

SECTION 6.7

SECURITY



W A M P O

Wichita Area Metropolitan Planning Organization



Overview

Security in the context of transportation is an important component of the metropolitan transportation planning process. Transportation and personal security have received greater attention across the country since the terrorist attacks on September 11, 2001. The hurricane and resulting flooding along the Gulf Coast in 2005 demonstrated the importance of transportation facilities and services in an emergency event. Transportation facilities and systems play an integral role in responding to natural and manmade disasters. WAMPO works with its federal, state, and local partners to improve security of the transportation system for motorized and non-motorized users.

The security element of the MTP 2035 highlights transportation related security activities in the region. It also outlines potential roles for WAMPO and includes strategies to enhance the region's focus on security and transportation issues.

SAFETEA-LU, the most current federal legislation, emphasized the need for Metropolitan Planning Organizations (MPOs) to consider security more widely in planning activities. It identified security as a stand-alone planning factor, signaling an increase in importance from prior legislation. This legislation reflected the renewed interest in transportation security issues.

WAMPO Role in Transportation Security

Each urban area must determine its own best approach for incorporating transportation security measures into the transportation planning process. The role of an MPO ranges from providing general support for state and regional activities to leading training exercises and writing plans. MPO activities vary somewhat depending on how frequently they deal with natural disasters as well as whether they have direct experience with terrorist attacks.

WAMPO provides a cooperative forum for regional decision making and is well-placed to play a value-added role in regional security. The most effective roles for WAMPO to play include:

What is security?

The degree of protection against risk, danger, or injury to people and infrastructure. It involves planning for and mitigating hazards and threats. These include natural, technological, and industrial disasters and terrorist threats.



Interchanges



Rail Security



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- Coordination between multiple agencies.
- Introduction of a regional and multimodal perspective (including system performance).
- Collection and dissemination of information on emergency management.



Trucks At Warehouse

These three roles may involve the integration of security and emergency management into existing WAMPO activities, including:

- Regional Intelligent Transportation Systems (ITS) Architecture maintenance.
- Travel demand modeling.
- Transit coordination.
- Geographic Information Systems (GIS) data management.
- Inventory of transportation services for special needs populations.

WAMPO can address some key issues in integrating security and transportation planning through coordination with other emergency management agencies.

- Traffic modeling for evacuation plans.
- Airport facility planning.
- Emergency preparedness.
- Regional assessment of critical assets and vulnerable facilities.
- Coordination with 911 services.

WAMPO is taking steps toward incorporating security into the planning process. As part of the MTP 2035 development process, a safety and security stakeholder group discussed security related issues in the region and how the transportation system is integrated with security.

The remainder of this section discusses the following.

- Threats to transportation infrastructure.
- The region's critical transportation infrastructure.
- The current state of regional preparedness plans.
- Current and future transportation security related programs in the region.



- Priority security concerns and recommended actions.

What Is the Region's Perspective on Transportation Security?

The region is constantly aware of security related threats, particularly natural disasters. The unique potential security issues in the region including tornados, floods, military instillations, and major rail corridors shape the perspective of stakeholders regarding security issues.

Security Stakeholders

Security for the transportation system and its users involves numerous federal, state, regional, and local agencies. In the WAMPO region security is included in emergency management planning and involves the following key agencies:

- U.S. Department of Homeland Security, Federal Emergency Management Agency.
- Kansas Division of Emergency Management, Kansas Department of Transportation.
- Sedgwick, Butler, and Sumner County Emergency Management, Emergency Medical Services (EMS), Fire, and Sheriff departments.
- Local police and fire departments.
- Local Emergency Planning Committees (LEPC).



Arkansas River

In addition to these agencies, key security stakeholders in the region include elected officials, volunteer organizations, transportation planners, and engineers. Many of these agencies participated in the MTP 2035 safety and security stakeholder group.

The Sedgwick, Butler, and Sumner County LEPCs are active multi-jurisdictional decision making bodies with members from municipalities, volunteer organizations, and industry. These committees meet quarterly to share information, review community planning, design and implement emergency planning exercises, and critique emergency management for real situations and exercises.



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Types of Threats



Adverse Weather

Natural disasters, more specifically tornados, are considered the biggest threat in the region. Other natural threats to the region are floods, hailstorms, winter ice storms, and lightning.

Stakeholders also identified the large amount of hazardous materials stored or transported throughout the region as a major transportation security concern. Hazardous material spillage or explosion can have a great impact on emergency preparedness and evacuation efforts.

Evacuation

With many types of human and natural disasters, there is a need to evacuate an area. Evacuation plans are an important aspect of security in a region and a high priority for security stakeholders.



River Crossings

The main routes through the region are major highways and railroads. A major transportation problem can result if one or more locations along these routes are damaged, blocked, or impeded. Stakeholders in the region have pointed out a number of issues that could impact emergency evacuation.

