EMS Response During Severe Weather

Purpose: To provide general operating guidelines for responses during inclement weather. The primary objective is to continue to provide essential EMS response while taking in consideration of risks during adverse conditions. When severe weather may affect travel, it may be beneficial to utilize the Risk Assessment Tool provided in the attachment.

Storm Preparations:

Often there is enough notice of a pending weather event to prepare. Crews and leadership should take necessary actions to assure that vehicles, staff, and stations are in prepared for such an event and consider:

* Monitor local media and websites for storm and road conditions
* Communicate with all staff to assure they have proper clothing and supplies
* Prepare station and grounds for potential high winds/snow
* Equip vehicles with any special equipment or supplies

Severe Thunderstorm Warning

Definition: This is issued when either a severe thunderstorm is indicated by radar or a spotter reports a thunderstorm producing hail one inch or larger in diameter and/or winds equal or exceed 58 miles an hour.

* Monitor local media and websites for storm and road conditions

Tornado Watch

Definition: This is issued by the National Weather Service when conditions are favorable for the development of tornadoes in and close to the watch area.

Actions:

* Assure all crews are aware of pending watch
* Discuss potential tornado shelters in the community
  + Contact those locations and ask permission to shelter at their facility if needed
* Discuss how communication regarding a Tornado Warning will be communicated to them
  + What actions will be taken during a Tornado Warning

Tornado Warning

Definition: This is issued when a tornado is indicated by the WSR-88D radar or sighted by spotters; therefore, people in the affected area should seek safe shelter immediately.

Actions for POTENTIAL Tornado Strike:

* Assure all crews are aware of the tornado warning
* Move to a sturdy shelter as needed
* If safe to move, consider separating assets to protect crews and vehicles
  + Example: place one ambulance in the local hospital garage, one at the fire station, one at the ambulance base.
    - Consider safety of moving vs. sheltering in place
    - Consider the safety of the structure
* If safe, consider moving some assets away from tornado path
  + Example: If the Tornado path is from the South East, would it make sense to move some assets to the West and further South of the tornados path?

Actions for an IMMENENT Tornado strike:

* Cease EMS response (seek leadership approval if time permits)
  + Notify dispatch you will be sheltering in place and responses will be held until it is safe to respond
  + Bring essential items with you such as; EMS radio, cell phone, am/fm radio, flashlight

Actions for Post Tornado strike:

* Assure all crew members are safe and vehicles able to respond
* Respond to any pending calls in order of criticalness
* Be aware of hazards such as; downed power lines, gas leaks, nails and debris, etc.

Blizzard Watch

Definition: Conditions are right for blizzard to occur

* Communicate weather information to all staff
* Monitor local media and websites for storm and road conditions
* Assure that on duty crews are prepared for an extended stay in case next shift is unable to report
* Assure vehicles are fully fueled, have shovels, extra warm weather gear
* Stations are prepared for snow removal, ice, and high winds
* Contact hospitals regarding any pending transfers and consider transport them out early

Blizzard Warning

Definition: Falling and/or blowing snow frequently reducing visibility to less than 1/4 mile AND sustained winds or frequent gusts greater than 35 mph will last for at least 3 hours.

Actions:

* Communicate weather information to all staff
* Monitor local media and websites for storm and road conditions
* Assure that on duty crews are prepared for an extended stay in case next shift is unable to report
* Assure vehicles are fully fueled, have shovels, extra warm weather gear
* Stations are prepared for snow removal, ice, and high winds
* During times where it is unsafe to respond consider suspending EMS response

Suspension of EMS response:

On rare occasions, it may be appropriate, for the safety of responders, to suspend EMS 911 response. The decision to suspend response should be made by members of leadership. Even though EMS may not be able to respond, help may still be able to be rendered to the caller. If 911 response is suspended;

