EFFECTIVE ACCIDENT RESPONSE, INVESTIGATION AND DOCUMENTATION

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Presented by: SWTA, GET, City of Greeley, RFTA & Cobbs-Allen
Introduction
- Effective Accident Response, Investigation and Documentation or
- Accident Investigation (A/I) for transit operations

Audience profile
- Mode of service
- Jurisdiction
- Scale
WORKSHOP AGENDA

- Panel Presentations:
  - Agency requirements, approaches & procedures
  - Accident response, investigation & documentation
- Field Exercise:
  - Investigate simulated crash
  - Report
Today’s Objectives

To better understand:

- Transit accident investigation requirements & challenges
- Accident chain of events & response & investigation processes
- Roles & intents of transit agency & local law enforcement (or state OSHA) & importance of working relationships
- Need for information & the facts for learning & loss control
- A/I’s relationship to our public transportation mission, vision & core values
PANEL INTRODUCTIONS

- Officer Jack Drey, City of Greeley Police Dept.
- Patrick Moore, Safety & Training Supervisor, Greeley-Evans Transit
- John Filippone, Safety Manager, Roaring Fork Transit Authority
- Eddie Thomas, Risk Consultant, Cobbs Allen
- Walt Diangson, Lead Trainer & CSO, SWTA
EFFECTIVE ACCIDENT RESPONSE, INVESTIGATION AND DOCUMENTATION OR ACCIDENT INVESTIGATION

An Overview
The Starting Point: The Mission

- To be a customer-oriented system that provides safe, dependable and responsive services through positive interactions.

- To pursue excellence and innovation in providing preferred transportation choices that connect and support vibrant communities.

  Core Value: Safety is RFTA’s highest priority.
A/I & THE CRISIS/EMERGENCY PROCESS

1. Crisis/Emergency Identification, Type
2. Response Planning, Resource Preparation, Training, Collaboration
3. Prevention, Control, Safety Risk Management
4. Response, Action, Communications, Coordination
5. Continue Operations, Make Whole, Review & Correct

Improved:
- Leadership
- Supervision
- Training
- Practice/Drill
- Resources
- Cooperation
- Risk Mgmt.
A/I DEFINITION

“Accident Investigation” * ➔ analysis of the facts that occurred during an accident, which produces:

- Vital information to identify contributing factors & root cause;
- Determination of fault & consequences;
- Learning: recommended corrective actions & controls to prevent or minimize future occurrences of the same or a similar events.

Transit Accidents ➔ Collisions/Crashes & Incidents:

- Vehicle contact;
- Near miss or close call incident;
- Other incidents, property damage, crime or other losses & events.
VARIous Types of Accidents

- Vehicle collisions/crashes: other vehicles, people & fixed objects
- Incidents: ST&F, property damage, securement, crime, confrontations, work, comp. injuries & close calls

Measure of seriousness & response:
- Frequency & severity
  - Major - $500 - $5,000 damage, towing, medical treatment
  - Minor – “fender benders”
  - Near misses or close calls
Variety of Transit Accident Situations
AN INCIDENT: BUS FIRES
FOCUS BUS COLLISIONS
CHALLENGES TO EFFECTIVE A/I

- Distance & time between accident scene & responders (e.g. road supervisors, law enforcement, fire)
- Accident scene cleared & removed before investigators arrive
- Environmental conditions (weather, traffic circulation)
- Staffing & training to competency
- Preparedness & communications
ELEMENTS OF A GOOD ACCIDENT INVESTIGATION PROCESS

• Documented procedures in place
• Procedures include medical attention, towing, D&A testing, insurance, legal & evidence chain of custody
• Event management
• Accurate & complete Information (not fault finding)
  • Accident report
  • Witness statements
  • Declinations for medical treatment
  • Dispositions of all involved
  • Scene & asset photographs
  • Accident scene sketch
  • Descriptions of accident “sequence of events”
ELEMENTS OF A GOOD ACCIDENT INVESTIGATION PROCESS (CONT'D)

• Identification of contributing factors
• Dispatcher communications, records & support
• Supervisory safety leadership – communications, coaching

• Root causes and corrective actions are identified in timely manner
  • Investigation report & file reviewed by management, legal, safety group, accident committee & then all departments
  • Incident trends & statistical analysis conducted
  • Safety data updated & maintained
  • Training reviewed & updated
  • Related accident drills & table-top exercises conducted
  • Root causes & corrective actions implemented & communicated
ACCIDENT CHAIN OF EVENTS (COE)

