MEETING NOTES

Iowa Advisory Council on Automated Transportation (ATC)
Public Safety & Enforcement Subcommittee Meeting
Tuesday, February 18, 2020
2-3pm

Action Items:
- All subcommittee members – review desired outcomes, tactics, and workplan for Public Safety & Enforcement; volunteers needed to support various tactics
- All subcommittee members – consider advocating as a state and nationally for automated vehicle information on registration or VIN

1. Welcome and introductions – Jacob Heiden, UI National Advanced Driving Simulator
    - Colonel Nathan Fulk (Public Safety & Enforcement Subcommittee Chair) – Iowa Department of Public Safety
    - Randy Kunert, Catherine Lucas – Iowa Department of Public Safety
    - Bruce Anderson – Iowa Automobile Dealers Association
    - Don Egli – Iowa Motor Truck Association
    - Shirley McGuire – Federal Motor Carrier Safety Administration
    - Gregory Shill – University of Iowa College of Law
    - Peter Rafferty – Gannett Fleming
    - Dennis Kleen, Andrea Henry, Kristin Haar, Steve Gent, Garrett Pedersen, Adam Shell– Iowa DOT
    - Jacob Heiden, Omar Ahmad – UI National Advanced Driving Simulator

2. Chair Update – Colonel Nathan Fulk, Public Safety & Enforcement Subcommittee Chair
    a) Update on primary initiatives
        i. Identification of automated vehicles (AVs)
            1. National Law Enforcement Telecommunications Systems (NLETS)
                a. https://www.nlets.org/about/what-we-do
            2. Crash Reporting
        ii. Coordination with Traffic Incident Management (TIM) committee

3. Crash Reports in Iowa – Dennis Kleen, Iowa DOT
    a) Brief Overview
    b) Acronyms and Terms
        i. NHTSA says the Model Minimum Uniform Crash Criteria (MMUCC) are "guidelines," not a requirement
    c) Important Dates in Crash Reporting
        i. Not 100% compliant with MMUCC 4 but above 90%
    d) Crash report path in Iowa
        i. 99.5% of crashes reported electronically

e) 2018 Statistics
   i. 56,684 crashes
   ii. 18,183 injuries
   iii. 319 Fatalities
   iv. More info on slides
f) Changes in MMUCC 5 and anticipated changes in MMUCC 6
g) Things to consider for next version of Iowa Crash Report
   i. Various questions presented by Dennis such as "What is needed without overburdening officers?"
   ii. Thought is we are at a saturation point for the number of reporting fields
h) New fields for Automation System in Vehicle
   i. Adding two subfields that identify the vehicle in more detail and if an automated driving system was engaged
i) Concerns or questions moving forward?
   i. Is there a driver in an AV?
   ii. Definitions when dealing with AV
   iii. Best possible case for officers if having AV info on registration (barcode) or in VIN
      1. Comments on no plans to update the VIN but Dennis mentioned it would be a good place to do it
      2. May take some push from the state level or multiple states to do this to get interest
   iv. Time to update/create new crash report
j) Colonel Fulk asked if we can look at other states for criteria of what they're doing for identification
k) Colonel Fulk expressed concerns on how to determine and analyze what level of automation was engaged at time of crash
l) Dennis had conversation with staff from NHTSA that there isn't a way at this time
m) Adam commented on registration ID vs VIN ID – currently no requirement to register in Iowa but this will change with upcoming rulemaking tied to recent legislation related to AVs. Recommendation for the group to consider recommending to NHTSA a change to the VIN coding scheme to account for AVs.

