State of Wisconsin Department of Transportation
Bureau of Highway Operations

Traffic Operations & Public Safety
Communications Interoperability Assessment & Plan

Report on Table Top Sessions and
Data Interoperability Requirements

November 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

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1. Introduction

This report provides a record of the Table Top Scenario Sessions, an analysis of the information acquired from those sessions, and proposes a set of functional requirements for data interoperability that will improve the operational integration between highway operations and Public Safety community.

The objective of the Traffic Operations and Public Safety Communications Interoperability project is to develop an interoperability plan and conceptual architecture for a state-wide communications infrastructure to support the data needs of highway operations and interoperability with the Public Safety agencies in the state. The goals of the project are to improve the ability of highway operations and public safety personnel in different agencies or jurisdictions to exchange data with each other, in realtime to:

- Provide mutual-aid responses to catastrophic accidents or disasters
- Support management of the emergency response to highway incidents,
- Coordinate routine day-to-day operations.

The purpose of the scenario-based Table Top exercises was to gain a better understanding of existing transportation and public safety agency operational integration on the state highway network. The Table Top Sessions were organized and conducted in seven locations across the State of Wisconsin. Members of the Public Safety and highway operations communities were brought together in these sessions to discuss the communications that occur between agencies in day-to-day highway operations and in response to highway incidents. The discussions occurred within the framework of three highway incident scenarios. This report documents the discussions that occurred, and provides an analysis of the communication patterns that were described in the sessions.

Analysis of communication patterns has identified opportunities where access to other agency data, and the use of data communications as a complementary medium to voice, can improve the efficiency and quality of the realtime communications and information exchange that occurs between highway operations and the public safety agencies. These opportunities fall under the following two broad categories:

- Data Communications: The use of data can augment and some cases replace the myriad of voice communications that occur among agencies when responding to incidents on the State Highway system. These communications currently take place between a limited number of parties, typically two, but are often of interest to a wider audience of primary and secondary responders to the incident.

- Data Dissemination: Operational data exists within many agencies that has value to other agencies when responding to highway emergencies. A facility that provides a data communications path between agencies for data communications also provides a medium for better disseminating information about highway operations and emergencies to these other agencies.

The inability of the mobile radio systems used by Public Safety agencies to interoperate when responding to emergencies has long been recognized as a serious problem that was brought to the forefront in the 9/11 World Trade Center tragedy. The Wisconsin Office of Justice Assistance (OJA) is conducting a study in parallel to this study to recommend short- and long-term solutions to this voice interoperability problem. The potential for Highway Operations and the Public Safety Community to communicate via data, in addition to voice, provides both a parallel and backup path for achieving this communications interoperability. The Wisconsin DOT, because of its state-wide organization and communications infrastructure, is in unique position to provide this service for data interoperability.

Voice is often not the most efficient means to communicate between agencies, particularly when multiple agencies need to receive the information, and the information is detailed or complex. The ability to exchange information in realtime can save time and reduce errors. Data has several other advantages over voice communications:

- Data has permanence. Once a communication is in "written" form, it can be "revisited" by the user who may have been distracted by other responsibilities when the communication was received.

- Data has precision. It does not get "garbled" in transmission.

- Data can be easily disseminated. Once information about an incident is in the form of data, it can be easily disseminated to other interested parties, such as agency management and secondary responders, thus allowing primary responders to focus on the tasks at hand, rather than taking time away to keep others informed.

It is not the intent of this study to suggest that data communications can fully replace voice communications; or that the incident responders' mobile radio systems should be replaced by a mobile data system. Voice communications, particularly in the areas of portability and speed, will continue to have advantages over data. This study seeks to identify opportunities for where the use of data can

augment or improve those voice communications, with the objectives of helping responders to do their job better, improving public safety, and reducing inconvenience to the traveling public.

This report is organized into four sections and five appendices as follows:

- Section 1 provides introductory remarks, establishes the overall scope for the requirements study, and describes the organization of the report.
- Section 2 describes the methodology used to acquire and understand the needs of the user community.
- Section 3 provides an analysis of the Table Top stakeholder sessions.
- Section 4 presents the data interoperability requirements as derived from the Table Top session information and analysis.
- Appendix A provides a copy of the plan for conducting the Table Top sessions.
- Appendix B provides a sample invitation for the Table Top sessions.
- Appendix C provides copies of the agendas and scenario descriptions that were handed out for each Table Top session.
- Appendix D provides minutes of each Table Top session,
- Appendix E provides a list of the participants for each session.

2. Methodology

The methodology used to identify the requirements for the interoperability project consisted of conducting a series of seven Table Top Focus group sessions across the state, one in each WisDOT District (with a combined District 7 & 8 session). Each session ran approximately three hours and followed a similar format. Fictitious, but realistic incident scenarios were posed to the participants and discussion ensued on the role each agency would play in the response. Emphasis was placed on the communications that would occur between agencies, rather than the actual management of the incident itself.

Prior to conducting the Table Top Sessions, a plan was developed for how the sessions would be conducted. The plan included participating agencies, meeting agenda, and a menu of five incident scenarios, from which three scenarios would be selected for each session. The five scenarios included:

- Accident involving a Semi-Truck
- Highway Maintenance/Construction
- Severe Weather

- Hazardous Material
- Visiting Dignitary

The sessions for each district were held in a central location in the district to make it accessible to a maximum number of participants. Invitations went out by mail and email approximately three weeks prior to the session. Scenarios were selected for each session based on the characteristics of that portion of state and the list of invitees that indicated they would attend. Each scenario was then customized for the local highway system and the specific agencies appropriate to that area. This customization of the scenarios for each session was done to make the scenarios more realistic to the participants, perhaps even similar to real incidents that occurred in the region, with the objective that the more "closer to home" the incident seemed, the more engaged the participants would be in the discussions. The schedule and location of the Table Top Sessions is listed below:

- District 1 (Lake Mills) -August 18, 2004
- District 2 (Milwaukee) – June 2, 2004
- District 3 – (Appleton) – July 15, 2004
- District 4 – (Stevens Point) – June 16, 2004
- District 5 – (La Crosse) – July 20, 2004
- District 6 – (Eau Claire) – July 21, 2005
- District 7/8 – (Spooner) – July 22, 2004

Participants of the sessions included representatives from agencies in both the Transportation and Public Safety communities. Invitees from the Transportation community included:

- WisDOT Central Office Representatives
- WisDOT District Office Representatives
- County DPW Maintenance Supervisor
- Transit Agencies
- Adjacent State DOTs (Illinois, Iowa, Minnesota, Michigan, as appropriate for the District)

Invitees from the Public Safety community included:

- Wisconsin State Patrol (District Dispatcher, Trooper)
- County Sheriffs (Deputy, Comm/Dispatcher)
- Local Law Enforcement
- Emergency Management (County, Region, State)
- Fire/EMS
- National Weather Service
- Department of Natural Resources
- Utility Companies
- Towing Providers

Each session began with introductory remarks from the project team. These remarks included an overview of the interoperability project and how the session fit into the systems engineering approach being taken on the project. Participants were informed that these sessions would form the basis for developing requirements for the project, and that they would all be invited to review the resultant report and attend a follow-up session to discuss their comments.

The introductory remarks on the project were followed by an overview of the scenarios that would be discussed and the general "rules" to follow in the discussions. Participants were urged to focus on the "What's" rather than the "Hows" so that the discussions would be constrained by perceived technical and institutional barriers. It was also noted that, if necessary, assumptions would be added to the scenarios during the discussions to explore alternative responses or to get away from a "sticky" scenario detail that was impeding progress in the discussion.

Each scenario had three levels, starting out with a routine set of circumstances (Level 1) that would escalate in severity (Levels 2 and 3). As the severity level increased, the incident would require additional response units from an expanding group of public agencies and private entities. The incident scenario discussions were followed by a set of shorter discussions on agency interactions for more day-to-day operational occurrences, such as road construction, special events, and typical snow events.

The sessions were well attended with good participation in all of the scenario discussions. The discussions yielded valuable information and insights into the extent and complexity of the interagency communications that occur when responding to highway incidents. Notes were taken of the discussions and are provided in Appendix D. Because of the pace of the discussions it was not always possible to capture the names of the specific agencies making a comment; nor was it desirable to slow down the discussions to clarify the specific agency names. For purposes of the study it was more important to capture the types of communications that would occur and a generic description of the agencies involved (e.g., County Sheriff). For more information on the Table Top Sessions, please refer to the following Appendices:

- Appendix A – Plan for Conducting the Table Top Session
- Appendix B – Sample Invitation to Participants
- Appendix C – Agendas/Scenario Descriptions used for each Session
- Appendix D – Minutes of Each Session
- Appendix E – List of Participants that attended each Session

3. Analysis of Table Top Sessions

The Table Top Sessions focused on the communications that occur between agencies during daily highway operations and when responding to highway incidents. Analysis of these communications revealed that there are many common themes that need to be considered in any solution to introduce data communications to improve the overall communications interoperability between agencies. The analysis also revealed that the complexity of the communications that do occur, in terms of the potential number of

agencies that could be involved and the permutations of point-to-point communications that need to occur, is very high. The following sections describe the common themes that the analysis revealed, and illustrate the overall complexities of these inter-agency communications.

3.1 Common Themes

Although some differences do exist across the state in how communications occur between agencies during normal operations and in response to highway incidents, the commonalities far exceed the differences. The following is a list of operational and communications themes that were noted from the discussion of incident scenarios in the Table Top Sessions. It is understood that these observations are not universal and do not apply in all cases. These common themes are, however, important for recognizing the opportunities for where data interoperability and the use of data communications to augment voice communications can help improve the overall response to highway emergencies.

3.1.1 Operational Themes

- Multi-agency incident response is common practice in Wisconsin where incidents such as traffic crashes, interstate car fires, crime scenes such as vehicle pursuits or legal intervention, dignitary escorts, special events and roadway construction dictate multiple agency response for incident clearance.

- Calls reporting highway incidents generally come into the County 911 Communications Center. Calls are either directly dispatched by the Sheriff Dispatcher or passed on to the State Patrol Dispatcher, or Municipal Police Dispatcher, or in other cases to local Fire or EMS dispatch. In most parts of the state, the County Sheriff Dispatcher seems to be most often the central point of control. In any case, once the call has been passed to a dispatcher, that individual is responsible for coordinating the communications with other agencies that are necessary for the incident response. The actual management of the incident at the scene will be done from the scene.

- If an incident is particularly serious, a mobile incident command post will be established at or near the scene. The command post will follow a unified command structure, whereby a representative from each agency responding to the incident will be present at the post, and will be responsible for all communications with its own personnel in the field.

- There currently is one manned Traffic Operation center (TOC) in Wisconsin and two virtual (unmanned) TOC's. WisDOT Distrct #2 in Southeastern Wisconsin operates a manned TOC in the City of Milwaukee. TOC staff includes a part-time Milwaukee County Sheriff's Department Sergeant. The TOC is not staffed 24/7. After-hours control of the TOC CCTV and VMS are the responsibility of the Milwaukee County Sheriff. The Milwaukee County Sheriff CAD system includes a direct interface with the TOC Monitor

system for realtime transfer of traffic incidents. Other agencies that will have future access to the TOC Monitor system include Waukesha, Racine and Kenosha counties; the Wisconsin State Patrol; and the City of Milwaukee Police Department. The two virtual TOC's are located in WisDOT Districts 1 and 5.

- Multi-agency incident response in Wisconsin tends to differ operationally depending upon the district. In the more heavy urban areas, such as Southeastern Wisconsin and Southwestern Wisconsin, there appears to be more local agency response to incidents and less dependency on backup state agencies for assistance. County Highway operations are dispatched or monitored by the County Communication Centers in these districts. The towing and recovery agencies are typically contracted on a yearly basis. Gateway patrols and special enhanced freeway patrols also exist in these heavy urban areas. Fire agencies recognize municipal boundaries in these areas and only respond outside their jurisdiction when mutual aid is requested.

  As you move toward the Central Wisconsin and Northern Wisconsin districts, agencies have a dependency upon each other for incident management. Communication interoperability is reduced between responding agencies. The highway departments respond to assist public safety via a landline or cellular telephone call. The towing and recovery agencies are on a "next call to" list. On-duty and off-duty agency staff carry pagers as a means of incident notification. The Wisconsin State Patrol plays a more active role in assisting local law enforcement in the rural areas than the more heavily urbanized areas. Cellular telephones are used for communication (on scene and responding to scene) between WisDOT engineers and County Highway maintenance crews. In the rural districts, police are sometimes allowed to communicate directly with highway maintenance operations to reduce incident response time; however, most highway operation directors still prefer that the County Dispatch Centers request highway operations response through an on-duty highway operation supervisor or the on-call supervisor.

- There currently exists or planning is underway for alternate routes in all 8 WisDOT districts. Alternate routes are designed for heavy interstate traffic areas where an incident could cue traffic for miles. They are also designed with future roadway construction in mind. Lack of cooperation between state and local municipalities has hindered preparation of some alternate route planning. When incident management plans are agreed upon, and a Memorandum of Understanding (MOU) is entered into by all participating agencies, there appeared to be little or no follow-up training for first responder staff to evaluate the effectiveness of the plan.

- There are no incident management working committees in most of the districts or regions in Wisconsin. These committees have proven to be an effective tool in incident planning and incident debriefing in Southeastern and Southwestern Wisconsin. There are

committees that meet in some of the northern counties of Wisconsin to plan and debrief incidents but primarily include the public safety officials and do not include towing and recovery, media, hospitals, transit, private ambulance, WisDOT state engineers, and emergency management agencies. Some committees choose to meet on an as-needed basis and have no set schedule for meetings.

- There appears to be more cooperation between agencies in rural regions than urban areas. The limited resources available to each agency in rural regions makes these agencies more dependent on help from other agencies, even when responding to less serious incidents. Personal relationships have been established and communication "bugs" have been worked out through the frequent use of these support arrangements, making response coordination to more serious incidents run smoother. Turf issues exist more in the urban areas than the rural areas; however, they exist in varying degrees throughout the state. Sheriff departments in some areas do not participate in training or incident response tabletop exercises with their municipal counterparts. Local public safety agencies do not communicate well with state agencies. City, county and state engineers appear to work well together but there are some differences between WisDOT districts (construction) and municipal police departments.

- The role of WisDOT in incident management varied among the districts. In some cases, the district role was very aggressive, such as in the realtime planning of emergency alternate routes for the incident. In other districts, tasks such as determining alternate routes were left mostly up to law enforcement. In all cases, however, WisDOT was called in when a closure of a highway was being considered. The consistency of WisDOTs role is affected by the lack of 24/7 coverage.

3.1.2 Communication Themes

- The vast majority of communications between agencies in responding to highway incidents are by voice - telephone and radio. There are some electronic text notifications that occur by FAX, police telex, email, and through Law Enforcement's TIME system; however, the vast majority of communications, particularly for realtime incident response assistance, are by voice.

- Communication interoperability between responding agencies varies greatly in different areas and regions within Wisconsin. Current communication methods used by public safety agencies (Sheriff, Police, Fire, EMS) in Wisconsin consists of two-way radio, Computer Aided Dispatch (CAD), Records Management Systems (RMS), Mobile Data Networks (MDN), cellular telephone, landline telephone, teletype (NLETS), Inter/Intranet, paging, and face-to-face conversation. Even though a variety of two-way radio bands are used by public safety in Wisconsin (800 MHz, UHF, VHF etc) a common frequency is available allowing inter-agency communication when needed. In addition

most dispatch points have short-term and long-term radio patching capabilities allowing for multiple agencies on different frequencies the ability to talk to each other in the field via dispatch patching.

The voice interoperability issues facing public safety are still many, however. There is limited capability for police to talk to fire or EMS. On-scene communications in the absence of a command post are extremely limited between police and fire. Other responding agencies such as private ambulance, highway maintenance operations, transit, news media etc. have in most cases virtually no two-way radio communication with police, fire or EMS. This places a heavy burden on dispatch staff as they must do much of their multi-agency communication by landline telephone, teletype, or internet and then perform radio relays to disseminate information. This process often becomes extremely cumbersome and delays incident clearance. Currently, other than the Wisconsin State Patrol there exists no radio communication between public safety and WisDOT.

- The cellular telephone is probably the next most commonly used voice communication tool in Wisconsin for multi-agency incident response because of its versatility and also because it has become as common as the two-way radio in the world of public safety. The cellular telephone has provided interoperability between public safety agencies and other agencies such as highway operations, private ambulances, news media, construction crews and other responding agencies such as the Department of Natural Resources. The problem facing agencies relying on the cellular telephone for communication is two-fold. The first problem is the lack of an available cellular directory in Wisconsin. If a cellular number is not known it can become cumbersome for communication staff to locate the requested number in a timely fashion. The second problem is cellular telephone signal strength and tower availability. In the most serious situations where multi-agency response is appropriate, cell towers within a region can become overloaded making cellular telephone communications nearly impossible.

- Across the state, Mobile Data Systems play a variable role in communications between agencies. Many public safety agencies in Wisconsin currently do not have mobile data capability. Agencies that have access to mobile data use a variety of public and private networks. Many agencies (law enforcement only) are on the Wisconsin State Patrol mobile data network. There is no cost to the end-user for this service other than the end-user compatible hardware. The downside to this service is that the State Patrol currently does not authorize other law enforcement agencies on their network to have full access to state files. Other counties within the state have their own county-wide mobile data network's.

  The problem with virtually all of these systems is that fire, EMS, highway operations, hospitals, transit, and municipal governments are not permitted on the network. The existing mobile data networks are used primarily for motor vehicle and criminal checks,

and in some cases carry reference materials, such as Hazardous material handling guides. In some cases, agencies have the ability to do direct dispatch to officers via data communications between the agency's CAD system and the vehicle Mobile Data Computer; however, these communications are within an agency, not across agency boundaries.

Many mobile data networks have aging equipment. Most systems have slow over-the-air data rates (4800 bps), making it impossible to implement high-bandwidth applications, such as fingerprint access and photograph transmissions. Many of these slower networks are in the process of being upgraded, or are currently in the process of planning such upgrades.

- For major incidents, and where radio resources permit, all radio traffic will be moved over to a separate radio channel temporarily assigned for the incident. This helps avoid overloading the normal operations channel.

- When communications are necessary between field officers/operators for different agencies, these communications generally flow through the respective dispatchers. For example, a request for a plow to clear a particularly bad section of highway, would generally flow from the Patrol Officer to Law Enforcement Dispatch (via mobile radio), then to the Highway Department Supervisor (via telephone or radio), then to the plow operator (via mobile radio). This flow of communications occurs intentionally, even when mobile radio facilities exist for direct communications between field personnel, so that each organization can retain a level of control over its resources.

- Sometimes, there is little feedback to the requests for assistance that flow to other agencies until the requested resource actually shows up at the scene. For example, in the request for a plow example described above, unless the patrol officer is able to monitor the county highway department radio channel, the patrol officer has no direct verification that all the communication steps occurred successfully, and that the plow is on its way. The officer is typically given an ETA from the dispatcher, however, there is rarely any realtime reporting on the plow's status. It should be noted that there were no indications in the discussions that this was a major problem. All indications were that these communications involved highly professional individuals that followed through with their commitments. It does, however, create an air of uncertainty, particularly with respect to timing, until the resource arrives.

- As the seriousness of an incident escalates, more individuals and agencies, particularly supervisory personnel, tend to become involved, or at least want to stay informed. In some cases, this can be done by monitoring the radio traffic. However, it many cases, this requires that additional voice communications occur. These communications take time away from the primary responders and dispatchers, time that could otherwise be devoted

to clearing the incident. If the incident is serious enough, a Public Information Officer will be sent to the scene. This officer is not only charged with media interviews, but supervisor updates as well, thus allowing the field officers to focus on clearing the incident.

- Calls for assistance must necessarily be done as efficiently as possible. The dispatcher does not have time to describe the whole situation to an agency when it makes a request, nor does the dispatcher have time to update every agency as conditions change. As a result, many responders to an incident only see a small part of the overall situation. Secondary responders may not know about an incident at all until called upon for resources. An example was given of a Transit agency that might be called upon to help with an evacuation. If the agency had more visibility into what was going on, it could anticipate this request, preplan it's response, and thus be in a position to respond in a more timely fashion when requested.

- The lack of mobile radio interoperability forces many interagency communications between officers in the field to flow through their respective dispatch offices. In most cases, approaches for overcoming radio interoperability problems have been worked out, at least for the more routine types of incidents. Solutions include having multiple radio systems in the Communication Center (one for each unique radio system that dispatchers may need to access), multiple mobile radios in the vehicles (for example, State Patrol will have additional radios in their cruisers to enable them to communicate with the law enforcement agencies in their normal patrol area), and the use of mutual aid channels. These approaches to interoperability become less robust when a more serious incident occurs that brings additional agencies into the response.

3.2 Communication Patterns

Figure 3.2-1 illustrates graphically the large number of agencies that could be called upon to respond to a highway incident, and the complexities of the communications that can occur to coordinate a response. This figure is a composite of all the communication paths that were identified in the Table Top Sessions, across all scenarios. Naturally a subset of these agencies and point-to-point communication contacts would occur for any particular incident.

HIGHWAY WATCH

COMMERICAL VEHICLE COMPANY

AMBER ALERT SYSTEM

TIME

STATE PATROL OFFICER

RWIS

HELICOPTER FLIGHT FOR LIFE

ADJACENT STATE PATROL

STATE PATROL DISPATCH

SURROUNDING COUNTIES COMM CENTERS

CLEANUP COMPANY

DNR

SHERIFF DEPT. PATROL OFFICER

OTHER FIRE DEPARTMENTS

HAZMAT STATE DUTY OFFICER

HAZMAT

WEATHER INFO ALERTS
SSI DTN
NAWAS MET
Internet TV
National Weather Service

FIRE/RESCUE

LOCAL AIRPORT

TRANSIT AGENCY

REVERSE 911 SYSTEM

911 COMM CENTER/ COUNTY SHERIFF DISPATCH

TOW TRUCK COMPANY

PRIMARY HOSPITAL

ADJACENT STATE/COUNTY EMERGENCY MANAGEMENT

EMS

TOW TRUCK OPERATORS

EMERGENCY MANAGEMENT/EOC

CIVIL AIR PATROL

AMBULANCE

OTHER HOSPITALS

LOCAL POLICE

TRU OPERATATORS

MEDIA

OTHER STATE DOTs

OTHER WISDOT DISTRICT OFFICES

WISDOT DISTRICT OFFICES/TOC

PRIVATE EQUIPMENT CONTRACTORS

COUNTY HWY SUPERVISOR

COUNTY HWY TRUCK
Plows, Salters, etc.

WISDOT CENTRAL OFFICE

DISTRICT ATTORNEY

COAST GUARD

EOD

UTILITIES

MUNICIPAL STREETS DEPT.

SNOW MOBILE CLUBS

EVENT PRIVATE SECURITY

RADIO STATIONS, EAS, & WEATHER RADIO

OTHER COUNTY HWY

OWNER CONTROL INSURANCE PROGRAM

SECRET SERVICE

EPA

FIGURE 3.2-1
WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
INDICENT COMMUNICATION PATTERNS

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It should be noted that not all of the communication paths shown in the figure are supported or allowed in all areas of the state. For example, in some counties a Patrol Officer can contact a County Vehicle Operator (e.g., plow operator) directly by mobile radio; in other Counties, such direct contact is forbidden, and must go through dispatch. Further, it is likely that additional communication paths exist that were not appropriate to bring up for the specific incident scenarios that were discussed. Although these and possibly other minor inaccuracies may exist in the diagram, the diagram is complete enough to illustrate the following important observations:

- The 911 Communication Center, along with the associated dispatch offices, are the central/origin point for most agency-to-agency communications.
- The potential number of agencies that could become involved in an incident response is quite large.
- Although not every combination of agency-to-agency communications that could occur does occur, a large number of combinations can occur. It is readily evident from the figure that the call patterns are quite complex.
- Almost all communications are point-to-point. Exceptions would be communications that occur over mobile radio where others can listen in. If multiple parties need to be contacted for resources, or kept informed, multiple calls must be made.

