Special Event Management
L01 e-Tool Demo
Introduction

• This e-tool is based on research conducted in SHRP2: *Integrating Business Processes to Improve Travel Time Reliability (L01)*

• The e-tool is designed to assist agencies in identifying their business processes that effect travel time reliability

• Reliability is dependent on many agencies and processes

• Opportunities exist to reduce the impact of congestion triggers
• Process – A series of actions or activities that result in a specific or desired outcome to accomplish a specific goal
  – The method by which an incident is detected (911 call, service patrol call, etc.)

• Business Process Mapping
  – Provides a visual representation of steps and connections
  – Identifies areas for improvement
  – Highlights resource needs
  – Identifies additional support needs
The e-tool can be used to assess business processes for the following operational areas:

- Incident management
- Work zones
- Planned special events
- Weather/road weather management
- Traffic control/traffic operations
- Capacity/recurring congestion
- Fluctuations in demand
Intended Use of e-tool

Includes an orientation and an application module

• **Orientation module:**
  – Provides background
  – Introduces case studies

• **Application module:**
  – Intended for use in a group setting
  – Ideally, the orientation module has already been completed
STEP 1
IDENTIFYING INFLUENCES
Identifying Influences

What made it apparent that there is a need to improve a business process in order to improve travel time reliability?

TOP DOWN

EVENT DRIVEN

NEEDS BASED
Top Down

• Also known as “big directive”
• Legislative requirement or management – level directive
• Kansas Speedway Special-Event Traffic Management:
  – Priority placed by governor’s office, understanding the importance of accessibility.
  – Result of years of planning between many agencies
Event Driven

- Caused by a specific event or hazard, like an accident
- Nevada DOT I-80 Winter Closure Program
  - Significant crash due to weather
  - Major delays
  - There was a need to prevent further instances
Needs Based

• Also known as “opportunity based”
• Evolves over time according to recurring needs
• Influences day-to-day operations
• Florida DOT Road Ranger Program
  – Need to assist distressed vehicles
  – Initially implemented to assist with work zones, later expanded to assist stranded motorists
STEP 2 DEFINING THE SPECIFIC RELIABILITY GOAL
Defining the Specific Reliability Goal

• Used to measure success
• Focuses your efforts
• Assists in the development of benchmarks
  – Reducing incident clearance time
  – Providing 24/7 operations
  – Improving resource efficiency
  – Reducing congestion
  – Reducing delays
Kansas Speedway Example

• Reliability goal to successfully host large events.

• Desire to efficiently move race day traffic from freeways, through arterials, to parking space.

• KDOT intended to maintain throughput of vehicles traveling on I-70 and track statistics of parking ingress/egress and parking lot clearance times.
STEP 3 IDENTIFYING AND DOCUMENTING CURRENT BUSINESS PROCESSES
Identifying and Documenting Business Processes

• **A business process:**
  – Defines a series of actions or activities that result in a specific or desired outcome to accomplish a specific organizational goal
  – Is most likely something your agency does on a daily basis

• **The purpose is to formally document the business process associated with one of the operational areas**
• **Benefits**
  – Better understanding of the business process
  – Identifying gaps in communications or data flows
  – Identifying missing stakeholders
  – Formalizing roles and responsibilities to ensure continuity and retaining institutional knowledge
• Demonstrate multiple methods by which a visual representation of an agency’s business process can be developed

• No method is better than another

• Users are referred to the final reports of SHRP2 Integrating Business Processes to Improve Travel Time Reliability (L01) for additional information
• **Start with the basics:**
  – Which agencies or organizations are key to a successful implementation?
  – The Kansas Speedway identified the following stakeholders:
    • Kansas Speedway
    • Kansas Highway Patrol
    • Kansas DOT
    • Kansas City Police Department
    • The motorists
Identifying and Documenting
Business Processes

• Gather all documentation for your management program:
  – Standard Operating Procedures
  – Formal Memorandums of Understanding
  – Informal exchanges of information and data
  – Current management methods
  – Others

• Next, document the process or reverse engineer the current management process
  • Data flows
  • Decision points
  • Process integration points
  • Critical input and output
  • Responsible entities
  • Integration of processes
Identifying and Documenting Business Processes