4. Legal Perspective on Vulnerable Road User Safety – Greg Shill, University of Iowa
   a) Vulnerable Road User (VRU) – anyone that uses the transportations system that isn't in a vehicle
      i. Walking, rolling (wheelchair users), cycling, etc.
   b) VRUs have been historically neglected but have taken on greater priority in recent years
      i. Pedestrian deaths have seen 35% increase in last decade (Governors Highway Safety Association (GHSA) - https://www.ghsa.org/resources/Pedestrians19)
   c) More concern now as size and weights of vehicles has increased – more buyers purchasing trucks and SUVs, and average life of vehicle is 12 years so we will have this problem for some time
      i. Since 2013, pedestrian fatalities involving SUVs increased by 50% (GHSA report from above)
   d) In reading the Vision document, there was concern that it didn't capture the benefits of automation for VRUs. It facilitates the implementation of AV technology in the state without taking a strategic approach to VRU safety.

e) Requested to see more improvements that AVs bring in vision documents for all populations and modes of transportation

f) March 2018 Uber AV crash in Arizona (AZ)
   i. Only statistic Uber had to report in AZ is the number of disengagements (where vehicle fails and needs to be taken over by human safety operator)
   ii. This is a bad safety metric – discourages safety operators to step in when needed
   iii. Consumers also don't like disengagements so a company may want to avoid if possible

g) Urged group to not restrict people for tech, but rather restrict tech for people

h) ATC is taking a permissive approach to AVs in Iowa by supporting the adoption of AT/AV without addressing safety of users

i) Liked the community readiness item in the vision document including the National Association of City Transportation Officials (NACTO) guidance (p. 16 Vision Doc)

j) Ways to address VRU safety moving forward
   i. VRU advocate on ATC
   ii. VRU safety in State Highway Strategic Plan (SHSP)
   iii. VRU safety in State Bike plan and complete streets
   iv. Expand on crash data for more types of data

5. ATC Vision and Workplan: Next Steps – Peter Rafferty, Gannett Fleming
   a) Subcommittees will be working on work plans with specific tactics to achieve desired outcomes
      i. Garrett Pedersen provided background on his role in Systems Planning and what they do with various modal plans
      ii. Bike/Ped plan and Complete Streets plan (issues is only on primary roads)
      iii. SHSP includes all roads, data driven, identifies key emphasis areas
         1. Signed by DOT, DPS, and DHS directors
      iv. Strategies identified typically focus on human operator of a vehicle
      v. Peter opened discussion up for additional comments on priorities
         1. Colonel Fulk commented he felt priorities are there – following distance requirements, focus on data, identification, etc.
   b) Subcommittees will identify who is tasked with what responsibilities

6. Other items from subcommittee members – All subcommittee members
   a) Colonel Fulk update on legislation of removing front license plates
   b) Steve Gent update on new automated traffic enforcement camera installs along I-80 near Le Claire, IA and within the city of Le Claire along highway US 67