3.3 Participating Agencies and Positions

The Table Top discussions on day-to-day operations and incident scenarios identified a large number of potential parties that could be called upon to deal with an event or incident associated with the State Highway network. The following is a list of the parties that were specifically identified in the Table Top Sessions. Since supervisory/management personnel within each agency, depending on the severity of the situation, may also become involved, they are not specifically listed under each agency.

a. Law Enforcement

- State Patrol (Troopers, Dispatchers, Commercial Vehicle Operations (CVO) Inspectors, Reconstructionists, Public Information Officer, Road Weather Information System (RWIS))
- State Patrol for adjacent states
- County Sheriff (County Dispatch, Patrol Officers, Investigators, Public Information Officer)
- Local Police (Dispatch (if not dispatched by the County), Patrol Officers, Investigators)
- District Attorney's Office
- Justice Department
- TIME (Transaction Information for the Management of Enforcement) System

- Amber Alert System
- Private Security for Events
- Emergency Ordinance Disposal Unit

b. Emergency Management

- County, Regional, and State Directors (both local and adjacent regions)
- Emergency Operation Center
- Emergency Government
- Emergency Alert System
- Reverse 911 System
- Red Cross
- Salvation Army

c. Fire/EMS

- Fire (Dispatch and engine companies)
- Emergency Medical Services (Dispatch and EMS vehicles)
- Private Ambulance Companies
- Flight for Life
- Hospitals

d. Hazmat

- Level A and B Hazmat Teams
- Weather Services (Local Airport, National Weather System)
- State Duty Officer
- Hauling Companies
- Private Companies specializing in material removal and cleanup

e. WisDOT District

- Traffic Engineer
- Communications Manager
- Bridge Inspector
- Project Manager for Construction Projects
- Construction Contractors
- Private Equipment Contractors
- Owner Control Insurance Program
- Traffic Operation Center
- Road Weather Information System
- Electricians
- Traffic Response Unit Operators
- Central Office

- State Patrol (see Law Enforcement above)
- DOTs for adjacent states

f. County Highway Departments

- County Highway Supervisor/Superintendent
- Vehicle Operators (e.g., plows, salters, maintenance trucks, etc.)

g. Municipal Streets Departments

h. Tow Truck Companies

- Dispatch
- Tow Truck operators

i. Transit

- Transit Operations (Dispatch and vehicle operators)
- School Bus Systems and drivers

j. Media

- Television Stations
- Radio, including Emergency Weather and Emergency Radio systems
- Print media
- News helicopters

k. State Agencies

- Department of Natural Resources
- National Guard

l. Federal Agencies

- Environmental Protection Agency
- Coast Guard
- Secret Service
- Homeland Security

m. Utilities

- Power Companies
- Phone Companies
- Cell Phone Providers

n. Weather Services

- National Weather Service

- Airport Weather
- SSI (Surface Systems Inc)
- Murray & Trettel
- DTN
- NAWAS (National Warning System)
- Internet and Television Weather

o. Other

- Snow Mobile Clubs
- Civil Air Patrol
- Highway Watch

3.4 Types of Communications

The communications that occur between agencies will obviously be specific to the nature of the incident; however, based on the Table Top discussions, the communications that occur between agencies responding to a highway incident can generally be categorized into one of the following message types:

- A **notification** of a condition or information.
- An **alert** that something has occurred or needs attention.
- A **request** for resources or information. Typically a resource request will include **directions** on the desired action or role the resource is needed to perform.
- A **feedback response** to the resource request and/or confirmation that the desired action has been, or will be taken.
- A **command.**
- A **status request** or **status report.**
- A **broadcast** of information or directions to a group. In the voice world, this type of communication requires a medium like mobile radio, or a conference call bridge to enable reaching multiple individuals with a single call.

Recognition of these different message types will permit a certain level of automation to be achieved when each type of message is modeled in the data communications world. Each of these message types will also require some unique features and functions.

4. Data Interoperability Requirements

This section of the report identifies the requirements for data interoperability between Public Safety and Highway Operations. The requirements were derived from analysis of the information acquired from the Table Top Sessions. In some cases, specific needs for data were expressed. In addition to these expressed needs, the analysis of the voice communications that occur between agencies when responding to incidents have identified several opportunities where the use of data can improve the communications among primary responders and the dissemination of incident information to secondary responders and other interested parties not directly involved in the incident response.

In order to achieve data interoperability between the array of computer systems used in Highway Operations and the Public Safety communities, three conditions need to be met:

1. There must be a communications path connecting the computer systems together. This can be a combination of dedicated and shared, landline and wireless links.

2. The systems must utilize a common communications protocol(s).

3. Applications must be present that can interpret and process the data into useful information for the users.

The topics of connectivity and protocols will be the focus of the conceptual architecture design that will occur in a later phase of the project. Although the following sections will discuss some configuration requirements, the majority of the requirements presented in the following sections focus on the application functions that are recommended to improve the integration of Highway Operations and Public Safety. Applications are needed to give the data sets that result from data interoperability value for realtime operations.

Implementation of the application functions described in this section will require a combination of software, computer systems, end-user devices, and communications infrastructure. For purposes of this report, this combination of hardware and software elements can be considered a system. We have named the system the “Incident Information Exchange” system or IIE system.

This section describes the requirements in terms of WHAT needs to be accomplished. The answer to HOW these requirements will be met will be answered in the subsequent conceptual design phase of the project. A later phase will also recommend a plan for multi-year deployment of the system. This plan will address issues such as the incremental deployment of the system on a regional or corridor basis, and whether the introduction of new functionality should be phased incrementally over an extended period of time.

4.1 Requirements Overview

The following are high-level descriptions of the system and application requirements that are recommended to achieve and apply data interoperability between agencies in the Highway Operations and the Public Safety communities. More detailed descriptions of each functional area are provided in subsequent sections.

a. General Requirements: The IIE system must be designed to complement existing systems and workflow processes. The system should utilize industry standards, be designed to minimize cost and risk, and should be deployable in phases on a regional or corridor basis.

b. Accessibility: The IIE system must be accessible to any authorized user from any fixed or mobile location and from any type of modern computing device.

c. Security: The IIE system must be secure from cyber attacks and unauthorized access. Interfaces to Public Safety CAD systems must protect the integrity of those systems, the secrecy of law enforcement operations, and the privacy of the general public.

d. User Interface: The user interface for the IIE system should be simple, intuitive, sensitive to connection speed, and tailored to the display and entry capabilities of the user's computer equipment. Special features, such as voice to text, should be provided for the mobile data environment.

e. Contacts: The IIE system should include a comprehensive contact database, searchable by multiple criteria, including specific individuals, expertise, geographic region, and position within an agency.

f. Alerts and Notifications: IIE system users should be able to send out alerts to responders that a situation has occurred that requires their attention or awareness. Users should also be able to send out notifications to specific individuals or groups about situations that they should be aware of that might impact their daily routine, or may become relevant in a highway emergency.

g. Resource, Action, and Information Requests: Users should be able to request a resource or a specific action be taken by another agency in responding to an incident. A user should also be able to request information from another agency. The IIE system should provide the mechanisms to alert the recipient and track that the request has been received and is being acted upon.

h. Messaging: Participants in an incident should be able to send text messages to each other directly, or in a "Chat Room" environment.

i. Incident Log: All information exchanged about an incident should be inserted into the Incident Log.

j. Whiteboard: A collaborative whiteboard function should provide a "blank sheet" for an incident commander or other participant to present a situation in text or sketch form simultaneously to all incident participants.

k. Preprogrammed Protocols: The IIE system should include utilities and functions to import, develop, access, and execute preplanned incident responses.

l. Access to Traffic Information: Information from existing and evolving traffic management systems should be accessible to all users. This information should include camera video and control, traffic flow data, VMS sign location and display, road weather conditions, road construction plans, and plans for day-to-day highway maintenance activities.

m. AVL: An Automatic Vehicle Location function should be provided for agencies that desire this capability. The function should display the location of incidents and incident responders on a map display, and be tightly integrated with other IIE system functions.

n. Reference Material: Users of the IIE system should be able to quickly access reference material, such as manuals, procedures, maps, and drawings that are relevant to highway operations and incident management.

o. Interfaces: The IIE system must interface to Public Safety CAD and mobile data systems, Traffic Management systems, and WisDOTs data archiving system.

p. Training Mode: The IIE system should have online training tools for training new users and for conducting simulated practice exercises.

q. Configuration: Because of its role in Public Safety, the IIE system must be configured in a manner to provide high availability of critical functions. The system must also be able to survive disasters and attacks that disable key infrastructure.

r. Operations and Maintenance: The IIE system must be easily managed, updated, and maintained from a central location and by the agencies themselves. A support organization and revenue model will be needed to ensure the long-term sustainability of the system.

4.2 General Requirements

The following sections describe the functional requirements for the IIE system. This section describes more general requirements or characteristics the system must exhibit. These general

requirements impact the manner in which the functions are implemented and the way the system is configured and deployed.

a. Augment Existing Processes: The IIE system should provide an alternative means for communications and exchanging information between agencies in support of normal highway operations and in response to a highway incident. It is not intended that this system replace voice communications, but rather augment those communications in ways that take advantage of the characteristics of data communications.

b. Augment Existing Systems: The IIE system must be able to co-exist and share infrastructure with other agency systems. Agencies have invested significant resources in these systems, and have developed applications that address their specific needs. Work processes have evolved to fully incorporate the use of these systems. The objective of the IIE system is not to replace these applications or require re-engineering of processes, but rather to augment these applications with new applications designed to share information among agencies, in a manner that complements the existing workflows.

c. Highly Configurable: The IIE system functionality should be highly configurable on an agency and regional basis to best reflect the differences in organizational characteristics that exist across the state. Agencies and designated representatives of a region should have the training and tools to modify their own configuration settings.

d. GIS Orientation: The IIE system database and functions should have a strong GIS orientation. Wherever practical, responders, resources, events, and incidents should be tied to geographical coordinates and displayed on a map display.

e. Minimal Training: Because of the large number of potential users, and changes that can occur to that user base on a daily basis, the IIE system must be as simple and intuitive to use as possible. It should be possible to quickly add and train new users (such as out-of-state responders).

f. Standard Software: To reduce the deployment costs and risks, the IIE system should take maximum advantage of off-the-shelf software and hardware. This requirement will need to be balanced against the need to present a highly integrated interface to the user.

g. Standards: The IIE system should make maximum use of the standards that have been developed for data communications and incident management in the IT, ITS, Emergency Management, and Law Enforcement industries.

h. Phased Deployment: The IIE system should be configured in a manner that supports the phased deployment of the system and system functions on a regional or corridor basis.

i. ITS Architecture: The IIE system must conform to the plans, data structures, and information exchange standards dictated by the State, Regional, and National ITS Architectures.

4.3 Accessibility

The IIE system should support a complete range of modern computing devices for data input and display, including Public Safety CAD terminals, personal computers, mobile data computers, PDAs, and cell phones equipped with PDA capabilities. For alerts and text message exchanges, the IIE system should also support devices such as dedicated email devices (BlackBerry), text pagers, and the SMS capabilities of cell phones.

The IIE system should be accessible to users from dispatch and operations centers, offices, vehicles, and home. To meet this requirement, the system must be accessible via a wide range of public and private, terrestrial and wireless infrastructures. These infrastructures include:

- Internet
- BadgerNet
- Private Public Safety Mobile Data systems, including the State Patrol mobile data system
- Cellular network wireless data services
- Wireless “hot spots”.

It is understood that most private mobile data systems in existence today, including the State Patrol mobile data system, do not have the connectivity, throughput, or software capabilities to support the added functionality that the IEE system will provide. It will be necessary to employ gateway systems/software (similar to CapWIN) to provide an interface to the IIE system for some of the more modern mobile data systems. For other mobile data systems, it may be more practical to include access to the IIE system in the evolution/replacement plans for the mobile data systems. A more complete discussion of these interface options and plans will be addressed in the Conceptual Design.

Access to the IIE system should require a secure login procedure. The IIE system should be configurable to restrict an individual’s access to IIE system functions, based on the individual’s identity, as established by the login. For example, some users could be restricted to a view-only mode and not be able to input information or make requests. Access to reference information such as Procedure Manuals and preplanned responses, or access to operational data, such as the location of vehicles or other resources, could be limited to members of the respective agency or specific individuals within that agency.

4.4 Security

Because of the IIE system’s Public Safety role, and it’s use by the Law Enforcement community, the IIE system should employ multiple layers of security measures to protect the integrity of

the system, the secrecy of agency operations, the safety of responders, and the privacy of the general public.

In order to provide the widest accessibility to IIE system users, the IIE system must be accessible via public infrastructure, such as the Internet. The IEE system, therefore, must be fully protected from all forms of Cyber attack, including unauthorized access, viruses, worms, and denial of service attacks that could overload the IIE system resources.

The IIE system should require a secure login process, with a strong password, to authenticate valid users of the system. As described in Section 4.4 above, access to system functionality should be constrained and configurable on an individual and group basis. All data transmissions across the infrastructure, whether wireless or terrestrial, should be encrypted. Secure tunneling protocols, such as VPN (Virtual Private Network) should be employed to provide a secure connection between the end user and the IIE system servers.

As indicated in Section 4.5 below, in order to avoid the inefficiencies of double entry, it is desirable that Public Safety CAD system users be able to utilize their native CAD system incident screens to enter incident data. Some of this information will be relevant to other responders and therefore will need to be transferred to the IIE system. To accomplish this objective, CAD systems will need to interface to the IIE system. There is, understandably, significant concern in the Public Safety community when interfaces between their CAD systems and outside systems are discussed. CAD systems contain information (and are tied to other Law Enforcement systems that contain information) about individuals that, by law, the Public Safety community is required to protect. These systems also contain information on ongoing operations that if accessed by unauthorized individuals, could jeopardize the integrity of a case or officer safety. Of equal concern is the need to ensure the integrity of the CAD systems, as they are a vital tool for the Public Safety community in responding to public emergencies.

To address the concerns of the Public Safety community, a secure protocol must be used in any interface between the IIE system and Public Safety CAD systems. A protocol, such as IEEE 1512 should be employed to push data from the CAD system to the IIE system and severely limit the data that flows in the reverse direction. IEEE 1512 was specifically designed for communications between Public Safety CAD systems and Transportation Management Systems, and specifically addresses the concerns of the Public Safety community by using highly structured message formats. Implementation of IEEE 1512 should include the filtering of incidents and incident data such that only traffic-oriented incidents are exported, and that the export of data fields associated with individuals' privacy are inhibited. Public Safety dispatchers should further be able to inhibit the export of free-text entries that are not appropriate for dissemination outside of the agency.

The IIE system should maintain an audit trail of all user logins, actions, and entries to aid in the investigation of any security breaches.

4.5 User Interface

The IIE system will have a large number of users with a wide range of computer skills. This user community will be constantly changing with new users being added almost every day. Some users will interact with the system on a daily basis; other users may only use the system under rare circumstances. If the IIE system is to be a useful tool in the response to highway emergencies, with such a diverse set of users, it is essential that user interface be simple, intuitive, and easily taught. Since the Internet provides the most common point of reference for many computer system users, the user interface should have a web page look and feel.

The user interface must be tailored to the display and data entry capabilities of the user's computing device. For example, a display presenting certain information to a PDA user must necessarily be different than a display that presents that same information to a desktop PC user. Similarly, since a PDA relies heavily on pen input, the PDA user interface should make greater use of drop down menu selections for entering data than would be needed by a desktop user who can enter data via a keyboard. A parallel set of displays may be needed to meet these objectives.

The user interface must be sensitive to a user's connection speed. This requirement is most applicable to graphical data, such as video, pictures, and maps. For example, video sent to users with low speed connections should be reduced in resolution and/or frame rates. In some cases, such as low speed mobile data networks, the transfer of high bandwidth data, such as video, should be prohibited so as not to overload the network and impact the response time of Law Enforcement applications.

The use of "special" client software on users' computer equipment will be difficult to manage on a system-wide basis and should, therefore, be absolutely minimized. Ideally, the user interface should require no more than standard browser software be present on the user's computer.

The user interface should include features to support mobile users who may not be able to easily interact with a keyboard and screen. These features should include:

- The treatment of a voice message as data. For example, a mobile user should be able to record a question, status report, or a response to an action request. The system should transmit the voice message to all recipients as if it was typed-in data. Recipients should be able to play back the voice message.

- Text-to-speech and speech-to-text capabilities. For example, a mobile user should be able to select that messages be "read" aloud by the MDC as the messages are received.

- Use of canned messages and responses. A mobile user should be able to select from a list of commonly used questions and responses, thus saving the time and inconvenience of keyboarding a message.

- Use of touch-sensitive displays. The user interface should be designed with large target areas on the displays so that actions can be initiated by touching the target area of a touchscreen display in lieu of a mouse selection/click.

Some of the recommended functions for the IIE system will overlap with incident management functions provided in Public Safety CAD systems. Public Safety dispatchers should not be required to double enter information into both the CAD system and IIE system. Since the CAD system is the dispatchers' primary tool, the dispatcher should be able to do the vast majority of data entry on the native CAD system screens. Secure datalinks should be implemented to export and transfer selected, non-private, data fields on traffic-oriented incidents from the CAD system to the IIE system. The dispatcher would use a separate display and/or window to view unique IIE system displays and to enter data that would not be applicable to the CAD system. Refer to Section 4.4 for a discussion of the security issues associated with such interfaces.

4.6 Contacts

The IIE system should include, a comprehensive contact list containing the names, position, expertise, and contact information for individuals that could be called upon to respond to highway incidents. Contact information should include: address, business and home phone numbers, cell phone number, pager, email address, and system user name. Where contact lists are already in existence, the IIE system should include a searchable link to those existing databases. The contact list should be searchable by multiple criteria, including the following criteria and combinations of these criteria:

- Name
- Agency
- Expertise
- Position within the agency
- Geographic region (default to local county and/or district)

Position searches should be sensitive to on-call status. So, for example, if a search is made for a WisDOT bridge inspector, the search would respond with the name of the individual that was on-call at that time.

Agencies should be able to predefine groups of contacts for use in different types of incidents. The list can be a combination of specific individuals and positions within an agency. Selection of the group would return the current on-call contact for that position.

Agencies should be able to maintain the contact list for their own agency, including on-call schedules. Users should be able to enter additional contact information for their own use.

The IIE system should interoperate with any future regional or nation-wide deployment of the Emergency Provider Access Directory (EPAD). The EPAD system is a GIS-based electronic address book that provides contact information (telephone, fax, address, email) for public safety and emergency

service providers. The EPAD program is championed by the ComCARE Alliance, a broad-based not-for-profit national coalition of more than 95 organizations representing nurses, physicians, emergency medical technicians, 9-1-1 directors, emergency managers, transportation officials, wireless, technology and transportation companies, public safety and health officials, law enforcement groups, automotive companies, consumer organizations, telematics suppliers, safety groups, and others. EPAD has been demonstrated in the Pacific Northwest and other demonstrations are planned. Sustainability plans include the development of a long-term organizational plan and revenue model. Interoperability with EPAD should include realtime operational interoperability, as well as O&M interoperability (i.e., it should be possible to update contact information in either EPAD or the IIE system, and have the update flow automatically to the other system).

4.7 Alerts and Notifications

Potential responders may not be logged into the IIE system when an incident occurs. A means is needed to alert or notify responders that a highway situation has occurred that requires their attention or participation. Any authorized user should be able to trigger an alert by selecting individuals or predefined groups of individuals from the contact database (Section 4.6) or from lists stored with a preprogrammed protocol (Section 4.12). The initiator should also be able to dynamically create a group of individuals or add to a predefined group.

Alerts should be assigned priorities. The priority assigned to one recipient may be different than the priority assigned to others. For example, one recipient may receive a high priority alert because he is needed to directly respond to an incident, whereas another recipient may receive a lower priority alert for the same incident, because it is only necessary that this second recipient be aware that the situation is occurring.

The alert function should support the alert of individuals that may not be registered users of the system or may not have ready access to a computing device to log into the system. In this case, the individual receiving the alert would simply call into the individual that sent the alert. The sender would indicate to the system that the recipient had received the alert and would note the substance of any subsequent voice conversations.

When an alert is intiated, the IIE system should attempt to contact each individual by using the contact information (e.g., pager, email, alert popup, SMS message) selected by the individual triggering the alert, by sending an alert via all of the contact paths, or by sequencing through the contact paths if a response is not received within a timeout period. The alert message should contain a minimal text description of the situation and its priority.

When an alert recipient logs into the IIE system, the recipient should immediately be presented with the alert message and be required to acknowledge its receipt.

The system should keep track of the responses that have been received for all alerts associated with a particular incident. At any time, the initiator of the alert, or any participant in the incident, should be able to see who has not yet responded. The alert initiator should be informed if a response is not received within a timeout period. This timeout period should be dependent on the priority of the alert.

Notifications are similar to low priority alerts. Generally they would not require confirmation by the recipient, or active use of alert measures such as pagers, SMS, or email. A user should be able to broadcast notifications to a large group of users in a geographic region. Notifications should be presented to a user when the user logs into the system. Examples of notifications would be weather advisories, updates to work zone information, and short-term road maintenance activities.

4.8 Resource, Action, and Information Requests

The IIE system should provide a means for a user to request a resource, action, or information from another agency/user. This request could be linked to an alert if the target individual is not currently logged on to the system. Examples of requests could include:

- Request to issue a HAR message
- Request to control a CCTV camera
- Request for a snow plow at a certain location
- Request for the display of a message on a VMS
- Requests for traffic signal control.

A request is distinguished from a simple text message in that the IIE system should monitor the request and track that the request has been received and responded to. Failure of either of these events to occur should alert the sender so alternative actions can be taken.

All requests and responses should be tagged with the time and participants' names and inserted into the incident log. Participants in the request should be able to add status information to the response as the desired action evolves. For example, a request to send a plow escort to a certain location could start with an initial confirmation that this will be done, followed by confirmation that the plow operator has been successfully contacted, that he is in-route with a certain ETA, and that he has arrived on scene. Requests and responses should be linked so that other users can see the chain of communications on that subject.

In some cases it may be desirable for security or other reasons to keep a request private from other participants in the incident. The system should support this need and not insert these transactions into the incident log.

4.9 Messaging

Participants in an incident should be able exchange text messages related to an incident. This function would be similar to text messaging functions provided by most mobile data/CAD systems; however, this function would be able to cross agency boundaries.

Participants should also be able to establish a "Chat Room" type environment to exchange information about an incident. Under this environment, all participants should be able to view the contributions made by all other participants in realtime. A separate window should indicate which participants are included in the group and which participants are currently online. A means should be provided to invite additional participants into the chat room. A subset of participants should be able to establish a private chat room for the exchange of some specific information that, for whatever reason, should not be viewed by the wider audience.

All entries in the Chat Room should be tagged with the name of the person making the comment and the time. All non-private text messages and Chat Room exchanges should be inserted into the incident log.

All forms of text messaging should be able to use the mobile data system user interface tools described in Section 4.5.

4.10 Incident Log

All information exchanged on an incident should be inserted into the Incident Log. Information should be presented in chronological order and should include the contributor's name. Users should be able to add annotations to the log, particularly to note voice and other communications that occurred outside of the IIE system. Participants should be able to pull additional information and links into log as a means of disseminating this information to all participants.

The incident log should include:

- Initial incident data and updates exported from a Public Safety CAD system.
- Alerts and Notices
- Resource, action, and information requests and responses
- Text messages and Chat Room exchanges
- Links to incident-related information, such as White Board sessions, CAMEO hazmat plume maps, preplanned Alternate Route maps and procedures, pictures, video, post-incident debriefings, and reports.

4.11 Whiteboard

The IIE system should include a "whiteboard" function that provides a means for all parties responding to an incident to collaborate and view the same information at the same time.

The whiteboard can begin as a blank screen, or it should be possible to use a map or drawing as a background. The user would then add information to the whiteboard in the form of freehand or typed text, or a sketch. For example, on a map background, the whiteboard user would be able to outline an alternate route to detour around the incident, and indicate where each unit should be located to divert and manage traffic. In a separate window, participants would be able to ask questions and exchange information. Other users should also be able to add annotations to the whiteboard information.

All logged in participants should be able to view the whiteboard simultaneously in realtime as the information is entered. The whiteboard should be stored for access by participants that were not available at the time the whiteboard session occurred.

4.12 Preprogrammed Protocols

Preprogrammed Protocols are preplanned responses to an incident. They typically include the actions that need to be taken, and contacts that should be made for certain types of incidents. For example, preplanned responses could be developed for a bomb threat on a bridge, or a hazmat situation. They are particularly helpful for the less routine incidents.

Most agencies have developed preplanned responses, at least for severe incidents. These plans can exist in different forms, for example in paper form or on a Public Safety CAD system. Utilities should be included in the IIE system to import these pre-existing protocols and establish links so that they are easily accessible from the user's incident display.

In addition to the import of existing incident management plans, the IIE system should include tools to develop such plans specifically for the IIE system. Plans developed in this manner should provide additional functionality by automating some of the steps. For example, selection of a notification step should automatically trigger an alert message to that individual or agency.

