The Active Shooter and Your Quick Response

Matthew Dreher
Arlington County Fire Department
Coordinator of the Rescue Task Force

A Little About Myself

- Operational Coordinator for ACFD Rescue Task Force
- Worked regionally, nationally, and globally to help other agencies develop a response to an Active Shooter .
- United States Marine with deployment to Al Fallujah, Iraq
- NREMT-P

Welcome

- What is an active shooter
- How Law enforcement have changed we have not!
- How do I get my ducks in a row before one happens
  1. Coordinating with local law enforcement
  2. How to prepare and deploy
- Treatment and wounding Patterns
- Tactical Emergency Causality Care
- Tips to get started with lessons learned

The Pattern of an Active Shooter

- 1966 Texas Tower shooting, 1999 Columbine and 2008 Mumbai are outliers for the typical pattern

- Typical pattern:
  - Single white male aged 30 well populated location and opens fire without warning
    - Will be over in less than 5 minutes well before police arrive

The Pattern of an Active Shooter

- Shooter Characteristics
  - Will likely be armed with more than one firearm and will fire about 25 rounds
    - 25% will use both handgun and rifle or shotgun
  - After spree, shooter is likely to to end up dead, probably by committing suicide
  - Few incidents with females as shooters
  - Age range from 11 – 70

The Pattern of an Active Shooter

- Victims
  - Shooter will initially target specific people but is very likely to fire randomly before stopping
  - Multiple wounded each with multiple wounds including higher percentage of head injuries
    - Virginia Tech
      - 28/32 deceased had close range head wounds
      - GSWs in survivors: Head/face 7, Extremity 11, Torso 6
      - Survivor injuries included medical and musculoskeletal from jumping from windows/escaping from building (7)

The Pattern of an Active Shooter

- Victims
  - Illinois State Police Academy study in 2003 of 44 incidents from 1966 – 2001
    - 152 people killed
    - 214 wounded
    - 3.5 killed and 4.8 wounded per incident

The Pattern of an Active Shooter

- Environment of incident
  - Shooter will almost certainly be familiar with the locale
  - Almost guaranteed to take place during daylight hours and inside a building
  - Schools are common site
    - Since 1996, there have been over 42 incidents of school shootings worldwide

The Pattern of an Active Shooter

- Duration of event
  - Average 10-12 minute duration
    - Most as short as 3-4 minutes
  - Average 12-15 min response by Police

- 93% of incidents were over prior to the first responding asset, police or fire/EMS, arriving on scene

The Pattern of an Active Shooter

- IED use
  - ~10% of all incidents involved IEDs

- Columbine IED use: 59 of 89 did not explode
  - 2 x large 40 gallon liquified propane bombs
  - 48 carbon dioxide bombs
  - 27 pipe bombs
  - 11 1 ½ gallon propane containers
  - "Each of their cars contained two 20-pound propane tanks, another 20 gallons of gasoline, pipe bombs [grenades], clocks, and other combustible liquids."

The Pattern of an Active Shooter

Photo courtesy KRQE-TV Albuquerque

Dennis Schroeder © News Photo

Columbine 1998

- Review of Columbine as a response change

Case Review: Columbine High School

- Dylan Klebold and Eric Harris enter at approximately 11:18am after propane bombs in cafeteria fail to detonate

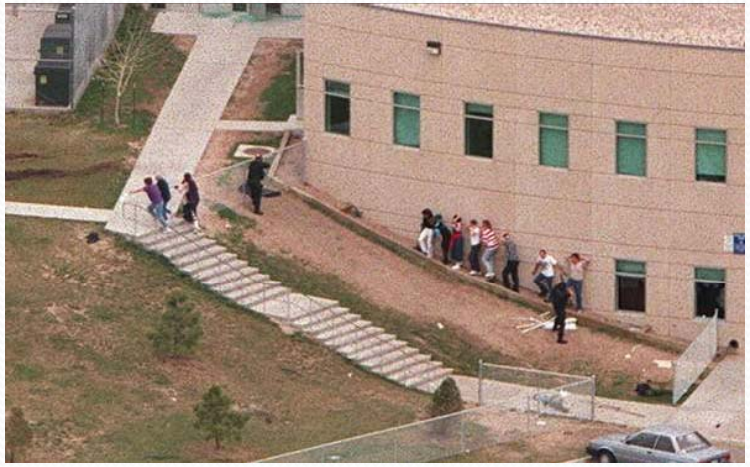
- Original intent was to create explosion in crowded cafeteria and shoot escaping students

