

# Command and Control for Major Incidents

## Critical Incident Management and the Information Gap

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### Abstract

All major incidents, as defined internationally but especially those involving hazardous materials, present particularly severe problems in operational command. The problem is primarily one of the availability and suitability of information on which to base an incident ground assessment of risk. This problem constitutes the 'information gap' and needs to be addressed if Fire Service and other Emergency Service command and control systems are to meet the expectations and demands of increasing public awareness, particularly in the aftermath of the events in New York on 9 September 2001. The wilful, criminal use of hazardous materials to engineer an incident of mass effect, i.e., to produce maximum destruction or disruption, removes sources of information normally associated with accidents involving transport or storage of these materials.

Under normal circumstances, the Emergency Services can expect that hazardous cargoes will be correctly marked, with additional information available from manifests and bills of lading. Fixed installations, such as chemical process plant or refineries, will have specialist staff on-site and a well established inventory system. Malicious attacks using hazardous materials are, however, a very different matter. No accurate information, or worse, misleading information on the hazard will be available. First responders will have to identify the hazard based on very little intelligence before being able to decide on correct operational procedures. This can take considerable time. In this sort of incident lack of information, or failure to communicate it adequately to all concerned, coupled with an overriding need to identify the hazards assumes major importance.

Major incidents are often characterised, at the review or enquiry stage in the months that follow, by a realisation that inter-agency communication difficulties contributed greatly to the operational problems experienced. Proper liaison between the various Emergency Services must be combined with a clear definition of primacy of authority. Without suitable and sufficient information, which must also be timely and operationally relevant, proper command and control cannot be exercised; critical incident management will fail in terms of having the 'authority' to allocate and control resources, to achieve co-ordination and direction, and to complete assigned activities and functions correctly. Procedural, technical and institutional problems with communication between and within the various agencies involved have been identified in the recent McKinsey-FDNY Report on the World Trade Centre (WTC) terrorist attack, as well as in other major disasters such as the 1992 El-Al Boeing 747 crash in Bijlmermeer close to Amsterdam Schiphol international airport. The recent COBR report from the British Government on the fire fighters' strike has highlighted ways of improving inter-service liaison together with operational command and control, such as Joint Operational Control Centres (JOCCs).

However good a system one has, it is no better than the primary information on which it is based. The overriding need, therefore, is for reliable, well validated and verified data on which to base an information system suitable for strategic and tactical planning purposes. This information must be available at a variety of different levels and in a variety of different forms, digested so that it is meaningful to all stakeholders.

This paper is concerned with the needs for information collection, retrieval and communication during critical incident management as impacted by procedural, technical and institutional biases. Discussion is based on published reports and practical experience of developing information systems for strategic and operational use.

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