



# **National Incident Management System (NIMS)**

## Compliance in Indiana: Interoperability Division of Planning and Assessment

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## Introduction

### Interoperability

[in-ter-op-er-a-bil-i-ty], *noun*  
: ...the ability of systems, personnel, and equipment to provide and receive functionality, data, information and/or services to and from other systems, personnel, and equipment, between both public and private agencies, departments, and other organizations, in a manner enabling them to operate effectively together...

The National Incident Management System (NIMS) defines interoperability as “...the ability of systems, personnel, and equipment to provide and receive functionality, data, information and/or services to and from other systems, personnel, and equipment, between both public and private agencies, departments, and other organizations, in a manner enabling them to operate effectively together. In addition, it allows emergency management/ response personnel and their affiliated organizations to communicate within and across agencies and jurisdictions via voice, data, or video-on-demand, in real time, when needed, and when authorized.”

Disasters or emergency events which prompt multi-discipline, multi-agency or multi-jurisdictional responses require meticulous and collaborative coordination. This coordination requires the equipment, training and communications of one entity to work cohesively with another entity, or to describe it in other words, these entities need to *interoperate*.

*What does interoperability have to do with you?* Interoperability is a NIMS standard. As outlined in the first article in this series, [NIMS Compliance in Indiana: An Overview](#), NIMS compliance is mandatory in order to receive public safety preparedness funding and reduce liability exposure. Additionally, state agencies are required to adopt NIMS standards as mandated in Executive Order 05-09. Therefore, understanding interoperability standards and how they apply to you is important to achieve and maintain NIMS compliance. According to NIMS standards, interoperability needs to be integrated into several aspects of public safety, including equipment, training, personnel, procedures and communications. Today, communications has become synonymous with interoperability. However, this NIMS standard applies to more than just the ability to communicate.

## There’s More than Communications in Indiana

...as far as NIMS interoperability standards are concerned. In Indiana, as well as in the majority of the country, when someone hears “interoperability” they immediately think “communications”. Perhaps Indiana is good to a fault when it comes to an interoperable communications infrastructure.





*Project Hoosier SAFE-T is a statewide, interoperable, wireless public safety communications system for Indiana local, state, and federal first responders/public safety officials. It supports both analog and digital radios, providing 95% mobile radio coverage statewide using 132 communications sites connected by T1 lines and microwave. As of August 2009, more than 50,000 radios from 900 agencies in all 92 Indiana counties are on the system.*

*“I'm a great believer that any tool that enhances communication has profound effects in terms of how people can learn from each other...”*

~ Bill Gates

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Thanks to our friends at the Integrated Public Safety Commission (IPSC), Indiana has one of the most robust statewide interoperable communications systems in the nation. The Hoosier SAFE-T 800MHz radio system has gone a long way to decrease the gap in voice communications across disciplines and jurisdictions in Indiana. The establishment of this communications infrastructure has helped to resolve an equipment interoperability issue with communications.

*So, having a radio means you are interoperable, right?* Not quite. If you were playing the two role network game, and your player client runs under Sun Microsystems and another player client runs under GNU Classpath with JamVM, the applications can execute the same bytecode and interoperate using the standard RMI-IIOP messages for communication. *Huh?* I just wrote that statement and I have no idea what it means either, but it does describe two interoperable systems. Possession of either of those systems does not ensure your interoperability if you do not understand how to use them properly. Just as with those computer applications, your 800 MHZ radio may work better as an interoperable paperweight than a communications tool if the user does not know how to use it properly. Your radio may be compatible with other radios, but this does not necessarily make it interoperable. Standard operating procedures addressing interoperability and appropriate user training are needed to truly make the radio an interoperable communications asset.

IPSC and the Indiana Department of Homeland Security (IDHS) recognize this need to enhance interoperability and have begun implementing the Interoperable Emergency Communications Grant Program (IECGP) to address writing standard operating procedures and training for the Hoosier SAFE-T statewide interoperable communications system. The IECGP is another step in the right direction for achieving NIMS interoperability in Indiana.

Communications is certainly an important interoperability issue, probably the most important, but it is not the only interoperability issue that exists in public safety. NIMS standards also identify the need for procedures, systems, personnel and equipment to be interoperable for successful response operations, not just communications.

