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## Commentary

**Title:** Fire Department Dispatch

**Issued:** January 2004

A number of Saskatchewan fire departments have approached the Office of the Fire Commissioner (OFC) with questions and concerns regarding dispatch agency services and how to determine if a dispatch agency will offer a reliable and quality service and meet standards. In some instances, fire departments are not clear on what services the agency they engage should offer. Fire services cannot constantly change dispatch agency seeking out the one they feel is the best as this will have a huge cost impact and will have a negative impact on fire service delivery while 9-1-1 systems are reprogrammed to ensure calls are routed to the correct dispatch agency and fire department.

Fire department dispatch needs are not identical to EMS or Police. Fire departments have specialized needs to provide for safety at an emergency scene and to aid in risk management issues. The various Incident Command systems identify basic, but critical information that a fire dispatcher should be collecting and recording. These not only assist in ensuring operations are performed at emergency scenes, but are reminders of safety considerations on a fire scene to command officers, who may be extremely busy with tactical considerations.

This document is designed to assist fire departments in first, determining what needs they should consider in a dispatch agency and second, evaluating a dispatch agency to ensure the dispatch agency meets their needs.

### Communications Equipment

The communication needs for a fire department may include a wide spectrum of agencies and individuals, depending on services the fire department provides. Fire departments typically need to communicate;

- a) with their dispatch agency,
  - b) between command officer(s) and fire fighters on an emergency scene,
  - c) between fire fighter to fire fighter,
  - d) apparatus to apparatus,
  - e) with mutual aid partners,
  - f) with EMS,
  - g) with police services for the jurisdiction, and
- may also require communications with:
- h) local municipal offices and municipal equipment (ie: municipal grader),
  - i) emergency measures personnel,
  - j) Saskatchewan Environment (forest areas),
  - k) local emergency groups (ie: search and rescue group), and
  - l) other agencies the fire department may be called upon to assist.

Preferably, the fire department communication system will consist of equipment that can be used for all purposes, but in many instances, with various equipment types and frequencies in use, this will not be possible. The fire department will need to examine communication needs and existing equipment in use and determine the equipment that best meets their needs.

The basic communication needs of the fire department are to be able to receive a notification of an emergency and to be able to communicate with their dispatch agency. Communications must be reliable and accomplished easily.

Personal preference may dictate equipment, but care should be taken to ensure that the dispatch agency is capable of sending and receiving communication via the equipment selected by the fire department. For example, if cellular telephone is the preferred means of communication, will the dispatch agency be able to provide a specific number to call and will the dispatch agency respond immediately to answer that number? Communication systems for both fire department and dispatch should be explored before a decision on communications equipment is made.

## Emergency Communication

Fire departments in Saskatchewan receive notification of an emergency by:

1. A call is received by a 9-1-1 PSAP.
2. The call is forwarded by the 9-1-1 PSAP to the appropriate dispatch agency.
3. The dispatch agency receives call from the 9-1-1 PSAP and gathers information from the caller.
4. The dispatch agency sends out notification of the emergency to the correct fire department.
5. The fire department receives the notification and contacts the dispatch agency;
  - (a) acknowledging the dispatch,
  - (b) confirming the address and situation,
  - (c) identifying personnel and equipment responding, and
  - (d) gathering additional information on the emergency situation.

The critical areas for fire departments rest in item 4, and 5.

Fire fighting is accomplished through the execution of a series of decisions. In order for these decisions to lead to a safe and successful outcome, they must be based on accurate and complete information. It begins with the information provided by the dispatch agency to ensure an adequate response is made. The majority of dispatch agencies do not actually dispatch fire departments, they simply pass information about an emergency incident to the fire department to allow the fire department to dispatch itself. The fire chief (or senior officer) relies upon this information to make decisions on equipment and resources to send to the emergency, and it is critical that information from the dispatch agency is adequate and accurate.

Fire officers and fire fighters should be familiar with the term “size up”. Size-up is the gathering of information about what has happened, what is happening and what could happen during the emergency so that decisions can be made to ensure the incident is dealt with safely and successfully. No matter how complex or simple the system, size up begins (at least) from the moment the emergency call is received and continues until the emergency is resolved and the department is ready for the next emergency. The initial information gained on an emergency is critical to response and operations.