7. Information and key upcoming dates – Jacob Heiden, UI National Advanced Driving Simulator
   - Iowa ATC Meeting: Wednesday, March 11th, 1-3pm, Iowa League of Cities
   - ATC considering moving from 4 meetings per year to 3 meetings per year
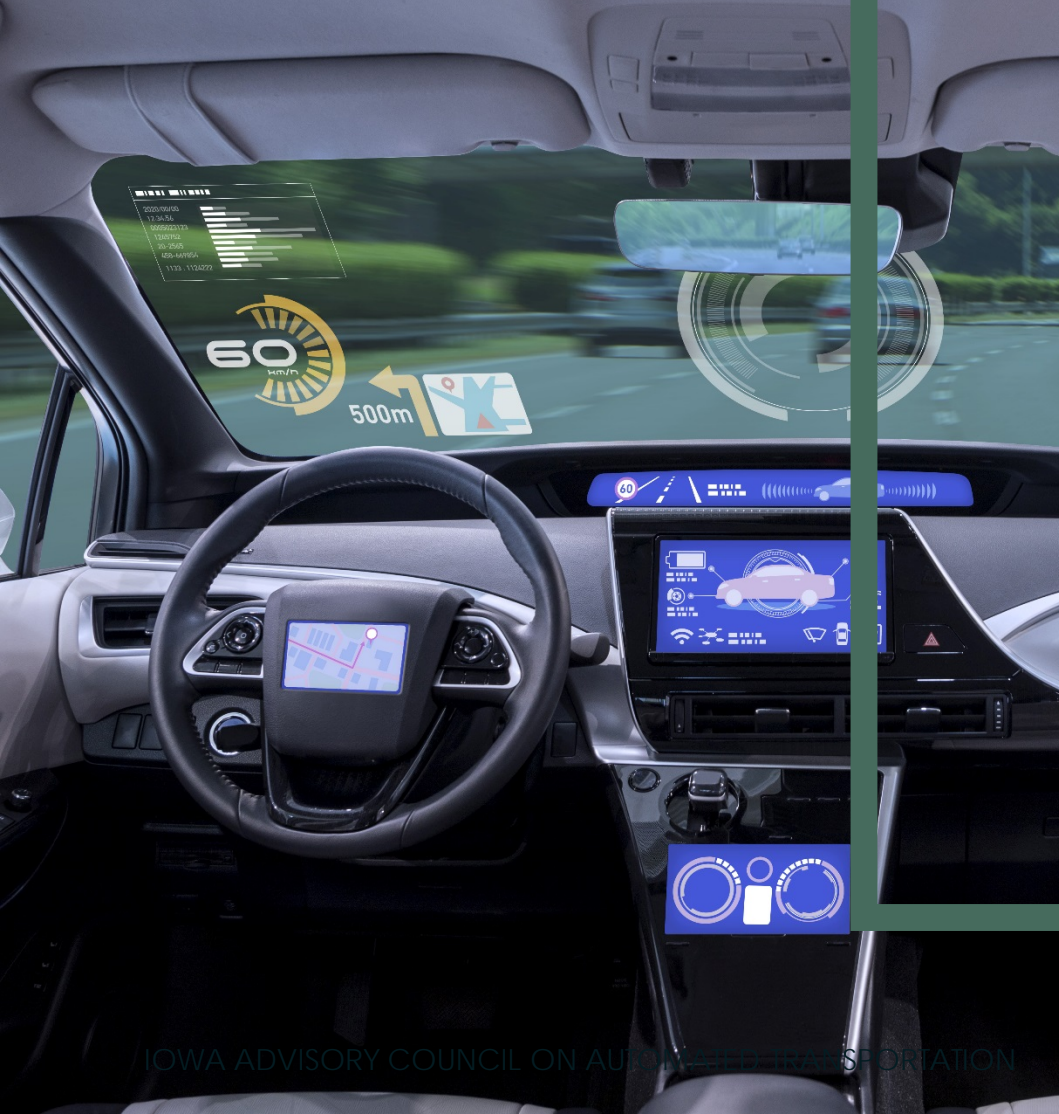
WELCOME AND INTRODUCTIONS

Jacob Heiden

UPDATE ON THE ATC MEETING HELD DECEMBER 4, 2019
Colonel Nathan Fulk

CRASH REPORTS IN IOWA

Dennis Kleen, Iowa DOT

CRASH REPORTS IN IOWA

Terms and acronyms

MMUCC – **M**odel **M**inimum **U**niform **C**rash **C**riteria

FARS – **F**atality **A**nalysis **R**eporting **S**ystem

APS – **A**ccident **P**rocessing **S**ystem

TraCS – **Tra**ffic and **C**riminal **S**oftware

ANSI D-16 – Manual of Classification of MV Traffic Crashes

**CRSS** – **C**rash **R**eport **S**ampling **S**ystem

What is a reportable crash in Iowa?

- Any of the following is true
  - Total property damage of $1,500 or more

  - Any person injured

  - Any fatality

IMPORTANT DATES IN CRASH REPORTING IN IOWA

- 1939 – First accident report form created by dept. for all agencies and $ threshold was $25.

- 2001 – On January 1st started using new MMUCC 1 crash report.

- 2002 – Personal (driver) reports no longer required if investigated by an officer.