* Notify dispatch of the reasons and what to do with any EMS calls they receive
* Consider a media release explaining the need for the action and what citizens should do
* Contact the hospital and inform them of the temporary suspension
  + Request that on line medical direction be available to speak to patients and/or EMS for pre-hospital advice
  + Document all delays and steps taken during the delay
* Rendering aid via telephone
  + It is best to put the patient in touch directly with a physician at the hospital emergency room. If that is not possible, EMS may contact the patient and attempt to render aid and triage the EMS respond via phone

Resuming EMS Response:

* Notify dispatch, hospitals, and media that response has resumed
* Contact the caller and notify that crews are responding
* Respond to calls based on triage criteria- most critical to least. If calls are equal in triage, respond in chronological order, earliest call to last

Transfers out of hospitals during inclement weather

Do to services not available at a local hospital, or severe illness/injury that needs a higher level of care, some patients will need to be transferred to other hospitals in the region. During inclement weather, it is important to weigh out the dangers of putting the patient and crew members on the road versus holding them in the hospital until conditions improve. Hospital staff and EMS need to work together to establish what is in the best interest of all parties regarding the transfer. The following steps should be considered to help facilitate the evaluation process:

* Prior to any foreseen adverse conditions, consider sending patients out prior to the event
* When a call does come in during the potential for adverse conditions, staff and/or leadership should do a thorough evaluation of the hazards. This may include some or all the following:
  + Monitor local media
  + Utilized established websites for evaluating road conditions and weather conditions
  + Contact other dispatch centers, EMS agencies, or law enforcement agencies to get real time road/weather conditions
* To help assess the situation EMS leadership should consider going to the hospital to evaluate the patient and facilitate communication between the hospital staff and EMS
* Possible options to consider may be to:
  + Wait until the conditions improve
  + Evaluate the feasibility of air medical transports (bad roads but clear sky)
  + Transfer to a different location- Example: West vs. East
  + Compare the extended time on the road vs. waiting for weather to clear up for an air medical transport

Note: Although this guideline is intended is for the EMS operations, it is recognized that it is critical that team members communicate with family so that they are safe as well.

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**Inter-facility Ambulance Transfer Risk Assessment Tool**

Prior to sending any crew out on a requested transfer during times of severe weather, poor road conditions, or crew fatigue concerns, a determination will be made regarding safety and whether travel is permissible. This form will also be used for any crew that has already taken two transfers in a 12-hour shift so that management can monitor the crew’s condition and prepare necessary arrangements.

The on-duty staff will utilize this Risk Assessment Tool to assist in identifying potential safety risks and explore options to reduce or eliminate these risks. Ongoing communication with all parties involved in the transfer process is essential when safety concerns exist. All decisions will be made in the best interest of the patient including the patient's safety as well as the need for transfer to a higher level of care.

The purpose of the Risk Assessment Tool is to:

* Evaluate the safety of inter-facility ground transport, particularly during times of severe weather and poor road conditions.
* Provide collaborative communication between all parties participating in a transport.
* Increase safety awareness among team members when transporting patients.
* Have transport crews discussing options to make a trip safer when inclement conditions are present.

A phone or in-person discussion will take place between all team members involved in the transport and the Risk Assessment Tool will be completed. The completed form will be filed with the run report.

When necessary, a 3rd staff member will be sent with the crew to help with patient transports.

The ambulance should be verified to be 'mission-ready' prior to the start of the trip, including proper tire-pressure, fuel level, oil level, windshield washer fluid, safety supplies, maps/GPS, radio.