For security reasons, access to Preprogrammed Protocols should be limited to specifically authorized users. Agencies should be able to limit access to its protocols to only members of that agency.

4.13 Access to Traffic Information

The IIE system must interface to WisDOT's Traffic Management Systems to provide information on traffic flow and road conditions to incident responders. This information can be critical in detecting the incident, determining the proper equipment to dispatch, routing emergency responders to the scene, and in planning detours.

Traffic data is highly-location based and should be tied to map displays in the user interface. The following traffic information should be made available to IIE system users:

a. CCTV Systems: Access to video from highway CCTV cameras was by far the most desirable capability expressed in the Table Top Sessions. Camera locations and

orientation should be shown on a map display. The provision of video should be sensitive to the user's connection speed. Authorized users should be able to control the cameras and video switch. Unauthorized users should be able to request such controls from the primary camera controlling agency.

b. Traffic Flow Information: Users should have access to processed traffic sensor and probe data that graphically shows the flow of traffic on monitored segments of the highway system.

c. Dynamic Message Signs: The location and orientation of fixed and portable dynamic message signs should be shown on a map display. Users should be able to view the message currently displayed on any sign. Authorized users should be able to change message displayed on the sign. Other users should be able to request the display of a specific message.

d. Road Weather: Users should be able to access the environmental information provided by WisDOT's road weather stations. This information is currently available in a web site format. The location of the weather stations should be shown on the map display; selection of the icon should link the user to the web site for that station.

e. Events and Workzones: The location of special events and workzones should be displayed on the map. Selection of an icon should provide further details, such as revised traffic patterns and dates these revised patterns will be in effect. Significant changes to workzone and event data should trigger a notification to users in general geographic area of the construction or event.

f. Short-Term Maintenance: Highway operations personnel should be able to enter the location and traffic impact of short-term highway maintenance activities. New or changed activity entries should trigger a notification to users in the general geographic area of the activity. Such information is crucial to public safety agencies who need to consider temporary closures in the ingress and egress routes of emergency vehicles.

Much of the traffic information is appropriate for the general traveling public. Efficiencies can be realized by considering these commonalities in the deployment of any future Traveler Information System.

4.14 Automatic Vehicle Location (AVL)

The Table Top Sessions revealed that agencies have a wide range of opinion on the value of AVL. For example, some County Highway Departments saw considerable value in being able to see the location of their plows on a map display. Others felt that, because their plows followed predefined routes, their location was always known, at least to a general vicinity. These agencies did not feel that AVL added significant value. Concerns for having AVL typically centered on employee relations concerns, and

security (Law Enforcement did not want knowledge of the whereabouts of their patrols available outside of the agency).

The IIE system should support both positions on AVL. When a user's computing device or radio can provide GPS location data, the IIE system should be able to access and use that data, if enabled by the agency. If enabled, the agency should also be able to define whether the data should be accessible to outside agencies.

Location data should include the location of incident responders working from fixed computer locations, based on the address of that location. When a mobile user does not have GPS capabilities, the user should be able to indicate his location by entering an address or clicking on a map display.

The AVL map display should show the location of the incident(s) and those responding to the incident(s) (where enabled). The shape and color of the map icon representing a responder should indicate information about that responder, such as the responder's agency and whether or not that responder is currently logged into the system. Users should be able to filter the data shown on the display, for example, limiting the display to specific agencies. The icon shown on the map for the location of a responder should be linked to other IIE system data and functions. For example, "clicking" on an icon should provide the identity and contact information for that individual, and allow the user to send a message, request, or alert to that individual.

4.15 Reference Material

The IIE system should provide a repository for the storage and retrieval of reference material that is relevant to highway operations and the clearance of highway incidents. This reference material could include:

- Preprogrammed Alternate Routes
- Radio Channel Assignments
- Event calendars and plans
- Hazmat Manuals
- Procedures Manuals
- Training Manuals
- Maps
- GIS-based information, such as maps showing the location of utilities
- Drawings and plans
- Links to appropriate references on the web.

Reference material should be mapped to agencies and regions. Agencies should be able to add or update reference material for only their agency or region. When a user requests access to reference information, the user should first be presented with the available information for the user's agency or

region. However, if authorized, users should also be able to access resource information from other regions.

Because of the bandwidth limitation of some mobile data systems, a means should be provided for mobile users to locally store reference material on their laptops and to update this reference material at "hot spots" or via distribution CDs. Requests for information by these users should default to the local copies rather than tying up mobile data system resources by sending the information "over the air".

4.16 Interfaces

As discussed in Section 4.18 and illustrated in Figure 3.2-1, the shear number of potential agency-to-agency contacts that could occur make implementing a mesh network of point-to-point links impractical. The IIE system will need to be the hub for interagency communications. As such, the IIE system will need to interface to these agencies and the computer systems these agencies use to support realtime operations. The hub will also house the interoperability applications that will process the data acquired from the interagency links, and present the data as useful information to the system users.

The number of potential interfaces are quite large. They are presented below as functional categories of interfaces. The specifics of these interfaces will be identified in later design phases of the project. The design and implementation of these interfaces will be one of the principal challenges of the project. For example, in a survey of 16 Communication Centers conducted in an earlier phase of the project, it was found that CAD systems from 11 different CAD vendors were in use. There are over 100 CAD system vendors in the industry. From this sampling, it is safe to assume that a large proportion of these vendors have supplied systems in Wisconsin. Each vendor will have his own development challenges and costs for implementing an IIE system interface for his CAD product.

Fortunately communications protocol standards have been developed for the industry that will make this effort a more manageable task. For example, the IEEE 1512 protocol standard was specifically developed for communications between Public Safety CAD systems and Traffic Management Systems. This standard is now being field tested in Seattle, Salt Lake City, and New York. In the final analysis, however, the interface to some legacy systems may not be cost effective. For such systems, a more practical approach will be to include the interface requirements in future system upgrades or replacement plans.

The categories of IIE system interfaces are described in the following sections.

4.16.1 Public Safety CAD Systems

The CAD system is the primary tool used by Public Safety Dispatchers to enter the initial information about a highway incident and record additional information about the incident as the response progresses. As such, these CAD systems are a principal resource for incident information to other responding agencies. Information on highway incidents is a small subset of CAD system data. Other CAD

data concerns criminal history and information on non-highway oriented Law Enforcement activities. Any link to these systems must be accomplished in a manner to absolutely protect this other Law Enforcement data from access outside the agency and contamination. These security considerations are discussed further in Section 4.4.

The CAD system interface should support the receipt of incident IIE system incident log data for insertion into the CAD system's incident database. Agencies should be able to inhibit this capability if desired.

4.16.2 Mobile Data Systems

The IIE system should include interfaces to Public Safety mobile data systems in order to provide the IIE system functionality to mobile incident commands and public safety vehicles. In cases where the mobile data systems are tied into the agency's CAD system, these interfaces can be accomplished through that agency's CAD system interface to the IIE system. In other cases, interfaces will have to be added to the mobile data systems switch. The trend in the mobile radio industry to move towards IP-based radio infrastructures will help reduce the complexities of these interfaces.

An interface to the State Patrol mobile data system should be considered a high priority as this system is currently used by 147 agencies across the state.

As described in Section 4.5, the IIE system must have alternative user interface displays that are sensitive to the bandwidth limitations of most existing mobile data systems. Even with these measures, however, most mobile data systems that use private radio infrastructures, including the State Patrol mobile data system as it currently exists, were not designed with the capacity to handle IIE system functions. Additional data channels could be added, but new frequencies are scarce, and such expansions could be cost prohibitive. For many agencies, connectivity to the IIE system may have to wait until the existing system is replaced or upgraded to a higher data rate radio system. A short-term solution may be to take advantage of the ability of modern Mobile Data Computers (MDCs) to interface to multiple radio systems and add an interface in each MDC to a public cellular data network. This approach is less than ideal, because of the tendency of cellular networks to quickly overload in emergency situations; however, use of cellular systems dedicated to data would be less prone to such overload. These alternatives will be further explored in the conceptual design.

4.16.3 Traffic Management Systems

The IIE system must interface to WisDOTs Traffic Management Systems to provide the information described in Section 4.13 above. These systems include WisDOT's CCTV video systems, the MONITOR systems and corresponding Traffic Operations Center in District 2, the freeway traffic management system in District 1, and any future systems that may be in place when the IIE system is deployed.

4.16.4 Data Archiving System

Once an incident is closed, data collected on the incident by the IIE system should be transferred to WisDOT's Data Archiving System, currently under development at the UW Traffic Lab. IIE system users should be able to access the archived incident data through services included in the IIE system.

4.16.5 Internet

The requirement for IIE system users to be able to access the system from any location dictate that the IIE system must include an access port via the Internet. Secure login procedures, encryption and secure tunneling protocols, such as VPN, should be employed to protect IIE system data transfers across the public Internet infrastructure. VPN will also help protect the IIE system from cyber attacks. Further protection from cyber attack should be provided by Firewalls and, since system security is evolving at a fast pace, any other means of protection that are available when the system is ultimately deployed.

4.16.6 Future Interfaces

It will take several years to fully deploy the IIE system. Over this time other systems may be deployed across the state that should be interfaced to the IIE system. For example, there were indications in some of the Table Top sessions that there are a few regional initiatives to implement systems that would establish links between hospitals in the region for the sharing of status information and coordination of mass casualty situations. Other candidate systems for interface would include Crisis Information Management (CIM) systems that may be deployed for Emergency Operation Centers. There was no indication from the Table Top sessions that any of these CIM systems are currently deployed in the state, however this is a relatively new and growing industry; future deployment of such systems in Wisconsin should be anticipated. The IIE system should also be able to pass highly filtered, real-time incident information to a future 5-1-1 Traveler Information System.

The IIE system project must develop IIE system interface specifications for incorporation into these future system procurements. The IIE system design must be flexible and scalable to accommodate these future interfaces.

4.17 Training Mode

The IIE system has potentially a large number of users. This user base will also be very dynamic, changing on a daily basis as agencies hire new employees and move other employees to different positions and responsibilities within the organization. As a result of these organizational changes, there will be a constant need to train new users of the IIE system. The IIE system should help facilitate this training with a set of online training tools to train new users in the use of the system and to provide refresher training for users that do not interact with the IIE system on a regular basis.

In addition to training for new users, the IIE system should have a simulation mode that will allow users in a region to practice using the system in responding to a simulated incident. The user interface for the simulation mode should be identical to the online mode, but should clearly indicate to the user that he/she is participating in an exercise. The simulation mode should have special functions for a trainer to setup an incident scenario and make adjustments to the scenario in realtime as the exercise progresses. All participants' actions and entries should be stored for replay and debriefing after the training exercise is completed. The trainer should be able to store the scenario for reuse at future time.

4.18 Configuration

Analysis of the Table Top Sessions has shown that there are one-to-many, many-to-one, and one-to-one communication and data sharing paths in effect among agencies when responding to an incident. Inspection of Figure 3.2-1 readily shows that data interoperability between agencies cannot cost-effectively be achieved by implementing a mesh of point-to-point links between agencies. Such a configuration would be extremely difficult to implement, and a nightmare to manage. A more practical configuration would be hub and spoke configuration, where each agency has a single connection to a "hub". The hub performs a routing function and provides the applications described in this report that provide meaning to the data that is exchanged. Approaches for implementing this hub and spoke configuration will be explored in later phases of this project.

The role that the IIE system will play in public safety dictates that the system must exhibit extremely high availability and survivability. High availability implies that servers and key communications infrastructure must be redundant, and utilize high availability technologies such as fault-tolerant servers and hot-standby configurations. Survivability implies that redundant elements of the configuration should be geographically separated, so that critical functions continue to be available even if a disaster or terrorist attack destroys or severely impacts a critical site.

The IIE system configuration must be scalable to support a phased implementation of the system and to incorporate new functions and users. The configuration should be independent of wireless RF mediums, supporting both public and private infrastructures. The system configuration must be highly secure, as described above in Section 4.4.

4.19 Operations and Maintenance

Long-term support and maintenance of the IIE system will require that an executive and technical support organization be established and funded to ensure the long-term sustainability and availability of the system. A revenue model will be required to ensure adequate and continued funding for the support organization. This organization will be responsible for the following support activities:

- Network Administration: Management and monitoring of the wide area and local area networks. Tasks will include monitoring performance, maintaining the configuration of

network devices, troubleshooting network problems, and coordinating with leased circuit providers.

- System Administration: Management of the system computing resources. Tasks include staffing a help desk, system and data backups, monitoring computer logs, user logins and permissions, system recovery from failures; and managing software licenses.

- Security Administration: Monitoring the system for adherence to security procedures. Tasks include monitoring security logs, maintaining security policy and procedures, monitoring WAN and LAN security, maintaining anti-virus and operating system security updates, monitoring database security, and monitoring outside access to the system (including vendor access).

- Application Software Maintenance: Maintenance activities directly associated with the IIE application software. Tasks including maintaining application parameters and configuration (for example, adding new agencies to the system), application software troubleshooting, tracking and installation of application software fixes and upgrades, code management, and managing application software licenses. In addition to centralized application software maintenance, each participating agency should be able to modify operational parameters and data directly related to that agency (e.g., new users, contact information, individual user permissions, etc.).

- Database Administration: Maintenance of the IIE system databases. Activities include managing database permissions, database maintenance, database backup, and database archival.

- Hardware Maintenance: Troubleshooting and repair of system hardware. Tasks include workstation and server troubleshooting and repair, network hardware troubleshooting and repair, tracking parts returned for service, tracking hardware versions, setting-up workstations for new users, and managing any hardware maintenance contracts.

- GIS Maintenance: Maintenance of the GIS database. Tasks include updating the database for changes in tracked resources and locations, maintaining and updating the system maps, and distributing GIS and map updates to all users and applications.

- Training: Training of new users and refresher training for existing users. Tasks include designing and updating courses, scheduling and conducting regional and agency classes, evaluating course effectiveness, evaluating students, maintaining online training software, and conducting simulation exercises.

- Support for New Agencies: Support for bringing new agencies on to the system. Tasks include providing interface specifications to be included in new CAD and mobile data system procurements, support for factory and field testing of the IIE system interface,

provision of a IIE simulator to prove the IIE system interface prior to connection, assistance to the agency for developing initial application and security parameters, initial workstation and Mobile Data Computer setup, and assistance in setting the agency's support infrastructure for maintaining agency data.

Appendix A

Table Top Session Plan

March 1, 2004

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Preliminary Plan for Conducting Operational Assessment Table-Top Exercises

Purpose

The purpose of the scenario based table-top exercises is to: a) gain a better understanding of existing transportation and public safety agency operational integration on the state highway network; and, b) to begin identifying operational and technological needs for data interoperability.

Scheduling

One 3-4 hour exercise will be conducted in each of the eight WisDOT transportation districts throughout the month of April 2004.

Participants

It is recommended that representatives from both transportation and public safety agencies be represented and participate in the district table-top exercises. Additionally, for those districts that have borders with other states, it is recommended to include a representative from the bordering State DOT:

Transportation

- WisDOT District Director and/or Dep. Director
- WisDOT Dist. Public Information Manager
- WisDOT Dist. Maintenance Rep/Supervisor
- WisDOT District Traffic Engineer
- County DPW Maintenance Supervisor
- Transit Agencies
- Illinois DOT (Districts 1, 2)
- Iowa DOT (District 1)
- Minnesota DOT (Districts 5, 6, 8)
- Michigan DOT (District 7)

Public Safety / Other

- Wisconsin State Patrol (Trooper, Comm/Dispatch)
- County Sheriffs (Deputy, Comm/Dispatch)
- County Emergency Management
- State/Region Emergency Management
- Fire/EMS
- National Weather Service
- Department of Natural Resources
- Utility Companies (as appropriate)
- Towing Providers / AAA-WI

General Agenda/Workshop Format

1. Introductions (5 min.)

2. Background – Why We Are Here (5 min.)

3. Purpose of Exercise and Ground Rules (10 min.)
    - Who communicates with Who -- When, Why and How?
    - What data does one responding party have that would be useful to another party?

4. Scenario 1 (45 min.)

5. Scenario 2 (45 min.)

6. Break (15 min.)

7. Scenario 3 (45 min.)

8. Daily Operations (30 min.)

9. Summary, Wrap-Up and Next Steps (15 min.)

Menu of Scenarios

Three of the following five scenarios will be selected for discussion at each district meeting. Each scenario starts out with a somewhat routine incident (Level 1) that escalates in severity (Levels 2 and 3) requiring additional response units from an expanding group of public agencies and private entities.

Scenario #1 - Semi-Truck

Level 1
- Semi Stall in travel lane

Level 2
- Secondary crash in traffic
- Injuries
- Concerned citizens stopping to assist

Level 3
- PM Peak
- Raining
- Multiple secondary crashes
- Pedestrian struck with severe injuries
- Diesel tanker overturns
    - Small fire on vehicle
    - Diesel fuel spilling into storm sewer
    - Tanker driver killed
- High-voltage transmission tower struck, live wires down
- Traffic in both directions stopped, highway essentially closed

Scenario #2 - Highway Maintenance / Construction

Level 1
- Significant pavement buckle/failure occurring in spring
- Initially one-lane needs to be closed

Level 2
- Inspector determines that the problem is more than pavement and that the structural/base integrity is in question across all lanes (one direction).

Level 3
- Entire direction of highway needs to be closed until major repair is made.

Scenario #3 - Weather

Level 1
- Blizzard warning issued
- Storm to arrive in 2-3 hours
- Over 12" of snow expected
- Sustained wind of 30mph with gusts to 60mph

Level 2
- New Years Eve
- Storm has arrived
- Wind causing zero visibility
- Plow operations can not keep pace with snow fall and drifting
- Stranded motorists on high-drifting segments that have not been plowed

Level 3
- 9-1-1 call that a stranded motorist is possibly having a heart attack.
- Caller has no idea of location.

Scenario #4 - Evacuation

Level 1
- Tanker truck overturns
- Potential for unknown gas escaping
- Major traffic back-ups

Level 2
- Determination that the gas is _____. It is highly toxic and is escaping.

Level 3
- Immediate evacuation of the highway and adjacent residential areas is required.

Scenario #5 - Dignitary

- President scheduled to make a campaign speech at UW-_____ campus.
- He is to arrive from Milwaukee via helicopter which will land at _____ airport.
- Ground transportation escort to destination and return to airport is required.

Daily Operations and Unique Situations

In the final session of the table-top exercise, we plan to discuss how the exchange of data among agencies could improve normal day-to-day operations, including tasks such as:

A. Roving pot hole repair crew
B. Road construction and routine maintenance
C. Typical snow event
D. Special event
E. Traffic enforcement – spot vehicle inspection
F. Oversized load
G. Amber Alert
H. Media Roll-Out / Event

Appendix B

Sample Table Top Invitation

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercise

Wednesday, August 18th, 2004 from 1:00 P.M. – 4:00 P.M. at Lake Mills Municipal Building 200 Water Street Lake Mills, WI 53551 See enclosed map for directions

BACKGROUND AND PURPOSE

This is an invitation for your participation in a table-top exercise for WisDOT's Traffic Operations and Public Safety Communications Interoperability project at the Lake Mills meeting room. This package provides an overview of the project, a preliminary agenda for the session, directions, and an RSVP form. Please feel free to substitute another representative.

Project Background:

The objective of the Traffic Operations and Public Safety Communications Interoperability project is to develop an interoperability plan and conceptual architecture for a state-wide communications infrastructure to support the data needs of highway operations and interoperability with the Public Safety agencies in the state.

The goals of the project are to improve the ability of highway operations and public safety personnel in different agencies or jurisdictions to exchange data with each other, in real time to:

- provide mutual-aid responses to catastrophic accidents or disasters
- support management of the emergency response to highway incidents,
- coordinate routine day-to-day operations.

Purpose of the Table-Top Exercises:

The purpose of the scenario based table-top exercises is to:

A. Gain a better understanding of existing transportation and public safety agency operational integration on the state highway network.
B. Start identifying operational and technological needs for data interoperability.

For Additional Information:

Contact Steven Mueller at (215) 997-5100 X236 or e-mail at smueller@macro.com.

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercise
Wednesday, August 18th, 2004 from 1:00 P.M. – 4:00 P.M.
Lake Mills Municipal Building
200 Water Street, Lake Mills, WI 53551

PRELIMINARY AGENDA

5 min.	**1.**	**INTRODUCTIONS**
15 min.	**2.**	**BACKGROUND** • Why Are We Here • Background of the Interoperability Project
5 min.	**3.**	**PURPOSE OF EXERCISE AND GROUNDRULES** • Who communicates with Who – When, Why and How?
35 min.	**4.**	**SCENARIO 1***
35 min.	**5.**	**SCENARIO 2***
10 min.	**BREAK**	
35 min.	**6.**	**SCENARIO 3***
20 min	**7.**	**OTHER COMMON AND SPECIAL SITUATIONS**
10 min.	**8.**	**WRAP-UP**

* See next page for list of possible scenarios.

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises
Wednesday, August 18th, 2004 from 1:00 P.M. – 4:00 P.M.
Lake Mills Municipal Building
200 Water Street, Lake Mills, WI 53551

POSSIBLE SCENARIOS

Semi-Truck

Level 1
- Semi Stall in travel lane

Level 2
- Secondary crash in traffic
- Injuries
- Concerned citizens stopping to assist

Level 3
- PM Peak
- Raining
- Multiple secondary crashes
- Pedestrian struck with severe injuries
- Diesel tanker overturns
    - Small fire on vehicle
    - Diesel fuel spilling into storm sewer
    - Tanker driver killed
- High-voltage transmission tower struck, live wires down
- Traffic in both directions stopped, highway essentially closed

Highway Maintenance / Construction

Level 1
- Significant pavement buckle/failure occurring in spring
- Initially one-lane needs to be closed

Level 2
- Inspector determines that the problem is more than pavement and that the structural/base integrity is in question across all lanes (one direction).

Level 3
- Entire direction of highway needs to be closed until major repair is made.

Weather

Level 1

- Blizzard warning issued
- Storm to arrive in 2-3 hours
- Over 12” of snow expected
- Sustained wind of 30mph with gusts to 60mph

Level 2

- New Years Eve
- Storm has arrived
- Wind causing zero visibility
- Plow operations can not keep pace with snow fall and drifting
- Stranded motorists on high-drifting segments that have not been plowed

Level 3

- 9-1-1 call that a stranded motorist is possibly having a heart attack.
- Caller has no idea of location.

Evacuation

Level 1

- Tanker truck overturns
- Potential for unknown gas escaping
- Major traffic back-ups

Level 2

- Determination that the gas is chlorine. It is extremely hazardous and is escaping.

Level 3

- Immediate evacuation of the highway and adjacent residential areas is required.

Dignitary

- President scheduled to make a campaign speech at local UW campus.
- He is to arrive at Madison Airport
- Ground transportation escort to destination and return to airport is required.

Daily Operations and Unique Situations

A. Roving pot hole repair crew
B. Road construction and routine maintenance
C. Typical snow event
D. Special event
E. Traffic enforcement – spot vehicle inspection
F. Oversized load
G. Amber Alert
H. Media Roll-Out / Event

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday, August 18th, 2004 from 1:00 P.M. – 4:00 P.M.
Lake Mills Municipal Building
200 Water Street, Lake Mills, WI 53551

RSVP FORM

PLEASE RETURN BY FRIDAY, August 13, 2004
Via fax, mail, or email to Steven Mueller
Macro Corporation
4377 County Line Road
Chalfont, PA 18914

Telephone 215-997-5100 X236
Fax 215-997-3818
E-mail: smueller@macro.com

Please select one of the following and enter the information below accordingly:

- ❑ Yes, I (we) will be attending the workshop.

- ❑ No, _____ will not be able to attend the workshop, but I will be
  Your Name
  sending a representative(s) in my place.