- COE = chain of errors = contributing factors leading to an undesired outcome
  - Unsafe conditions & unsafe behaviors
  - E.g. Tight schedules + multitasking → rushing & distractions → speeding → crash & injuries or worse
- Accident typically at end of sequence of events leading to an accident
- Interruption of COE could eliminate the accident
CHAIN OF EVENTS IN A COLLISION

Point of Possible Perception
- where should operator have seen potential

Operator Response
- usually ½ to ¾ second (if any)

Initial Engagement
- Point of Impact (POI)

Disengagement
- where separation starts

Point of Perception
- where did operator see potential

Equipment Response
- with air brakes ½ to ¾ second

Maximum Engagement
- full contact

Point of Final Rest (POR)
GENERAL A/I PROCESS

A/I Preparation
- Documented Procedures
- Training
- Safety Assurance of Procedures
- Improving & Updating

A/I Response
- Communications & Notification
- Request Assistance
- Situation Management
- Information Gathering
- Situation Decision Making & Actions

A/I Learning
- Reporting & Documentation
- Data Management
- Incident Trends & Statistical Analysis
- Root Cause & Corrective Actions
CITY OF GREELEY POLICE DEPARTMENT PERSPECTIVE

Police Officer Jack Drey
LOCAL LAW ENFORCEMENT RESPONSE

- Sequence of events in responding
- Traffic investigative process
- Crime scene
- Objective – What’s to be determined?
- Determining speed & possible violations
- Working with transit agency
Determining the Facts

Striking Vehicle Start of Skid Speed

\[ S_c = \sqrt{(30)(d_1)(f) + [(30)(d_2)(cf)]} \]
GET TRANSIT OPERATOR PERSPECTIVE

Patrick Moore, Safety and Training Supervisor, Greeley-Evans Transit (GET)
GET’S ACCIDENT PROCEDURES

1. ACCIDENT AND INCIDENT PROCEDURES
2. KEEP CALM
3. CHECK FOR INJURIES/SAFETY VEST ON FIRST
4. CALL BASE ONE/DISPATCH
5. PROTECT YOURSELF AND YOUR PASSENGERS
6. Have a safety vest on when outside your vehicle
7. Get information from passengers
8. Have license and registration ready
9. Fill out proper forms at the office
EXAMPLES OF GET COLLISIONS
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PROCEDURAL FORMS

Courtesy Card

Incident Report Form

City of Greeley
City Property Damage Form

All accidents, no matter how minor, involving equipment owned or leased by the City of Greeley will incur the following stipulations:

- Reporting: All accidents must be reported within 2 business days of the incident. The supervisor of the operator whose vehicle or equipment was involved shall report the incident to the department head.
TRANSIT OPERATOR PERSPECTIVE

John Filippone, Safety & Training Manager, Roaring Fork Transportation Authority (RFTA)
RFTA’S APPROACH TO A/I

- RFTA’s adopted policies, procedures and practices
- Accident response and investigation procedures
- RFTA accident reporting forms and process
- Photographic record
- Accident scene sketch
- Operator & supervisor reports
EXAMPLES OF COLLISION EVENTS
PROCEDURES & FORMS

Incident/Unusual Occurrence Report

Please complete electronically or print legibly.

INTERVIEW TECHNIQUES

WHOM DO WE INTERVIEW?

ON SCENE INTERVIEWS

During interview at the scene, it is important for the investigator to respond to the
operator if necessary to ensure that the operator is aware of the investigation. In
addition, the investigator should ask the operator if they wish to have a third party
in the room, such as a union representative. If the operator can be interviewed at
the scene, his or her first impressions will probably be used as part of their testimony given at a later time.
PHOTOGRAPHIC RECORD
ACCIDENT FIELD SKETCHES
POINT OF IMPACT / POINT OF REST
REFERENCE POINTS / MEASUREMENTS
“NOT TO SCALE”
SUPERVISOR’S ACCIDENT REPORT

- When unable to get to scene in timely manner
- Review of vehicle operator’s accident report & sketch
- Interview of vehicle operator
- Receipt of police report
- Other
INTERVIEW TECHNIQUES

WHOM DO WE INTERVIEW?