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## NIMS and Interoperability

### Googled

[goo:glɛd], *verb*

: *The verb to google (also spelled to Google) refers to using the Google search engine to obtain information on the Web.*

*So what is interoperability?* Like any good modern day researcher, I *googled* it. I discovered at least eight different definitions, which vary based on the field it is applied to (i.e. computer software, medical industry, government, telecommunications, public safety, etc). Sometimes, too much information can muddy the waters even more. Rather than relying on a bunch of obscure definitions, I will attempt to describe interoperability as it relates to NIMS through examples. These examples are simple and crude, but hopefully shed some light on what interoperability means in the world of NIMS and to you.

The FBI Hazardous Devices School is a joint effort between the FBI and the U.S. Army. The school is located in Redstone Arsenal, Alabama and represents the government's only civilian bomb school.

The ability to interoperate can include the knowledge, skills and abilities of personnel in a certain field or discipline to translate to other personnel in the same field or discipline. Consider a response to a bomb threat. Would you be confident working with Explosive Ordnance Disposal (EOD) technicians certified by [www.big-boom-certifications.com](http://www.big-boom-certifications.com)? I am not sure their tactics will translate cohesively with the tactics of a unit certified by the Federal Bureau of Investigation's (FBI) Hazardous Devices School. This example highlights the need to recognize training standards to promote personnel interoperability.

In December 2001, a conference held in New York City brought together individuals with firsthand knowledge of emergency responses to terrorist attacks to discuss ways to improve the health and safety of emergency workers who respond to large-scale disasters. Conference participants concluded that a lack of equipment interoperability during these incidents caused much of the on-hand equipment to be effectively unavailable to many responders. For example, batteries for handheld radios were often not interchangeable, even for radios manufactured by the same company. Filter cartridges on different types of respirators had different coupling and were not compatible. Conference participants emphasized that interoperability should be a prime consideration whenever equipment availability, acquisition and certification was discussed.

Another, and often popular, concern is the use of common language over 10-codes. This example addresses the interoperability issues of communications and the standardization of operating procedures. Ten-codes can vary depending on your location. A disaster in Indiana requiring

Ten-codes have been used by police departments and other first responders for decades as over-the-air verbal shorthand. These codes can vary depending on the department, jurisdiction or discipline.

support from forces outside the state may create a scenario where this difference in standards hinders response efforts. The use of common language increases the ability of personnel to interoperate with one another. Imagine a mutual aid police officer from New York City calls in a “10-98”. You are probably preparing to perform “*a hard target search of every gas station, residence, warehouse, farmhouse, hen house, outhouse and dog house in the area*”, because “10-98” to a Hoosier indicates a prison break. However, the Yankee was simply signifying that he was resuming patrol and available. This example may be on the lighter side, but other discrepancies between 10-codes exist which can endanger response personnel and restrict them from performing their jobs as efficiently and effectively as possible.

## District Response Task Forces

The above examples address interoperability concerns with personnel, procedures and equipment for various disciplines. These issues are only a few of the many considerations when developing and maintaining a regional task force.

The need to address NIMS interoperability standards in Indiana is perhaps best emphasized in the newly established District Response Task Forces (DRTF). A task force is defined as any combination of resources assembled in support of a specific mission or operational need. By nature, task forces must have common communications, procedures and equipment.

The DRTFs in Indiana consist of specialized teams of emergency personnel comprised from various jurisdictions and disciplines within a District. The teams are trained and equipped to respond to a variety of incidents. Common training and equipment standards set for the DRTFs promotes their interoperability with the jurisdiction they are assisting and improves their overall ability to assist.

The interoperability of a DRTF allows for a more consistent response to an impacted location anywhere in the state, regardless of which District is being deployed. Essentially, the creation of DRTFs becomes a catalyst for enhancing interoperability within and across Districts in Indiana. This interoperability can only be accomplished through the

### DRTF Core Elements:

- Incident Management
- Fire Suppression
- Law Enforcement
- Emergency Medical
- Service Support

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coordinated and collaborative effort of the many jurisdictions of a District.