- ❑ No, _____ will not be able to attend the workshop.
  Your Name

Name of Attendee(s):_____

Agency:_____

Address:_____

Phone:_____ Fax:_____

E-mail:_____

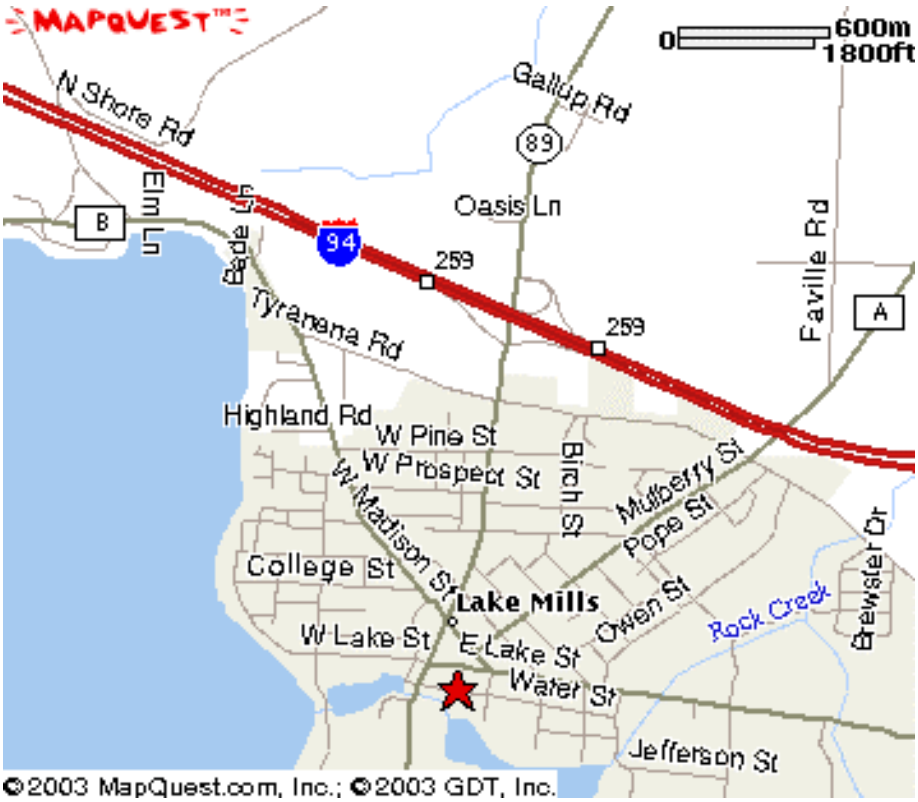
Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday, August 18th, 2004 from 1:00 P.M. – 4:00 P.M.
Lake Mills Municipal Building
200 Water Street, Lake Mills, WI 53551

DIRECTIONS



Directions:

Lake Mills is immediately south of I-94, approximately 25 miles east of Madison.
From I-94, turn south on highway 89 and then left on Water St (one block past Lake St).
Municipal Building is on the right, 200 Water St.

Appendix C

Table Top Session Agendas and Scenarios

Appendix C.1

WisDOT District #1

Table Top Session Agenda and Scenarios

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises
Wednesday August 18, 2004

AGENDA

5 min.	**1.**	**INTRODUCTIONS**
20 min.	**2.**	**BACKGROUND** • Why Are We Here • Background of the Interoperability Project
10 min.	**3.**	**PURPOSE OF EXERCISE AND GROUNDRULES** • Who communicates with Who – When, Why and How?
35 min.	**4.**	**SCENARIO 1 – Severe Weather**
35 min.	**5.**	**SCENARIO 2 – Amber Alert**
10 min.	**BREAK**	
35 min.	**6.**	**SCENARIO 3 – Hazardous Material Spill Northbound on I-94/39 North of Beloit and South of Janesville**
20 min	**7.**	**OTHER COMMON AND SPECIAL SITUATIONS**
10 min.	**8.**	**WRAP-UP**

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday August 18, 2004

SCENARIO 1 – Severe Weather

Level 1

A blizzard warning has been issued for all of Southwestern Wisconsin and Northwestern Illinois. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 14" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

Level 2

At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not yet been plowed. As conditions continue to worsen it becomes necessary to close portions of Highway 11 East Bound from Highway O to Highway 23. It is decided that Eastbound Highway 11 traffic must be routed south on Highway O into Illinois through Scales Mound, Apple River and Warren to Highway 78. Traffic would then be directed northbound on 78 back to Highway 11. Swift coordination between public safety agencies in Wisconsin and Illinois is necessary. Portions of Highways W, A, and P in Lafayette County are also drifted over making that alternate route to Highway 78 not an option.

Level 3

At approximately 9:15 pm the Lafayette County 9-1-1 center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling East on Highway 11 and vaguely remembers seeing a sign for Gratiot sometime in the last 30 minutes. All officers on duty are currently handling calls.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday August 18, 2004

SCENARIO 2 – Amber Alert

Level 1

At 11:45 am on October 24th, 2004 the Dane County Public Safety 9-1-1 center receives a telephone call from a person who refuses to identify himself stating that he has information that 15 year old Ashley Johnson from 4802 Sheboygan Avenue in Madison has been kidnapped by her father who is recently divorced from the mother of Ashley Johnson. The father who does not have custody of the girl was seen arguing with her outside her home and eventually forced her into his vehicle and drove away within the past 5 minutes. He was a driving an older model dark green Dodge Pickup truck with damage to the rear tailgate of the vehicle. The caller states the father always carried a gun and has a record of arrests for this.

Level 2

The vehicle is spotted traveling West Bound on I-94/90/39 approximately 3 miles inside the southern Columbia County border by a Wisconsin State Trooper. It is believed the father may be headed for Minnesota where he has relatives in the Red Wing area.

Level 3

Suddenly the vehicle stops in traffic near Highway 78 on I-94/90/39 under a bridge overpass. The suspect exits the truck holding his daughter while holding a gun to his head threatening to commit suicide if he can't have his daughter. Suddenly the truck bursts into flames. Traffic is at a standstill. Potential damage to bridge is also possible.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday August 18, 2004

SCENARIO 3 – Semi Tanker Rollover on Interstate 90/39 Between Janesville and Beloit

Level 1

At 8:35 P.M. on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker traveling northbound on I-90/39 north of Beloit and south of Janesville. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. Deputies from Rock County are dispatched to the scene.

Level 2

As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB on the Interstate near the crash scene. Due to the holiday, traffic is heavy in the area.

Level 3

Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the north at 15 miles per hour. The gas is heading towards the City of Beloit where a firework show is set to begin. It is determined that all NB traffic must be detoured as far south as the southern Wisconsin/Illinois border. It has been decided that all SB lanes north of the incident are to be closed as far north as highway 11 in Janesville. Evacuation of the northern section of Beloit is discussed.

NOTES:

Appendix C.2

WisDOT District #2

Table Top Session Agenda and Scenarios

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday, June 2, 2004
11:30 am to 3:00 pm
WisDOT Division of Transportation Districts (DTD) District 2 Office - Room 314
141 NW Barstow Street, Waukesha

AGENDA

15 min.	1.	**INTRODUCTIONS**
15 min.	2.	**BACKGROUND** • Why Are We Here • What We Need to Accomplish
15 min.	3.	**PURPOSE OF EXERCISE AND GROUNDRULES** • Who communicates and shares information with Who – When, Why and How?
15 min.	4.	**SCENARIO OVERVIEWS**
15 min.	5.	**WORKING LUNCH – Review Scenario Details**
35 min.	6.	**SCENARIO 1 – Severe Weather**
35 min.	7.	**SCENARIO 2 – Crash on I-43 in Marquette Interchange Work Zone**
35 min.	8.	**SCENARIO 3 – Hazardous Material Spill on I-94 Near Zoo Interchange**
15 min.	9.	**DAY TO DAY OPERATIONS**
15 min.	10.	**SUMMARY, WRAP-UP AND NEXT STEPS**

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday, June 2, 2004

SCENARIO 1 – Severe Weather

Level 1

A blizzard warning has been issued for Southeastern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

Level 2

At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close I-94 between Milwaukee and the state line.

Level 3

At approximately 8:20 pm the Racine County Sheriff's Dispatch center receives a cellular 911 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not have any idea where he is located.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday, June 2, 2004

SCENARIO 2 – Crash on I-43 in Marquette Interchange Work Zone

Level 1

At 6:00 am on Tuesday, June 21, 2005 a rear-end collision occurs on I-43 SB at Wisconsin Avenue. The North Leg section of the Marquette Interchange (MQIC) Reconstruction Project is underway and only two lanes NB and SB are open. The collision causes property damage only, but one vehicle is unable to be driven and requires a tow truck for relocation. The capacity of the roadway has effectively been reduced to one lane.

Level 2

Rubbernecking has caused a back-up in the NB lanes of I-43. A semi-truck unable to stop for the back of the queue runs off the road and hits an overpass bridge support under the MQIC. No other vehicles were involved in the crash, but the truck driver was injured.

Level 3

The queue on I-43 SB has continued to grow as rush hour builds and a secondary crash occurs when a speeding motorist slams into the back of a delivery van at I-43 and Walnut Street. The driver of the vehicle was killed instantly and the other two passengers in the vehicle where severely injured. In addition, the Sheriff has decided that the overpass and the freeway under the overpass must be closed until an inspector can come assess the damages. The two incidents have effectively closed both directions of I-43 and I-94 has been impacted as well.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Wednesday, June 2, 2004

SCENARIO 3 – Hazardous Material Spill on I-94 Near Zoo Interchange

Level 1

At 12:30 pm on Saturday August 7th, 2004 a tanker truck overturns on the WB lane of I-94 at the Zoo Interchange. The tanker was transporting an unknown gas and there is potential for the gas to be leaking. The crash results in a major traffic back-up in both directions.

Level 2

The gas has been identified as chlorine. Chlorine gas is highly toxic and is escaping from a gash in the side of the tanker.

Level 3

The leak in the tanker requires the immediate evacuation of the highway and the adjacent residential areas. In addition, it is day 3 of the Wisconsin State Fair and with clear conditions and temperatures in the 90°F's the fairgrounds are packed with people. A 15 mph wind from the west is sending the gas towards the fair and it is determined that the fairgrounds must also be evacuated.

NOTES:

Appendix C.3

WisDOT District #3

Table Top Session Agenda and Scenarios

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, July 15, 2004
9:00 am to 12:00 pm
Grand Chute Town Hall
1900 Grand Chute Blvd, Appleton, WI 54913
(920) 832-1573

AGENDA

10 min.	**1.**	**INTRODUCTIONS**
20 min.	**2.**	**BACKGROUND** • Why Are We Here • Background on the Interoperability Project • What We Need to Accomplish
10 min.	**3.**	**PURPOSE OF EXERCISE AND GROUNDRULES** • Who communicates and shares information with Who – When, Why and How? • Scenario Overviews
35 min.	**4.**	**SCENARIO 1 – Severe Weather**
10 min.	**5.**	**Break**
35 min.	**6.**	**SCENARIO 2 – I-43 Slow Pursuit**
35 min.	**7.**	**SCENARIO 3 – Semi Tanker Rollover in USH 41/STH 441 Interchange**
15 min.	**8.**	**DAILY OPERATIONS AND UNIQUE SITUATIONS**
10 min.	**9.**	**SUMMARY, WRAP-UP AND NEXT STEPS**

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, July 15, 2004

SCENARIO 1 – Severe Weather

Level 1

A blizzard warning has been issued for parts of northeastern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

Level 2

At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close USH 41 between Oshkosh and Green Bay.

Level 3

At approximately 9:15 pm the Outagamie Sheriff's dispatch center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling north and vaguely remembers seeing a sign for Appleton sometime in the last hour.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, July 15, 2004

SCENARIO 2 – I-43 Slow Pursuit

Level 1

At 11:45 am on October 24th, 2004 the Sheboygan County Sheriff's dispatch center receives a 9-1-1 call from an off duty police officer traveling north on I-43 through the City of Sheboygan. The officer reports that he spotted John Smith, the main suspect in a recent string of car bombings in Chicago, while waiting at a signal and is now following him. A squad car from the Sheboygan County Sheriff's department is able to locate the officer's vehicle and begins following the suspect while calling for additional squads to assist with the vehicle stop.

Level 2

The suspect has crossed into Manitowoc County and the Manitowoc County Sheriff's department and the Wisconsin State Patrol have joined Sheboygan County. All law enforcement vehicles activate their emergency lights and sirens in an attempt to have the suspect pull over and stop. The suspect refuses to stop. By this time the media has been alerted and multiple news channel helicopters are pursuing the incident. An officer close to the vehicle notices some movement in the backseat and a cameraman is able to confirm that there appears to be a hostage. The pursuit continues at posted driving speeds.

Level 3

Interstate traffic has been heavy north of the pursuit due to the Packers game scheduled to begin at 3:15 pm, and law enforcement agencies have had some trouble clearing the interstate as the pursuit is headed that way. They are finally able to lay out vehicle stop strips just south of the Village of Allouez. Unfortunately a large number of motorists have stopped on roadways along the interstate to watch the pursuit. Once the suspect is forced to stop, law enforcement must now handle a hostage situation and control both the media and the crowds of curious motorists.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, July 15, 2004

SCENARIO 3 – Semi Tanker Rollover in USH 41/STH 441 Interchange

Level 1

At 8:35 pm on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker in the USH 41/STH 441 interchange south of Appleton. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. The Winnebago County Sheriff's department dispatches a squad to the scene.

Level 2

As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 41. Due to the holiday, response agencies are dealing with a limited number of staff. The state patrol and agencies from surrounding counties are notified of the potential need for mutual aid. Emergency Management Directors in Outagamie and Brown County are summoned.

Level 3

Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the south at 15 miles per hour. The gas is heading towards the City of Appleton where a firework show is set to begin at Appleton Memorial Park. It is determined that all NB traffic must be detoured as far south as CTH G and all SB lanes north of the incident are to be closed as far north as STH 15. Evacuation of the City of Appleton is discussed.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, July 15, 2004

DAILY OPERATIONS AND UNIQUE SITUATIONS

- Roving pot hole repair crew
- Road construction and routine maintenance
- Typical snow event
- Special event
- Traffic enforcement – spot vehicle inspection
- Oversized load
- Amber Alert
- Media Roll-Out / Event

NOTES:

Appendix C.4

WisDOT District #4

Table Top Session Agenda and Scenarios

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, June 17, 2004
9:00 am to 12:00 pm
The Holiday Inn in Stevens Point, Wisconsin
1501 Northpoint Drive
Stevens Point, Wisconsin

AGENDA

15 min.	**1.**	**INTRODUCTIONS**
15 min.	**2.**	**BACKGROUND** • Why Are We Here • What We Need to Accomplish
15 min.	**3.**	**PURPOSE OF EXERCISE AND GROUNDRULES** • Who communicates and shares information with Who – When, Why and How?
15 min.	**4.**	**SCENARIO OVERVIEWS**
30 min.	**5.**	**SCENARIO 1 – Severe Weather**
30 min.	**6.**	**SCENARIO 2 – Semi Tanker Crash and Rollover on I-39**
30 min.	**7.**	**SCENARIO 3 – President to Give Speech at UW-Stevens Point**
15 min.	**8.**	**OTHER COMMON AND SPECIAL SITUATIONS**
15 min.	**9.**	**SUMMARY, WRAP-UP AND NEXT STEPS**

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, June 17, 2004

SCENARIO 1 – Severe Weather

Level 1

A severe ice storm warning has been issued for parts of central Wisconsin. Current conditions are prime for freezing rain and sleet and Forecasters have predicted that the storm will arrive in central Wisconsin over the next four hours.

Level 2

At approximately 7:00 P.M. on Saturday December 31, 2005 the storm hits the central Wisconsin District 4 area. Within an hour the falling rain begins to turn to sleet and roadways are starting to ice over. Wind gusts as high as 45 miles per hour are reported in the Stevens Point and Plover area. Although motorists are cautioned not to travel unless absolutely necessary, it is New Years Eve and few are canceling their plans. Vehicles have been sliding off the road and numerous spinouts have been reported on I-39 between Stevens Point and Plover. In addition, several crashes, some with minor injuries, have occurred on USH 51 and USH 10 throughout the Stevens Point and Plover area. The area between Plover Drive and Roosevelt Drive on USH 51 is ordered closed due to the volume of accidents.

Level 3

At approximately 10:15 P.M. the Portage County Sheriff's department receives a 9-1-1 call from a frantic motorist. The motorist tells the dispatcher that electric power lines are down everywhere and that one has fallen across his car and he is trapped inside. The motorist is not from the area and has no idea where he is currently located. He believes he is somewhere close to the city of Stevens Point because he remembers seeing a road sign with that name on it. He is close to a large strip mall shopping center, but cannot see out of his windows due to the ice. The Portage County Sheriff's Department and most other public safety agencies in the county are handling multiple incidents and are not available to respond. The Portage County Highway Department and Emergency Management agencies are also extremely busy. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, June 17, 2004

SCENARIO 2 – Semi Tanker Crash and Rollover on I-39

Level 1

At 8:30 P.M. on Tuesday July 4, 2005 a passenger car swerves in front of a semi tanker on USH 51 just south of CTH U near Wausau. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. The Marathon County Sheriff's department dispatches a squad to the scene.

Level 2

As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 51. Due to the holiday, responding agencies are dealing with a limited number of staff. The state patrol and agencies from surrounding counties are notified of the potential need for mutual aid. Emergency Management Directors in Marathon and Portage County are summoned.

Level 3

Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the North at 5-10 miles per hour. The gas is heading towards the city of Wausau where the firework show is set to begin. It is determined that all SB traffic must be detoured somewhere north of the incident and all NB lanes south of the incident are to be closed as far south as Rothschild. Evacuation is discussed for areas south of the incident.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, June 17, 2004

SCENARIO 3 – President to Give Speech at UW-Stevens Point

Level 1

On May 25, 2005 the President is scheduled to deliver a speech to the 2005 graduation class at UW-Stevens Point. He is scheduled to arrive via helicopter at the Central Wisconsin Airport in Mosinee from Milwaukee around 2:00 P.M. Ground transportation from the airport to the University is required. Public safety agencies, highway operations and emergency management are notified to be in a ready status in the unlikely event of an incident. The planned traffic route is pronounced secure by the Secret Service who have worked closely with local law enforcement.

Level 2

At 2:00 P.M. the President arrives at the Central Wisconsin Airport. He exits the helicopter and enters a limousine. All public safety agencies are in their assigned posts and the President proceeds to UW-Stevens Point. Traffic and onlookers are controlled along the way through careful planning. At 2:07 P.M. the Secret Service is advised that some students in the area have planned an anti-war demonstration at the University. The Secret Service cautions the President, but he decides to continue as planned and give the speech.

Level 3

The president arrives safely at the University and begins to give his graduation speech. Approximately 10 minutes into his speech the Secret Service are notified that a car bomb has exploded under a bridge on a section of I-39 between Mosinee and Stevens Point. The explosion severely damaged the bridge located by Knowlton. Three persons are reported dead. The Secret Service cancels the speech and orders the UW campus be evacuated.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Thursday, June 17, 2004

OTHER COMMON AND SPECIAL SITUATIONS

- Roving pot hole repair crew
- Road construction and routine maintenance
- Typical snow event
- Special event
- Traffic enforcement – spot vehicle inspection
- Oversized load
- Amber Alert
- Media Roll-Out / Event

NOTES:

Appendix C.5

WisDOT District #5

Table Top Session Agenda and Scenarios

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Tuesday July 20th, 2004 from 9:00 A.M. - 12:30 P.M.
WisDOT Transportation District 5 Office, Room B-19/20
3550 Mormon Coulee Road
La Crosse, WI 54601

AGENDA

10 min. **1. INTRODUCTIONS**

20 min. **2. BACKGROUND**

- Why Are We Here
- Background on the Interoperability Project
- What We Need to Accomplish

10 min. **3. PURPOSE OF EXERCISE AND GROUNDRULES**

- Who communicates and shares information with Who – When, Why and How?
- Scenario Overviews

40 min. **4. SCENARIO 1 – Severe Weather**

10 min **5. Break**

40 min. **6. SCENARIO 2 – Crash on I90 Bridge Crossing the Mississippi**

40 min. **7. SCENARIO 3 – Semi Tanker Rollover on I-14/61 near Viroqua**

20 min. **8. OTHER COMMON AND SPECIAL SITUATIONS**

10 min. **9. SUMMARY, WRAP-UP AND NEXT STEPS**

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

July 20, 2004

SCENARIO 1 – Severe Weather

Level 1

A blizzard warning has been issued for Western Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

Level 2

At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snowfall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close I-94 between the I-90/94 split near Tomah to I-10 in the far north of Trempealeau County.

Level 3

At approximately 9:15 pm the Jackson County Sheriff's Dispatch center receives a cellular 911 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not have any idea where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling north and vaguely remembers seeing a sign for Black River Falls sometime in the last 15 minutes. All officers on duty are currently handling calls.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Tuesday, July 20, 2004

SCENARIO 2 – Crash on I-90 Bridge Crossing the Mississippi

Level 1

At 6:00 am on Tuesday, June 21, 2005 a rear-end collision occurs in the EB lane mid-span on the I-90 bridge across the Mississippi. The collision causes property damage only, but one vehicle is unable to be driven and requires a tow truck for relocation. The Interstate is effectively blocked in the EB direction.

Level 2

Rubbernecking has caused a back-up in the WB lanes of I-90. A semi-truck on the Highway 35 (Rose Street) WB on-ramp is unable to stop for the back of the queue, runs off the ramp, and hits a bridge support. No other vehicles were involved in the crash, but the truck driver was injured.

Level 3

The queue on I-90 WB has continued to grow as rush hour builds and a secondary crash occurs when a speeding motorist slams into the back of a delivery van. The driver of the vehicle was killed instantly and the other two passengers in the vehicle were severely injured. In addition, the Sheriff has decided that the bridge and Highway 35 under the bridge must be closed until an inspector can come assess the damages. The two incidents have effectively closed both directions of I-90 and Highway 35.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

Tuesday, July 20, 2004

SCENARIO 3 – Semi Tanker Rollover on I-14/61 near Viroqua

Level 1

At 8:35 A.M. on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker traveling northbound on I-14/61 near Viroqua. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lane. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas.

Level 2

As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB I-14/61.

Level 3

Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The gas is heading towards the City of Viroqua where a firework show is set to begin. It is determined that all traffic must be detoured around the crash location on I-14/61 and Highway 56. Evacuation of Viroqua is discussed.

NOTES:

Appendix C.6

WisDOT District #6

Table Top Session Agenda and Scenarios

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT District 6
Wednesday, July 21, 2004
9:00 am to 12:00 pm
WisDOT District 6 State Office Building
718 West Clairemont Avenue, Room 105
Eau Claire, Wisconsin 54701

AGENDA

10 min. **1. INTRODUCTIONS**

20 min. **2. BACKGROUND**

- Why Are We Here
- Background on the Interoperability Project
- What We Need to Accomplish

10 min. **3. PURPOSE OF EXERCISE AND GROUNDRULES**

- Who communicates and shares information with Who – When, Why and How?
- Scenario Overviews

35 min. **4. SCENARIO 1 – Severe Weather**

35 min. **5. SCENARIO 2 – Semi Tanker Rollover in I-94/USH 53 Interchange**

10 min. **6. BREAK**

35 min. **7. SCENARIO 3 – Terrorism: I-94/St. Croix River Crossing**

15 min. **8. DAILY OPERATIONS AND UNIQUE SITUATIONS**

10 min. **9. SUMMARY, WRAP-UP AND NEXT STEPS**

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT District 6
Wednesday, July 21, 2004

SCENARIO 1 – Severe Weather

Level 1

A blizzard warning has been issued for parts of northwestern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

Level 2

At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions, and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close portions of I-94 between Menomonie and Eau Claire.

Level 3

At approximately 9:15 pm the Dunn County Sheriff's dispatch center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling east on I-94 and vaguely remembers traveling through Menomonie sometime in the last hour.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT District 6
Wednesday, July 21, 2004

SCENARIO 2 – Semi Tanker Rollover in I-94/USH 53 Interchange

Level 1

At 8:35 pm on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker in the I-94/USH 53 interchange south of Eau Claire. The driver of the tanker loses control and exits the roadway. The driver attempts to gain control, but unfortunately over corrects, the tanker rolls over on its side and ends up in the left lane of NB USH 53. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. The Eau Claire Sheriff's department dispatches a squad to the scene.

Level 2

As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 53. Incident congestion is also building on I-94. Due to the holiday, response agencies are dealing with a limited number of staff. The state patrol and agencies from surrounding counties are notified of the potential need for mutual aid. Emergency Management Directors in Dunn and Chippewa Counties are summoned.

Level 3

Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the south at 5 miles per hour. The motorists in the queues that have developed in all four directions of travel are at risk of being exposed to the gas.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT District 6
Wednesday, July 21, 2004

SCENARIO 3 – Terrorism: I-94/St. Croix River Crossing

Level 1

At 11:45 am on October 24th, 2004 the St. Croix County Sheriff's department dispatch center receives a telephone call from an agitated man who refuses to identify himself. The man states that he has information that several bombs have been placed at or near the I-94 bridge crossing the St. Croix River and they are set to detonate within the next 30 minutes. The call is abruptly cut short, but it is determined that the call originated from a payphone near a restaurant in North Hudson.

Level 2

The St. Croix Dispatch Center dispatches squad cars to investigate. As emergency vehicles begin to converge on the bridges, the sound of an explosion is heard on the I-94 bridge. The media begins to converge on the area and curious onlookers begin to congregate. The process of closing the bridge begins.