***Transferring facility acknowledgement:*** *As a representative of the transferring facility and having knowledge of the patient's condition and need for transfer, I hereby verify that the transferring crew and I have discussed and reviewed the Risk Assessment as noted on the back side of this form. The patient has also been advised of the risks associated with transfer by ambulance at this time.*

*Name & Title (printed) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*Crew Member: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Long Distance Risk Assessment Tool**

Date: \_\_\_\_\_\_\_ Time: \_\_\_\_\_ Run #: \_\_\_\_\_\_\_\_\_\_\_ Crew Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transferring Facility: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Destination: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RAT Reviewed With Manager by phone or in-person (Name, Time): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by (crew member): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

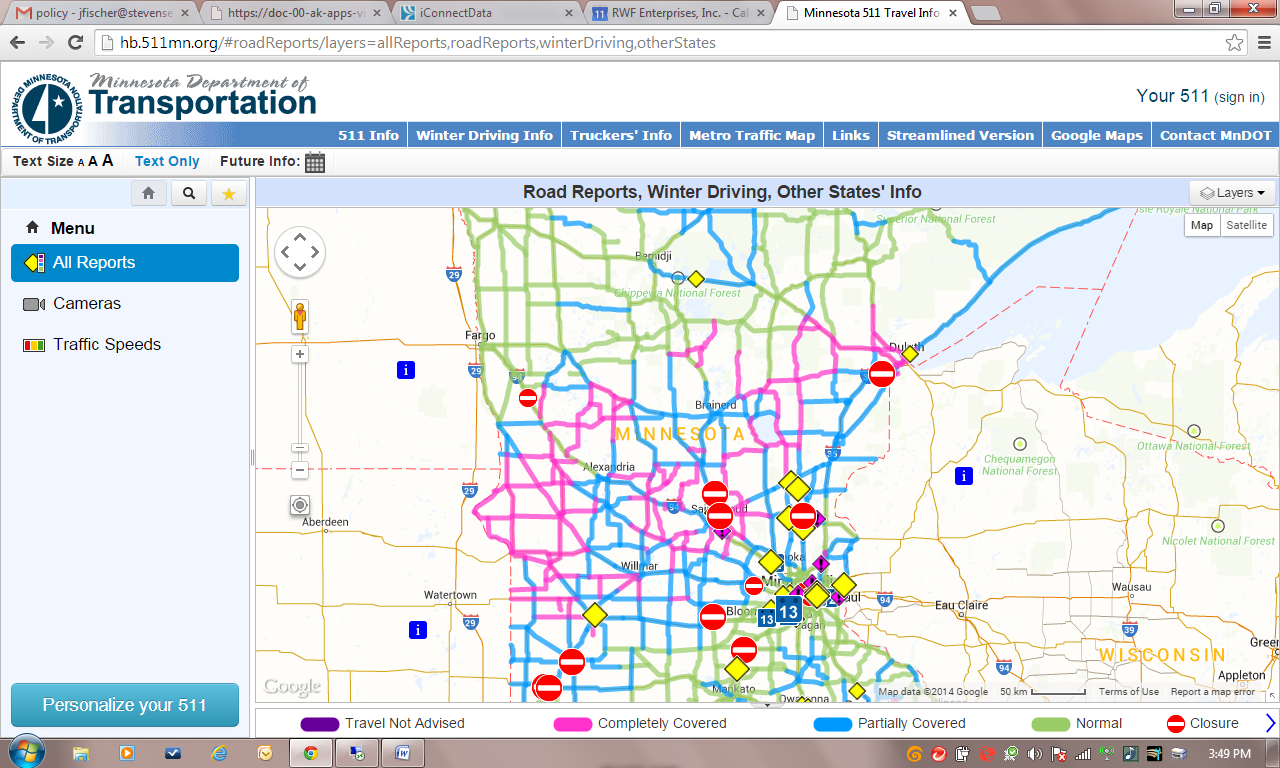
Driver Attendant

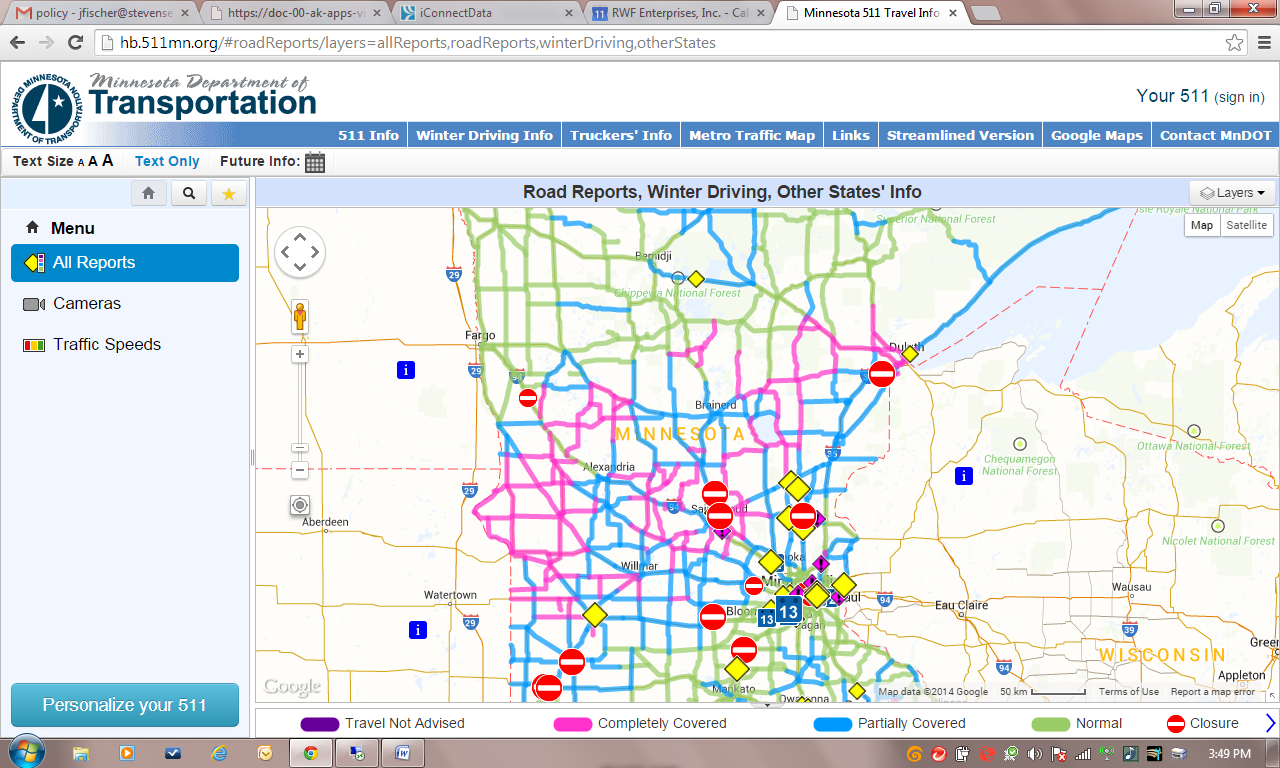
**1. Vehicle operator experience:** Less than 1 year +3 \_\_\_\_\_ \_\_\_\_\_