ON SCENE INTERVIEWS

In locating persons requiring interview at the scene, it is important for the investigator to respond to the scene as soon as possible. If the operator is available at the scene, he or she should be interviewed out of hearing distance of others.

Depending on labor contract agreements, the operator may wish to have a union representative. If the operator can be interviewed at the scene, his statements will be more accurate than testimony given at a later time.
INSURANCE PERSPECTIVE

Eddie Thomas, Risk Consultant, Cobbs Allen Insurance Brokers
INSURANCE’S APPROACH TO A/I

- Insurance for collisions & related losses
- Claim process
- Insurer’s expectations & information needs
- Role of insurer in litigation or that of agency’s legal services
- Risk management & loss control
  - Prevention
  - Loss minimization
  - Resources ➔ OutFront 365
OUTFRONT 365 OVERVIEW

- Web-based

- Features a variety of risk management tools:
  - Job Hazard Analysis Library
  - Safety Data Sheet Management
  - Certificate of Insurance Management
  - Employee Training Program
  - Risk Management Library
  - Incident Tracking and Claims Reporting
  - HR & Benefits Platform
- **JHA Library**
  - Helps create job hazard analyses (JHAs), which are essential in HR for recruiting and hiring
  - Complete library of pre-loaded JHAs

- **SDS Management**
  - Organize your safety data sheets online
  - Ability to search by appearance, name and more

**RISK MANAGEMENT RESOURCES**
Certificate of Insurance Management
Upload and manage your inbound COIs
Send reminders to vendors that a COI is about to expire

Risk Management Library
Includes PowerPoint programs, safety posters, policies and procedures
Many of the resources are offered in Spanish as well as English

RESOURCES
Incident Track creates efficiencies with its online recording, management, and analysis of incidents.

**Features of Incident Track:**
- Immediate reporting of all claims
- Easy to access loss history
- Ability to print OSHA logs
Training Track allows you to schedule online trainings and safety videos to your employees.

Once you have scheduled trainings, you may track the status and download certificates.
WRITING AN ACCIDENT REPORT
WRITING UP AN ACCIDENT REPORT

- Be specific. Answer the 5 W’s (Who, What, Where, When & Why).
- Just explain what happened. Don’t editorialize, assign blame or fault.
- Draw the field sketch (note “note to scale”)
- Include all photos (perpendicular of vehicles, damage & characteristics of the scene's area).
WRITING UP AN ACCIDENT REPORT

- Use the correct form – accident (collision) or incident (other)
- Do your report as soon as possible.
- Just tell the truth.
- Get names of witnesses and statements if possible.
WRITING-UP AN ACCIDENT REPORT

➢ Keep information’s use & purpose in mind
➢ Include information desired by management, safety risk management, insurance, legal, training, maintenance and operations
➢ Include disposition of all parties (e.g. hospital destinations), vehicles (including towed vehicles)
➢ Vehicle operator write report in native language of proficiency, translate, certify, attach to all accident reports
WRITING-UP AN ACCIDENT REPORT

➢ Maintain accident & link to related agency files:
  ▪ Police reports
  ▪ Courtesy cards
  ▪ Declinations for medical attention
  ▪ Any rider & eligibility files
  ▪ Vehicle operator file
  ▪ Vehicle maintenance
  ▪ Safety complaints
  ▪ Customer safety-related complaints
  ▪ Other
FIELD EXERCISE

SUV Challenges GET Transit Bus to the intersection
FIELD EXERCISE PREPARATION

- Objective: collect needed accident information as a team of investigators or information collectors
- Form into three (3) investigating teams
- Select lead road supervisor, assign duties to team members
  - Interview vehicle operator of Vehicle 2 (V1)
  - Interview
- Safety vests, cameras, report forms
Diagram 1: Point of Impact

Going to Change to Fit Actual Vehicle Placement in Parking Lot

Time of Day: 6:30 AM MDT
WHERE ARE THE POI & POR?
AVAILABLE TIME:

- Exercise overview and instructions 15 min.
- Team preparation 10 min.
- Event scene inspections and information gathering 20 min.
- Team discussion and summation of findings 10 min.
  (including self-examination of photos)
- Review of all team findings (facts, no conclusions) 15 min.
- Exercise closing and conclusion 10 min.
- Summary and closing of conference session 2 min.
EXERCISE REVIEW & DISCUSSION