- 2010 – Reporting threshold went from $1,000 to $1,500

- 2015 – Started using new MMUCC 4 crash report.

- 2020 – Begin process for updating crash report to MMUCC 6.

CRASH REPORT PATH IN IOWA
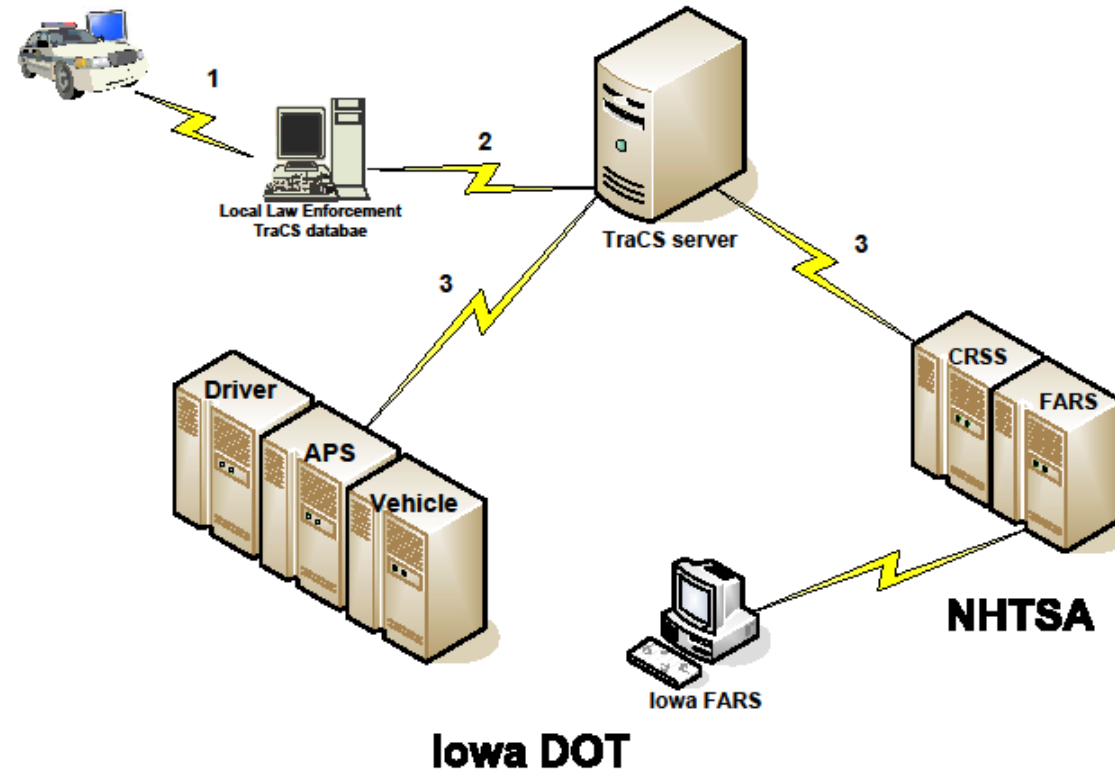
LET'S DO THE NUMBERS FOR 2018

- Number of crashes   56,684

- Injuries   18,183

- Licensed Drivers   2,313,375

- Registered Motor Vehicles   3,708,877

- Fatal Crashes   291

- Fatalities   319

CHANGES IN MMUCC 5 & ANTICIPATED CHANGES IN MMUCC 6

- Elements are divided into sections to help streamline data collection. Certain data elements will trigger new sections to open. (5)
  - Fatal crashes
  - CMV and HazMat crashes
  - Non-motorist crashes
- Coding value added for each attribute. We already do this, some states use the literal value. (5)
- Suggested edit checks for validation. (6)
- Adding glossary definitions for all elements and attributes (6).
- Change selections for "Motor Vehicle Automated Driving System (6)

Things to consider for next version of Iowa Crash Report

- Determine what new fields are needed without over-burdening the officers.
- See if new attributes have been added/deleted for current data elements
- Add "Motor Vehicle Automated Driving System(s)" data element along with 3 subfields.
- Database changes in APS.
- Time for thorough testing.