• Next, create a visual representation of the operations process
• There are several approaches to mapping business processes
• In some cases, a sketch may be sufficient
• In other cases, a more comprehensive and complex drawing may be required
• Developed extensive three-layered traffic plan identifying responsibilities:
  – First layer – Interstate traffic – KHP’s responsibility
  – Second layer – Traffic on local streets traveling between interstates and Kansas Speedway – Kansas City Police Department’s responsibility
  – Third layer – Traffic entering or leaving the track – Kansas Speedway’s responsibility
• KDOT supports all three layers, including identifying funding.
• Business process modeling is more formal than the previous flow chart

• Makes connection between:
  – Those who create the process
  – Those who implement the process
  – Those who perform the process

• Business Process Modeling Notation (BPMN) is detailed in L01 Report
STEP 4 DEVELOPING/CHANGING AND IMPLEMENTING PROCESS
Developing/Changing and Implementing Process

1. Step 4: Develop/Change Process
2. Step 5: Assess Process
3. Step 4: Implement Process
Develop/Change Process

• Utilize map from Step 3 and influences described in Step 1
• Change business process to reflect changes in:
  – Policy
  – Procedures
  – Decisions made by the group
• Timeframe for moving forward to implementation
  – Depends on agency’s ability to develop/change the current business process
  – Unique for each agency and each situation
  – Formal or informal in nature
Implement Process

• The approach to this step varies
  – Number of agencies involved
  – Depth of process

• Be sure to involve all stakeholders
  – Office managers
  – Operators
  – Field workers

• Timeframe for moving forward to Step 5
  – Needs to be sufficient to allow for stabilization of new process
  – Each iteration of implementation of refined process may reduce time
Kansas Speedway Example

• Traffic operations leaders of all organizations meet to discuss and refine traffic management plan for upcoming events.
• Indications of improved traffic management efficiency in the decreasing number of KHP posts.
• CCTV cameras and portable DMS boards required to assist traffic management.
STEP 5

ASSESSING THE PROCESS
Assessing the Process

Important to determine the effectiveness of the newly developed process.
Assessing the Process

• **Necessary Information:**
  - Measure of success
  - Method of continuous evaluation
  - Necessary data

• **Benefits:**
  - Better communication with senior managers and the public
  - Ongoing performance measurement
  - Measurement against pre-implementation conditions
Estimate that at peak periods before or after a race, motorists on I-70 will only experience minor slowdowns with short delays to their total trip.

The Kansas Speedway along with KDOT maintain statistics of parking ingress/egress, parking lot clearance times after races have decreased since initial race in 2001.
STEP 6 DOCUMENTING THE PROCESS
Documenting the Process

• Occurs once the new process has been implemented and proven effective

• Includes:
  – Details of new business process
  – Details of evaluation process
  – Benefits
  – Lessons learned
  – Roles and responsibilities of stakeholders
Documenting the Process

• Helps to demonstrate performance
• Facilitate easier updates

• Example of documentation
  – Internal memorandums
  – Informal memorandums of understanding
  – User guides
  – Agreements between stakeholders

• Other types
  – Evaluation meetings
  – Reports
  – Flowcharts
• Post-evaluation meetings determine opportunities for improvement.

• If an issue occurs, evaluation meetings are held with all involved agencies to review.
STEP 7

INSTITUTIONALIZING THE PROCESS
Institutionalizing the Process

• The way in which a new or changed process is incorporated into existing policies or management programs

• Starts at the higher levels

• Important to link to firmly established agency goals
• Stakeholder buy-in
  – Requires more than adoption of operational activities or processes
  – Example, strong initial buy-in from FDOT and FHP for Road Ranger program was key to its continuing operations

• Tangible results
  – Benefits and outcomes must be tangible and directly related to each agency and operating unit
• Developing formal documentation that is accessible and available to everyone
  – Example, inter-agency agreement on a network directory

• Ensure documentation is sustainable
  – Documents such as MOUs that require formal approval have a better likelihood of outlasting informal agreements
Important factors that have led to the improvements of Kansas Speedway business processes:

• Multiple race-day protocols/policies and procedures for handling incidents or other unexpected events
• Tow policy to address abandoned vehicles.
• Traffic crash policy to quickly clear incidents.
• No-patrol zone to keep troopers and police officers in cruisers from adding to the congestion track by limiting patrols to troopers on motorcycles.