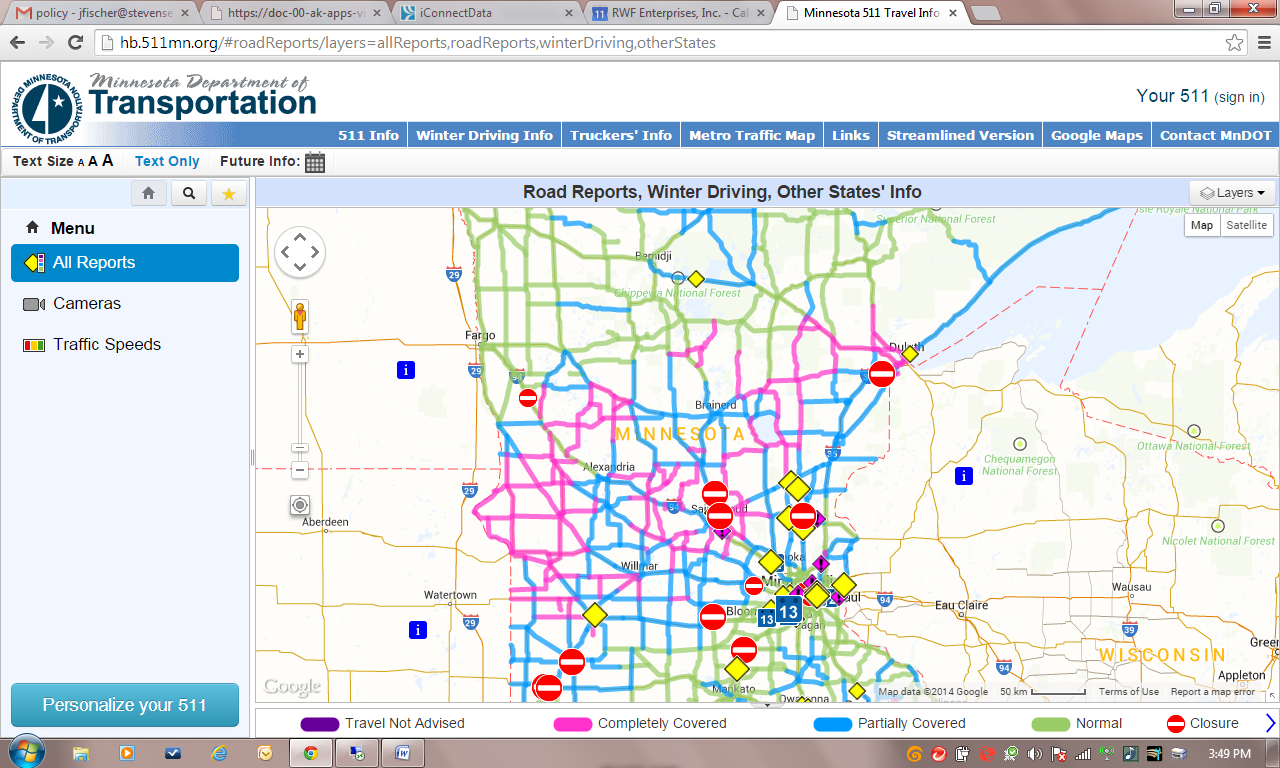
*\* Score only those crew members that will*  > 1 year to < 2 years +2