New fields for Automation System in Vehicle

Attribute Values:

Subfield 1 **Automation System in Vehicle** — Select 1
- 01 No
- 02 Yes

- 99 Unknown

Subfield 2 **Highest** Automation System Level in Vehicle — Select 1
- 00 No Automation
- 01 Driver Assistance
- 02 Partial Automation
- 03 Conditional Automation
- 04 High Automation
- 05 Full Automation

- 06 Automation Level Unknown

- 99 Unknown

Subfield 3 **Highest** Automation System Level Engaged at Time of Crash — Select 1
- 00 No Automation
- 01 Driver Assistance
- 02 Partial Automation
- 03 Conditional Automation
- 04 High Automation
- 05 Full Automation

- 06 Automation Level Unknown

- 99 Unknown

Concerns or questions moving forward

- Is there a driver in an AV?

- List of new definitions dealing with AV.

- Possible best case for officers if having AV information on registration (barcode) or in VIN.

- Time to update/create new crash report. (Minimum of 2-3 yrs.)

- Group discussion or concerns.

THANK YOU FOR YOUR TIME AND ATTENTION

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Driver & Identification Bureau
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LEGAL PERSPECTIVE ON VULNERABLE ROAD USER SAFETY

Greg Shill, University of Iowa

ATC VISION AND WORK PLAN: NEXT STEPS

Peter Rafferty, Gannett Fleming
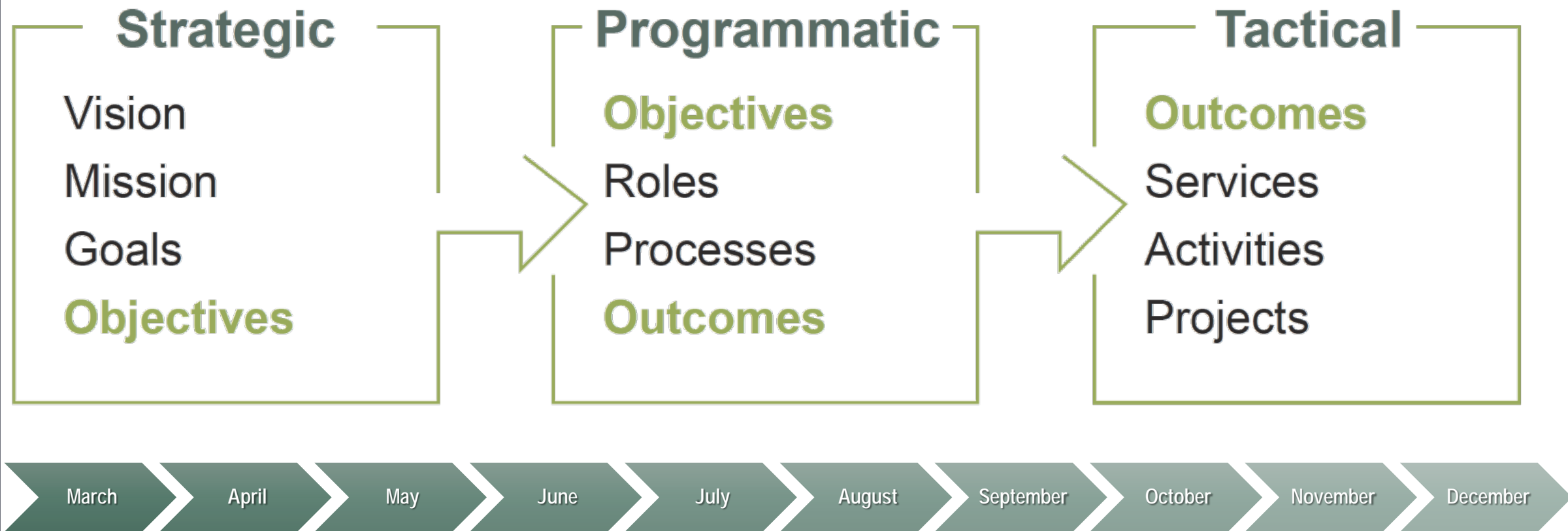
IOWA'S AT VISION