A basic, initial “size-up” list is included below, but fire departments may want to add or subtract from it to serve their needs, and should insist their dispatch agency have this information ready to allow for proper response.

**NOTE:** An important question for the fire department is what steps or efforts does the dispatch agency make in gaining this necessary, critical information? A review of the dispatch agencies SOP is recommended before engaging a dispatch agency.

## 1. Type of emergency

Fire departments tend to respond to a variety of emergencies. Emergencies may include:

- Wildland suppression (grass/light brush to forest fire fighting)
- Structural suppression (defensive, offensive, exterior/interior attack)
- Rescue Services;
  - ◆ Interior structural (fire/structural collapse)
  - ◆ Extrication (vehicle and other equipment)
  - ◆ Special or Technical Rescue (HUSAR, trench, high, water, ice, confined space, rope, etc.)
- Dangerous Goods response (standby services only, clean up, for certain specific incidents or any incident)
- Emergency Medical (first aid to paramedic)
- Natural or Manmade Disaster

Thus, on notification that there is an emergency, what does the emergency involve, is it more than one emergency type? What resources and equipment would you send to the message, “respond to a MVA at the intersection of Main and Railway Avenue.”? However, on arrival it is found the incident involves an automobile in collision with a semi-trailer, with 2 injured people trapped in the automobile, the semi spilling hazardous goods and is also on fire. The nature of the emergency is critical to know before responding.

The initial dispatch message, “respond to a MVA at the intersection of Main and Railway Avenue.” is likely sufficient to notify fire department members of an emergency and initiate a response to the fire hall. However, on contacting the dispatch agency to identify the call has been received, the dispatch agency should be providing detailed information on the incident so an appropriate response can be made.

In the example above, “MVA” (motor vehicle accident) may be a term that is understood by fire department personnel, but it may not be. Dispatch agencies must use terminology that is known and understood by the fire department and should have a basic understanding of terms used by the fire department. A fire chief calling for EMO (emergency measures organization) could be surprised to have an EMO (emergency medical officer – a physician responsible for on scene triage during mass casualty situations) arrive on scene.

## 2. Location of the emergency.

The exact land location or street address is preferred, but directions or a description may be all the caller is able to provide (especially if the caller is not from the area and is unsure where they are located). This may require fire departments to ensure properties are addressed correctly and streets/roads visibly marked within their jurisdiction.

Many communities in Saskatchewan have “local” names or distinct landmarks used by local people to describe locations. A dispatch to “10 mile corner” should never occur and should not be acceptable. The dispatch agency must take the time and effort to gain adequate information and clearly communicate the

information to allow the fire department to respond. The local resident knowing that an intersection is “10 mile corner” will also know that it is the intersection of highway #X and grid road #X as well. A fire department was dispatched to a “huge red glow” one evening, the “fire” being seen by a number of persons. The fire department was dispatched with red lights and sirens in the direction indicated by the dispatcher, but never did reach the fire. The fire, a huge forest fire, was located almost 200 kms away. Dispatchers cannot be expected to be infallible, they are relying on information from a caller, who may have very little information to offer. However, the information from a dispatch agency must allow decisions to be made by the fire department.

### **3. Occupancy Involved**

No matter what the emergency, knowing the occupancy type is critical. Is it a house, a car, a semi-trailer (what is it carrying?), a store (what type?), a business office (what type?), a grid road, a highway, a parking lot...?

A fire in a warehouse full of bricks and decorative stone suggests a different response and expectation on arrival of the fire apparatus than if the warehouse is full of fire works or dangerous goods. A grocery store is much different than a grocery store *with apartments above it* as well. This information may be critical to the response and to the safety of the fire fighters.

### **4. Height and area (as applicable)**

A house may be a single storey bungalow of 875 square feet or a three storey town house of 2000 square feet per storey. Knowing what is involved aids in determining what (and in many cases, who) to send to the emergency. A mutual aid call should never depend on the fire department’s arrival to determine if assistance is necessary.