Level 3

Before all vehicles are able to exit the bridge, three more large bombs explode. A large section of the WB bridge collapses.

NOTES:

Appendix C.7

WisDOT Districts #7 & 8

Table Top Session Agenda and Scenarios

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT Districts 7 & 8
Thursday, July 22, 2004
9:00 AM - 12:00 PM
Washburn County Highway Department
1600 County Highway H
Spooner, Wisconsin 54801

AGENDA

10 min. **1. INTRODUCTIONS**

20 min. **2. BACKGROUND**

- Why Are We Here
- Background on the Interoperability Project
- What We Need to Accomplish

10 min. **3. PURPOSE OF EXERCISE AND GROUNDRULES**

- Who communicates and shares information with Who – When, Why and How?
- Scenario Overviews

35 min. **4. SCENARIO 1 – Severe Weather**

35 min **5. SCENARIO 2 – Bomb Threat Bong Bridge and Blatnik Bridge**

10 min. **6. BREAK**

35 min. **7. SCENARIO 3 – Semi Tanker Rollover on Highway 51 in Woodruff**

15 min. **8. DAILY OPERATIONS AND UNIQUE SITUATIONS**

10 min. **9. SUMMARY, WRAP-UP AND NEXT STEPS**

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT Districts 7 & 8
Thursday, July 22, 2004

SCENARIO 1 – Severe Weather

Level 1

A blizzard warning has been issued for all of northern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 18" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

Level 2

At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not yet been plowed. As conditions continue to worsen it becomes necessary to close portions of Highway 53 between Spooner and Superior. Also portions of Highway 13 between Park Falls and Ashland need to be closed to allow plowing operations to catch up with the snowfall.

Level 3

At approximately 9:15 pm the Douglas County Public Safety dispatch center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling north and vaguely remembers seeing a sign for Superior sometime in the last 30 minutes. All officers on duty are currently handling calls.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT Districts 7 & 8
Thursday, July 22, 2004

SCENARIO 2 - Bomb Threat Bong Bridge and Blatnik Bridge

Level 1

At 11:45 am on October 24th, 2004 the Douglas County Public Safety dispatch center receives a telephone call from a person who refuses to identify himself stating that he has information that several bombs have been placed at or near the Bong and Blatnik bridges and they are set to detonate within the next 30 minutes. The caller states that he is distraught at being recently laid off from his bridge welding job and that maybe if these bridges are damaged his boss will realize he shouldn't have laid him off. The call originated from a local payphone near a restaurant in Superior.

Level 2

The Douglas County Dispatch Center dispatches squad cars to investigate.

As emergency vehicles begin to converge on the bridges, the sound of an explosion is heard on the Blatnik Bridge. The media begins to converge on the area and curious onlookers begin to congregate. The process of closing the bridges begins.

Level 3

A total of four additional unidentified packages have been spotted on portions of the two bridges by the Coast Guard.

NOTES:

Wisconsin Department of Transportation

Traffic Operations and Public Safety
Communications Interoperability Assessment and Plan

Operational Assessment Table-Top Exercises

WisDOT Districts 7 & 8
Thursday, July 22, 2004

SCENARIO 3 – Semi Tanker Rollover on Highway 51 in Woodruff

Level 1

At 8:35 A.M. on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker traveling northbound on Highway 51 near Woodruff. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. Deputies from Vilas and Oneida Counties are dispatched to the scene.

Level 2

As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 51. Due to the holiday, response agencies are dealing with an unusually large tourist turnout in the Minocqua area.

Level 3

Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the north at 15 miles per hour. The gas is heading towards the City of Minocqua where a firework show is set to begin. It is determined that all NB traffic must be detoured as far south as the southern border of Minocqua and all SB lanes north of the incident are to be closed as far north as highway 70. Evacuation of the northern section of Minocqua is discussed.

NOTES:

Appendix D

Table Top Session Minutes

September 16, 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

Operational Assessment Table-Top Exercises
District 1 (August 18, 2004)
Minutes

1. SCENARIO 1 – Severe Weather

a) Level 1: A blizzard warning has been issued for all of Southwestern Wisconsin and Northwestern Illinois. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 14" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

- The National Weather Service (NWS) is very dependent on the news media to get the news about the approaching storm out to the public. The NWS often receives calls from 911 centers and the counties to get weather updates. The NWS issues watches and warnings (other weather services do not, because of the liability). The local NWS will increase staff in a weather emergency. Sometimes they will call the Jefferson County office for assistance.
- The TIME system does not carry any winter advisories or alerts. The do carry tornado warnings.
- All of the Counties have a DTN feed. The DTN service was offered to State Patrol but only one district is using it.
    - State Patrol receives NAWAS alerts via telephone.
- Monitoring radar displays is not advisable as they can be easily misinterpreted.
- The County Superintendents are on call.
- Towing companies will watch the weather. They will send employees home to get rest before the storm arrives. Drivers will be put on call. Additional people will be added to the trucks so that they can work faster.
- There is no official notification to the Fire Departments.
- Only the County Supervisor will call a NO Tow situation. There are often wildcat towers who will still come out even after a NO Tow situation has been declared.

b) Level 2: At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not yet been plowed. As conditions continue to worsen it becomes necessary to close portions of Highway 11 East Bound from Highway O to Highway 23. It is decided that Eastbound Highway 11 traffic must be routed south on Highway O into Illinois through Scales Mound, Apple River and Warren to Highway 78. Traffic would then be directed northbound on 78 back to Highway 11. Swift coordination

between public safety agencies in Wisconsin and Illinois is necessary. Portions of Highways W, A, and P in Lafayette County are also drifted over making that alternate route to Highway 78 not an option.

- Highways are rarely closed for weather reasons; they are declared impassable.
- The County Supervisor will coordinate with State Patrol. There is a list of contacts to call if the highway is closed. The media will be informed.
- Each plow has its own section of the highway to plow. AVL on the plows would be helpful; particularly if it could be combined with a heads-up display to show the driver how close he is to the edge of the road.
- The State's philosophy is that clearing the Interstates should be the highest priority. Some counties will divert plows from county roads to help clear the Interstates. Other counties will not do this.

c) Level 3: At approximately 9:15 pm the Lafayette County 9-1-1 center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling East on Highway 11 and vaguely remembers seeing a sign for Gratiot sometime in the last 30 minutes. All officers on duty are currently handling calls.

- Laffayette County would likely only have two deputies on duty and at most one State Trooper.
- The DNR would be called for assistance.
- The Highway Department would likely be requested to send a plow out with a deputy to search for this motorist.
- Some of the Fire and EMS departments in the area have snowmobiles that could be used to move the patient to a more accessible location for the ambulance.
- In the Madison area, hospitals communicate with each other to decide what each hospital can handle. These decisions are then passed on to the Comm Center. The Comm Center then relays the information to emergency services (by radio).

2. SCENARIO 2 – Amber Alert

a) Level 1: At 11:45 am on October 24th, 2004 the Dane County Public Safety 9-1-1 center receives a telephone call from a person who refuses to identify himself stating that he has information that 15 year old Ashley Johnson from 4802 Sheboygan Avenue in Madison has been kidnapped by her father who is recently divorced from the mother of Ashley Johnson. The father who does not have custody of the girl was seen arguing with her outside her home and eventually forced her into his vehicle and drove away within the past 5 minutes. He was a driving an older model dark green Dodge Pickup truck with damage to the rear tailgate of the vehicle. The caller states the father always carried a gun and has a record of arrests for this.

- Dane County Communications Center would send a squad to the home address.
- Amber Alert Process
    - The Amber alert must meet certain criteria.

- All alerts in the state go through the Dane County Communications Center. Forms must be filled in by the originating agency and fax'd to Dane County.
- In this case, since the incident is local, the Madison Police will bring the form over to the Communications Center. The Comms center will consult with the designated Justice Department personnel to confirm that the criteria have been met.
- The alert will go out over a TIME system broadcast to all Law Enforcement in the state.
- A fax will be prepared and sent to an organization in Minneapolis that will do a "blast fax" to the media and law enforcement.
- A message will be recorded giving a description of the child. This will be sent out directly over the Wisconsin Emergency Radio Network (11 tower sites). The information will also be put up on the State's Amber Alert web site, typically with a picture.
- A command post would likely be established to receive calls.
- The requesting agency can indicate specific areas of the state (up to 8) or the entire state to receive the alert. The areas correspond to the TIME districts.
- The Department of Justice has memo of understandings with the border states. If it appears that the child is being taken towards the state boundary, Wisconsin can trigger the Amber Alert system in other states.
- Since April 2003 there have been seven requests for Amber Alerts. Three met the criteria and lead to activation of the system.

- The TOC in Milwaukee would be notified about to alert to put out information on the VMS.
- Internally the Dane County Communication Center can control the VMS signs in the Madison area.

b) Level 2: The vehicle is spotted traveling West Bound on I-94/90/39 approximately 3 miles inside the southern Columbia County border by a Wisconsin State Trooper. It is believed the father may be headed for Minnesota where he has relatives in the Red Wing area.

- The Trooper contacts State Patrol dispatch. A Supervisor will be notified. Additional personnel will be sent to assist.
- Columbia County Sheriff dispatch would be notified. Dane County dispatch would also be notified (as the originator of the alert).
- At this point it is a moving situation, only involving Law Enforcement. When the situation is moving at highway speeds it is difficult to keep each jurisdiction notified.
- State Patrol would restrict radio traffic to State Patrol Channel 1. All radio communications between dispatch and the trooper would be handled on this channel so that the Trooper would not have to be flipping the radio between channels.
- At State Patrol Dispatch, one dispatcher would stay in radio contact with the Trooper. The other Dispatcher would make the calls to Dane and Columbia County Communication Centers.

- State Patrol Dispatch cannot talk directly to the County Sheriffs by radio (although the Patrol Officers in the field can talk to each other by radio).
- The Comm Centers have Point-Point and WISPERN mutual aid channels. However, the Troopers do not monitor WISPERN because of interference from a radio system in Illinois. Essentially no one in the area uses WISPERN.
- In Dane County, everyone in on this incident can be sent over to a separate channel. There are some interoperability problems because of the way the towers are set up.
- The Amber Alert is not cancelled until the suspect is captured.

c) Level 3: Suddenly the vehicle stops in traffic near Highway 78 on I-94/90/39 under a bridge overpass. The suspect exits the truck holding his daughter while holding a gun to his head threatening to commit suicide if he can't have his daughter. Suddenly the truck bursts into flames. Traffic is at a standstill. Potential damage to bridge is also possible.

- State Patrol dispatch will notify Columbia County dispatch.
- Fire and Paramedics will be put on standby. If the location is near Dane County, State Patrol dispatch may also call them back. They have more EMS services.
- EMS and Fire units will be staged closer to the incident location.
- All communications between the Patrol Officer and Fire units flow through their respective dispatchers. Law Enforcement users 10 codes; Fire does not. The Fire Department does monitor the Sheriff's channel.

Level 3: Assume the suspect is under arrest.

- Once enough officers are on scene to manage the incident, officers are dispatched to control traffic.
- WisDOT is contacted to send bridge inspectors.
- A fax broadcast is sent out to the media.
- A command post will be set up at the scene to bring in Fire and EMS units.
- Columbia and Dane County Dispatch are contacted to send their investigators.
- Often the radio channel gets so busy in an incident like this that an officer has to use his cell phone to contact dispatch.
- State Patrol will release Channel 1 for other uses.
- Towers would be contacted to remove the vehicle.

3. SCENARIO 3 – Semi Tanker Rollover on Interstate 90/39 Between Janesville and Beloit

a) Level 1: At 8:35 P.M. on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker traveling northbound on I-90/39 north of Beloit and south of Janesville. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. Deputies from Rock County are dispatched to the scene.

- The Communication Center would call for Fire and EMS response.
- The first officer on the scene would identify the substance.

- Protocols have been pre-established for this type of Hazmat situation.
- The Fire Department would notify Hazmat and would request to have a Level A Hazmat team respond. Level A Teams in the region are located in Madison and Rockford.
- A preplanned alternate route would be implemented. These routes are being established as part of a Alternate Route study. Signage will be in place for these routes. The Alternate Route plan also identifies the notifications that must be made, and the responsibilities of each agency. For example, Illinois would be notified as part of the alternate route plans.
- The airport would be called for wind speed and direction. The Hazmat Team will also have a portable weather station.
- The State EOC can do the plume monitoring.
- The Hazmat Team has their own call list. They have exercises with some of the common Hazmat haulers to establish contacts and debug procedures.
- A command post would be established. If it appeared that the incident would be protracted, a mobile command post vehicle would be brought in and the phone company would be requested to pull in telephone lines.
- The National Weather Service could be called upon to provide very area specific weather conditions and forecasts.
- The WisDOT District Public Information Officer would be notified. Because this is not a 24/7 position, it may take time to make the contact off-hours.
- State Patrol has a statewide Public Information Officer who would handle major events.
- Otherwise, the incident commander would assign a PIO at the scene.

b) Level 2: As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB on the Interstate near the crash scene. Due to the holiday, traffic is heavy in the area.

c) Level 3: Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the north at 15 miles per hour. The gas is heading towards the City of Beloit where a firework show is set to begin. It is determined that all NB traffic must be detoured as far south as the southern Wisconsin/Illinois border. It has been decided that all SB lanes north of the incident are to be closed as far north as highway 11 in Janesville. Evacuation of the northern section of Beloit is discussed.

- A Unified Command Structure would be established. Representatives of the responding agencies would be sent to the command post. In addition to Law Enforcement and Emergency Services, this could include representatives from Transit, counties, and hospitals.
- Emergency Management and the Red Cross would be contacted to set up shelters. An EOC would be established.
- Transit would be contacted to provide buses for evacuation and to provide a shelter for responders to use for rest breaks.

- There is a hardwired ACU1000 in Rock County Communications Center that could be used to tie some of the mobile radio frequencies together. There are also three trailers located in the area.
- The Highway Department would be contacted to provide assistance in closing roads.
- Emergency Management can request that the NWS put out a message on the weather alert channel.

4. Daily Operations and Unique Situations

a) Presidential Visit

- The command staff for the county and adjacent counties will get together with the Secret Service ahead of time to plan the event.
- The Secret Service is in charge.
- The agency providing the motorcade will be the lead agency.
- An Incident Command would be set up.
- 911 operators would be given their instructions, call lists, and radio frequencies. During the last visit, the mutual aid channels were used. The communication centers would turn on the mutual aid channels as the motorcade moved through each successive county.
- Not all of the counties have implemented the mutual aid channels.
- County Highway would be used to shut down ramps. Fire units would also help.

b) Road Constructions and Routine Maintenance

- In WisDOT District 1, construction information is disseminated to the State Patrol. A State Patrol sergeant is invited to participate in the weekly planning meetings.

c) Typical Snow Event

- Contacts with plow operators must be minimized because they need to focus on the road during plowing operations.

d) Special Event

- The Rhythm and Booms event is a large event in Madison.
  - There is a year of preplanning for the event, building upon previous years' plans and experiences.
  - Some roads are set up for traffic to flow in one direction.
  - The City of Madison has an 800 Mhz trunked radio system. The rest of the County is in the VHF band.
  - The City Streets department plays a role in the event – setting up barricades and shutting down streets.
  - The event is managed from the Communications Center. Representatives from most of the participating agencies are located at the Communications Center.

September 13, 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

Operational Assessment Table-Top Exercises
District 2 (June 2, 2004)
Minutes

1. SCENARIO 1 – Severe Weather

a) Level 1: A blizzard warning has been issued for Southeastern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

- Participants subscribe to either Surface Systems Inc. (SSI) or Murray & Trettel (M&T) weather alert services.
    - SSI will put out a beeper alert; the recipient must return the call to confirm that the alert was received. All the counties subscribe to SSI. SSI has been pretty accurate on short-term storm warnings.
    - M&T will call individuals directly to confirm that the alert was received. They will then follow up by FAX.
- An hour-and-a-half before the storm, the HIGHWAY DEPARTMENT will call in its entire shift. Plows are mounted, salt is loaded, and then the plows proceed to their station in the district.
- When fire dispatch receives the alert, it makes an announcement to all of the companies.
- Highway Department faxes the warning to 23 agencies in Milwaukee County.
- Transit keeps the buses moving per the fixed-route schedule. They monitor AVL locations for signs that the buses are falling behind schedule.
- The TOC does not do much to gear up for a storm. They are mostly re-active to incidents caused by the weather. The TOC does not post storm warnings on the VMS signs.
- In the Sheriff's department, dispatch calls out the storm warning. Supervisors decide whether to call in or hold over shifts.
- Traffic Assist Unit (TRU) operators, not on duty, are called in via telephone calls to their home phone. The units are propositioned. Normal coverage for the TRUs is 5 X 24 hours during weekdays, and 6am – 6pm on weekends.

b) Level 2: At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snowfall and drifting. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close I-94 between Milwaukee and the state line.

- When a highway is closed, there is a procedure for notifying the Sheriff, DOT, and the media.
- The towing community shuts down private towing and waits for calls from police and radio dispatchers. Designated areas are established to tow stranded vehicles. A sticker is placed on the windshield.
- Highway Department dispatchers keep track of the plows on the highway to see where they are and to keep them away from accidents.
    - Milwaukee County plows have assigned districts. There are approximately 50 lane-miles per district. There are 47 plow districts and 60 trucks (if all are operational). In bad storms they will set up plow gangs to plow the highways.
    - Milwaukee County plow trucks have AVL but it was found that this was not useful because of the compact size of the county.
- Milwaukee has five cone trucks, identically equipped with cones, shovels, gravel, etc.
- State Patrol has the authority to shut down the interstate.
- State Patrol Dispatch keeps the 1-800-RWIS road weather service updated. If the highway is shutdown, they will telex the information to various agencies.
- If a road is particularly bad, a patrol officer will report the condition to police dispatch. The police dispatcher will then call the county, who will then dispatch a plow to that location. There is no formal feedback mechanism that this chain of notifications was successful, other than monitoring radio traffic and ultimately the officer witnessing the arrival of the plow.
- The EOC is not doing a lot at this point, unless temperatures start falling to dangerous levels.
- The TOC's video is not helpful for monitoring road conditions due to reduced visibility.
- Closing the highway dumps the traffic onto secondary roads, which causes other problems. It is preferable to focus resources on keeping at least one lane of the highway open.
- If the highway is closed, District 15 in Illinois is informed.
- WisDOT relies mostly on the County Highway Departments for road clearing operations. There is a WisDOT coordinator for each county who is kept informed of the snow-clearing progress.

c) Level 3: At approximately 8:20 pm the Racine County Sheriff's Dispatch center receives a cellular 911 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not have any idea where he is located.

- Techniques for determining location:
    - Most cell calls to 911 are from within the county, but it could come from outside the county.
    - The call taker would start a line of questioning – name, home, where you are going, last city you went through, etc.

- Could turn on police sirens one at a time and find out when the motorist hears the siren.
- Cell phone company can be called to triangulate on the signal.

- Once located, the Sheriff dispatches EMS and the closest police unit.
- It would be helpful for EMS to know the conditions of the roads and ramps in the area.
- EMS can call up a website to get hospital status information for region 7. It is updated on a regular basis.
- MAVIS is the mutual aid channel accessible to all departments in the area.

2. SCENARIO 2 – Crash on I-43 in Marquette Interchange Work Zone

a) Level 1: At 6:00 am on Tuesday, June 21, 2005 a rear-end collision occurs on I-43 SB at Wisconsin Avenue. The North Leg section of the Marquette Interchange (MQIC) Reconstruction Project is underway and only two lanes NB and SB are open. The collision causes property damage only, but one vehicle is unable to be driven and requires a tow truck for relocation. The capacity of the roadway has effectively been reduced to one lane.

- As long as no one was injured, the first Sheriff on the scene would typically push the car off to the shoulder, or to the next exit if there was no shoulder.
- The TOC would locate the incident on the camera, freeze the camera for the Sheriff, and enter the incident data (when, where, when assistance arrives, etc.).

b) Level 2: Rubbernecking has caused a back-up in the NB lanes of I-43. A semi-truck unable to stop for the back of the queue runs off the road and hits an overpass bridge support under the MQIC. No other vehicles were involved in the crash, but the truck driver was injured.

- The Sheriff notifies the City for help to close the road and divert traffic.
- The Sheriff calls the on-call contact at the Highway Department, who then calls for a bridge inspector.
- The Sheriff then dispatches fire and EMS. They will need information on how to gain access to the scene, including directions on where to get on to the highway.
- The TOC also monitors the radio conversations. They can help with what ramps have access.
- The Sheriff may close some ramps and bring EMS on to the highway opposing the normal flow of the traffic lane. EMS waits until they have confirmation from the Sheriff that they can precede on to the highway.
- Transit is not normally in the loop on the status of the incident unless called upon to assist. Transit would like to be kept informed so that they can make preparations for assistance in case the need should occur.
- Other information during this discussion:
  - Fire dispatch is on a different CAD system than the Sheriffs department. They do not have access to DOT cameras.
  - Additional cameras have been added to MQIC construction area.
  - The Milwaukee TOC has an interface to the Milwaukee County Sheriff's CAD system.

- Nextel phones will be used in support of the MQIC work.
- There will be a project representative that must be contacted upon any incident in the Marquette interchange during the construction period.

c) Level 3: The queue on I-43 SB has continued to grow as rush hour builds and a secondary crash occurs when a speeding motorist slams into the back of a delivery van at I-43 and Walnut Street. The driver of the vehicle was killed instantly and the other two passengers in the vehicle where severely injured. In addition, the Sheriff has decided that the overpass and the freeway under the overpass must be closed until an inspector can come assess the damages. The two incidents have effectively closed both directions of I-43 and I-94 has been impacted as well.

- Flight for Life would be called in. A landing site would be setup near the incident scene.
- A unified command would be setup on-site to coordinate the activities of the responders.
    - The fire department would communicate with the flight. It would be up to the helicopter pilot to decide if he was going to land.
    - They would be looking for the best routes to bring in EMS vehicles. They would need to know which ramps are impassable due to the construction. This information would have to come from the Marquette Project Manager.
    - City Streets would be contacted at the shop level for resources (such as temporary Stop signs). City Streets would not have an overall picture of what was going on, they would just respond to specific requests for assistance. This was a general concern expressed by other agencies – each agency just "sees" the small piece of the incident response they have been requested to perform; they do not see the big picture.
- For the Marquette Interchange, it will be possible to change the signal timing in the vicinity of the interchange. Any timing changes would be coordinated with the TOC.
- The Streets Department would like to be able to see the WisDOT cameras.
- The Sheriff Dispatch would call in the tow trucks. They would need to be able to communicate the size/type of truck and the damage, so that the proper tow equipment is dispatched.
- The Owner Control Insurance Program (OCIP) has to be notified of any incidents in the Marquette Interchange construction area.
- The Marquette Interchange will have some pre-positioned resources (such as cones and barricades) for use in incident detours.

3. SCENARIO 3 – Hazardous Material Spill on I-94 near Zoo Interchange

a) Level 1: At 12:30 pm on Saturday August 7th, 2004 a tanker truck overturns on the WB lane of I-94 at the Zoo Interchange. The tanker was transporting an unknown gas and there is potential for the gas to be leaking. The crash results in a major traffic back-up in both directions.

Level 2: The gas has been identified as chlorine. Chlorine gas is highly toxic and is escaping from a gash in the side of the tanker.

Level 3: The leak in the tanker requires the immediate evacuation of the highway and the adjacent residential areas. In addition, it is day 3 of the Wisconsin State Fair and with clear conditions and temperatures in the 90°F's the fairgrounds are packed with people. A 15 mph wind from the west is sending the gas towards the fair and it is determined that the fairgrounds must also be evacuated.

- The Sheriff's Department would call the fire department to identify the material. They would also interview the driver and check the manifest. It would be desirable to have the placard definitions available to call up on the MDTs.
- The dispatcher would use a call list preplanned for this type of hazardous material incident. Calls would include:
    - Highway department supervisor
    - Emergency Management. EM would decide whether to call DNR.
    - The appropriate Fire and Police departments in the area of the State Fair would be notified.
    - Mutual aid partners would be notified by telex and SMART call-up.
    - Transit would be called in to help with the evacuation.
- The EOC would take control of the incident response. They have a county-wide plan that would kick-in.
- Because the spill could affect the State Fair, the state would have control.
- EMS has pre-planned responses, including setting up a triage, transportation, and coordination with hospitals.
- The regional Hazmat teams would be activated. They have all of the information on who to call. They would make the contacts to bring in equipment for off-loading the material. Most trucking companies that handle hazardous materials have their own emergency response teams.
    - In most cases the Hazmat team can stop the leak; however, they would wait for the specialists to arrive to offload the material.
- Because of the time of day, the TOC would not be staffed. However, there would be a designated person on-call. They would have a laptop and could control the message signs via dial in. They would not have access to the cameras via this dial in. However, the Sheriff's Dept does have access to the cameras.
    - The TOC could be most helpful if it could get constant status updates.
- In incidents like this it would be useful to be able to send pictures from the scene.