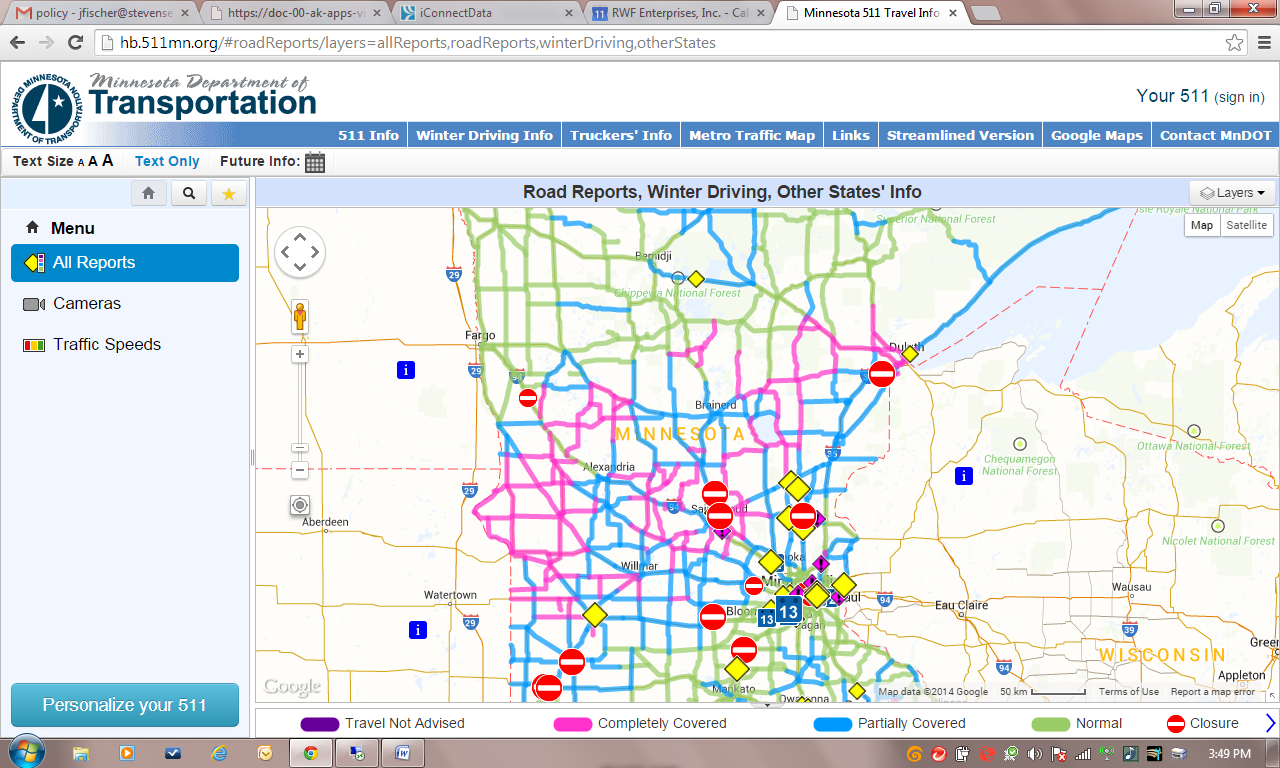
*need to drive. An experienced, rested driver should* > 2 years to < 3 years +1

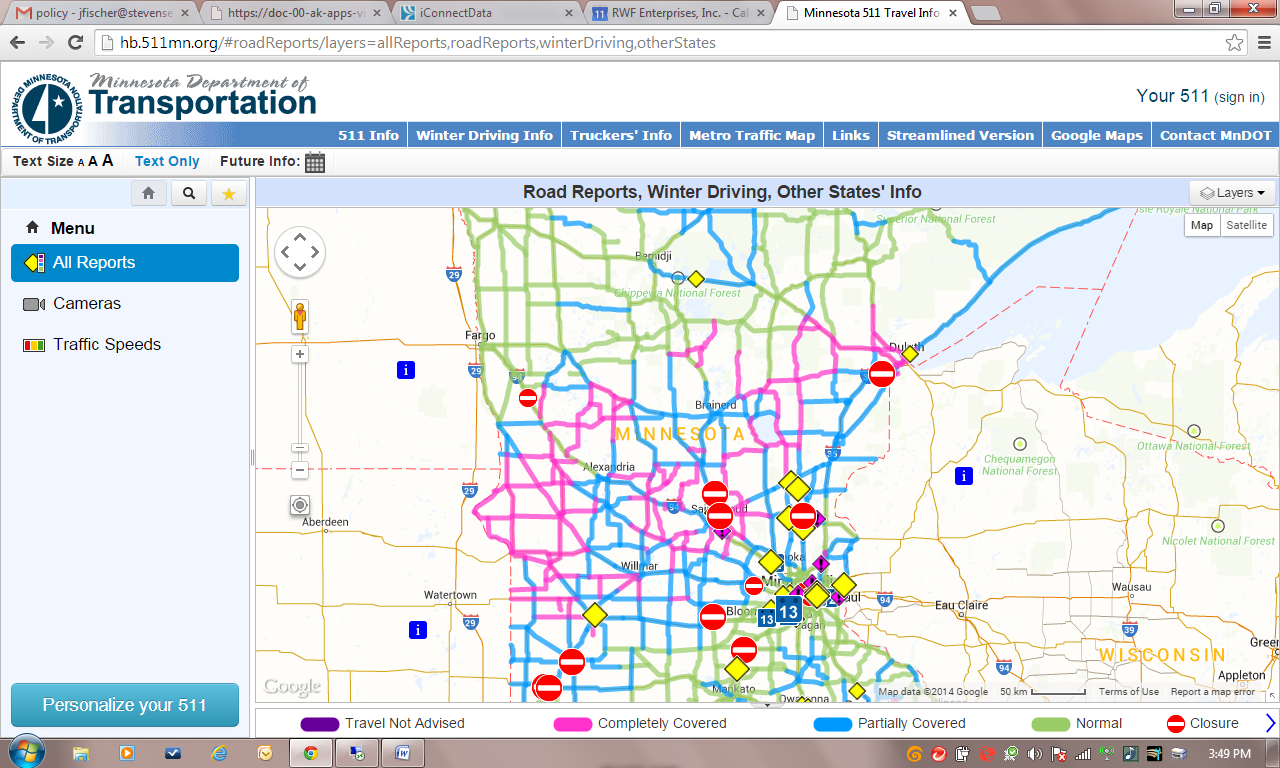
*be available for both legs of the trip.* > 3 years or CDL +0