### **5. Life Hazard**

Is a life (or more than one) at risk at the emergency? Has everyone escaped to a safe location? Are they injured? How many? Response to an emergency is tempered by the need. Knowing that the fire is a grass fire with no potential life hazard suggests response should be at posted speed limits and following traffic laws.

### **6. Location/size of the fire. Can the fire be seen? What is burning?**

The location of the fire is the next most important thing after determining the conditions of any occupants. A mattress fire in the basement storeroom of a furniture store and a mattress fire in the third floor bedroom of a house are two entirely different scenarios. If the caller is a passerby, they may not know this information, but can at least identify if they see smoke, a glow in the windows, or a huge tower of fire coming out the roof.

### **7. Exposures - Internal and external.**

A grass fire is a grass fire. However, a grass fire burning beside the bulk fuel plant site or local lumber yard isn’t just a grass fire. What is burning and what is close to the fire and/or in the direction the fire is burning is important information.

## 8. Special Matters

The following are not specifically critical information, but helpful and a dispatch agency should be able to answer these questions or provide the service needed (as applicable).

- (a) Persons calling in an emergency may be a passerby, but are usually involved in the incident in some way. They can also be invaluable to the fire department on arrival. Will they be on scene when the fire department arrives? Where will they be and what is their name?
- (b) Are police and ambulance on scene or already dispatched? If not, can the dispatch agency dispatch or at least notify these agencies the fire department is responding? A fire at a school at 2am Sunday and a fire at a school at 2pm Wednesday will have a whole different set of spectators and crowd control problems, it will also necessitate medical assistance for persons in the school, even though they may not have been injured by the fire. Police and ambulance presence may be a necessity, not a nicety.
- (c) If the building is pre-planned for automatic aid response, has the dispatch to the mutual aid department been initiated?

NOTE: The same, and usually more, information about the emergency must be communicated when EMS, police or other agencies are requested to respond to the scene. The dispatch agency should have monitored the situation and when the fire department requests another agency response, the dispatcher should have complete information to pass on so those agencies can also send an appropriate response. What priority would be set on a request for response if all that was requested was a response?

The above list is not intended to be a complete list, but illustrative of the information a dispatcher should be able to provide the fire department about an emergency so an appropriate response can be dispatched. Fire departments know the initial dispatch information they want (and need) and an appropriate list can be developed to provide to the dispatch agency.

## Emergency Incident Command

The dispatch agency that calls and identifies there is an emergency and then leaves the fire department all alone to deal with it is not offering a valuable service. The dispatch should be capable of performing certain tasks and recording the operational functions of the fire department. Where the fire department does not report these functions, the dispatch agency must request information on them. Incident Command and Incident Management systems suggest that at no time should a period greater than 10 minutes pass where on scene command has not made or dispatch agency has not contacted on scene command for a status report. The following are minimum functions that should be recorded. Fire departments may require additional “bench marking” of other functions depending on their command system.

### Functions

- Initial Dispatch
- Initial Response
- Arrival – Situation Observed
- Additional Responses (mutual aid, police, EMS, EMO, etc.)
- Control of Incident
- Final extinguishment of Fire

- Termination of Incident – Back in Service

## Initial Dispatch

The dispatch agency must maintain running records of departments, vehicles and personnel dispatched to an emergency so that the same fire department is not dispatched to two incidents at the same time or assistance can be dispatched as appropriate. Calling for mutual aid from a department already engaged in an emergency is not likely to be of any benefit finding out 10 or 15 minutes after it is called. The dispatcher should know who is engaged and who is available.

- Time call received by Dispatch.
- Time dispatch initiated to Fire Department.
- Time Fire Department confirmed receipt of dispatch (arrival at fire hall).

## Initial Response

- Time Fire Department responded (left the fire hall).
- Number of and designation of vehicles.
- Number of personnel.
- Vehicles and personnel remaining in fire hall.

## Arrival – Situation Observed

The situation on arrival is critical to allow the dispatch agency to anticipate additional response needs.

- Time Fire Department arrived on scene.
- Situation observed (update of initial information on emergency).