4. Daily Operations and Unique Situations

a) Hazardous Material

- When particularly dangerous material is moved, it is done during low traffic volume times of the day. A permit is needed.
- Limited information about the move is disseminated.
- The agency moving the material will bring its own security and cleanup teams.

b) Traffic Enforcement – Spot Vehicle Inspections

- If the inspections are initiated by the Feds, the Feds will disseminate information on a need to know basis. Further dissemination is not allowed.

c) Oversized Load

- If an oversized load is picked up on the TOC monitors, the picture is frozen and dispatch is alerted.

d) Amber Alert

- The alert originates in the Department of Justice; it is coordinated by Dane County.
- The alert is distributed by teletype, email, fax, and telephone.
- The TOC is responsible for any VMS and HAR alerts.
- Highway Watch can send out the Amber Alert to truck drivers. Highway Watch is a federal program. Trucks can report incidents, suspicious activity (homeland security), pot holes, etc.
    - The truckers are notified by cell phone.
    - The notifications come out of Kansas City.

e) Other Information

- Officers in the field should not have to enter incident information into their MDT as they are usually out of their patrol car when managing the incident. However, it was also agreed that there is value in letting other responders and potential responders have a picture of what was going on.

September 7, 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

Operational Assessment Table-Top Exercises
District 3 (July 15, 2004)
Minutes

1. SCENARIO 1 – Severe Weather

a) Level 1: A blizzard warning has been issued for parts of northeastern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

- DOT public information personnel, working with State Patrol would issue bulletins to the media. This can be done from terminals at home.
- WisDOT has weather radar in their office.
- Every county is on the NAWAS alerts. The county highway departments also receive DTN feeds from WisDOT. Most also use the Internet to monitor the weather.
- The 911 Communication Center has a direct line to the National Weather Service.
- The 911 Communication Center has the ability to contact the county highway departments via radio.
- The highway departments have pre-planned responses to snow emergencies. When the storm hits, they execute the plan. They don't generally deviate much from the plan.
- The highway department supervisors will patrol the roads.
- Fire departments may go on voluntary overtime. They will monitor the radio traffic. If the county is pulling plows off the road, they will put plows at each fire station to be available for escort, if needed.

b) Level 2: At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snowfall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close USH 41 between Oshkosh and Green Bay.

- In general, highways are not closed. Any decision to close would be made by State Patrol in consultation with the DOT and affected county. Closing a highway would just put the traffic on the local roads, which are not likely to be in better shape.
- Information is mainly disseminated to media via FAX and email. For the PGA tournament, there will be an email address list for everyone. By the end of the year, it should be possible to issue such information from terminals at home.
- The DOT District Communications Manager keeps the State Patrol's media contacts list up to date.

- The plows would likely wait until after the storm to continue plowing.
- 4WD vehicles would go out to checked stranded vehicles and take the motorists to a safe location.
- The Communication Center uses a revolving tow list. The Communication Center has a good relationship with the towers. Most will wait until called. If a tower goes out on its own, they could be dropped from the list.
- The field officer will decide whether to meet the tow truck at the incident location, or meet somewhere and go to the location together. There are no direct field officer-to-tow truck operator communications. All calls go through dispatch.
- The 911 Communication Center will be flooded with calls and will have to prioritize the calls for response. In general, they would not call in an adjacent county for assistance.
- The EOC might be activated. They are located adjacent to the Communication Center and would get most of their information via telephone and from the Center next door. The EOC has the ability to monitor the weather. Planning assists with GIS plotting. Soon the EOC will have a plotter. Maps are hand-carried to the field.
- The WisDOT district is getting most of its information from the County Highway Departments.
- <u>FoxComm:</u>
    - FoxComm is a cooperative communication effort between Brown, Calumet, Outgamie, and Winnebago counties.
    - Virtually all of the Public Safety agencies in FoxComm have mobile data. The larger fire departments are also on the system.
    - FoxComm is working on linking the three county message switches together.
    - All MDC communications are internal; there is no outside access beyond the FoxComm counties.
    - FoxComm has an initiative called the Advanced Tactical Mobile that includes AVL and transfer of map data to the vehicles (map backgrounds will be stored on the vehicle MDCs).
    - Other FoxComm initiatives include:
        - Full CAD integration
        - Piloting the OJA RMS integration.
- The County Highway Department keeps the Sheriff's Department informed on their plowing plans, including when the will go off, and when they will resume plowing operations.
- It was agreed that there would be an advantage to have Mobile Data Computers in the County Supervisors' vehicles. It would also be advantageous to have AVL on the plow trucks (particularly for deciding which plow to divert to take care of a situation).
- Messages can be sent from one CAD system to another.
- The Counties do not want anyone from another department directly communicating with, or redirecting plow trucks.

c) Level 3: At approximately 9:15 pm the Outagamie Sheriff's dispatch center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling north and vaguely remembers seeing a sign for Appleton sometime in the last hour.

- The Outagamie dispatch center will notify the other Communication Centers in the area.
- Patrols and plows (in some counties) will be checking on stranded vehicles. Winnebago and Brown Counties do not allow their plow operators to check stranded vehicles.
    - If a plow operator finds a problem, they will call the Communication Center via their radio (Comm Center can monitor the County's radio channel).
- Plow runs typically take 35 – 40 minutes to complete.
- The DNR could be contacted to provide snow mobile assistance. The Sheriff's Department also has some snowmobiles.
- Once the location is known, a plow could be assigned to plow the way for an ambulance.

2. SCENARIO 2 – I-43 Slow Pursuit

a) Level 1: At 11:45 am on October 24th, 2004 the Sheboygan County Sheriff's dispatch center receives a 9-1-1 call from an off duty police officer traveling north on I-43 through the City of Sheboygan. The officer reports that he spotted John Smith, the main suspect in a recent string of car bombings in Chicago, while waiting at a signal and is now following him. A squad car from the Sheboygan County Sheriff's department is able to locate the officer's vehicle and begins following the suspect while calling for additional squads to assist with the vehicle stop.

- The on-duty supervisor will try to set up a stop. FoxComm has one frequency they can use to contact the surrounding jurisdictions. They also can contact State Patrol via Wispern.
- The dispatcher would be notifying the next county and the State Patrol. They would also likely contact the issuing agency.
- The dispatcher would run the criminal history on the suspect. It would be desirable to be able to distribute a mug shot to the MDCs.
- At this point, no notifications would be made to non-law enforcement agencies.

b) Level 2: The suspect has crossed into Manitowoc County and the Manitowoc County Sheriff's department and the Wisconsin State Patrol have joined Sheboygan County. All law enforcement vehicles activate their emergency lights and sirens in an attempt to have the suspect pull over and stop. The suspect refuses to stop. By this time the media has been alerted and multiple news channel helicopters are pursuing the incident. An officer close to the vehicle notices some movement in the backseat and a cameraman is able to confirm that there appears to be a hostage. The pursuit continues at posted driving speeds.

- Law Enforcement would be deciding where to deploy the stop sticks. They would not go into a hostage negotiation mode until the vehicle is stopped.
- Law Enforcement would be blocking vehicles from behind the chase, and moving vehicles over ahead of the chase.
- Law Enforcement has a good relationship with the media. They would likely share their feed with Law Enforcement (they also share their feeds among each other).
- The DOT and County Communication Managers keep the media informed.

c) Level 3: Interstate traffic has been heavy north of the pursuit due to the Packers game scheduled to begin at 3:15 pm, and law enforcement agencies have had some trouble clearing the interstate as the pursuit is headed that way. They are finally able to lay out vehicle stop strips just south of the Village of Allouez. Unfortunately a large number of motorists have stopped on roadways along the interstate to watch the pursuit. Once the suspect is forced to stop, law enforcement must now handle a hostage situation and control both the media and the crowds of curious motorists.

- This is almost like two separate incidents – the pursuit, and the hostage situation.
- The on-scene officer would be thinking about a second perimeter to keep on-lookers away.
- DOT District 2 in Milwaukee would be contacted to divert traffic coming from Milwaukee.
- Neither fire trucks nor county highway trucks would be used to set up roadblocks.
- An on-scene incident command post would be established. If it looks like the situation will take a while, the highway department will send someone to the scene.
- Fire and EMS units would be staged away from the immediate vicinity of the incident.
- State Patrol has six portable VMS signs in semi-permanent locations. Additional portable signs are distributed among the counties. The State Patrol controls what is displayed on the signs.

3. SCENARIO 3 – Semi Tanker Rollover in USH 41/STH 441 Interchange

a) Level 1: At 8:35 pm on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker in the USH 41/STH 441 interchange south of Appleton. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. The Winnebago County Sheriff's department dispatches a squad to the scene.

- A patrol car will be dispatched to the scene to confirm the gas is chlorine. Placards are unreliable. Need to check the manifest or talk to the driver.
- The Communication Center Director would contact the Emergency Management Director. If a County EOC is established, the State EOC will be notified.
- The fire department, DNR, and Hazmat teams would be notified.
- The EM Director would determine who else needs to be notified.
- The Police would set up the perimeter and handle any evacuations.

- Responders will need to know wind speed and direction.

b) Level 2: As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 41. Due to the holiday, response agencies are dealing with a limited number of staff. The state patrol and agencies from surrounding counties are notified of the potential need for mutual aid. Emergency Management Directors in Outagamie and Brown County are summoned.

- The lead EMS commander in the field will keep in touch with the lead hospital. The closest hospital will take the lead role. They will keep in touch with other hospitals to get updated bed counts and emergency room capacity. The hospitals have preplanned diversions. When a hospital is full, the ambulances will be diverted to the next hospital in the chain.
- The Hazmat rig has CAMEO software to plot the direction and size of the plume. Emergency Management also has this software.
- Law Enforcement would initially divert traffic off the highway. The County Highway department would be contacted to place barricades. Some barricades are already in place at the on/off ramps. The highway department would then relieve the officers at the diversion points.
- Would likely position VMS signs as well.
- The Communication Center has the Highway Department Supervisor contact information – the schedule for who is on-call along with pager, telephone, and cell number information.
- The Communication Center and Hazmat truck have their own weather stations. They also get weather information from the local airports and the Internet.
- The Hazmat team will monitor the size of the gash and feed this information to everyone else.
- The Hazmat team develops the evacuation plans and communicates the plan to the responders,

c) Level 3: Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the south at 15 miles per hour. The gas is heading towards the City of Appleton where a firework show is set to begin at Appleton Memorial Park. It is determined that all NB traffic must be detoured as far south as CTH G and all SB lanes north of the incident are to be closed as far north as STH 15. Evacuation of the City of Appleton is discussed.

- The "City Watch" reverse 911 system would be used to send out a call to every phone in the evacuation area to provide the warning.
- An incident command post would be setup on-scene with representatives from each agency. Each representative coordinates its agency's activities.
    - Hazmat focuses on the material. The incident command post takes care of the coordination among the responders.
    - The on-scene incident command post would include a Public Information Officer to interface to the media. No one else would be allowed to talk to the media.
    - The mobile command post would be called in and setup in the area.

- The State Patrol would call in the District Communications Manager. The DCM would bring a laptop with all the emergency contact information.
- The Hazmat team would not distribute maps. They would tell the responders how far out to set the perimeter.
    - A map can be printed on the Hazmat truck.
    - Distribution of the map would be subject to interpretation errors.
- Transit would be contacted to bring in buses to help with the evacuation (mostly to help with evacuation of the elderly centers, etc.) Private bus companies may also be called.
- Radio congestion is not necessarily a problem. Everyone is told to keep off the air in this kind of incident.

4. Daily Operations and Unique Situations

a) Road Constructions and Routine Maintenance

- Ambulance services are notified of road closures so that time is not lost when responding to a call.

b) Special Event

- The City has a special events team that plans for an event. The team includes the City Engineer, Highway Engineer, Fire, Police, EMS, and Highway Department.
- The event is carefully planned; who is responsible for what. Each agency plans how it will respond to incidents that occur.
- A command post is set up on the grounds for the event.
- State Patrol will set up a Traffic Operations Center a few miles out. This Center will control the VMS signs and work any traffic issues.
- Ideally there would be cameras on the main highways. Some portable cameras just placed for the event would also be desirable.

c) Amber Alert

- There is a very defined procedure for issuing an Amber alert. All Amber alerts in Wisconsin are coordinated through Dane County Communication Center.
- Amber Alerts do not go up on VMS signs.
- There is no Highway Advisory Radio in the region.

August 18, 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

Operational Assessment Table-Top Exercises
District 4 (June 17, 2004)
Minutes

1. SCENARIO 1 – Severe Weather

a) Level 1: A severe ice storm warning has been issued for parts of central Wisconsin. Current conditions are prime for freezing rain and sleet and Forecasters have predicted that the storm will arrive in central Wisconsin over the next four hours.

- County Highway departments get pager and telephone alerts from SSI or DTN. The person that is on-call monitors the weather.
- The Portage Sheriff's department monitors NAWAS.

b) Level 2: At approximately 7:00 P.M. on Saturday December 31, 2005 the storm hits the central Wisconsin District 4 area. Within an hour the falling rain begins to turn to sleet and roadways are starting to ice over. Wind gusts as high as 45 miles per hour are reported in the Stevens Point and Plover area. Although motorists are cautioned not to travel unless absolutely necessary, it is New Years Eve and few are canceling their plans. Vehicles have been sliding off the road and numerous spinouts have been reported on I-39 between Stevens Point and Plover. In addition, several crashes, some with minor injuries, have occurred on USH 51 and USH 10 throughout the Stevens Point and Plover area. The area between Plover Drive and Roosevelt Drive on USH 51 is ordered closed due to the volume of accidents.

- In general, major highways would not be closed purely for ice as other routes would be in worse condition.
- Officers would be sent out to slow down traffic.
- "Triple Salters" would be put out on the highways. A salt truck's route is approximately 9 miles.
- Salt trucks would not cross county borders. However, the counties monitor each other and can talk to each other via radio or phone.
- The comm center would contact radio stations to let them know the conditions.
- There is no Highway Advisory Radio (HAR) in the area.
- "EMAlert" is a project sponsored by OJA and Emergency Management whereby alerts are sent out to cell phones. It is being beta-tested in Wood, Brown, and Kewaunee counties.
- PCMS would not be pre-deployed. The signs would be put out if requested by police. Marathon County has 5 PCMS that are state-owned but deployed by the County.

- Because of the number of accidents, police would focus on accidents that have injuries reported.
- 911 calls for highway incidents initially come into the County Comm Center. Dispatchers then contact State Patrol dispatch.
- Patrol officers will monitor radio channels from surrounding counties to keep tabs on the progress of the approaching storm.
- Portage County radios were added to local State Patrol cruisers to support communications with the Portage County Sheriff.
    - When resources are strained, State Patrol will bring in units from other areas. However, State Patrol vehicles brought in from other areas would not have Portage County radios.
- WisDOT District 4 would be notified of any highway closure.
- The use of a mutual aid channel for communications between agencies was discussed. In general it was thought that a mutual aid channel would be too busy to be beneficial.
- County Highway Departments monitor the public safety radio channels.
- County supervisors are out in their vehicles checking road conditions, so they must be contacted over the air (there is no one in the office).
- Wood County is putting in a new simulcast mobile radio system and mobile data system.
    - The mobile radio system will have one channel for dispatch, and two channels for tactical use.
    - The County Sheriff and all police departments will be on the new mobile data system. Fire has a different system but it will be linked to the new system.
    - The mobile data system will include messaging and AVL.
- The counties do not want patrol officers contacting plow operators directly to address specific problem areas since a patrol officer would have the big picture. Requests should flow from the patrol officer to dispatch to county supervisor, to the plow operator.
- Highway departments notify adjacent counties when they are starting up or shutting down road clearing operations for the day. They also keep in touch to compare notes on the progress of the storm across their county.
- Depending on conditions, DNR could be notified as they have 4-wheel drive vehicles and snow mobiles.

<u>Level 2 (cont'd)</u>: Multiple injuries are reported.

- Hospitals would be calling in additional staff.
- "Code White" is a mass casualty call to other hospitals to get capacity data.
- The hospitals have protocols/procedures for diverting ambulances to other facilities. The hospitals take care of this amongst themselves. The EMS unit calls the hospital (via radio) when they are on their way. The hospital would give them the alternate destination at that time.

- Not all hospitals use the Health Alert Network.
- An EMS unit can get assistance to get an ambulance into the scene. This would be coordinated through County Dispatch.

c) Level 3: At approximately 10:15 P.M. the Portage County Sheriff's department receives a 9-1-1 call from a frantic motorist. The motorist tells the dispatcher that electric power lines are down everywhere and that one has fallen across his car and he is trapped inside. The motorist is not from the area and has no idea where he is currently located. He believes he is somewhere close to the city of Stevens Point because he remembers seeing a road sign with that name on it. He is close to a large strip mall shopping center, but cannot see out of his windows due to the ice. The Portage County Sheriff's Department and most other public safety agencies in the county are handling multiple incidents and are not available to respond. The Portage County Highway Department and Emergency Management agencies are also extremely busy. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather.

- Highway department drivers will be alerted to be on the lookout for this driver.
- The Comm Center receives some calls on power outages. This can be used to help narrow down the search area.
- Outages that are reported to the power company are answered by an automated attendant. There is no feedback to the caller until the power company truck arrives.
- County Emergency Management would be notified to set up some shelters.

2. SCENARIO 2 - Semi Tanker Crash and Rollover on I-39

a) Level 1: At 8:30 P.M. on Tuesday July 4, 2005 a passenger car swerves in front of a semi tanker on USH 51 just south of CTH U near Wausau. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. The Marathon County Sheriff's department dispatches a squad to the scene.

- If the cell call came in to an adjacent county comm center, the call taker would take down the information and cell phone number, then call the Marathon County comm Center and give them the information. If a call like this came in on a land line, the call could be transferred over to the Marathon County.
- Patrol officers have Hazmat books in their units.

b) Level 2: As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 51. Due to the holiday, responding agencies are dealing with a limited number of staff. The state patrol and agencies from surrounding counties are notified of the potential need for mutual aid. Emergency Management Directors in Marathon and Portage County are summoned.

- The Sheriff's department has the protocol list for Hazmat. They would contact Emergency Management and DNR.
- State Patrol officers monitor the radio channels for law enforcement in the area they patrol. Upon hearing the call they would move to the incident.

c) Level 3: Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are

currently from the North at 5-10 miles per hour. The gas is heading towards the city of Wausau where the firework show is set to begin. It is determined that all SB traffic must be detoured somewhere north of the incident and all NB lanes south of the incident are to be closed as far south as Rothschild. Evacuation is discussed for areas south of the incident.

- A unified command post would be setup at the scene.
- New radios being purchased will have all the common channels.
- Initially, the officer at the scene will use the Hazmat handbook.
- The fire department will run the incident on their CAMEO software to determine the danger zone. This will be done at the station before they roll. Inputs include where the gash is on the truck, size of the gash, wind direction, and location. They can get wind direction from the weather service or local airport. Output of the program projects where the plume will go, how long, and recommendations on whether to evacuate or shelter in place.
    - It would be desirable to distribute the map of the danger zone electronically to other responders.
- The EOC would be activated, probably near the incident site.
- Radio resources may become strained. Currently there is one channel for the city and one for the county.
- It could be helpful to get a Civil Air Patrol pilot up to see the plume from above. However, it is a very time consuming and cumbersome process to call in Civil Air Patrol. The process needs to be streamlined.
- The fire department needs to keep feeding updated data from the field into the CAMEO software. A separate radio channel would be desirable for this purpose since the main channels will be very busy.
    - It would be useful to be able to set up a camera at the scene, pointed at the gash in the truck, so that any changes could be seen without having to have any personnel too close to truck.
    - The media would likely cooperate to use their cameras for this purpose.
- The responsibility of the Hazmat team is to keep the situation from getting worse. Private companies that specialize in cleanup would be called in by the incident commander to handle the cleanup. The carrier would also be contacted.

3. SCENARIO 3 - President to Give Speech at UW-Stevens Point

a) Level 1: On May 25, 2005 the President is scheduled to deliver a speech to the 2005 graduation class at UW-Stevens Point. He is scheduled to arrive via helicopter at the Central Wisconsin Airport in Mosinee from Milwaukee around 2:00 P.M. Ground transportation from the airport to the University is required. Public safety agencies, highway operations and emergency management are notified to be in a ready status in the unlikely event of an incident. The planned traffic route is pronounced secure by the Secret Service who have worked closely with local law enforcement.

- The Secret Service comes in to plan the event long in advance of the President's visit.
- The Secret Service is in charge. University Police would be the next level, followed by City Police.

- The highway department would be called upon to provide barricades, lights, etc.
- One agency would be in charge of the motorcade.
- The agencies give radios to the Secret Service.

b) Level 2: At 2:00 P.M. the President arrives at the Central Wisconsin Airport. He exits the helicopter and enters a limousine. All public safety agencies are in their assigned posts and the President proceeds to UW-Stevens Point. Traffic and onlookers are controlled along the way through careful planning. At 2:07 P.M. the Secret Service is advised that some students in the area have planned an anti-war demonstration at the University. The Secret Service cautions the President, but he decides to continue as planned and give the speech.

- The Secret Service sets up where the pro/con demonstrations can be located. It is all planned in advance.

c) Level 3: The president arrives safely at the University and begins to give his graduation speech. Approximately 10 minutes into his speech the Secret Service are notified that a car bomb has exploded under a bridge on a section of I-39 between Mosinee and Stevens Point. The explosion severely damaged the bridge located by Knowlton. Three persons are reported dead. The Secret Service cancels the speech and orders the UW campus be evacuated.

- The Secret Service would likely shelter in place. They have numerous contingency plans.
- After the President leaves, the Secret Service would stay in charge until they relinquish authority to another agency, most likely the Sheriff's department.
- Homeland Security and other federal agencies would be called in.
- Police would secure the crime scene.
- The highway department would have someone on the scene.
- The highway department would deal with the flow of traffic further away from the scene.
- The highway department would contact the District 4 supervisor if the highway was shut down.
- The counties have their own bridge inspectors.
- Since the highway would likely be shut down for several days, permanent alternate routes would be setup and marked.
- The local agency would be responsible for media control.

4. Daily Operations and Unique Situations

a) Road Constructions and Routine Maintenance

- If a road will be temporarily closed, the highway department informs Fire and EMS to let them know they could not get through if they had to respond to an emergency.
- The highway department would inform dispatch about the closure so that they can get out the information.
- If a road was closed for a law enforcement activity, the Sheriff would request assistance from the highway department for lane control.

b) Special Event

- Significant events in the area include the Farm Progress and Iola car shows.
- State Patrol meets with agencies ahead of time to set up emergency plans.

c) Amber Alert

- The amber alert would go through the Dane County Sheriff.
- It would be broadcast on the state's Emergency Alert Network of radio stations. The network is segmented into 9 regional segments.

September 9, 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

Operational Assessment Table-Top Exercises
District 5 (July 20, 2004)
Minutes

1. SCENARIO 1 – Severe Weather

a) Level 1: A blizzard warning has been issued for Western Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

- The 911 Communication Center would broadcast weather alert to the officers and County Highway. Additional officers could be called in.
- The County Highway Dept receives weather alerts via WisDOTs DTN service.
- The County Highway Dept would preload the salt trucks. They may also pre-wet the road surface.
- The Highway Dept can communicate with the 911 Comm Center and the State Patrol via radio.

b) Level 2: At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snowfall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close I-94 between the I-90/94 split near Tomah to I-10 in the far north of Trempealeau County.

- State Patrol may keep tow trucks away from certain areas. The State Patrol troopers in the field make the request for tow trucks via the State Patrol Dispatcher. The dispatcher calls the towing company via telephone.
- Lacrosse County would put on extra trucks.
- Each plow has it's own assigned route. Each route takes 2 – 3 hours to complete. AVL would not be particularly helpful since the general area where the plow is located (i.e., its route) is already known.
- WisDOT would not be involved much in this type of weather scenario.
- The State Patrol manages the Interstate; the Counties handle the county highways. If a closure is to occur on an Interstate, the State Patrol faxes a form to the media with the closure information and alternate routes. The alternate routes have permanent signing.
- Jackson County has the ability to directly put out an emergency message over radio and/or TV.

