning concepts.

As indicated at the beginning of this article, the fundamentals underpinning emergency management systems in Australia, as described in *Emergency Management in Australia – Concepts and Principles – Manual 1* (EMA, 2004), are that arrangements developed by all jurisdictions should be applicable to all hazards and be integrated, that is applying to all relevant organisations, agencies and the community. These ideas are the foundation of state and territory arrangements.

AIIMS has been developed to ensure that it could be applied in this *all hazards–all agencies* environment and for the past twenty years has been successfully applied to a huge range of multi-agency incidents. However, not all agencies in Australia would agree that AIIMS continues to achieve this as effectively as the modern world needs it to. Commissioner Greg Mullins of Fire and Rescue NSW has expressed concerns on challenges faced in the past in applying AIIMS to some of the complex structural incidents the fire fighter must manage. Chief Officer Trevor White, Director of Operations for VICSES explains that his organisation has modified the management structure of AIIMS to more readily support the challenges of managing major protracted flood events (VICSES, 2011). In particular, the task of gathering intelligence on the likely impact of floods on communities has required the elevation of this work as a function of the IMT. Police Services across Australia have developed their own incident management system, the Incident Command and Control System (ICCS) for the management of terrorist-related events. This system is based on the principles of AIIMS with modifications to the structure to meet some of the unique challenges of police operations.

There are a number of other agencies that have developed incident management systems to guide their staff on how to organise for response to emergency incidents. The Australian Government Department of Agriculture, Fisheries and Forestry recently established a Bio-security Emergency Preparedness Working Group that is working on an incident management system to address bio-security hazards. This system was still in draft format at the time of writing. The Department of Transport has taken the same approach to the management of marine casualties developing an incident management system that addresses the complexity of that hazard and the challenges of managing multiple jurisdictions in the marine environment. All these systems have varied the AIIMS model.

Observers outside the emergency management environment have also raised concerns about how AIIMS is structured and applied. The Victorian Bushfires Royal Commission in their interim and final reports were concerned that AIIMS did not give the appropriate weight to the obligations an incident management team had for the provision of warnings and advice to the community during an incident. This view has led to the introduction of the *public information* function as part of the AIIMS Management structure. This change has now been incorporated as part of the AIIMS Third Edition 2011 Revision (AFAC, 2011).

Given these concerns and action taken by many agencies to vary from the traditional AIIMS model it is difficult to sustain the idea that AIIMS continues to be a truly all hazards all agencies system.

So what is really going on here? If we compare AIIMS with other systems, in particular the principles and underpinning concepts that they identify as the foundation of their systems and the way they apply these, part of the answer starts to emerge.

The three principles on which AIIMS is based, *Management by Objectives*, *Functional Management* and *Span of Control* appear in most systems that have been developed both in Australia and overseas. However, with the exception of the New Zealand Coordinated Incident Management System (CIMS), most of these models share a common weakness. They all provide multiple lists of principles, attributes, characteristics, system benefits or some other descriptive list of concepts that underpin the system. There is little consistency between these lists and it is not always easy to find the important ideas on which a system is based.

The National Incident Management System (NIMS) applied in the United States describes two fundamental principles—*flexibility and standardisation*. These are supported by a number of *systems characteristics* including *common terminology*, *management by objectives*, *modular organisational structures* and *manageable span of control*. Also of interest to this discussion are the key attributes of an incident management system identified in the recently released *International Standard on Societal Security – Emergency Management: Requirements for Incident Response*, ISO

22320 (ISO, 2011). This document identifies *scalability*, *the need to be adaptable to any type of incident*, *the ability to integrate different response agencies*, and *flexibility to the evolution of an incident* as the most important ideas to apply to the building and application of an incident management system.

The New Zealand CIMS identifies seven key concepts on which their system is built, including some ideas common with AIIMS, but adding *common terminology and integrated communication systems*, among others. There are clear differences in what jurisdictions consider to be important. What emerges from this analysis is a set of mixed messages about the important ideas that guide the way we manage emergencies at incident level.

If AIIMS users are going to be able to apply the system in an *all hazards – all agencies* environment then there are at least three other concepts that should be highlighted and understood in the context of the existing principles. They are *flexibility*, *scalability* and *unity of command*.

NIMS identifies *flexibility* as a key principle for the application of that system. The US Department of Homeland Security, the custodians of NIMS, strongly emphasise this idea. They state that “.. flexibility is essential for NIMS to be applicable across the full spectrum of potential incidents...” (FEMA, 2008). Boin and t’Hart (2010) make a similar point in their discussion of the lessons that emergency managers can learn from research when they suggest that, “Effective crisis management depends on principles and processes that assure flexibility and a smooth flow of information; formal structures play a facilitative role at best.”

A rigid approach to the application of AIIMS, whether it be the structure of the incident management team, the format of a planning process and incident management plan, or the manner in which incidents are classified, has and will continue to undermine the usefulness of the System. But more importantly this rigidity will compromise the capacity of agencies and incident controllers to respond to the incident with which they are confronted. Flexibility must be a key principle underpinning AIIMS.