## Additional Responses

This request from the Fire Department for additional fire fighters and equipment, mutual aid request, request for EMS or Police on scene or any other response by an agency required by the Fire Department to mitigate the emergency.

- Time Fire Department requested additional dispatch.
- What/Who was requested to respond.
- Time additional dispatch was made by Dispatch agency.
- Response Confirmed to Fire Department (time, who, estimated time of arrival).

## Incident Progression

An emergency may take minutes or days to resolve. However, at least initially, the dispatch agency should be contacting the command officer for reports at a preset schedule (every 10 minutes, etc.). The dispatch agency should be making these calls and recording the information provided. This function is critical to the safety of the fire department and is an extremely important risk management process.

## Control of Incident

- Time Fire Department identifies the incident is under control.

## Final extinguishment of Fire

- Time Fire Department identifies the fire is fully extinguished or situation is completed and fire department is returning to fire hall.

#### Termination of Incident – Back in Service

- Time Fire Department identifies they are fully prepared for the next emergency.

At the conclusion of an emergency, the dispatch agency should be sending a detailed report with the above information to the fire department (by FAX or electronic format) so the fire department has this information for debriefing, for record keeping purposes and for reporting purposes. The report should be sent almost immediately following the incident.

#### Fire Department Information

On looking to engage a dispatch agency, the fire department must provide detailed information to the dispatch agency regarding service expectation, area of jurisdiction, etc. Once this information is provided, it must be kept current and any changes should be reported to the dispatch agency so they can update their records.

Information should include:

##### a) **Maps**

Identifying the exact areas of jurisdiction and coverage and the services the fire department provides, including;

- Wildland suppression (grass/light brush to forest fire fighting)
- Structural suppression (defensive, offensive, exterior/interior attack)
- Rescue Services;
  - ◆ Interior structural (fire/structural collapse)
  - ◆ Extrication (vehicle and other equipment)
  - ◆ Special or Technical Rescue (HUSAR, trench, high, water, ice, confined space, rope, etc.)
- Dangerous Goods response (standby services only, clean up, for certain specific incidents or any incident)
- Emergency Medical
- Natural or Manmade Disaster
- Investigation services

##### b) **Phone lists/radio frequencies/dispatch agency contact**

Identifying how to contact agencies the FD may call upon in an emergency, including;

- All mutual (and automatic) aid agencies for the FD, including what areas they respond to (if different agencies respond to different areas).
- All police agencies for the areas the FD responds.
- All EMS for the areas the FD responds.
- All EMO agencies for the areas the FD responds.
- Any dangerous goods assistance agencies (ie: certain companies provide a response agency to assist in handling an incident involving dangerous goods on their property).

- Local search and rescue group.
- Other.

c) **Initial call notification list**

This is the “size-up” list discussed previously. What information is the dispatch to gather and have available for the fire department on an emergency call?

d) **Call monitoring**

Identify FD operation functions to be monitored and recorded during an emergency. Time frames should be established as well.

e) **Reporting**

Provide FAX, e-mail, or other contact where dispatch report is to be sent at completion of an emergency.

This identifies the typical services a fire department should expect and receive from a dispatch agency. In examining a dispatch agency as a possible service for the fire department, the following should also be considered.

**Dispatching Center**

- Design and Construction
- Qualifications of Dispatchers
- Equipment
- Services

**Design and Construction of Dispatch Centers**

A fire dispatch agency should substantially meet the requirements or the intent of NFPA 1221 *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems*. The standard provides direction to ensure that dispatch centers have adequate safety and service features to prevent the loss of the dispatch agency due to power failure, fire or other potential event. A dispatch agency must have the correct facilities (building) and equipment with sufficient redundancy (back-ups and fail safe systems) to provide a high level of assurance they can remain in service constantly and continuously. A dispatch agency must be available during any emergency that occurs (barring catastrophic natural or other disaster – and then there should still be a back up system that can be readily implemented). A dispatch agency that can't dispatch when an emergency occurs is of little value to the fire department.