- The LaCrosse 911 Center has access to the Emergency Alert System (EAS). They can interrupt broadcasting in the Seven Rivers area for an alert. This system is also used for Amber Alerts.
- The County Superintendents keep the WisDOT area representative informed. Communications are informal and there is no evening or weekend coverage.
- WisDOTs Communications Manager would typically not be involved unless there were a lot of problems. For example, the Communications Manager would get involved in media notifications if there were a flood. Most of the media notifications would be done by State Patrol.
- The Communications Manager would notify the County Commissioners, legislators, and press of any closures.
- WisDOT electricians are on call for signal problems.
- In general, the EOC would not be activated unless there was a power outage or something that affected a large number of people.

c) Level 3: At approximately 9:15 pm the Jackson County Sheriff's Dispatch center receives a cellular 911 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not have any idea where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling north and vaguely remembers seeing a sign for Black River Falls sometime in the last 15 minutes. All officers on duty are currently handling calls.

- Fire and EMS may be called in via pager.
- Plows will call in stranded motorists via their County Superintendent.
- The Communications Center will call the highway department to arrange for a plow escort for an ambulance. There are no direct radio communications between patrol officers and plow operators; all communications go through dispatch.
- When leaving the scene, the ambulance will call ahead to the hospital. If there are capacity problems, the hospital can redirect to another hospital. The hospitals share status information on a daily basis (number of beds, etc.). If there is a mass casualty incident, there are pre-established plans for where the ambulances will take the patients.

2. SCENARIO 2 – Crash on I-90 Bridge Crossing the Mississippi

a) Level 1: At 6:00 am on Tuesday, June 21, 2005 a rear-end collision occurs in the EB lane mid-span on the I-90 bridge across the Mississippi. The collision causes property damage only, but one vehicle is unable to be driven and requires a tow truck for relocation. The Interstate is effectively blocked in the EB direction.

- WisDOT is responsible for the bridge.
- The call would likely come into the LaCrosse 911 Center. They would call the Minnesota State Patrol and would dispatch and officer.

b) Level 2: Rubbernecking has caused a back-up in the WB lanes of I-90. A semi-truck on the Highway 35 (Rose Street) WB on-ramp is unable to stop for the back of the queue, runs off

the ramp, and hits a bridge support. No other vehicles were involved in the crash, but the truck driver was injured.

- The tow trucks that would respond to the scene would be limited. It is important for the on-scene officer to give an accurate description of the vehicles involved so that the towers can dispatch the proper equipment. They will also need to know how to approach the accident.
- There are no on-call structural engineers for WisDOT. If the problem occurred off-hours it may be difficult to locate one.
- State Patrol would block the lanes until the overpass could be inspected.
- Ambulance services in the area are generally privately owned. They can communicate with fire and police via radio.

c) Level 3: The queue on I-90 WB has continued to grow as rush hour builds and a secondary crash occurs when a speeding motorist slams into the back of a delivery van. The driver of the vehicle was killed instantly and the other two passengers in the vehicle were severely injured. In addition, the Sheriff has decided that the bridge and Highway 35 under the bridge must be closed until an inspector can come assess the damages. The two incidents have effectively closed both directions of I-90 and Highway 35.

- The City owns most traffic signals in the area. It is unlikely that the signal timing would be changed to better accommodate the detour.
- There are 14 PCMS available in the District. All are stored at WisDOT. PCMS signs would likely be deployed in this situation; however, historically this has not been done often. On-call electricians would be called in to set up the signs. It would be more difficult to make these arrangements outside of normal WisDOT work hours.
- Law Enforcement would work the detour intersections. The officers on the scene would determine the detour route and request where officers need to be located to re-route traffic.
- A mobile command post might be established at the scene.
- State Patrol would likely dispatch a CVO inspector to check the truck.
- If there were fatalities, the accident would have to be reconstructed. State Patrol reconstructionists would be dispatched to the scene. They would report back to dispatch on how long road will be closed for the investigation. The TIME system would also be notified.
    - There may be some value in sending pictures from the scene to the reconstructionists.
- If CCTV video was available, it could be used by the towing companies to better determine the proper towing equipment to send to the scene. There is some talk of putting CCTV cameras on the bridge for security purposes.
- The towers have a group that gets together to educate Fire/EMS on what equipment they have available to help out clearing roadway incidents.
- It would be useful to have portable video capabilities in the mobile command post and be able to send live video back to dispatch. Most squad cars have video tape cameras.

- Depending on which agency is managing the incident, either Lacrosse dispatch or State Patrol dispatch would contact MNDOT.
- The highway department would likely be called for cleanup and to set up detours. They have two crash trucks with directional "arrows", cones, etc.
- There is a TOCC in Rochester Minnesota. It was not clear what role they might play in the incident communications.
- If an airlift was needed for severe injuries, TriState ambulance would be responsible for setting up the landing zone. Dispatch would call for the helicopter.
- Dispatch would notify Communication Center management as the incident escalates.
- A DA might be sent to the scene if there were fatalities.

3. SCENARIO 3 – Semi Tanker Rollover at the 90/53 Interchange

a) Level 1: At 8:35 A.M. on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker near the 90/53 interchange. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the road. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas.

- The LaCrosse Communications Center is the cellular PSAP for this area. They would notify the Emergency Management Coordinator and contact (via phone) the local office of the National Weather Service for wind direction/speed information.
- There is a Level A Hazmat team in LaCrosse. The Hazmat team would establish the perimeter. The Hazmat team is only called if the situation poses some risk to people; otherwise a private organization would be called in for the cleanup. The Hazmat team makes the call for who to call in, including contacting the trucking company.
- The dispatch center would notify DNR via radio.
- Emergency management has the CAMEO program on a PC. The Communications Emergency Response vehicle also has CAMEO.

b) Level 2: As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both 90 and 53.

c) Level 3: Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The gas is heading towards a fire works show. It is determined that all traffic must be detoured around the crash location. Evacuation is discussed.

- If an evacuation was ordered:
  - Notification would go out over the City Watch reverse 911 system.
  - The EAS system would be activated
  - MTU (transit) may be called to assist in evacuation
  - Red Cross and Salvation would be called.
- It would be of value to be able to disseminate graphics of the CAMEO predicted plume electronically. It would not be sent to everyone, just the incident commanders.

- The highway department would be called in to set up barricades for the evacuation routes.
- A Public Information Officer would be assigned to incident command to provide information to the media.

4. Daily Operations and Unique Situations

a) Dignitary Visit

- The Secret Service comes in in-advance to plan for the security.
- The Feds can usually talk on the local frequencies.
- Emergency Management has additional portable radios that can be handed out to the participants.
- Local law enforcement knows very little about the overall plans. Their role is mostly traffic control and escort.

b) Road Constructions and Routine Maintenance

- If there were going to be a lane closure for maintenance activities, WisDOT's communications manager would be informed. The Communications Manager would send out information to the local media. They would announce a longer time window for the closure in case the work runs over schedule.
- WisDOT's Communication Manager would also notify the 911 Communications Center of the closure. They would inform fire and EMS so that they could avoid the closure when responding to any emergency.

c) Special Event

- A large event in D5 is Octoberfest. This event has been going on for years. A lot of preplanning is not necessary since this event has been going on for so many years.
- State Patrol adds troopers to help with traffic control and City patrols. They are given a portable radio to enable communications with dispatch. State Patrol has the County frequencies in their cruisers.

d) Oversized Load

- The permit defines the route and when the oversized load can be moved.
- State Patrol will be contacted for the initial inspection and escort. State Patrol will use a separate radio channel for communications.
- In general there is no separate notification of local police.

e) Amber Alert

- LaCrosse has their own alert system (Seven River Area)
- They would inform Madison for wider distribution

f) Other Information:

- The Transit Agency is on the 800 Mhz trunked radio system. They have direct contact with the 911 Communication Center. Transit vehicle operators can contact the 911 Center directly.

- The local mobile data system uses the cellular network (Sprint CDMA). It is used for messaging and criminal data (including mug shots). Six of the eight local law enforcement agencies are on the system. Only law enforcement uses the system.
    - West Salem is on the State Patrol mobile data system.
- LaCrosse is will participate in the OJA data sharing pilot project for sharing RMS data. This project is not funded yet.

August 16, 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

Operational Assessment Table-Top Exercises
District 6 (July 21, 2004)
Minutes

1. SCENARIO 1 – Severe Weather

a) Level 1: A blizzard warning has been issued for parts of northwestern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 12" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

- The Communication Center receives weather alerts from the National Weather Service via the TIME system. They then alert the officers in the field via radio.
- The Counties receive weather alerts from DTN via pager.
- WisDOT uses the Internet for monitoring weather. Use of DTN was abandoned two years ago due to the availability of Internet weather.
- If the storm is predicted to hit outside of normal work hours, the plow drivers will be called in via telephone.
- State Patrol dispatch will contact WSP officers to make arrangements to extend shifts and/or start the next shift early.
- State Patrol dispatch will contact the Counties to make sure they are ready for the storm.
- State Patrol will contact Rochester, MN to monitor the progress of the approaching storm (most weather comes from that direction).
- Differences in road conditions between counties are usually due to how the storm hits that particular county. WisDOT sets standards for snow removal; they are the same for every county.
- County Supervisor vehicles have pavement sensors. Data is downloaded to an on-board laptop and is used to make decisions on how much material needs to be put down on the road.

b) Level 2: At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions, and with temperatures in the low 20°F's, motorists are being stranded on high-drifting segments that have not been plowed. As conditions continue to worsen it becomes necessary to close portions of I-94 between Menomonie and Eau Claire.

- In general, the Interstate would not be closed because of snow alone. If closed, it would be because of secondary incidents (accidents, etc.) Any closure would force

traffic on to secondary roads that probably would be in worse condition and could not handle the volume.

- Smaller plow trucks would be pulled off the road in preference to the larger trucks.
- The interstate is pre-marked for alternate routes. These routes are pre-planned as a result of meetings conducted with WisDOT, law enforcement, and the counties.
- Towers are not allowed on the highway without being notified by State Patrol.
- When a patrol officer discovers a particularly bad section of roadway or ramp, he will inform the Communication Center and request a plow. The Communication Center will pass the request on to the County Superintendent.
- An EOC would not be setup under Level 2 conditions.
- Plows are not pre-positioned at firehouses.

c) Level 3: At approximately 9:15 pm the Dunn County Sheriff's dispatch center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling east on I-94 and vaguely remembers traveling through Menomonie sometime in the last hour.

- The Dunn County Comm Center would contact State Patrol and Emergency Management to alert them to the situation. They would also contact the surrounding counties via teletype.
- The situation, as described, would require every stranded vehicle to be checked, since there was no description of the vehicle.
- Based on cell phone number, the owner of the phone could be identified and used to identify possible vehicles based on those vehicles owned by the owner of the phone.
- The cell company could be contacted to find out which tower handled the cell call. This would narrow down the search area.

Level 3 (cont'd): Assume the motorist has been located.

- Some ambulance services in the area are private, others are attached to fire departments.
- The ambulance service may contact the County Superintendent to request that a plow accompany the ambulance. The Superintendent would contact a plow for escort via radio.
- In general, snow mobile clubs are not requested to assist in situations like this. It was looked at several years ago and concluded that it would be too dangerous to have these vehicles on the interstate.
- The Eau Claire hospitals will contact the Comm Center if there are any circumstances that prevent them from taking patients. The Comm Center will broadcast this information to all ambulances.
- Most hospitals in the area are privately owned and competitive, and hence reluctant to share information. There is a Human Resources Service Administration (HRSA) grant

to develop a plan for hospitals to share information on their status (for example, number of available beds) with other hospitals in their region.

- There are seven regions established for the state. Some regions cross state boundaries. Parts of Minnesota are also included. Currently they are setting up a fax system to share information.
- Centers of Disease Control also have a plan to share Public Health emergency information. There are 12 regions in this plan. There is an effort to coordinate the two plans.

2. SCENARIO 2 – Semi Tanker Rollover in I-94/USH 53 Interchange

a) Level 1: At 8:35 pm on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker in the I-94/USH 53 interchange south of Eau Claire. The driver of the tanker loses control and exits the roadway. The driver attempts to gain control, but unfortunately over corrects, the tanker rolls over on its side and ends up in the left lane of NB USH 53. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. The Eau Claire Sheriff's department dispatches a squad to the scene.

- The 911 Comm Center would receive multiple 911 cellular calls from travelers.
- The Comm Center would dispatch police and fire units to the scene.
- The Mobile Hazmat Command Post would also be dispatched to the scene.
  - The Comm Center would contact the State Duty Officer. This is a centralized dispatch location for Hazmat teams statewide.
  - The Hazmat teams are generally self-sufficient. Via the Duty Officer they will make contacts for a cleanup company.
  - Eau Claire Fire Dept has a Level A Hazmat team.
- The Hazmat unit has the CAMEO suite of software on board their vehicle. They also have their own portable weather station to provide inputs to the CAMEO program
- The Comm Center would alert DNR and the highway department about the situation.
- Almost all public safety agencies in the region have access to each other's mobile radio frequencies.

b) Level 2: As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 53. Incident congestion is also building on I-94. Due to the holiday, response agencies are dealing with a limited number of staff. The state patrol and agencies from surrounding counties are notified of the potential need for mutual aid. Emergency Management Directors in Dunn and Chippewa Counties are summoned.

- In general, Emergency Management Directors would not go to the scene. They would not necessarily contact EM Directors in neighboring counties unless the incident was close to the county line.
- The Highway department would deploy PCMS as directed by police. Some PCMS are located at the county facilities. Others are at the WisDOT district.
- The District takes care of media contacts. Sometimes requests go to the media to tell travelers to use alternate routes.

c) Level 3: Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are developed in all four directions of travel are at risk of being exposed to the gas.

- The incident commander, based on CAMEO output, decides what areas need to be evacuated and gives direction to field personnel.
- Officers would go door-to-door in the evacuation region. There is no reverse 911.
- There are no means to electronically distribute CAMEO plume maps. Hazmat can fax out the maps, if needed. It is not desirable to distribute CAMEO plume maps due to concerns that the maps could be incorrectly interpreted.
- Three counties have the ability to cut into the national weather service radio station to broadcast an emergency message.
- There is limited Highway Advisory Radio (HAR) capability in the district. There is one transmitter in Hudson.
- If a long-term detour were anticipated, WisDOT would direct counties to put up permanent signs for the alternate routes. For long closures, a WisDOT representative would go to the scene to help with the alternate route setup.
- There are currently no alternate signal timings that could be employed for the reroute, although this has been looked into.
- Having a temporary camera setup at the site would probably not be helpful. If available, however, it would be helpful to towing agencies in determining the proper equipment to send to the site.
- There is one registered Hazmat disposer for cleanup.
- Regional Emergency Management gets money to train highway workers on how to deal with Hazardous materials.
- There are several trucking distribution centers in the area that would be affected by an incident like this. It would be desirable to have a single point of contact with the trucking industry to let them know about the situation and the need to reroute.
- The Highway watch is on the State Patrol call list. State Patrol only needs to make one contact to reroute traffic. They will take care of distributing the information to their members. The Commercial Safety directors are on this list.
- Transit may be called to help with the evacuation, although this has never been done before.
- A suggestion was made that it would be helpful if OnStar could issue traffic alerts for major incidents like this scenario.
- Wisconsin State Patrol would contact Minnesota State Patrol (Metro). MNDOT is on the Minnesota State Patrol CAD System.

3. SCENARIO 3 – Terrorism: I-94/St. Croix River Crossing

a) Level 1: At 11:45 am on October 24th, 2004 the St. Croix County Sheriff's department dispatch center receives a telephone call from an agitated man who refuses to identify himself. The man states that he has information that several bombs have been placed at or near the I-94 bridge crossing the St. Croix River and they are set to detonate within the next

30 minutes. The call is abruptly cut short, but it is determined that the call originated from a payphone near a restaurant in North Hudson.

Level 2: The St. Croix Dispatch Center dispatches squad cars to investigate. As emergency vehicles begin to converge on the bridges, the sound of an explosion is heard on the I-94 bridge. The media begins to converge on the area and curious onlookers begin to congregate. The process of closing the bridge begins.

- North Hudson police would be dispatched to the pay phone location.
- Hudson police would be dispatched to check out the bridge.
- Fire, EMS, and State Patrol would be alerted. Fire and EMS would be alerted by pager. Fire and EMS are volunteer organizations.
- The Coast Guard would be called, although they are sometimes difficult to reach.
- MNDOT would likely be alerted. MNDOT currently has temporary cameras on the bridge and may be able to see something. These cameras go to the regional TOCC. The cameras are not recorded 24 X 7 so there would likely not be any history to observe. The cameras are accessible via the Internet.
- The media would likely be aware of the situation as they monitor the police radio channels.
- Police would start rerouting traffic based on the threat alone. They would not wait for confirmation.
- An incident command would be set up in the field with representatives from all responding agencies. This would enable face-to-face communications between the agency representatives.
- Squad cars carry cones that could be used to set up the detours. Because the Interstate is limited access, it is relatively easy to it shut down.
- Two county trucks are set up with barrels for use in setting up detours. They would wait to be directed to where to set up. There are also some private companies in the area that could be called to make available additional equipment.
- PCMS signs would be requested to be set up.

b) *Level 3: Before all vehicles are able to exit the bridge, three more large bombs explode. A large section of the WB bridge collapses.*

- The Communications Van (ACU-1000), stationed in Dunn County, would be directed to roll to Hudson. The Comm Van carries 19 portable radios and has it's own repeater and dedicated radio channel.
- Minnesota would also likely set up a mobile incident command on their side of the bridge.
    - Communications between Minnesota and Wisconsin would likely be between the Emergency Management Directors on both sides probably would use cellular phones. There are a few common radio channels that could be used, but these would likely be overloaded so cellular phones would be used.
    - Both Minnesota and Wisconsin are members of state-to-state mutual aid. They are aware of each other's resources.

- Federal agencies, including DNR, EPA, and the Coast Guard would be notified. Preferably they would have representatives at the incident command site.
- The regional Emergency Management director would head to the Emergency Government.
- MNDOT would start surveillance and inspection on 13 critical bridges.
- WisDOT structural engineers are on the call list. MNDOT bridge inspection and engineers would also be called.
- Hudson would also open up their EOC.
- Saint Croix County Emergency Management has an inventory of where heavy equipment is located. They would call in equipment after consultation with others in the EOC.
- State Patrol would contact the Public Information Officer to handle to media.
- News helicopters could come in form the Twin Cities area. Emergency Management can shut down the air space via a call to the Minneapolis Air Traffic Control.
- The WEM duty officer can be contacted to contact the National Weather Service to distribute an alert over weather radio.

4. Daily Operations and Unique Situations

a) Road Constructions and Routine Maintenance

- WisDOT PIO will coordinate these events with the media. They will also keep the 911 center informed via email and faxes.
- MNDOT uses their CARS system to get information to their 511 Traveler Information system and the Internet. WisDOT District 6 has a pilot project to participate in CARS.

b) Special Event

- Country Jam (4 days)
  - Major planning effort. Each year's planning builds on the prior years' plans.
  - This is a huge operation for Police, Fire and EMS. A mini-comm center is setup on the grounds. The heads of each agency are present in the trailer. The local cable company provides Internet access to the trailer. VPN is used to provide secure access to the comm center databases.
  - The highway department spends seven days setting up signs, including PCMS signs.
- Somerset Rock Concert is a multi-jurisdictional event. A dedicated radio channel is set up for the event.
- Other major events include Country Fest and Rock Fest in Chippawa.
- Most events have their own private security. Communications with Public Safety agencies usually need to be face-to-face as the private security usually does not have a compatible radio system.

c) Oversized Load

- State Patrol does not routinely check permits because they are so numerous.

- The main concern is bridge crossings; these are limited to certain time periods of the day.

d) Amber Alert

- There have not been any amber alerts in the area. Any request would go through Dane County.
- Alerts would be sent out over the mobile data system.
- Alerts would be broadcast to Fire, EMS, and the Counties.
- Highway watch would notify all truckers.

e) Eau Claire Transit Operations

- The comm center has access to the bus operations radio channel; however, this channel is not normally monitored.
- Any bus emergencies would be communicated to the 911 center via the bus dispatch center.

f) Other Data Communication Issues

- The City and County of Eau Claire has installed fiber between hospitals in the area.
- Eau Claire is looking to enhance their mobile data and radio infrastructure. Currently all Law Enforcement is on a 4800 bps mobile data system.
- The TIME system is often used for communications between Comm Centers.

September 16, 2004

WISCONSIN DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS AND PUBLIC SAFETY
COMMUNICATIONS INTEROPERABILITY ASSESSMENT AND PLAN

Operational Assessment Table-Top Exercises
Districts 7 & 8 (July 22, 2004)
Minutes

1. SCENARIO 1 – Severe Weather

a) Level 1: A blizzard warning has been issued for all of northern Wisconsin. Forecasters have predicted that the storm will arrive within 2 to 3 hours and over 18" of snow is expected. Current winds are sustained at 30 mph with gusts to 60 mph.

- In District 7, the County Highway Departments are hooked up to a web system that is used for the Counties to communicate with each other. There are numerous weather stations located throughout the district. The web system can be used to get forecasts as well. They also have NOAA alerts.
    - District 7's cameras and sensors are also tied into the web site.
- The State Patrol Communication Center has DTN and monitors the weather channel. They will keep the troopers informed on the approaching storm.
    - The time of day that the storm strikes is important. If the storm comes in the early AM, State Patrol will stagger start times for the next shift. If the storm comes in the PM, they will alert troopers to stay out past the end of their shift.
    - Other officers will be contacted by telephone to be on standby.
- The Sheriff's Department uses the National Weather Service. The impact on shifts would be similar to that mentioned above for State Patrol
- The Baird County Communications Center gets their weather from TV. They would notify the County Highway Department.
- There are no radio communications between WisDOT and the Counties or Public Safety agencies. They do have the ability to communicate via email.
- There are good voice mobile radio communications among Law Enforcement agencies in the region. Some of the agencies in the region are on the State Patrol's mobile data system.
- The County Supervisors do not have MDTs or any other data communication capabilities.
- There is no Nextel coverage in the region. Cell phone coverage is poor once you get away from the main highways.

b) Level 2: At 6:30 pm on New Years Eve the blizzard hits. Plow operations cannot keep pace with the snow fall and drifting. Although motorists were cautioned not to travel unless absolutely necessary, it is New Years Eve and it appears few decided to cancel their plans. In zero visibility conditions and with temperatures in the low 20°F's, motorists are being

stranded on high-drifting segments that have not yet been plowed. As conditions continue to worsen it becomes necessary to close portions of Highway 53 between Spooner and Superior. Also portions of Highway 13 between Park Falls and Ashland need to be closed to allow plowing operations to catch up with the snowfall.

- The County Highway Commissioner makes the call to close the highways. The County notifies the Sheriff, State Patrol, DOT, and other counties by phone. WisDOT must be called if the highway is to be closed.
- WisDOT has crews to help out setting up trucks to close the highway. WisDOT will make the calls to the media.
- There are no pre-marked alternate routes in the area.
- Although highways have been closed before in the area, for example Highway 2 due to lake effect snow, one of the concerns about closing the highway is that travelers might assume that the roads they are being routed on to are in better condition.
- There is no Emergency Management role at this point unless there is a need to set up temporary shelters. A minimal EOC could be activated to coordinate this.
- The Fire Departments are just preparing to go out as needed.
- Tow trucks can get in the way of plows.
- If conditions become too hazardous, the County will pull the plows off the road. By 6:30 PM the drivers have already put in a full day of work. There is no notification to Police if the plows are pulled.
    - Generally they will wait until 4 AM to start plow operations.
- Some areas have Township plowing operations that can help stranded motorists.
- The DOT Web site helps ensure consistency between the counties so that road conditions do not substantially differ from county to county.
- There has been some experimentation in the area with GPS in the vehicles. This provides a history of where the vehicle has been (it is not transmitted in realtime). State Patrol has GPS in the vehicle that can indicate the location to the Trooper, but it is not transmitted to State Patrol Dispatch.

c) Level 3: At approximately 9:15 pm the Douglas County Public Safety dispatch center receives a cellular 9-1-1 call from a stranded motorist who believes he is having a heart attack. The caller is not from the area and does not know where he is located. Suddenly the caller is disconnected. It is believed that the cell towers in the region are experiencing problems due to the weather. The only information the caller was able to provide before being disconnected was that he was traveling north and vaguely remembers seeing a sign for Superior sometime in the last 30 minutes. All officers on duty are currently handling calls.