Case Review: Columbine High School

- Attack lasted approximately 45 minutes
  - 13 killed and 24 wounded
  - Assault ends when shooters commit suicide
- Exchanged fire with LE response at two times
  - Shoot out from library windows at Police and EMS rescuing victims in parking lot

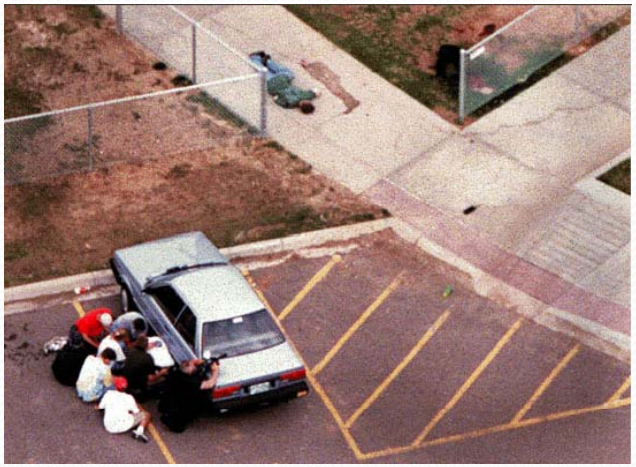
Case Review: Columbine High School

- Local police and Denver SWAT responded quickly to the scene
  - No significant entry into school until about an hour after shooting started (and after shooters dead)
  - Several additional hours until medical care was delivered to many of those in the building



Case Review: Columbine High School

- No immediate medical care for escaping students
  - Required evacuation to safe areas before receiving basic care
    - Little or no medical aid was available within the "hot zone."



Case Review: Columbine High School

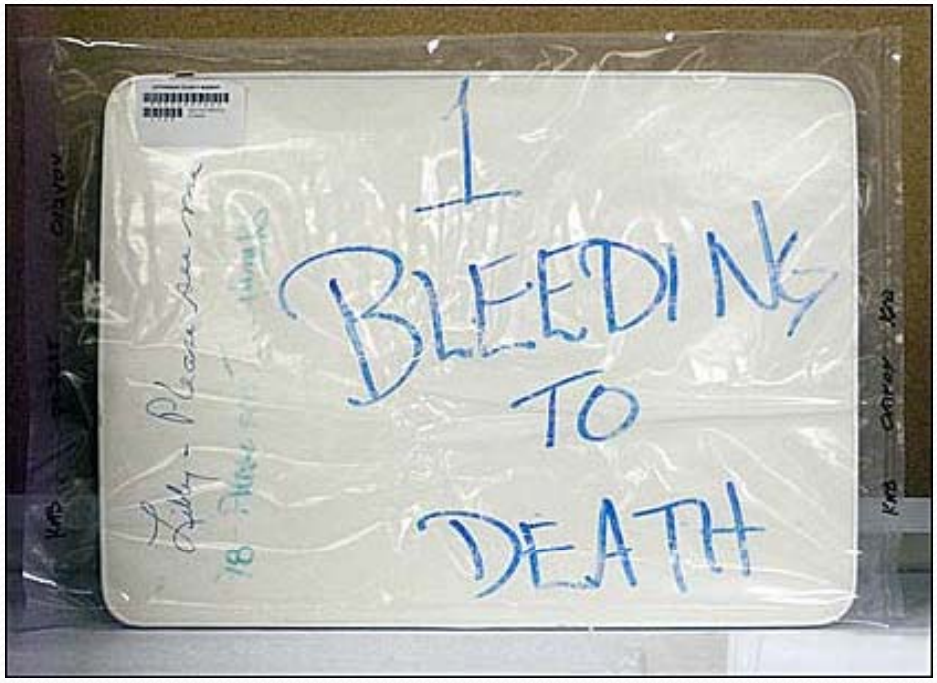
- Responding Fire/Rescue personnel forced to stage away from the scene in safe areas

Case Review: Columbine High School

- 40 min after shooting started Police/Fire attempted warm zone operations in Southwest parking lot
  - 2 rescue units dispatched to assist SWAT in rescuing injured from parking lot
  - Received rounds incoming from library window
- Fire/EMS Apparatus used by SWAT to provide cover for approach to building