January 2020

Six Sections:

1. Summary

2. Overview & Approach

3. Strategic Foundation

4. Programmatic Approach

5. Tactical Initiatives

6. Summary & Next Steps

THREE-PRONG PLANNING FRAMEWORK

Strategic
Vision
Mission
Goals
Objectives

Programmatic
Objectives
Roles
Processes
Outcomes

Tactical
Outcomes
Services
Activities
Projects

March | April | May | June | July | August | September | October | November | December

SIX OBJECTIVE AREAS

1 Infrastructure Readiness

- Digital
- Energy
- Electrification
- Planning
- Land Use
- Freight
- Security
- Institutional
- Workforce

Associated Subcommittee

2 Policy & Legislation

- Administration
- Liability
- Insurance
- Finance
- Privacy
- Land Use Planning

Associated Subcommittee

3 Economic Development

- Workforce Development
- Employment
- Entrepreneurship
- Freight
- Commerce
- Efficiency
- Reliability
- Industry
- Manufacturing

Associated Subcommittee

4 Public Safety & Enforcement

- Regulations
- First Responder Safety
- Operator Responsibilities
- Safe Deployment
- Vulnerable Road Users

Associated Subcommittee

5 Communication, Outreach, & Education (crosscutting)

6 Research, Development, Testing, & Evaluation (crosscutting)

ATC DESIRED <u>OUTCOMES</u>

Public Safety & Enforcement

A. **Adapt to Changing Laws** – deliberation on adjustments needed by stakeholders to accommodate changing laws or rules related to AT and safety for all users

B. **Explore Vehicle Automation Indications** – guidance for external vehicle indicators on ADS-equipped or platoon-capable vehicles

C. **Promote Crash Data & Investigation** – know what data are available from AVs and recommend what additional data should be captured from crashes

D. **Ensure Safe Incident Management** – promote advances in incident and crash safety technologies and applications, as well as first responder safety

ATC <u>TACTICS</u> IDENTIFIED

Public Safety & Enforcement

In Priority Order:

1. **Capture AV Crash Data** – explore data unique to AVs, implement new MMUCC guidelines for ADS data capture, evolve data systems

2. **Explore Vehicle Automation Indications** – engage best practices and jurisdictional consistency for external indicators

3. **Develop Following Distance Guidelines** – procedures for enforcing reasonable and prudent following distances for CAVs

4. **Inform TIM & Safety Community** – engage with TIM Committee and MDST on AV safety and incident response

▪ **Address VRU Safety** *(new item, not ranked)* – explicitly consider AV risks to VRUs and mitigating strategies in the next Iowa DOT SHSP update

ATC WORK PLANS

For Each Objective Area

Five Sections:

1. Tactical Priorities

2. Roles and Responsibilities

3. Resourcing

4. Scenario Planning

5. Timelines

ATC WORK PLANS

Public Safety & Enforcement

	Deliverables *(what)*	Lead(s) *(who)*	Resources *(how)*	Scenarios *(options)*	Timeline *(when)*
Crash Data					
External Indicators					
Following Distances					
TIM & Safety					
VRU Safety					

OTHER ITEMS FROM SUBCOMMITTEE MEMBERS

All subcommittee members

INFORMATION AND KEY UPCOMING DATES

Next ATC Meeting

- Wednesday, March 11th, 1-3pm

- Iowa League of Cities (subcommittee member attendance option via Skype call-in)

ATC considering moving from 4 meetings per year to 3 meetings per year

THANK YOU