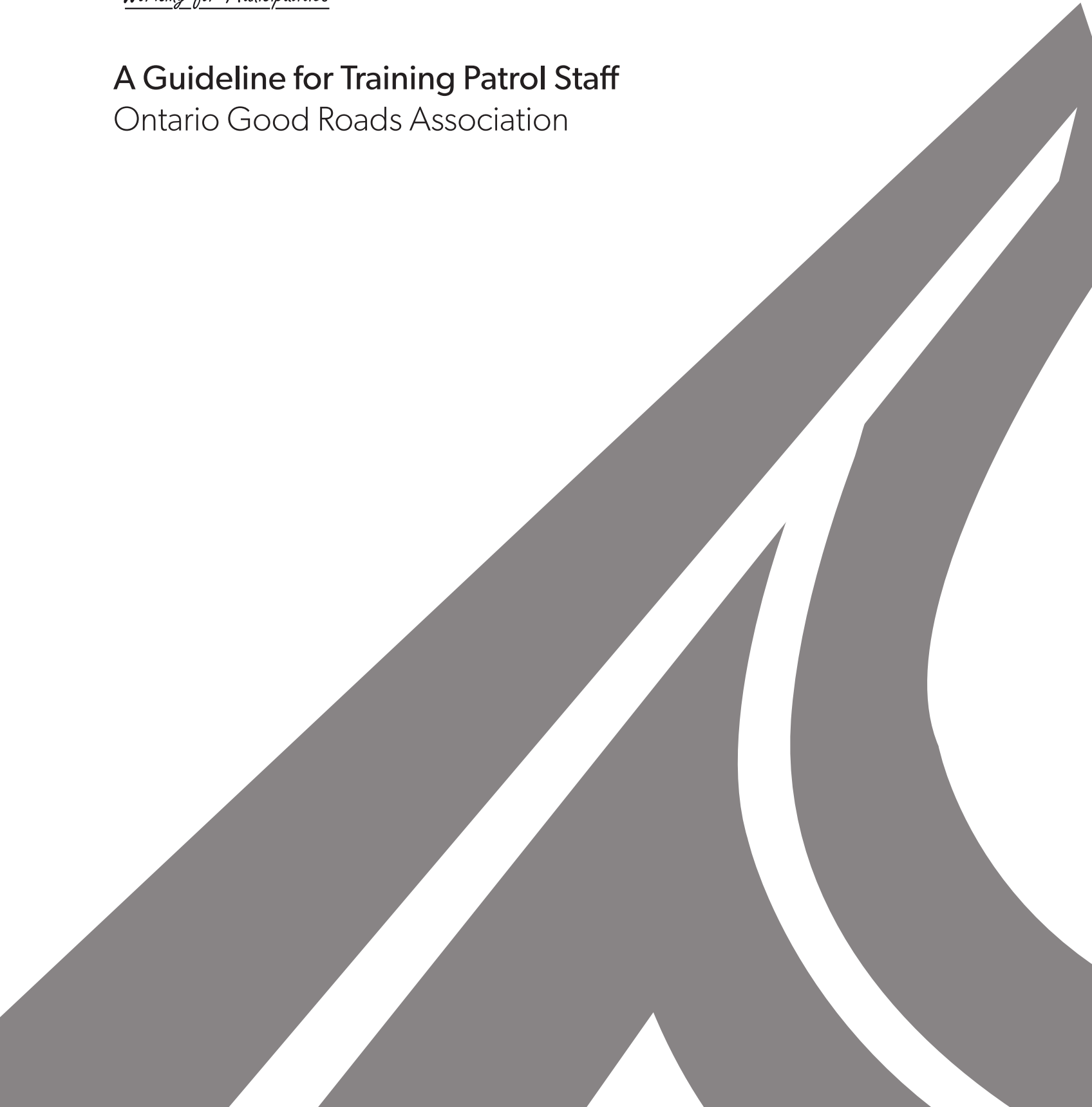




Working for Municipalities

A Guideline for Training Patrol Staff

Ontario Good Roads Association



A Guideline for Training Patrol Staff

Rationale

A patroller is required to observe both weather and road conditions either in the field or electronically to determine if a winter event response to a winter event is required. The purpose of this document is to provide municipalities with guidance as to what knowledge a patrol person would need to initiate a response to a winter event.

Definitions

Anti-icing. . means the direct liquid application of a brine solution to the road surface in advance of a storm to prevent snow and ice from bonding to the pavement.

Electronic Surveillance... means the monitoring and recording of road and weather conditions using RWIS information supplemented with local weather forecasts and/or a value added meteorological service. Electronic surveillance is a tool to supplement field observations to determine if a winter event response is required to a winter event.

Patroller... means a person that is either a dedicated winter patroller or a person whose duties include winter patrolling.

Road Condition. . means the condition of the pavement surface¹ during and after a winter event:

Bare and Dry – most of the road surface is dry;

Bare and Wet – most of the road surface is moist;

Partially Snow Covered – two wheels of the passenger vehicle are on bare surface and the other wheels are likely to be on loose snow;

Partially Snow Packed – two wheels of the passenger vehicle are on bare surface and the other wheels are likely to be on snow bonded to the road;

Partially Ice Covered – two wheels of the passenger vehicle are on bare surface and the other wheels are likely to be on ice

Road Weather Information System (RWIS). . means a weather station located along a highway that provides local pavement and meteorological data.

