Fire Marshal’s webpage for Youtube link
Or Google: ‘MN Scenesafe”
Intros

• Trooper Allen Thill
  • MN State Patrol 4550 (Minneapolis)
• John McClellan
  • MNDOT RTMC
Where does this come from?

- Requirements for DOT’s for traffic control
- Daily incident management & response / traffic cameras / FIRST / traffic management
- Doing this training since 2004 / Feedback from responders
- Family member in the business
Who all is here?

- LE / FD / EMS/ tow ?
- Non responders?
- Response to Interstate & 4 lane,
  - 2 lane?
These are best practices!

Not the gospel!
• Yes there are differences between Urban & Rural traffic!

• **HUGE** deal in Metro due to population

• Is it a big deal in your area??

• Key safety issues the same:
  – Speed, Distraction, Tailgating, Alcohol/Drugs
  – Big trucks!!

• More similarities in safety tactics than differences.
Response

• Starts with Dispatchers!

• First question: Where is it?
  – No street addresses on freeway!
  – Usually it’s behind where the caller say it is.
  – What is it? Witness vs. involved.
  – Language barriers

• Safe scene starts with good dispatch info
  – Is dispatch asking if they are blocking?
  – Asking if it can be moved?
  – Starting tows?
YES - THERE IS AN AP FOR THAT!

* 511mn.org
* Smartphone App: Google or Apple store
  – 511mn (Castle Rock)
www.511mn.org

Incident data directly fed from State Patrol CAD – 24/7

www.511mn.org

Snow event 02-20-14 @ 1500
#1 Responder Safety
Nationally:

- Motor vehicle crashes are the leading cause of *traumatic* death to *Firefighters*!

- More *Police Officers* are killed in motor vehicle crashes than in shootings.

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12 MN Responders killed in last 18 years
9 struck on foot / 3 in vehicles

1997 Minneapolis Fire – FF struck
1997 Minneapolis PD – Ofc struck (died 2010)
1999 Hinckley EMS – EMT struck
2000 State Patrol – Trooper struck
2002 Boyd Fire – POV crash
2002 Esko Fire – FF struck
2003 St Cloud Fire – FF struck
2005 Roseau EMS – ambulance crash
2005 Lino Lakes PD – Officer struck
2006 Melrose Fire – POV crash
2007 Minneapolis PD – Officer struck
2009 Ramsey Co – Reserve struck
Close calls / Others

- 2010 Clearwater FF struck – severe leg injuries
- 2011 Savage PD officer squad crash – severe head injury
- 2013 E694-Silver Lk – MNDOT worker struck, H&R, broken leg.
- 2013 S94-Dowling – MNDOT worker struck – serious injuries
- 2013 Vesta - FF run over by rig, severe leg injuries (2 kids killed in fire).
- 2014 Buffalo – Allina rig hit head-on, 130am, medic severe head inj, other medic leg injuries, other driver killed.
- 2014 N35W-Cliff – MNDOT worker struck – severe head injury
- 2014/15 – Multiple weather related squad hits…
- 2015 – Carver - Deputy serious injury head on crash.

Nationally – about once a week for responder crashes
There is no perfect solution!

Only way to be 100% safe is to not show up

- It’s about adjusting probabilities
  - More or less likely something bad could happen?
  - And if it does – how bad will it be & for who?
  - Are you making it - More safe or less safe?
  - KEEP YOUR EYES OPEN!
3 basic safety principles

1. Protect those on foot
   – Something metal between you & traffic
   – Passenger side approach on traffic stops!

2. Provide a clear path for incoming traffic
   – SHOW them where to go – don’t let them guess!
   – Advance warning, cones/flare buffer, good parking.

3. Prevent secondary incidents
   – Clear lanes when you can, only block what you need, demobilizing a priority, light discipline, advance warning for queue.
The Big Picture

• Congestion can be a good and a bad thing.
  – Unexpected congestion can change a minor event to a MAJOR EVENT.

• Be aware of the impact you are having!
  – Sudden slow downs next to you
  – The “big one” behind you
  – Rural areas not expecting stopped traffic!
Different playbook then city streets!

- **Double the speed** – 4 times the energy!
- Squad car will NOT stop a high speed vehicle.
  - Cone of safety myth
  - Passenger side approaches
  - Protect where you will be on foot – be careful beyond that
- Be aware of the impact you are having.
  - Secondary crashes
Please put clearing lanes on the radar

• Safest scene is one away from traffic
  – Can you move to shoulder?
  – Can you move off the road?

• Push bumpers should not be decorative!
  – Liability concerns? (once a year bumper scratch vs. once a year demolished squad?)
Who’s in Charge?
Or
Who’s in Charge of What?

• Need to share!
• Way too many things going on at same time for single command.
• Face to face communication – A MUST!

• PD cut slack on FD taking lanes
• FD cut slack about keeping traffic moving.
Emergency Traffic Control basics
As we come in to winter –

If road conditions caused the first crash - it can cause another!
Traffic Control Key Points

• Give oncoming traffic enough TIME & SPACE to react SAFELY
• Provide CLEAR instructions to oncoming traffic on what you want.
  – Keep coming, pay attention
  – Keep coming, but slow down
  – Move over there
  – Stop here.
• Physically protect your scene
Standard lighting announces presence but doesn’t give instruction. Which is why using cones, flares, flaggers, signs and **good placement** are necessary.
• When are LIGHTS most important?
  – Duh – when it’s dark!!

