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Background

The National Interagency Incident Management System (NIIMS) was designed by a group of local, state, and federal agencies with fire protection responsibilities to improve the ability of fire protection forces responding to any type of emergency. While NIIMS is not new, it includes the best parts of two fire suppression management systems that were used across the nation for wildland fire operations and other emergencies. These were the Large Fire Organization and the Incident Command System (ICS). NIIMS includes other interactive subsystems that help to make a comprehensive emergency management system.

A Concept: In 1981, NIIMS was accepted by representatives of federal and state wildland protection agencies as a concept, with the understanding that much work remained to be done on the details of the system. Thus, while the concept remains the same, interagency development efforts have broadened and strengthened the system since it was first accepted by the agency representatives.

Although NIIMS was developed by fire protection agencies, the same management concepts can and have been used to respond to public emergencies of any type. Using the principles outlined in NIIMS, national disasters such as terrorist bombings, floods, hurricanes, and earthquakes, and local situations in which several jurisdictions are involved, such as tornadoes, major aircraft accidents, and hazardous material spills can be managed more efficiently.

The NIMS builds upon the existing National Interagency Incident Management System (NIIMS), which is widely used among state and local response organizations. It includes those aspects of NIIMS that have proven themselves over the years (training, qualifications and certification, publication management, and supporting technology). In addition, the NIMS incorporates the Incident Command System, which is a key component of NIIMS.

Throughout the country, most emergencies require the coordinated efforts of several emergency service organizations working together. For example, urban sprawl (wildland/urban interface) has created situations in which there is no clear line where one agency's responsibility ends and another agency's begins. Additionally, with the development of NIMS, all emergency operations will be conducted using the same command structure, emergency prevention, preparedness, response, and recovery activities. NIMS has set the stage for national adoption of its guiding principles of uniform terminology and titles for all emergency operations. These operating principles have been instrumental in allowing local, state, and federal agencies to work together and to share resources to mutual advantage.
What is NIMS and NIIMS?

NIMS contains six major subsystems and NIIMS contains five. While different in title and scope, in many aspects they are quite similar in functions.

National Incident Management System (NIMS):

✓ Command and Management

The system used to facilitate emergency management includes (ICS), Multiagency Coordination System, and the Joint Information System (JIS).

✓ Preparedness

Involves an integrated combination of planning, training, exercise, qualifications and certification, equipment certification, and publication management processes and activities.

✓ Resource Management

The NIMS defines standardized mechanisms and established requirements for a process to describe, inventory, track, and dispatch resources before, during, and after an incident.

✓ Communications and Information Management

Identifies the requirement for a standardized framework for communications and information management (collection, analysis, dissemination, and information sharing) at all levels of incident management.

✓ Supporting Technologies

Technology and technological systems provide supporting capabilities essential to implementing NIMS.
Also included are specialized technologies that facilitate ongoing operations and incident management activities in situations that call for unique technology-based capabilities.

√ Ongoing Management and Maintenance

This component establishes an activity to provide strategic direction for, and oversight of, the NIMS supporting data routine and the continuous refinement of the system over the long term.

National Interagency Incident Management System (NIIMS):

• Incident Command System

The on-scene management structure is called the ICS. Operating requirements and interactive management components for organizing and operating the system are included.

• Training

NIIMS contains a standardized training subsystem which supports the effective operation.

• Qualifications and Certification

A recommended qualifications and certification subsystem for those personnel who are expected to be assigned regionally or nationally and allows for the development of local minimum standards to meet local needs.

• Publication Management

A publication management subsystem which includes development, publication, and distribution of NIIMS materials.
• **Supporting Technology**

Supporting technologies such as Geographical Information Systems (GIS) mapping, infrared technology, the National Fire Danger Rating System, common communications, Dispatch Coordination System, and the National Cache System.

**Operating Requirements**

The following are operating requirements of the ICS — the on-scene management structure:

- √ Uses common standards in organization and procedures.
- √ Applies to any emergency.
- √ Applicable from the smallest to the most complex incident.
- √ Provides for logical and smooth organizational expansion.
- √ Maintains autonomy for each agency.
- √ Applies to all emergency management protection agencies.
- √ Stresses the concept of total mobility and use of nearest forces.
- √ Adapts to new technology.
- √ Provides for qualifications and certification standards to meet national, regional, and local needs.
- √ Minimizes cost of training, operation, and maintenance.
Management Concepts

ICS provides commonality for the following management concepts and principles to be integrated into the command structure:

- **Common Terminology** - All participating agencies use predefined standard terms and clear text radio procedures.

- **Functional Management** - Organizational management of the Incident Command System is by five major functions: command, planning, operations, logistics, and finance/administration.

- **Management by Objectives** - MBO is the topdown management so all involved will know and understand the objectives of the operation.

- **Unified Command** - All agencies or individuals who have jurisdictional responsibility contribute to determining overall objectives and to the selection of a strategy to achieve those objectives. In some cases, those with functional responsibility at the incident will also contribute to developing strategic objectives.