The principle of functional management structures for incident management teams is shared with virtually every other system developed around the world. One of the key ideas guiding the development of a functional incident management team (IMT) is *span of control*, identified in AIIMS as a foundation principle. But there is a problem here because span of control is not the only idea that must be applied to building an IMT to ensure it works. The other critical idea is *scalability* (i.e. structuring the IMT in a way, and at a size, that reflects the needs of the incident). The AIIMS manual identifies scalability as an attribute of the system but does not discuss its application other than in general terms, when it indicates that the delegation of various functions of incident management “will depend on the size and complexity of the incident” (AFAC, 2011 p 12). There is also some general guidance provided

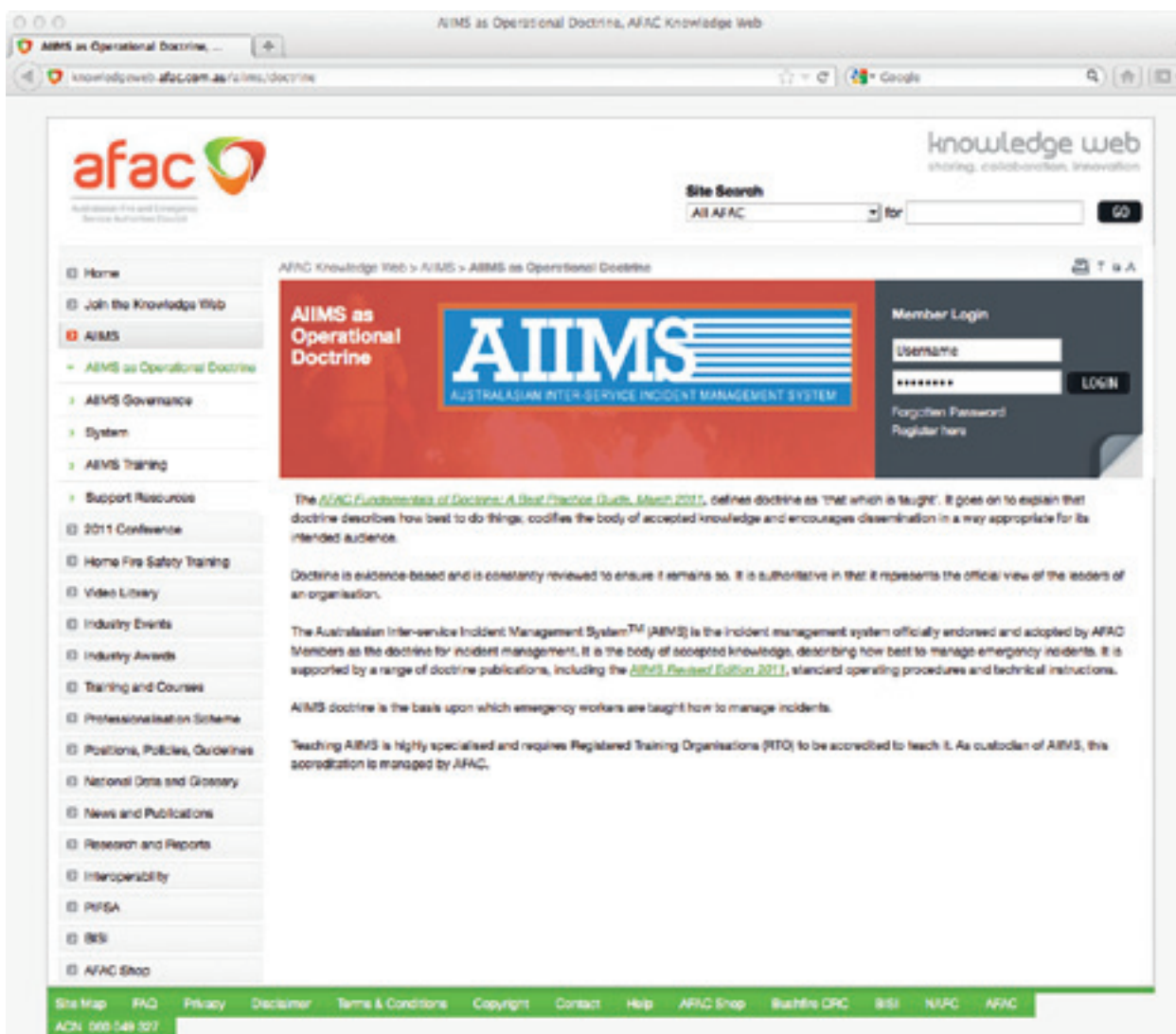
in the discussion of incident classification, but once again the discussion does not reference the scalability concept or emphasise how important it is in building an appropriate IMT for the task.

NIMS identifies this concept as a key management characteristic of Command Management when the principle of 'modular structures' is explained, and provides guidance throughout the NIMS documentation on how it is applied (FEMA, 2008, p 47). The notion of a 'modular' management structure incorporates both the concepts of span of control and scalability as interdependent ideas.