Susceptible Area... means a road section where a steep hill, sharp curve or other areas prone to drifting snow and/or slippery conditions (i.e. structures). A steep hill is a hill where the percent longitudinal grade is greater than the design criteria. A sharp curve is a curve with a speed advisory ≥ 20 km/h less than posted speed

¹ This document used the general public definitions included in the TAC publication “Winter Road Terminology User Guide – January 2011”. Technical definitions are also included in the TAC publication. Municipalities may want to consider using the technical definitions in a winter operations plan.

Value Added Meteorological Service (VAMS) . . means a weather service that provides a site specific forecast tailored to an agencies needs that includes but not limited to: atmospheric temperature, relative humidity and/or dew point, wind speed and direction, and precipitation.

Winter Event.. means a weather condition affecting roads such as snowfall, wind-blown snow, sleet, freezing rain, frost, black ice, etc to which a winter event response is required.

Winter Event Response.. means a series of winter control activities performed in response to a winter event.

Winter Patrol . . means the field observation of weather and road conditions.

Winter Season.. means the season when the municipality performs winter highway maintenance as identified in policy

Learning Objectives

A training program will be guided by a well-defined series of learning objectives, which should be set out and reviewed with the person(s) receiving the training at the start of the session. An example learning objective is:

At the end of this training, a Patroller will be able to:

1. Determine if a winter event response to a winter event is required.
2. Select the appropriate strategy in response to observed weather and road conditions.
3. Identify steps to be taken when a winter storm is approaching.
4. Identify the representative roads that are to be patrolled and alter or increase the patrol route in response to a winter event or approach of a winter event.

Topics to Include in the Training Program

There are a number of topics that the trainer needs to cover during the training session, as follows:

1. Content of a municipalities Level of Service policy, with a focus on:
 - a. What are the triggers for a winter event response and the lag time from call-out to deployment;
 - b. What is the desired road condition is to be maintained between winter events and during a winter event;
 - c. Are there procedures to respond to winter events in the downtown core of the municipality or commercial areas that vary for other areas within the municipality;
 - d. Are there routes that receive additional service in school areas, hospitals or are there emergency/ priority routes; and
 - e. What is the timeframe to achieve the desired road condition after the storm ends.
2. Content of a municipalities winter operation plan, with a focus on:
 - a. What is the route of representative roads to be patrolled;

- b. What variations will be made to the route and frequency of representative roads patrolled due to a forecasted winter event;
 - c. What are the strategies to be used and are there different strategies (anti-icing, pre-wetting, proprietary products) for different situations;
 - d. Material application rates for each strategy and/or situation;
 - e. Equipment types, locations and capabilities;
 - f. De-icing and abrasive storage locations and quantities at each location;
 - g. Are there susceptible and/or salt vulnerable areas within the road system and are there variations in procedures for these susceptible/vulnerable areas;
 - h. Winter shift schedules;
 - i. Call-out procedures and lag time from call out to deployment;
 - j. Equipment route assignments.
3. Weather Monitoring requirements:
 - a. Sources of weather forecasting information;
 - b. Frequency of weather monitoring – between winter events and during an event;
 - c. Are there micro-climates within the municipality and what needs to be done to address that area;
 - d. Training on RWIS and/or VAMS.
 4. Record Keeping requirements:
 - a. What records are required;
 - b. The format for recording date and time;
 - c. Procedures for corrections and/or changes to the document;
 - d. Submission of completed records.

Limitations

All staff that review RWIS data must complete the computer based training course as offered by the Ontario Good Roads Association.

Winter Operations Reference Documents

1. A Guideline for Winter Weather Monitoring – OGRA 2012
2. A Guideline for Patrolling Representative Roads – OGRA 2012
3. A Guideline for Preparing for and Decommissioning Winter Operations – OGRA 2012
4. A Guideline for Developing a Level of Service Policy – OGRA 2012
5. Winter Operations Plan Template – OGRA 2012

***DiSCLAIMER:** The information contained within this document is not legal advice nor meant to take the place of legal advice. All OGRA members and others are encouraged to consult with independent legal counsel with respect to the information contained herein. Furthermore, the*

information and recommendations contained in this document are solely the opinion of OGRA, do not form legal "standards" and should not be viewed as such.

(Municipal Logo
And name)

Record of Patroller Training

This certifies that _____ (employee name) has successfully completed the in-house Winter Operations – Patroller Training program as required by "the municipality name" Winter Operations Plan.

The Winter Operations –Patroller Training program includes the following modules:

- Weather monitoring and forecasting results including: Road Weather Information System, Value Added Meteorological Service, eutectic temperature, pavement temperature, dew point
- Winter Shift Schedules
- Record Keeping
- Health and Safety
- Level of Service – policies, practices and procedures
- Identification of Plow Routes – including variations for year to year and issues identified along the route
- De-icing chemicals – usage, application rates, storage and handling
- Identification of road salt vulnerable and/or susceptible areas and the procedures to follow in those areas
- Call-out procedures
- Emergency contacts
- Yard and Equipment maintenance

Employee Name _____
Print Name

Date of Training _____

Location of Training _____

Trainer Signature _____

Supervisor Signature _____

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