**2. Road conditions per www.511mn.org, www.dot.nd.gov,** Closed +20 \_\_\_\_\_ \_\_\_\_\_

** and/or www.safetravelusa.com/sd:** Travel not advised +15

 *\*Other sources of information that may be*  Completely covered +10

 *utilized include MN/SD/ND Hwy Patrol, MN DOT*  Partially covered +5

 *and local law enforcement. Colors indicated are* Normal +0

*for MN. Use SD and ND equivalents as needed.*

**3. Severe Weather (all seasons)**  Warning +10 \_\_\_\_\_ \_\_\_\_\_

*\*No transfers will leave during a tornado warning.* Advisories +5

Watch +3

None +0

**4. Visibility (fog, day/night)** Nighttime - impaired +6 \_\_\_\_\_ \_\_\_\_\_

Daytime - impaired +4

Nightime - not impaired +2

Daytime - not impaired +0

**6. Total Distance (round trip, start to finish)** > 500 miles +5 \_\_\_\_\_ \_\_\_\_\_

> 250 to < 500 miles +3

> 100 to <250 miles +1

< 100 miles +0

**7. Crew Fatigue - # of truck hours in the past 24 hours** >20 +20 \_\_\_\_\_ \_\_\_\_\_

>12 to <20 +15

>8 to <12 +10

>4 to <8 +5

< 4 +0

**8. Patient severity - If STEMI, stroke, major trauma or other time-critical condition exists:** - 15 \_\_\_\_\_ \_\_\_\_\_

*\*Allowances should not be made for non-critical patients whose conditions can be*

*properly managed at the transferring facility until transport can be done safely.*

**GRAND TOTALS \_\_\_\_\_ \_\_\_\_\_**

**A score less than 20 for both crew members indicates the risk is within acceptable limits and the transfer can be done.**

**A score greater than 20 for either crew member indicates a potential safety risk for the crew and patient. The on-duty manager should be contacted for further instructions and assistance. No transfer should be accepted or refused without consulting with management (Director of Operations, or CEO). If a manager cannot be reached, consult with the senior staff paramedic or the most senior staff member on-call. Other options should be explored and may include:**

* If road conditions or weather are a factor - consider an alternate destination that avoids the problem areas.
* If crew fatigue or driver experience is a factor - consider switching crew members as available.
* If distance is a factor - consider transporting to a closer facility that can provide the same level of care needed.
* If enough advance notice is given, consider transporting a patient earlier or during daylight hours when it is known that inclement weather is incoming. If appropriate, consider delaying transport until daylight or until inclement weather passes.

Crew Signatures: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Management Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_