The advice provided to Fire and Rescue Service personnel in the UK in relation to incident management and scalability is different in many ways to other models, but they make one very pertinent point. In the Fire and Rescue Manual Vol.2 – Fire Service Operations – Incident Command, the discussion on *Organisation of the Incident* they makes it clear that "There is no advantage in over structuring an incident with additional tiers (of management) if they are not needed" (2008, p 33).

The idea of scalability is acknowledged as an underpinning concept in most incident management systems reviewed by the AIIMS Steering Committee in its comparative analysis, even though at times it is hard to find in the supporting documentation. It is critical to the application of the principle of functional management and flexibility. If 'span of control' is considered important enough to be a principle of AIIMS then scalability warrants similar emphasis.

The third concept arising from the comparative analysis that is worthy of further consideration is that of *unity of command*. The current edition of the AIIMS manual does not make reference to this idea even though it is central to the application of the system. In its simplest terms, unity of command requires that there be one person in control/command and that there is a single reporting line for all those involved in the response. The extension of this concept is that for any incident there is one plan to which all agencies involved in the response work. It may be that many involved in emergency and incident management see this as a statement of the obvious.



<http://knowledgeweb.afac.com.au/aiims/doctrine>

Given the complexity and scale of emergencies experienced in Australia over the past ten years the need for an effective multi-agency response becomes critical to the support and protection of communities under threat. With the potential for many agencies to be involved, the pressure on the control agency to provide structure and planning is huge. When this does not occur in the time frames expected, the temptation for supporting agencies is to pursue their own course with the risk being that such a course will compromise unity of command and the objective set by the control agency.

Concerns in relation to incident action planning have been raised by the Victorian Bushfires Royal Commission, the Victorian Flood Review (2011, p 133-134) and the report of the Special Inquiry into the Perth Hills Bushfire in January 2011 (2011, p 103-104). The importance of all agencies working to a common objective and one consolidated plan is emphasised by all these reviews. The identification of unity of command as an underpinning principle of AIIMS would seem worthy of consideration.

Changes to operational doctrine have been constant throughout the history of emergency management, driven both internally by agencies undertaking reviews of their own performance or externally as a consequence of formal scrutiny. Whatever the prompt for change might be any change is often hard won. For example, the proposal to elevate the role of information to the community within the AIIMS structure to a function in its own right was explored by the AIIMS Steering Committee on a number of occasions between 2003 and 2009 without resolution. It was not until the examination of the issue and subsequent recommendations by the Victorian Bushfires Royal Commission that change was achieved.

In his Keynote address to the 2011 AFAC Conference, AFAC President Commissioner, Lee Johnson, said of the emergency services, "Our greatest risk is not climate change or technology but failure to adapt/innovate and drive a mantra of continuous improvement through our sector. In an historical sense, evolutionary change is preferred, however the odd revolutionary change may well be needed to undertake the corrections necessary to ensure relevancy in the services delivered to citizens."

The current consideration of AIIMS doctrine by the AIIMS Steering Committee is very much part of a process of continuous improvement. The Steering Committee is actively engaged in preparing the fourth edition of the AIIMS Manual. Close scrutiny of the way in which principles and underpinning concepts are described and referenced in AIIMS doctrine will be a central part of that work.

There is no charter for revolution but it is clear from the comparison of AIIMS with other incident management systems there are things that can be learnt and refinements that will benefit all AIIMS users. If we can provide clear guidance to users on all the critical concepts on which AIIMS is based it should be much easier for incident managers to apply the System flexibly and effectively.

References

AFAC, 2012, *Comparative Analysis – Incident Management Systems A comparison between the Australasian Inter-services Incident Management System and other Command and Control Systems in use within Australia and Overseas*, Australasian Fire and Emergency Services Authorities Council, Melbourne.

AFAC, 2011, *AIIMS Third Edition 2011 Revision*, Australasian Fire and Emergency Services Authorities Council, Melbourne.

Boin, A., and 't Hart, P., *Organising for Effective Emergency Management: Lessons from Research in Australian Journal of Public Administration*, vol 69, no 4, pp 357 – 371.

Comrie, N., 2011, *Review of the 2010-11 Flood Warnings and Response*, Victorian Government. Melbourne.

Emergency Management Australia, 2004, *Emergency Management in Australia – Concepts and Principles – Manual 1*, EMA, Canberra.

HM Department of Communities and Local Government, 2008, *Fire and Rescue Manual Vol. 2 Fire Service Operations – Incident Command*, The Stationery Office, Norwich.

ISO, 2011, *ISO 22320, Societal security – Emergency management – Requirements for Incident Response*, ISO, Geneva.

Keelty, M. J., 2011, *A Shared Responsibility – The Report of the Perth Hills Bushfire February 2011 Review*, West Australian Government, Perth.

US Department of Homeland Security, 2008, *National Incident Management System*, FEMA, Washington.

About the author

Geoff Conway is a founder and the principal consultant of Crossbow Consulting Services. He is currently engaged by AFAC as Executive Officer to the national AIIMS Steering Committee and was formerly a Deputy Chief Officer and Level 3 Incident Controller with the Country Fire Authority, Victoria.