The Indiana DRTFs could also potentially be deployed nationally as part of a State Task Force. Clearly, interoperability becomes an even larger concern in this instance. Enter NIMS, a national standard. IDHS adopted NIMS principles and standards when providing guidance for the development of DRTFs. So, in concept, an Indiana DRTF providing assistance to another state, or vice versa, would be trained and equipped to similar standards and be able to interoperate...*anywhere*. If you don't believe this scenario is a realistic possibility, see Hurricane Katrina 2005. Indiana sent a State Task Force of more than 80 emergency personnel to the southern part of the country to support operations from the aftermath of Hurricane Katrina. The example about the Yankee cop in Indiana radioing in a "10-98" doesn't seem as improbable now...does it?

The DRTFs rely on local personnel and capabilities; and the interoperability of these teams can be ensured through NIMS compliance. Several NIMS objectives address interoperability and the integration of these standards supports the establishment and sustainment of the DRTF initiative in Indiana.

## **Clarifying the 2009 NIMS Interoperability Objectives**

Local NIMS compliance metrics measure the level to which interoperability is integrated into incident management polices and standard operating procedures/guides (SOPs/SOGs); exercise development; and acquisition programs for communication and data equipment.

By now, you or a representative of your department or agency is familiar with the online National Incident Management System Compliance Assistance Support Tool, or more (in)famously known as simply *NIMSCAST*. The NIMSCAST compliance objectives which require the integration of interoperability are as follows:

**Compliance Objective 15:** Incorporate NIMS concepts and principles into all appropriate training and exercises.

The federal government actually has a book for all of their thousands of acronyms. Of course, the Federal Acronyms and Terms book goes by its own acronym "FAT".

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**Compliance Objective 16:** Plan for and/or participate in an all-hazards exercise program [for example, Homeland Security Exercise and Evaluation Program (HSEEP)] that involves emergency management/response personnel from multiple disciplines and/or multiple jurisdictions.

**Compliance Objective 18:** Apply common and consistent terminology as used in NIMS, including the establishment of plain language (clear text) communications standards.

**Compliance Objective 22:** Ensure that equipment, communications and data systems acquired through local acquisition programs are interoperable.

The "appropriate" training and exercises referred to in Compliance Objective 15 are those involving multiple jurisdictions and disciplines. These exercises and training need to incorporate interoperable communications, equipment, personnel and procedures into their planning...or expect it to end up on the after action report or in the course evaluations.

All-hazards exercises are definitely included as an "appropriate" exercise as referred to in Compliance Objective 15. HSEEP incorporates interoperability and compatibility into exercise planning; therefore, adopting HSEEP is essentially adopting NIMS compliance with regard to exercises. State and Federal level exercises are also HSEEP compliant; participation in any of these exercises can satisfy Compliance Objective 16.

Compliance Objective 18 is, more or less, targeting 10-codes and acronyms. Everyone is familiar with common terminology; we use it every day at home. Unless some of you tell your spouse they need to "10-87" (pick up) the kids after work, but I doubt it. Remember, this requirement to use plain language does not abolish the use of 10-codes in everyday department communications, but it does encourage it. It is required that plain language be used for multi-agency, multi-jurisdiction and multi-discipline events, such as major disasters and exercises. It is important to consider that personnel revert to their daily usage and training when faced with a disaster; and it is difficult to transition to use plain language in an emergency if plain language isn't a department or agency standard for daily use. No alphabet soup, either. Not everyone understands every acronym. Try speaking the opposite way the military does, or else your message may be FUBAR to your audience. Making any efforts to promote plain language in training, exercising,

**FUBAR:** "*Fouled-Up Beyond All Recognition*"

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planning and daily use is achieving compliance with this objective.

A critical component of operational preparedness is the acquisition of equipment that will perform to certain standards, including the capability to be interoperable with equipment used by other jurisdictions. The implementation of interoperability standards in Compliance Objectives 15, 16 and 18 sets Compliance Objective 22 up for success. Incorporating interoperability into planning, training and exercises helps to identify an agency's or department's interoperable equipment needs. Also, using federal grant monies to buy this equipment, particularly for communications, should in itself satisfy this compliance objective by following the grant requirements.