Case Review: Columbine High School

- Took 3.5 hours for last wounded surviving student and teacher to be removed from school
  - No care provided inside school
- Commonly felt that at least one victim bled to death inside the school over the 3+ hours



Case Review: Columbine High School

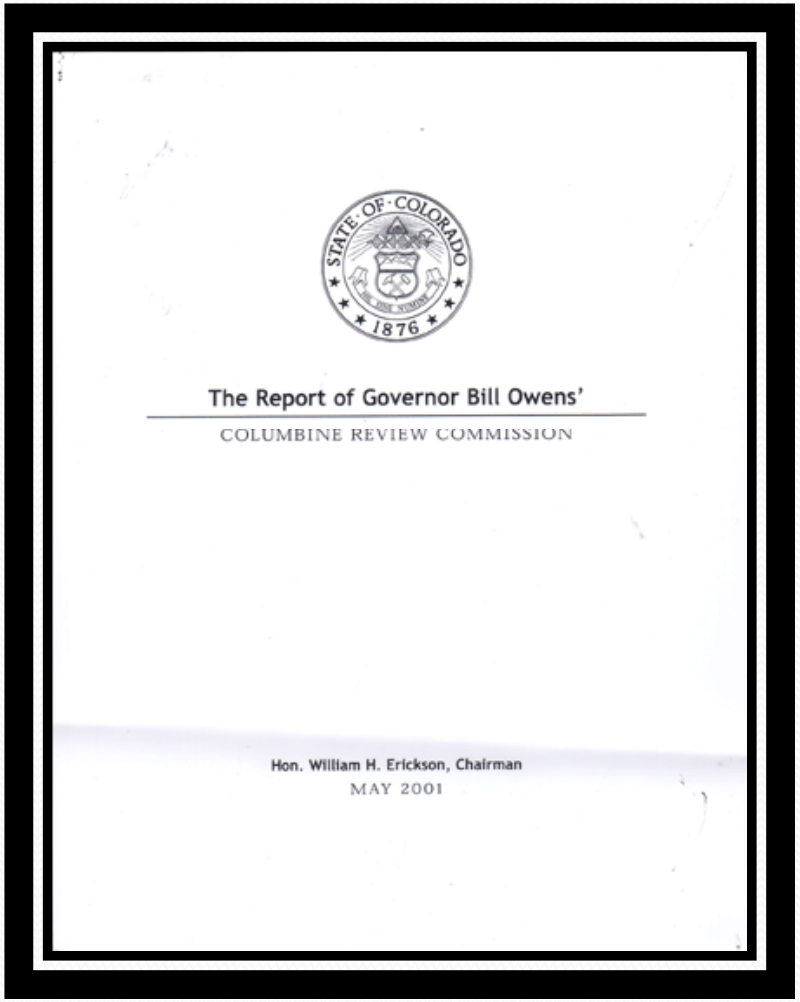
- Coach William “Dave” Sanders, wounded while trying to evacuate students
  - GSW to neck with partial transection of internal carotid and injury to subclavian vein

Changing the Police Responce

- Prior to Columbine: Active shooter response was based on the 5 C's
  - Contain
  - Control
  - Call SWAT
  - Communicate with perpetrator
  - Come up with Tentative plan
- Response based on concept that bad guy wanted something specific and did not want to die
- By the tactical standards at that time, Columbine was a **successful** operation.