- Railroads and rivers are obstacles for evacuation due to the limited number of crossings.
- Dirt roads during bad weather may not always be useful evacuation routes.
- Interchanges can be a safety concern or become congested, especially with increased traffic during an evacuation.
- The rerouting of semi-trucks onto local roads if an accident occurs on freeway routes can become an issue, particularly due to the lack of capacity and weight restrictions on the bridges.
- Many of the smaller cities have limited access points and connecting routes.

Hazard Mitigation Plans (HMP) created by the LEPCs, discussed later in this section, identify the interstates and U.S. highways as major evacuation routes.



What Are Critical Transportation Facilities in the WAMPO Region?

It is important to establish an inventory of the most critical transportation infrastructure in the region. This infrastructure should be secured against terrorist attacks, maintained for efficient transportation during disasters, and prioritized for rebuilding efforts. WAMPO can effectively play a role in collecting and maintaining data accessible to preparedness planners.

Some of the most critical transportation infrastructure in the region includes:

- Major highways.
- Major bridges.
- Railroad lines.
- Pipelines.
- Transit facilities.
- Aviation facilities, including McConnell Air Force Base.

What Relevant Security Plans Are Available?

National, state, regional, and local security plans impact emergency management efforts in the WAMPO region. The preparedness plans most important to transportation discuss critical transportation infrastructure, identify emergency routes, plan emergency transportation for special needs populations, and specify possible evacuation routes.

National Incident Management System

The **National Incident Management System (NIMS)** is a comprehensive national approach to incident management. The main purpose is to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. The State of Kansas designates NIMS as the standard for all jurisdictions in Kansas when responding to a disaster or other emergency. County jurisdictions are required to:



Pipelines



Transit Center



McConnell Air Force Base

National Incident Management System (NIMS)

A system developed by the U.S. Department of Homeland Security to provide a consistent nationwide approach to emergencies. It outlines ways for federal, state, local, and tribal governments to effectively and efficiently prepare for, prevent, respond to, and recover from domestic incidents.



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Incident Command System (ICS)

A standard developed by the U.S. Department of Homeland Security that consists of an on-scene, all-hazards incident command center.

- Incorporate NIMS into all existing operations, training, and exercise programs.
- Incorporate NIMS into emergency response plans.
- Establish mutual aid agreements and compacts.
- Institutionalize the use of the **Incident Command System (ICS)**.
- Participate in test exercises for proposed or established emergency plans.

Local Emergency Operations Plan

Each county in Kansas has an LEPC, an all-hazards planning committee involved in preparing the county Local Emergency Operations Plan (LEOP). The LEOP is an all-hazards plan that addresses evacuations, sheltering, post-disaster response and recovery, deployment of resources, communications, and warning systems. The LEOP also defines the responsibilities of county departments and volunteer organizations.

Emergency Support Functions (ESF)

Groups of functions provided by numerous public and private entities that may be needed in the event of a domestic emergency. ESF #1 is transportation.

LEOPs include the county's basic strategies, assumptions, and mechanisms to mobilize resources and guide and support local emergency management efforts. This is done through preparedness, response, recovery, and prevention. The LEOP groups the types of emergency assistance to be provided into 15 **Emergency Support Functions (ESF)**. In the event of an evacuation, the LEOPs ESF #1 addresses both emergency transportation assistance and the maintenance of transportation routes. It provides for the orderly and expeditious evacuation of all or any part of the population in the county.

Hazard Mitigation Plan

Each county LEPC also prepares a local Hazard Mitigation Plan (HMP). HMPs identify potential hazards facing a community whether they are natural, technological, or national security related. HMPs are designed to consider all potential critical hazards and identify which are of highest priority to be addressed in emergency planning.

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The Sedgwick County Multi-Jurisdiction Hazard Mitigation Plan identifies general actions for priority hazards, such as:

- Floods.
- Hazardous materials.
- Tornados.
- Major disease outbreaks.
- Utility/infrastructure failure.
- Hailstorms.
- Winter storms.
- Lightning.

The hazards prioritized by the Sedgwick County LEPC are issues similar to those raised by security stakeholders.

Wichita Transit Emergency Response Plan

Mass transit is necessary for evacuating special needs populations that do not have or cannot access personal vehicles. The Wichita Transit Emergency Response Plan (ERP) is intended to ensure the safety and well-being of passengers and staff during its daily operations and deal with potential emergencies. The ERP defines the emergency response objectives and emergency procedures for fires (including buildings, fuel island(s), and buses/vans), tornados, bomb threats (buildings and buses/vans), and special emergency situations. The ERP includes a list of tornado shelter locations and after-hours key contact personnel at Wichita Transit.

Airport Security Plan

Wichita Mid-Continent Airport, Colonel James Jabara Airport, and Beech Factory Airport each have security plans. These airport security plans contain steps and measures to protect the airports in the event of an emergency or natural disaster. Security at airports includes ensuring proper access to airport operation areas, safeguarding aircraft, and preventing theft of property. Security plans range from comprehensive and detailed, such as at large commercial airports, or relatively basic plans at small general aviation airports.

What is hazard mitigation?

Actions that reduce or eliminate long-term risk to people and property from hazards and their effects. Mitigation focuses on breaking the cycle of disaster damage, reconstruction, and repeated damage.