- Cell calls can come into adjacent counties (depends on the location of the tower). In Superior, all 911 cell calls go to Minnesota.
- The 911 Call Center will contact the highway department. The highway department will send out a mobile message to the trucks to be on the lookout for this motorist.
- Snow mobile clubs could be called out to assist.

- Calls for help could also go out to State Patrol, Fire Rescue, and DNR. In general, because of the limited resources in each agency in the region, there is a high reliance on each outer for assistance. Fire and Rescue departments in the area are all volunteer.
- Once the motorist was located, a plow escort could be sent with the ambulance.
- Some ambulances in the area are part of the Fire Departments; others are private.
- Other mobile radio interoperability:
    - In an emergency, a deputy can call a plow operator directly via radio (they monitor the channels).
    - Most plow trucks have direct communications with the Sheriff's Department.
    - Most County Highway departments can talk to the Sheriff and Emergency Government.
    - Plow trucks will call in accidents to the Comm. Center.
- In District 7, the PCMS signs are located throughout the district (at both the Counties and WisDOT). District 8 has 9 PCMS signs. They are putting one in each county.

2. SCENARIO 2 - Bomb Threat Bong Bridge and Blatnik Bridge

a) Level 1: At 11:45 am on October 24th, 2004 the Douglas County Public Safety dispatch center receives a telephone call from a person who refuses to identify himself stating that he has information that several bombs have been placed at or near the Bong and Blatnik bridges and they are set to detonate within the next 30 minutes. The caller states that he is distraught at being recently laid off from his bridge welding job and that maybe if these bridges are damaged his boss will realize he shouldn't have laid him off. The call originated from a local payphone near a restaurant in Superior.

- A patrol car would be sent to the telephone booth.
- Whoever was in charge at the bridge would be alerted.
- Federal authorities (Coast Guard) would be notified.
- The WisDOT Information Officer would want to be informed as early as possible.
- There would be concerns about getting information out to the public too early before the situation was verified.

b) Level 2: The Douglas County Dispatch Center dispatches squad cars to investigate. As emergency vehicles begin to converge on the bridges, the sound of an explosion is heard on the Blatnik Bridge. The media begins to converge on the area and curious onlookers begin to congregate. The process of closing the bridges begins.

- The Emergency Ordinance Disposal (EOD) units in Duluth and Fort McCoy should be alerted.
- It would be important to protect the crime scene.
- One agency would take the lead. An incident command post would be established (possibly at the county EOC) and a unified command structure would be used. Some of the counties have mobile command vehicles.
- A large perimeter would be established.

- The media would be told where they could go to get updates. Message boards would be used.
- County Highway would be called to place signs. They would also have a representative in the command post.
- WisDOT would be called and would send a representative to the incident command post.
    - WisDOT would help determine the detours and where the trucks should be sent.
    - They would also coordinate how the signs should read.
    - WisDOT would call in a bridge engineer.
    - WisDOT would call the Counties or private contractors for large machinery.
    - The District would call their contact at Central Office. This contact would trigger the statewide notification.
- Normally a radio channel would be assigned to the incident (separate from the normal operations frequencies). Initially, before this channel was assigned, the operations channels would likely be jammed.
- Cell phones would be useless in such a situation. They would likely become quickly overloaded.
- Other counties would be contacted for assistance and relief.
- A telex could be sent to the state for Emergency Aid assistance. The state is organized into mutual aid districts.
- Any media helicopters would likely come from Minneapolis. They have been helpful with incidents in the past.
- The Hospital and Public Health Consortiums are working on ways to coordinate available bed space. Today they check with each other.
- Emergency Management would notify the State when the needs exceed the ability of the local resources to respond.

c) Level 3: A total of four additional unidentified packages have been spotted on portions of the two bridges by the Coast Guard.

3. SCENARIO 3 – Semi Tanker Rollover on Highway 51 in Woodruff

a) Level 1: At 8:35 A.M. on Sunday July 3rd, 2005 a passenger car swerves in front of a semi tanker traveling northbound on Highway 51 near Woodruff. The driver of the tanker loses control and exits the roadway. The tanker rolls over on its side and ends up on the right hand side of the NB lanes. The driver escapes the tanker and immediately calls 9-1-1 on his cellular telephone. The driver reports that there has been a rollover and that he was transporting chlorine gas. Deputies from Vilas and Oneida Counties are dispatched to the scene.

- Dispatch would call Fire and Ambulance units to respond.
- Emergency Management would be notified by the Sheriff's department.

- Law Enforcement would be at their normal staffing levels on the holiday. State Patrol typically restricts vacation during this period. Normal patrols would not change for the holiday; however, additional officers may be added for special events.

b) Level 2: As emergency vehicles begin to arrive, it is reported that numerous minor secondary crashes have occurred along both NB and SB USH 51. Due to the holiday, response agencies are dealing with an unusually large tourist turnout in the Minocqua area.

- The Fire Department would make the call on whether to evaluate. The Fire Department has CAMEO software but it would take time to set up. They would probably use the Hazmat books first.
- The Fire Chief would be the incident commander. He would make the decision to call in a Hazmat Team. There is a Level B unit in Oneida County (about 30-40 miles away), however, this type of incident would need a Level A unit. The Level B unit could set up a defensive response until the Level A unit arrived. The closest Level A unit would take a few hours to get to the scene.
- County Highway would be called out to help with road closures.
- WisDOT District would also be called. They would handle the traffic re-routes. The District has people on-call 24/7.

c) Level 3: Suddenly the chlorine gas begins escaping from the tanker due to damage caused by the crash. The gas is highly toxic. The weather center advises that the winds are currently from the north at 15 miles per hour. The gas is heading towards the City of Minocqua where a firework show is set to begin. It is determined that all NB traffic must be detoured as far south as the southern border of Minocqua and all SB lanes north of the incident are to be closed as far north as highway 70. Evacuation of the northern section of Minocqua is discussed.

- There is no reverse 911 for the area. Police, Fire, and EMS would go building to building to spread the word to evacuate.
- For the incident being discussed, the only hospital in the area would actually be in the evacuation zone. There is no Transit in the area to help with the evacuation. Depending on the time of year, school buses could be brought in to help with the evacuation; however, given this occurred on a summer holiday, it would likely be difficult to locate drivers.
- Michigan DOT would be contacted for coordination. The contact would be made first by phone, and then by their online incident management system. Michigan uses an 800 MHz trunked radio system; they cannot talk to Wisconsin Public Safety agencies by radio. They can only use telephone.
- There are some private companies out of Ashland that could offload the truck. The Fire Chief would contact these companies, as well as the tanker truck's company.
- All Law Enforcement agencies in this region have each other's mobile radio frequencies in their patrol cars. There is also a mutual aid channel that can be used.
- An Integrated Command Structure would be established. WisDOT has two people trained to participate in incident command. The County Highway Departments have not been trained.
- The Fire Chief would make the call for evacuation. The initial call would be based on the Hazmat manuals. Even though Hazmat would not yet be at the scene, the Fire Chief

can be in communications with them, and provide the details Hazmat needs to run plume studies.

- The weather service can be called for specific conditions in the area of the tanker.
- The Level B Hazmat team would be contacted by Incident Command. The Level B team would contact the Level A team.
- WisDOT could call in electricians to modify the traffic light timing.
- The National Guard has an engineering battalion in the area. They might be called in. The chain of contacts to make this happen would be Law Enforcement ➔ Emergency Management Director ➔ State Emergency Management Director ➔ Governor.

4. Daily Operations and Unique Situations

a) Road Constructions and Routine Maintenance

- The County puts up signs in advance of the construction. They also inform the newspaper and the Sheriff.
- The location of the construction is shown on a map display on WisDOT's web site.

b) Special Event

- This is a big tourist area.
- Special events include a Rodeo in Spooner and the National Snowmobile Races.
  - The Rodeo attracts 4000-6000 spectators. Both State Patrol and local Law Enforcement assist for traffic management.
  - WisDOT will change traffic light timings for the Snowmobile races.
  - WisDOT processes the detour permits; they are then passed on to State Patrol
  - Coordination with Private Security Agencies that are hired by the events is sometimes challenging.

c) Oversized Load

- The permit will state when the load can be moved and the route that must be taken. The permit will also stipulate the escort requirements.
- The carrier makes the arrangements for escorts.
- WisDOT provides the input to DMV to survey the route.
- Some permits can be seasonal or good for two weeks.

d) Amber Alert

- Spooner has a computer terminal which allows them to distribute a picture of the child nationwide. They make this system available to surrounding agencies. The authority for issuing an Amber Alert must still come from Dane County.

e) Other Information

- WisDOT District 8 is working on a radio link with MNDOT that will allow the district to set up a virtual TOC.

Appendix E

Table Top Session Participant Lists

NAME	AGENCY	PHONE	E-MAIL
Connie Catteral	Wisconsin State Police	262-785-4701 x2009	constance.catterall@dot.state.wi.us
Sue Sterwald	Steve's Car & Truck Service	920-648-2766	
Michael Quint, Asst. Chief	Watertown Fire Department	920-2618812	mquint@cityofwatertown.org
Mike Sproul	DOT Central Office	608-266-8680	michael.sproul@dot.state.wi.us
Todd Szymkowski, P.E., PTOE	University of Wisconsin-Madison, traffic ops and safety lab	608-263-2684	szymkowski@engr.wiscedu
Joni Graves	SWWRPC	608-342-1057	gravesjh@swwrpc.org
Sgt. E.C. Wagner	WSP Deforest	608-346-8500 x1104	eugene.wagner@dot.state.wi.us
Sgt. Brad Altman	Wisconsin State Patrol D1	608-846-8500	brad.altman@dot.state.wi.us
Troy Oestreich	City of Lake Mills Police Dept.	920-648-2354	
Lewis Lewellin	Waterloo, City of	920-478-2343	hlewell@waterloowis.coj
Todd Yandre	City of Lake Mills Fire Dept.	920-648-5117	
Rod Timmerman	Mikes Towing Service, Inc.	608-278-8687	mikestowingservice@yahoo.com
Sue Sterwald	Steve's Car & Truck Service	920-648-2766	
Erik Minge	SRF Consulting Group, Inc.	763-475-0010	eminge@srfconsulting.com
Andy Mielke	SRF Consulting Group, Inc.	763-475-0010	
Mark Hustad	HNTB Corporation	414-852-9244	mhustad@hntb.com
Phil DeCabooter	WisDOT-ITS	608-267-0452	phil.decabooter@dot.state.wis.us
Duke Ellingson	Dane County 9-1-1	608-267-1911	ellingson@co.dane.wi.us
Ken Rizzo	National Weather Service	262-965-5061 x642	kenneth.rizzo@moaa.gov
Dan Pruess	WisDOT	608-246-3849	daniel.pruess@dot.state.wi.us
Dave Huntley	WisDOT	608-246-3817	david.huntley@dot.state.wi.us
Jeff Gustafson	WisDOT	608-516-6400	Jeffrey.gustafson@dot.state.wi.us
Larry Henson	Transcore	414-732-9596	larry.henson@transcore.com
John Verhyen	State Patrol	608-267-3573	john.verhyen@dot.state.wi.us
Jerry Blystone	Blystone Towing	608-742 4228	
Craig Ratz	Porage Fire Dept.	608-742-2172	craig.ratz@ci.portage.wi.us
Linda Palmer	Wisconsin State Patrol	608-846-3500 x1021	linda.palmer@dot.staff.wi.us
Josh J. Ripp	Maple Bluff Fire/B6,BMB EMS	608-244-3390	flmslayr2@aol.com

NAME	AGENCY	PHONE	E-MAIL
Connie Catteral	WSP	262-785-4700	constance.catterall@dot.state.wi.us
Tom Purdokas	Kenosha Sheriff	262-605-5132	tpurdoka@co.kenosha.wi.us
Sgt. Jim Bramm	Meno Falls Police	262-532-8770	jbramm@menomoneefalls.org
Steve Cyra	HNTB		
Stacy Black	TransSmart	608-273-4740	
Darwin Derge	WisDOT	414-750-1412	
Tony Barth	WisDOT	262-548-5936	tony.barth@dot.state.wi.us
Jerry Bruckert	WisDOT	920-579-1539	
Mike Romas	Milw. Fire	414-286-5287	mromas@milfire.com
Mark Lorge	Milw. Fire	414-286-5232	mlorge@milfire.com
Dean Beekman	WisDOT	414-227-2154	dean.beekman@dot.state.wi.us
Doug Denbowski	WisDOT	414-227-2149	douglas.denbowski@dot.state.wi.us
Barry Mitchell	MCSO Emerg.	414-278-4709	bmitchell@milwcnty.com
Pete Jaskuski	Cpt. MCSO Patrol	414-454-4084	pjaskulski@milwcnty.com
Curt Elliott	Milw. S.O	414-750-1529	celliott@milwcnty.com
Mark Meyer	Milw. Police	414-935-7205	mmeyer@milwaukee.gov
Leslie Barber	Milw. Police	414-935-7202	lbarge@milwaukee.gov
Kathy Ivans	MFPD	262-532-1700	kivans@menomoneefalls.org
Stephen Basting	Milw. P.D.	414-935-7322	sbastir@milw.gov
Jeff Roskopf	Roskopf's Towing	262-252-0600	roskopfstow@milwpc.com
Chris Fornal	City of Milwaukee	414-286-2452	cforna@mpw.net
Rollin Bertran	Milwaukee Cnty	414-278-4922	rbertran@milwcnty.com
Ron Rutkowski	Milwaukee Cnty	414-278-4888	rrutkowski@milwcnty.com
Keith F. Ponath	Milwaukee Cnty	414-257-6566	kponath@milwcnty.com
David Harkins	URS Corp.	608-266-6703	david.harkins@dot.state.wi.us
John Berg	FHWA	608-829-7515	john.berg@fhwa.dot.gov
Bill Mueller	Racine Cty	262-886-8440	
James Formolo	Racine Sheriff	262-636-3269	james.formolo@goracine.org
Bill Greer	Racine Sheriff	262-636-3224	william.greer@goracine.org
Robert Kacharcik	Racine Sheriff	262-632-2023	robert.kacharcik@goracine.org
Scott Ferguson	WDNR	414-263-8685	scott.ferguson@dnr.state.wi.us
Dean Redman	Wauwatosa Fire	414-471-8490	dredman@wauwatosa.net
Mike Burns	WisDOT	262-521-4423	mike.burns@dot.state.wi.us

NAME	AGENCY	PHONE	E-MAIL
Dan Drewery	Brown Co. Hwy.	920-492-4925	drewery-ds@co.brown.wi.us
Terry Hammen	Outagamie Co.	920-832-6060	hammentm@co.outagamie.wi.us
Mike Jobe	Outagamie Co.	920-832-5615	jobemd@co.outagamie.wi.us
Mary Schuelke	Outagamie Co.	920-832-5189	schuelmr@co.outagamie.wi.us
Mike Bouchard	Outagamie Co.	920-832-2264	bouchamd@co.outagamie.wi.us
Eugene Reese	Appleton Fire Co.	920-832-1704	gene.reece@appleton.org
Bill Demler	Winnebago Cty. Hwy.	920-232-1700	
Joel Rasmusson	Winnebago Cty. Hwy.	920-232-1745	
John Corbin	WisDOT Highways	608-266-0459	john. Corbin@dot.state.wi.us
Keith Kieson	Town of Menasha Fire Dept.	920-729-0931	chiefkiesow@town-menasha.com
Bud Gadow	Neenah/Menasha Fire	920-886-6220	bgadow@nmfire.org
Bruce Sim	Outagamie Co.	920-832-5148	simbs@co.outagamie.wi.us
Steve Cyra	HNTB	414-359-2300	scyra@hntb.com
Steve Steinhart	Sheboygan. Cty. Sheriff	920-459-3360	Steinscs@co.sheboygan.wi.us
Dave Pichette	WSP	920-929-3700	david.pichette@oot.state.wi.us
Scott Nelson	WisDOT	920-492-5651	scott.nelson@dot.state.wi.us
Lance Thomas	Brown Co. 911 Center	920-448-7688	
Gus Hanold	WisDOT	920-492-5978	GUSTAVE.HANOLD@DOT.STATE.WI.US
Edward Skeels	Oshkosh Police Dept.	920-236-5700	
Kurt Wranovsky	WisDOT	920 492-5645	kurt.wranovsky@dot.state.wi.us
Chris Blazek	WisDOT	920-362-6211	christain.blazek@dot.state.wi.us
Kim A. Rudat	WisDOT	920-492-5743	kimrudat@dot.state.wi.us
Kevin McSorley	Fox Valley Metro Police Dept.	920-788-1511	619@fumpd.org

NAME	AGENCY	PHONE	E-MAIL
Stacey Black	TransSmart	262-689-5594	sblack@trafficonline.com
Jeff Western	WisDOT	608-264-8712	jeffrey.western@dot.state.wi.us
Dennis Saager	Wausau Police Department	715 261-7803	dgsaager@mail.ci.wausau.wi.us
Jeff Nett	Washara Sheriff's Department	920-787-3321	jeffn.sheriff@co.waushara.wi.us
Jeffrey Frenette	Wisconsin State Patrol	715-845-1143	jeffrey.frenette@dot.state.wi.us
Gordon Mortensen	Wausau Fire Department	715-861-7900	gmortensen@mail.ci.wausau.wi.us
John Keener	Portage County Sheriff	715-346-1400	keenery@portage.co.wi.us
Geri Glowdowski	Portage County Sheriff	715-346-1400	glodowsky@co.portage.wi.us
Sandra Curtis	Portage County Emg. Mgmt	715-346-1398	curtiss@co.portage.wi.us
Robert Haight	Marshfield Fire & Rescue	715-486-2094	bob@ci.marshfield.wi.us
Lance T. Penney	Waupuch County Hwy Dept.	715-258-7050	
Dale Pederson	Portage Cty Highway	715-345-5230	pedersod@co.portage.wi.us
Ed Ewen	Portage Cty Highway	715-345-5230	
Tim Hanely	WisDOT TD#4	715-421-8050	timothy.hanley@dot.state.wi.us
Dan Raczkowski	Marathon Cty. Hwy Dept.	715-581-4755	drraczkowski@mail.co.marathon.us
Steve Kreuser	Wood Cty Emergency	715-421-8500	skreuser@co.wood.wi.us
Clarke Crandell	Stevens Poing Fire Dept.	715-344-1833	crandellc@stevenspoint.com
Ed Eggsleston	Stevens Poing Fire Dept.	715-346-1630	eeggleston@stevenspointpd.org

NAME	AGENCY	PHONE	E-MAIL
Anne Grayson	WisDOT	608-785-9029	anne.grayson@dot.state.wi.us
Karen Olson	WisDOT	608-789-5959	
Andrew Winga	WisDOT	608-785-9061	andrew.winga@dot.state.wi.us
Linda Luhman	Wis. State Patrol	608-374-0513	linda.luhman@dot.state.wi.us
Mark Loether	Monroe Cty. 9-1-1	608-269-8982	mloether@co.monroe.wi.us
Al Blencoe	LaCrosse Emergency Services	608-785-5955	blencoe.al@co.la-crosse.wi.us
Jeanette Lenser	LaCrosse Emergency Services	608-785-9634	lenser.jeanette@co.la-crosse.wi.us
Gary Brunner	WisDOT	608-785-9042	gary.brunner@dot.state.wi.us
Craig Goldbeck	Goldbeck Towing	608-781-4870	goldbecktowing@aol.com
Craig Falkum	MN/DOT Rochester Dist.	507-536-5203	craig.falkum@dot.state.mn.us
Jeffrey Fish	Vernon Cty Highway	608-637-5455	jfish@vernonco.org
Tim Hammes	LaCrosse Cty Highway	786-3844	Hammes.tim@co.la-crosse.wi.us
Darnell Olsen	Jackson Cty Highway	284-5615	
Michael Thompson	Buffalo Cty Highway	608-685-6240	mike.thompson@buffalocounty.com
Wayne Lien	T??? Cty. Highway	715-538-2221	
Romelle Mauss	Ken's Towing	608-781-3232	kenmausstowing@aol.com
Candy Utter	Jackson Cty Sheriff	715-284-5357	
Robert Stapel III	Jackson Cty Sheriff	715-284-5357	rob.stapel@co.jackson.wi.us

NAME	AGENCY	PHONE	E-MAIL
Lois Ristow	Wisconsin Emergency Mgmt	839-3825	wemwco@discover-net.net
Gary Kollman	St. Croix Co. Emergency Comm	715-386-4705	garyk@co.saint-croix.wi.us
Chris Kruse	Dunn Cty. Emergency	232-6897	ckruse@co.dunn.wi.us
Melissa Gilgenbach	Dunn Cty. Emergency	232-6604	mgilgenbach@co.dunn.wi.us
Don Walker	Clark County	743-3680	clarkcodon@tds.net
Jerry Boehcher	eau.claire.com	839-2954	
John Egli	Pepin Cty Emerg. Mgmt.	715-672-8677	pepzo@co.pepin.wi.us
Pam McInnis	Eau Claire 9-1-1	715-839-1690	pam.mcinnis@ci.eau-claire.wi.us
Jim Sabelko	Pepin Cty Emerg. Mgmt.	715-672-8172	
Ken L'Esperance	Wisconsin State Patrol	839-3800	kenneth.lesperance@dot.state.wi.us
Jeff Kern	Wisconsin DOT	715 836-2919	jeffrey.kern@dot.state.wi.us
Jason Knecht	Altoona Fire Dept.	715-839-2970	dickeydo@charter.net
Brent Pickard	WisDOT	715-836-9623	brent.pickard@dot.state.wi.us
Robert Wiyk	MN/DOT	651-775-0369	robert.wiyk@dot.mn.state.us
Paul Gringas	WisDOT	715-836-3038	paul.gringas@dot.state.wi.us
David McCabe	Chippawa County Highway	715-738-2617	dmccabe@co.chippawa.wi.us.
Tom Beekman	WisDOT	715-836-4628	thomas.beekman@dot.state.wi.us
Greg Helgeson	WisDOT	715-836-2980	greg.helgeson@dot.state.wi.us

NAME	AGENCY	PHONE	E-MAIL
Kathy Poirier	Polk Cty Emerg. Mgmt.	715-485-9280	kathy@co.polk.wi.us
Jim Pankonien	Polk Cty Highway	715-485-8727	PankJ@co.polk.wi.us
Sara McCurdy	Polk Cty Highway	715 485-8732	saramm@co.polk.wi.us
Brian Cody	Sawyer County Emergency	715-638-3458	emerg.gout@sawyercounty.gov.org
Randy Books	Barron Cty. E.M.	715-537-6595	randy.books@co.borron.wi.us
Gay Radosevich	Barron Cty. Sheriff's	715-537-5814	Rados@bnso.org
Rosemary Tangwall	Barron Cry. Highway	715-637-3061	backwy@co.barron.wi.us
Gary Peske	Vilas Cty. Sheriff	715-479-0615	gapesk@co.vilas.wi.us
Rhonda Reynolds	WEM	715-635-8704	wemnwo@century.net
Tim Wallace	Washburn Co. E.M.	715-468-4715	twallace@co.washburn.wi.us
Jim Galloway	Vilas Co. E.M.	715-479-3690	jagall@co.vilas.wi.us
John G. Keiffer	WisDOT	715-365-5766	jack.keiffer@dot.state.wi.us
Marc Bowker	WisDOT	715-392-7950	marc.bowker@dot.state.wi.us
Molly Gruett	WisDOT	715-365-5734	molly.gruett@dot.state.wi.us
John Corbin	WisDOT	608-266-0459	john.corbin@dot.state.wi.us
Steven Blaeser	Spooner Police Department	715-635-3527	sblaeser@centurytel.net
Harold Smith	Minong Fire	715-520-2519	minongfire@centurytel.net
Dave Dennis	Washburn Cty Sheriff	715-468-4700	ddennis@co.washburn.wi.us
Mark Servi	Washburn Cty Highway	715-635-4480	mservi@co.washburn.wi.us
Paul Halverson	Douglas Cty Highway	715-374-2575	phalvers@cpinternet.com
Keith Larson	Bayfield Cty Highway	715-373-3115	klarson@bayfield.county.org
Ed Wundrow	Rusk Cty Highway Dept.	715-532-2633	ed@centurytel.net
John Czarnecki	Sawyer County Emergency	715-634-2691	rdsuper.hwy@sawyercounty.gov.org
Gary Johnson	Spooner Fire Department	715-635-8123	
Gary Galliford	WisDOT D-8 Operations	715-392-7995	gary.galliford@dot.state.wi.us
Dale Breuak	Bayfield Cty Highway	715-373-6115	
Lee McMenamin	State Patrol	715-635-2141	lee.mcmenamin@dot.state.wi.us