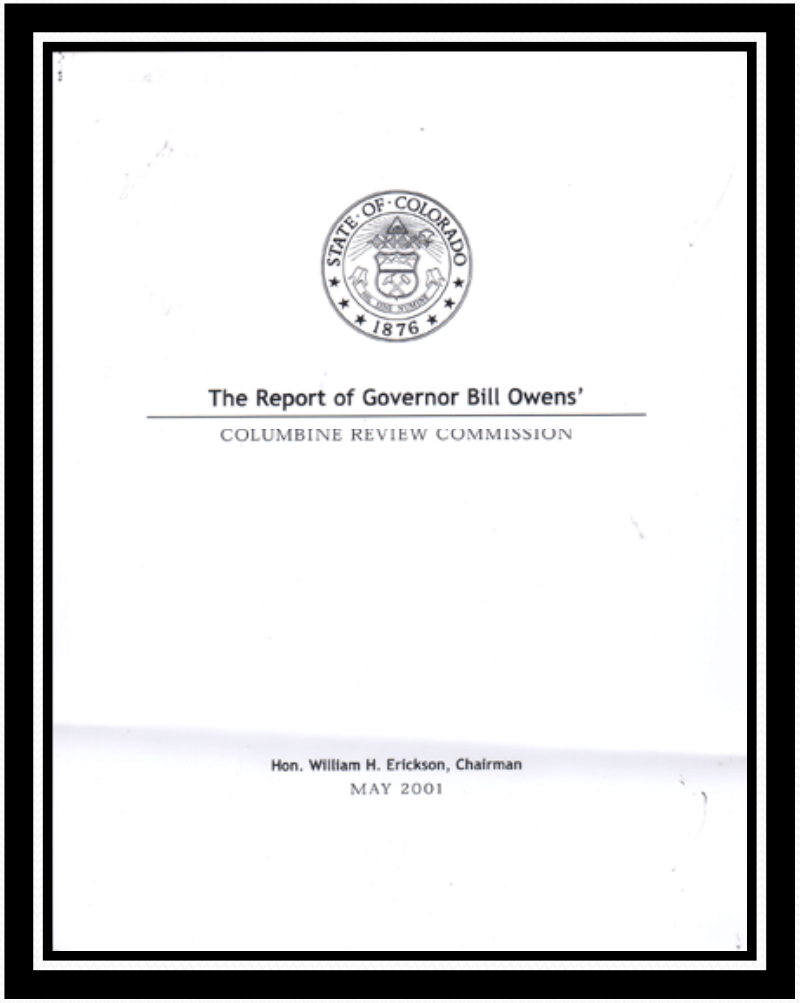
Changing the Police Response

- Police heavily criticized after Columbine
  - "The 46 minute rampage… during that period, to the Commission's knowledge, no efforts were made to engage, contain, or capture the perpetrators."



Changing the Police Response

- Results of the Commission
  - "Law enforcement policy and training should emphasize that the highest priority of law enforcement officers, after arriving at the scene of a crises, is to stop any ongoing assault."
  - "All officers… should be trained in concept and skills of rapid emergency deployment…."



Changing the Police Response

- Changes in police response
  - Police science research demonstrated immediate need for **initial** police responders to immediately pursue and establish contact with the shooter
    - The sooner the shooter can be contained, captured or neutralized, the fewer the casualties incurred
  - Realized need to limit "trigger time"
    - Using congested areas and choke points, a single unchallenged shooter can acquire, target and shoot a new victim about every 5 seconds

Changing the Police Response

- SEALE Police Academy research determined that aggressive action is the most effective countermeasure in stopping the active shooter
  - Even if only a single individual
    - Single unarmed civilians have prevented or help to end accounted many active shooter incidents

Changing the Police Response

- Law enforcement study of 40 active shooter incidents
  - 17 incidents were resolved by the shooters themselves
    - Most often shooter ceased attacking his victims and committed or attempted suicide
  - 17 incidents resolved by victims confronting the shooter
    - 3 cases resolved when the shooter had directly verbal confrontation by someone they knew
    - Several cases resolved when the shooter was overcome by physical confrontation by the intended victims

Changing the Police Response

- Law enforcement study of 40 active shooter incidents
  - 6 incidents resolved by police
    - 2 had favorable outcome in that the police arrived during the shooting and immediately resolved the shooting and limited the loss of life.
    - 4 had no positive effect on limiting loss of life
      - Police followed the customary isolate, cordon, and control access method until special operations teams and negotiators could arrive

The New Police Response

- Rapid reaction teams
  - "Hunter-killer" teams
  - Contact teams
  - Immediate action teams

The New Police Response

- New Paradigm: Rapid reaction teams
  - First arriving officers team up, typically in 4-man diamond, but can be 2-man or even solo, to move to "the sound of shooting."
  - During the pursuit, police officers should:

    "**Move through unsecured areas, and bypass dead, wounded and panicked citizens to control/neutralize the active threat**"

What about Fire/EMS response?

- Traditional EMS teaching:
  - "Stage out of line of site until scene cleared"
  - "Scene safety is paramount"
  - "Only tactical medics can work in that area"

What about Fire/EMS response?

- Fire/EMS resources have been slow to address the need for a new response
  - Continue to stage off scene and wait for “all clear” or for victims to be extricated to triage area by police

- What we do know:
  - “The fate of the injured often lies in the hands of the one who provides the first care to the casualty”

Time Counts!