Power Plant Substation



Cargo Plane and Truck



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What Are the Transportation Security Related Programs in the Region?

Stakeholders in the WAMPO region have identified incident management and the use of advanced technology as important issues for safety and security planning. The incident management concerns include:

What is signal preemption?

It allows emergency vehicles to change traffic lights. This allows the vehicle to proceed through the intersection more quickly and under safer conditions. The emergency vehicle can extend a green light while approaching or change a red light to green.

- Community expectation of better incident management and coordination of different agencies and departments.
- Application of technology to assist in making transportation systems more efficient and secure. These include:
 - **Signal preemption** and coordination for EMS and transit vehicles.
 - Dynamic message signs to alert drivers when emergency vehicles are coming.
 - ITS technologies to alert drivers of road closures.
 - New emergency sirens that cause cars to vibrate.
 - Additional cameras.
- Always considering ITS in transportation projects.

As previously described in this section, there are many opportunities to incorporate security and emergency management considerations into existing WAMPO activities. These activities focus on coordination and communication and include development and maintenance of the [Regional ITS Architecture](#), regional transit coordination, and regional travel demand modeling.

Specific regional transportation programs have implications on emergency preparedness and security. These programs were not necessarily developed to address security but have applications in security planning. The following paragraphs provide more information on these programs.

Intelligent Transportation Systems

WAMPO maintains the [Regional ITS Architecture](#), which includes several services related to transportation security. The architecture defines how systems function and



Dynamic Message Sign



information is exchanged electronically. Many ITS stakeholders are also involved in emergency planning because of the opportunities to use ITS for security efforts. Local cities, the State, and transit operators are the primary ITS stakeholders in the WAMPO region.

The Wichita Traffic Management Center (TMC) is vital to the implementation of the ITS architecture. The TMC monitors roads with cameras, coordinates operations with other agencies and emergency services, and provides information to the public and local media. During an emergency, the TMC assists with alerting the public, media, and coordinating response efforts.

Transit Coordination

Wichita Transit is in the process of deploying an **Automatic Vehicle Locator (AVL)** system. AVL systems calculate the real-time location of any vehicle equipped with a Global Positioning System (GPS) receiver. When combined with other ITS technologies, AVL can deliver many benefits such as real-time bus location and accurate prediction of arrival times. This information can be vital during a security incident.

Regional Travel Demand Model

Travel demand models are planning tools that can be used to evaluate the impacts of the loss of critical infrastructure. This information can assist in making decisions about when to close/open facilities and use other modes of travel.

How Can WAMPO Increase Coordination?

Stakeholders identified the need for coordination of security planning efforts. WAMPO's role is to help identify and provide a regional forum for discussing and collaborating on security and emergency management issues.

In an emergency, communication is crucial to a successful response. Improvement in communications across disciplines is a goal of emergency planners.

Interoperability between communication devices (radios, computer systems, etc.) is needed to ensure good

Automatic Vehicle Locator (AVL) uses

- Enhance communication between vehicles and control center.
 - Optimize demand response scheduling.
 - Provide real-time traveler information.
-

What is interoperability?

The ability of communication systems to talk to each other through the use of agreed upon standards. In other words, to have different communication devices work as one.



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communication between fire, police, and emergency medical services. Ensuring that transportation information is easily communicated to emergency service providers is important in the event of an emergency.

Security Priority Areas and Recommended Actions

To help the transportation and security sectors effectively coordinate and use resources, the following are priorities to consider.

- Ensure transportation sector involvement in emergency planning efforts.
- Develop baseline data of transportation resources to support emergency planning and response (e.g., inventory of critical transportation facilities).
- Emphasize planning and coordination, which will provide future regional benefits. Stakeholders expressed the need to share the major emergency evacuation plan for the region.

The following are some actions WAMPO and regional stakeholders can implement to support security planning initiatives in the region.

- Establish a regional security committee or have direct involvement with the Sedgwick County, Butler County, and Sumner County Local Emergency Planning Committees.
- Assist emergency planners in identifying key transportation stakeholders to include in the planning process.
- Develop a system to provide information to the public during security events.
- Continue to support ITS technologies deployment and give priority to those that enhance the current incident management system.
- Develop a Geographic Information Systems (GIS) database of critical transportation facilities and infrastructure. Identify security targets, hazardous material transport routes, and evacuation routes.
- Use the regional travel demand model to identify major emergency evacuation routes and examine bottleneck points along these routes.

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- Prepare a transportation vulnerability assessment study using the regional travel demand model.
- Incorporate security features in transportation system design.
 - Facilitate consultation with emergency responders early in planning and design phases where emergency vehicle access could be an issue.
 - Consider security requirements with respect to surveillance, detection, containment, and emergency response when planning and designing transportation projects.



River Bridge

WAMPO is dedicated to playing a vital role in the continued regional security planning efforts. These recommendations are for cities, counties, and other interested organizations in the region, not necessarily recommendations that WAMPO can initiate on its own. Improving safety and security of the region's transportation system will require collaboration across agencies in the region.