**Qualifications of Dispatchers**

The dispatch staff of a fire dispatch agency should hold qualifications consistent with NFPA 1061 *Professional Qualifications for Public Safety Telecommunicator*. The training to meet this qualification will assist in ensuring dispatchers are familiar with fire department operations. The fire is already an emergency for the public and they have called 9-1-1 seeking professionals to resolve the emergency. When the fire becomes an emergency for the fire department (too large a fire, rapid spread, overwhelmed resources, need an ambulance or police on scene, etc.), who does the fire department call? The only help readily available is the dispatcher. Is the dispatcher available, adequately trained, do they know the



proper procedures to follow and are they able to help the fire department due to their familiarity with fire department operations? These services are critical considerations for the fire department looking to engage a dispatch agency.

There are a number of different training programs and qualifications that an individual working in dispatch may have. It must be understood that a qualified emergency medical dispatcher or police dispatcher may have difficulty in handling fire emergency dispatch. Qualification in one area of dispatch does not automatically qualify or enable a person to work in another area of dispatch.

## Dispatch Equipment

The following is the minimal equipment a dispatch agency should have available.

- At least two dedicated in-coming lines to accept calls from SASK9-1-1's PSAPs. This should prevent the possibility of a PSAP reaching a busy number.
- At least one seven digit information/business line to allow non-emergency calls from emergency service providers and not tie up the 9-1-1 system or the telephone lines used by 9-1-1 service
- TTD Service for the speech & hearing impaired.
- Access to Language Interpretation service.
- A minimum of two dedicated fire dispatch workstations. Should multiple fire calls be received, two workstations will allow dispatchers to focus on individual calls rather than two or three calls at once. This also prevents loss of fire dispatch should a work station fail.
- Dispatch/Communication Consoles or Computerized Equipment for the type of dispatch system and radio equipment used by the fire service.
- Recording equipment for all telephone and radio communications.
- Access to ANI/ALI data from PSAP.
- Uninterrupted Power Supply (UPS).
- Back-up generator to ensure all technology is maintained during power shortages or interruptions.
- Alternate site established for evacuation purposes including a contingency plan and procedure for a timely transfer to the back-up site.
- Dispatch agencies must be capable of map based computer assisted dispatch (GISCAD) services.

## Services Available

- Provide 7 day per week, 24 hour per day coverage.
- Provide a system for quality assurance and quality improvement to assist operators to maintain a minimum standard of service delivery.
  - A fire dispatch agency must use the Saskatchewan Association of Fire Chief's recommended system of Community and Fire Apparatus identification.
  - A fire dispatch agency must be able to provide pre-arrival instruction to callers on all fire, rescue and dangerous goods incidents.
  - The fire dispatch agency must be able to retain all records of any incidents, including voice recordings of radio and telephone traffic for a period of seven (7) years.
  - Fire dispatch staff must be trained to provide basic police caller interrogation in order to relay appropriate information to a Police Dispatch center in the event that the caller could not be directly transferred to the Police Center. (Direct caller transfer is the preferred method).

- Fire dispatch staff must be trained to provide basic EMS caller interrogation in order to relay appropriate information to an EMS Dispatch Center in the event that the caller could not be directly transferred to the EMS Dispatch Center. (Direct caller transfer is the preferred method).
- Fire dispatch staff shall also be certified in an appropriate method of providing pre-arrival instructions and telephone instructions for life threatening medical emergencies. (i.e. CPR, choking, burns).
- Fire dispatch staff must comprehend the Incident Command System (ICS) or command system used by the fire departments(s).
- Fire dispatch must be able to use the SAFC – Emergency Operations Guidelines (EOG's) or local SOPs.

The 9-1-1 system established in Saskatchewan was designed to enhance fire department response. The most significant area for enhancement is in call taking and forwarding through a dispatch agency. Personnel in dispatch should be trained and capable of gathering information and communicating this information to the emergency service providers, plus, be available to assist on ongoing communication needs during the course of an emergency incident.

When an emergency occurs, the public see the service provider and forget about or are unaware that the rest of the 9-1-1 system exists. A dispatch service meeting the needs of a fire department can be invaluable, and enhance response, services provided, risk management systems and the public's view of the fire department. Fire department's are strongly encouraged to engage a dispatch agency that meets their needs.