## The Results Are In

Corrective actions plans from the 2009 NIMS assessment, reviewed on NIMSCAST, indicate the main reasons for a public safety agency's interoperability non-compliance are funding (26%) and the need, and/or requirement of, based on "home rule" authority (23%). Let's address each of these concerns. First, it should be noted that not all the interoperability objectives relate to just communications or communications equipment. Other initiatives, as described above, to incorporate interoperability into planning, training and exercising also satisfy these NIMS objectives.

Funding is an issue for everyone, everywhere. People commonly associate interoperability to communications, and thus funding becomes an issue regarding the procurement of interoperable communications equipment. If this equipment is necessary for your department or agency to comply, the possession of the equipment itself is not the only indicator of compliance. NIMS evaluates implementation, therefore efforts made to acquire the funding for interoperable equipment is also considered compliant for your NIMS assessment.

Some entities expressed that they did not have the need, nor were they required (see [Indiana Code 36-1-3](#) "Home Rule"), to join the Hoosier SAFE-T statewide communications network. The decision to participate on the statewide network rests with local authority. However, the need for interoperability still exists and remains a consensus among public safety professional nationwide. Joining the statewide network is not a requirement to be NIMS compliant, although it is highly

*"A nickel ain't worth a dime anymore."*

~ Yogi Berra

### **I.C. 36-1-3-2**

#### Policy

*Sec. 2. The policy of the state is to grant units all the powers that they need for the effective operation of government as to local affairs.*

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recommended as a tool to promote interoperability in Indiana. The decision not to join the statewide system does not remove the need for communications interoperability and entities are still required to satisfy this standard in order to be NIMS compliant. It is possible to develop and implement strategies for communications interoperability without joining Hoosier SAFE-T and still maintain NIMS compliance. But, did I mention joining Hoosier SAFE-T was *highly* recommended?

## Conclusion

NIMS compliance objectives attempt to ensure the interoperability of resources through consensus definitions for teams and equipment, and knowledge, skills, and abilities for individuals and team members. The overall goal is interoperability, and the process to achieve this goal is coordination and collaboration. Coordinated planning, training to common standards, and inclusive exercises provide a solid foundation for the interoperability and compatibility of assets throughout an incident. Adopting NIMS and working towards compliance of the above objectives provides a common platform from which this coordination and collaboration can develop.

Hopefully, through the examples provided and the topics discussed in this document, you better understand how the NIMS interoperability objectives relate to you. Knowing the applications of interoperability in the world of NIMS, and understanding it beyond communications, is important to keep moving towards NIMS compliance. The DRTFs serve as a driving force to adopt NIMS interoperability objectives and ensure a consistent efficient and effective response anywhere in the state...and eventually in the country.

Finally, remember when you are completing your NIMSCAST report that the compliance objectives were designed to promote progress...*not completion*. The pace and level at which your department or agency progresses towards implementing these objectives is not under scrutiny, just the fact that progress is being made. The implementation of NIMS standards is an indefinite and ongoing process and the ability to accomplish these objectives will vary among departments and agencies. Simply making efforts to implement NIMS is to be NIMS compliant.

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## Reference Documents

"National Incident Management System." Resource Record Details. August, 2007. USDHS. 7 Oct 2008  
<<http://www.fema.gov/library/viewRecord.do?id=2961>>.

"NIMS Compliance in Indiana: An Overview." Indiana Department of Homeland Security. October, 2008.

"Indiana Ten Codes." *Falcon Composite Squadron*. 2008. Indiana Wing United States Auxiliary Wing, Web. 17 Dec 2009.  
<http://inwg.cap.gov/falcon/tencodes.htm>.

Google. Retrieved (2009, December 15) from  
<http://www.google.com/dictionary>

Mohney, Doug. "A Double-Edged Sword." *Urgent Communications* (2006): Web. 15 Dec 2009.

"District Response Task Force Initiative." Indiana Department of Homeland Security. July, 2009.

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“NIMS Compliance Objectives and Metrics for Local Governments.” Federal Emergency Management Agency. March, 2008.

Indiana. Indiana Code 36-1-3. *Home Rule*. 1980.

Jackson, Brian A., et al. (2002). *Protecting Emergency Responders Lessons Learned from Terrorist Attacks*. Arlington, VA: RAND.