• When are EMERGENCY LIGHTS most important?
  – When it’s brightest!! Noon, sun rise/set glare, snow glare

• Need a lot during day - be careful at night.
  – High / low power option for LED’s?

• Cut down on front facing lights at night if possible.
Clear direction critical at NIGHT!

- Especially in unlit rural areas
- Visual clues not there.
- Emergency lighting adds to confusion
- Drunks?

- Traffic direction must be kept as simple and straightforward as possible.
Components of Emergency Traffic Control
(Example Divided Highway)

Advanced Warning
Transition Area
Buffer Space
Shadow Vehicle
Roll Ahead Space
Work Space
Staging Area

Make scene LONGER not WIDER
Cones vs. Flares

- **Flares:**
  - Good “pop” esp. at night
  - Lighter & easier to carry.
  - Burn themselves out. (good & bad)
  - Obvious fire hazard

- **Cones:**
  - Don’t burn out
  - Heavier / bulkier
  - Recognizable as work zone.

Both require exposure – so BE CAREFUL
Tapers & Channelizers

**Taper**
- Tells traffic you’re not moving
- Points them the direction you want them to go
- If they hit something, it’s soft & cheap – instead of your stuff.

**Channelizer**
- Decorative fence around boundary
- Reminds traffic to stay in their lane
- Reminds your folks not to walk in traffic.
Basics - Setting up a taper

Not so good use of cones/flares

Cones are not a barrier or a “force field” - they are a means to communicate to traffic what you want them to do!
How far back?

Balance

• How many cones/flares do you have?
• How many can you carry?
• How far back can you safely walk carrying all that?
• And you need to be able to pick them up safely too!
EXAMPLE OF CONE OR FLARE DEPLOYMENT PATTERN FOR TRANSITION OF ONE(1) LANE

Using the 10:1 deployment guide with 5 cones (or flares)

10 paces linear; then 1 pace to the side, 10 more paces then 2 paces to side, etc...

Gather cones...

Walk along shoulder to furthest Advance Warning point...

From: Respondersafety.com

Model SOG Cone Flare Deployment at Roadway Incidents.docx
Advance Warning!!

• Your opportunity to reduce any surprises!

• Snap the driver out of the FOG!
Advanced Warning

- **Critical in high speed areas...**
- Can you see them coming at least 10 seconds away?
- **Work together to get it done!!**
- ....But don’t go nuts if traffic is backed up!
Parking, positioning & blocking.
Park with a purpose

- Protect where you will be working on foot.
- Park your rig between you and incoming traffic (upstream / before incident)
- If possible, leave a channel for traffic flow
Positioning #1

Angled parking?
- Allows lane plus
- Very obvious you are stopped.

Block Left
- Communicates some traffic direction.
- Driver door & pump panel exposed

Block Right
- Protects pump & door access
- LCD driver might be directed through scene
Positioning #2

**No angle**
- One lane blocked
- Max view of emerg lights
- No protection for access

**Shoulder only**
- Minimizes impact on traffic
- Limited protection
Angled squad parking?

- Looks “weird” - stands out for public
- Gives some direction which way to go
- Gives you better cover for gunfire??
- But: Are your lights visible?
- Driver’s side exposed if hit
Some other stuff
Close or leave open?

• Scene dictates

• If possible, generally better to leave them on highway choked down – rather then forcing all on to your city streets.

• Let State know as soon as you can if you need it closed – and for how long (minutes vs. hours)
Don’t stop on the opposite side of the road!

- UNLESS – You absolutely are needed there right now to save a life.
- Who is your rig protecting?
- More exposures to protect / liabilities
Wearing your Seatbelt?
• 80% of Firefighters killed in motor vehicle collisions NOT BELTED!
• Seat belts must be worn at all times – no excuses!

• **Primary seat belt law applies to you too!**
169.17 EMERGENCY VEHICLE.

The speed limitations set forth in sections 169.14 to 169.17 do not apply to an authorized emergency vehicle responding to an emergency call. Drivers of all emergency vehicles shall sound an audible signal by siren and display at least one lighted red light to the front, except that law enforcement vehicles shall sound an audible signal by siren or display at least one lighted red light to the front.

This provision does not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of persons using the street, nor does it protect the driver of an authorized emergency vehicle from the consequence of a reckless disregard of the safety of others.
Response

- Are you immune from liability?
  - Civil? Criminal?

- Who’s insurance covers you when responding to station in POV?
  - How much?
Response

• What is an emergency vehicle?
  • Personal vehicle?
  • ONLY if specifically approved by DPS Commissioner.

• Can you have emergency lights on your personal vehicle?
Reflective Safety Vests
High Viz

Federal OSHA requirement!

PD – lots of exceptions
FD – a couple exceptions
EMS – Pretty much only if it’s Ebola.

Class 2 vest or class 3 jacket

ANYTIME exposed to traffic – not just freeway!
But I don’t want to!!!

If something bad happens to you:
• Could impact criminal charges
• Could impact civil recourse
• Could impact your workers comp!
Seeing distances and stopping distances

Range of stopping distances: 35 - 65 MPH
Wrap up
Final words

• We all have specific jobs to do on scene
  – Yours might be different

• Coordinate
• Communicate
• Cooperate

• Goal – Everyone goes home in one piece at end of the shift
Highway Safety Training

Department training
  • Annual in-service or drill night
  • 1 to 2 hours

Scene Safe - 30 minute video
  • Google “MN scene safe”
  • Youtube link
  • Or State Fire Marshal’s webpage under training