**Fire Service Dispatch Checklist****Dispatch Center Design and Construction**

- Meets the requirements or intent of NFPA 1221 Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems

**Dispatch Center Resources**

- Provide 2 minimum dedicated lines to Sask 9-1-1 PSAPs
- Provide 1 minimum business line for non-emergency calls
- Provide TTD Service for the speech & hearing impaired
- Provide Language Interpretation service
- Provide 2 dedicated fire dispatch workstations
- Provide Communication Consoles
- (for alphanumeric pager systems and FleetNet radios)
- Provide voice call recording equipment
- Access to ANI/ALI data from PSAP
- Uninterrupted Power Supply (UPS)
- Back-up generator
- Provides alternate site for evacuation purposes
- Maintain contingency plan for a timely transfer to the back-up site
- Provide map based computer assisted dispatch (GISCAD) services
- Provide backup dispatch service
- Retain records of any incidents, including voice recordings of radio and telephone traffic, for a period of seven (7) years

**Dispatcher Qualifications**

- Meet requirements of NFPA 1061 (Professional Qualifications for Public Safety Telecommunicator)
- Trained to provide basic police caller interrogation
- Trained to provide basic EMS caller interrogation
- Certified in providing telephone instructions for CPR & First Aid
- Understands the Incident Command System.
- Trained to use the SAFC – Emergency Operations Guidelines.
- Trained in Fire Department notification information (size-up).

**Dispatch Center Services**

- Provide 7 day per week, 24 hour per day coverage
- Maintain a quality assurance program
- Utilize SAFC's recommended system of Community and Fire Apparatus identification
- Provide pre-arrival instruction to callers on all fire, rescue and dangerous goods incidents
- Capable of assigning and monitoring 3 separate communication frequencies at an emergency incident
- Capable of performing and recording the following functions of the fire department:
  - Type of emergency
  - Location of the emergency.
  - Occupancy

**Checklist**

- Height and area.
- Life Hazard
- Location/size of the fire. Can the fire be seen? What is burning?
- Exposures - Internal and external.
- Additional/Special Information
- Knows FD area of jurisdiction for all services provided
  - Wildland suppression (grass/light brush to forest fire fighting)
  - Structural suppression (defensive, offensive, exterior/interior attack)
  - Rescue Services;
  - Interior structural (fire/structural collapse)
  - Extrication (vehicle and other equipment)
  - Special or Technical Rescue (HUSAR, trench, high, water, ice, confined space, rope, etc.)
  - Dangerous Goods response (standby services only, clean up, for certain specific incidents or any incident)
  - Emergency Medical (first aid to paramedic)
  - Natural or Manmade Disaster
- Mutual Aid contact(s)
- Police for FD jurisdiction
- EMS for FD jurisdiction
- EMO for FD jurisdiction
- Other contacts

## Monitoring & Reporting

### Initial Dispatch

- Time call received by Dispatch
- Time dispatch initiated to Fire Department
- Time Fire Department confirmed receipt of dispatch (arrival at fire hall)

### Initial Response

- Time Fire Department responded (left the fire hall)
- Number of and designation of vehicles
- Number of personnel
- Vehicles and personnel remaining in fire hall

### Arrival – Situation Observed

- Time Fire Department arrived on scene
- Situation observed (update of initial information on emergency)

### Additional Responses

- Time Fire Department requested additional dispatch
- What/Who was requested to respond
- Time additional dispatch was made by Dispatch agency
- Response Confirmed to Fire Department (time, who, estimated time of arrival)

### Incident Progression

- Monitors, records and provides end report of emergency incident.

### Control of Incident

- Time Fire Department identifies the incident is under control.

Final extinguishment of Fire

## Checklist

# Commentary

Title: Fire Department Dispatch

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Time Fire Department identifies the fire is fully extinguished or situation is completed and fire department is returning to fire hall.

Termination of Incident – Back in Service

Time Fire Department identifies they are fully prepared for the next emergency.

Reporting

Provides incident report on completion detailing information above.