- **Consolidated Action Plan** - Only one action plan is required so that everyone involved in the incident understands what is to be done.
\* Span of Control - In general, the best span of supervisory control is three to seven subordinates with five being the optimum. The actual situation on an incident may dictate some other number.

\* Integrated Incident Communications - Integrated communications assists participating agencies plan the use of integrated radio frequencies in advance to tie together all tactical and support units on an incident.

\* Designated Incident Facilities - For major incidents, several kinds of facilities may be established at or near the incident. The command post is the center of incident management. The incident base is where all other support functions are performed. Other facilities, such as helibases, staging areas, and camps may be established as needed.

\* Management of Tactical Resources - The management of resources can be in three different modes or a combination of them:

  * Single Resources - These are individual engines, EMT units, dozers, handcrews, helicopters, or other resources that may be assigned as primary tactical units.

  * Strike Teams - Specified combinations of the same kind and type of resources with common communications and a leader.

  * Task Forces - Any combination of single resources with common communications and a leader.
Organization and Management of Tactical Operations - Tactical operations at any incident may be organized differently depending on the type of incident, the agencies involved, or the objectives and strategies selected. Cooperative support from partner agencies may occur at any level. For instance, initial attack forces from the responding jurisdiction may not be adequate and a partner agency may assist by sending its nearest forces.

Single Jurisdiction Initial Response

Incident Commander Responsible for All Incident Management Functions

As an incident builds and becomes more complex, the management system may also expand to effect efficient control. The following is a wildland fire example of this expansion with Task Forces and Strike Teams.

With Task Forces and/or Strike Teams
If an incident continues to become more complex the following is an example of a major incident with full organization and support.

Organization of NIIMS Incident Command
Other NIIMS Subsystems

Training

Training courses and materials supporting the component of NIIMS have been developed and refined over the years into a performance-based system.

Qualifications and Certification

NIIMS provides qualifications and certification standards in wildland firefighting and fosters support in development of national standards in urban firefighting and other emergency public services. Standards typically include training, experience, and physical fitness. Local minimum standards can be established to meet local needs. National standards are established to apply to those resources that are expected to be regionally or nationally mobilized.

Publication Management

This subsystem ensures quality education materials and development. It controls development and revisions, establishes and manages a distribution network, and is a source for publications.

Supporting Technology

NIIMS is supported by a variety of new technologies or concepts, each of which can be implemented separately or in combination. The following are examples of supporting technologies:

- GIS mapping
- Infrared Technology
- National Fire Danger Rating System
- Common communications
- Dispatch Coordination System
- National Cache System
**Interrelationships of subsystems:**
Each of the subsystems of NIMS/NIIMS is interactive, each supporting the other. Components, such as some of the supporting technologies, may be adopted alone but the primary strength of NIMS/NIIMS is that collectively the subsystems provide a total systems approach to all-risk incident management.

**Advantages of NIIMS/NIMS**

Some of the concepts already mentioned include the use of uniform terminology, procedures, and organization. Agencies can more easily share resources with their neighbors, improving their efficiency and effectiveness.

The use of a uniform management system enables managers to more effectively utilize the combined resources of cooperating emergency response agencies. NIIMS/NIMS makes it easier for federal, state, and local agencies to exchange resources and to coordinate effective suppression action. The common standards in organization, procedures, communications, and terminology provide the basis for flexibility.
When agency representatives talk with each other and work together to achieve common objectives they find ways to become more efficient and effective. They become acquainted and better understand each other’s strengths, weaknesses, and responsibilities fostering a climate of mutual understanding and support. These things do not just happen, they take work. NIIMS/NIMS provides the thrust to help make it happen.

The NIIMS/NIMS brings together many autonomous agencies, each with its own jurisdictions, policies, funding procedures, and other capabilities and limitations, into a cooperative association previously unknown in emergency services. Most of the concepts are not new. They are, however, brought together into a unified system having significant benefits to all emergency service agencies.

In summary, NIIMS/NIMS is a practical, workable method of effective utilization of the collective resources of all emergency agencies for handling any kind of emergency quickly and efficiently.
Web Sites of Sponsoring Agencies:

Bureau of Indian Affairs - Fire and Aviation Management
www.bianifc.org

Bureau of Land Management - Fire and Aviation
www.fire.blm.gov

Intertribal Timber Council
http://www.itcnet.org/

National Association of State Foresters
www.stateforesters.org

National Interagency Fire Center (NIFC)
www.nifc.gov

National Park Service - Fire and Aviation Management
www.nps.gov/fire

National Wildfire Coordinating Group
www.nwCG.gov

United States Fire Administration (FEMA)
www.usfa.fema.gov

USDA Forest Service - Fire and Aviation Management
www.fs.fed.us/fire

U.S. Fish & Wildlife Service - Fire Management
http://fire.fws.gov