- Majority of fatal combat injuries die within 30 minutes of wounding
  - Every minute with uncontrolled injury decreases chance of survival!!!

Wound Data and Munitions Effectiveness Team (WDMET) study

- Greatest opportunity for life saving intervention is early on….
  - 90% of deaths occurred prior to definitive care
    - 42% immediately
    - 26% within 5 minutes
    - 16% within 5 and 30 minutes
    - 8-10% within 30 minutes and 2 hours
    - Remainder survived between 2 and 6 hours during prolonged extrication to care
- Only 10% of combat deaths occur after care initiated

Wound Data and Munitions Effectiveness Team (WDMET) study

- Summary
  - “The greatest benefit will be achieved through a configuration that puts the caregiver at the patient’s side within a few seconds to minutes of wounding.”

Causes of death in conventional land warfare

- Summary:
  - 15% of fatalities in combat from **readily treatable** causes:
    - 9% Exsanguination from peripheral hemorrhage
    - 5% Open/Tension pneumothorax
    - 1% Airway obstruction

Conclusions about EMS/Fire Response

- After review of combat and active shooter data:
  - The sooner the first responders start medical treatment and triage, the greater the chance that victims would survive
  - The immediate threat is rapidly mitigated in almost all incidents well prior to EMS/Fire response
  - The risk from active shooter incidents is very low in areas that are clear but not secure

The New EMS/Fire Response

- **Initial** EMS/Fire medical responders should **work with Law Enforcement** assets to **rapidly deploy** into areas that have been **cleared but not secured** to initiate treatment and effect rescue of injured victims

- Details
  - NOT tactical medics but first arriving EMS assets
  - Security provided by LE teams
  - Requires appropriate equipment and PPE
  - Should utilize TECC medical principles

The New EMS/Fire Response

- Arguments against rapid deployment of EMS/Fire into Indirect Threat area
  - **"Operating in an unsecured environment is too much risk for us to assume!"**

Too much risk??

- Responding to a multi-level single family dwelling with fire showing. Mother outside says 2yo is upstairs in back bedroom taking a nap.

Too much risk??

- Responding to a call for a man down: 55yo male collapsed in church now unresponsive

Lets talk about risk…

- 81 Firefighter LODD in 2011
  - 28 On-Scene Fire
  - 20 After fire
  - 8 Responding
- 19 EMS LODD in 2011
  - 4 transportation related

The New EMS/Fire Paradigm

- Arguments against rapid deployment of EMS/Fire into Indirect Threat area
  - "Operating in an unsecured environment is too much risk for us to assume!"
  - **"There could be another shooter who is hiding and could attack us!"**

More than one shooter???

- 98% of incidents shooter act alone
  - 3 outliers: Columbine, Jonesville, Mumbai



More than one shooter???

- Law Enforcement research conclusions regarding active shooter profile
  - "They generally try to avoid police, do not hide or lie in wait for officers and typically fold quickly upon armed confrontation."
  - "They choose unarmed, defenseless innocents for a reason: They have no wish to encounter someone who can hurt them. They are personally risk- and pain-avoidant. The tracking history of these murderers has proved them to be unlikely to be aggressive with police. If pressed, they are more likely to kill themselves."

The New EMS/Fire Response

- Arguments against rapid deployment of EMS/Fire into Indirect Threat area
  - "Operating in an unsecured environment is too much risk for us to assume!"
  - "There could be another shooter who is hiding and could attack us!"
  - **"The police can bring the wounded to us."**

“Police can bring us the victims”

- No care initiated by extracting LE teams
  - Can be trained but may create role confusion
  - Requires constant maintenance of additional equipment and skill set

“Police can bring us the victims”

- LE resources need to be doing tactical police work
  - Poor use of a limited resource
  - Searching, clearing, and securing the area requires multiple LE assets
  - Need personnel to secure key real estate
    - Hallway intersections, stairwells, large open areas
    - Outer perimeter control
- Trained to move to shooter not to initiate medical care

The New EMS/Fire Response

- Arguments against rapid deployment of EMS/Fire into Indirect Threat area
  - "Operating in an unsecured environment is too much risk for us to assume!"
  - "There could be another shooter who is hiding and could attack us!"
  - "The police can bring the wounded to us."
  - "**That is why we have tactical medics**"

Tactical Medics as the answer

- Are extremely useful if immediately available
  - Virginia Tech: Male student shot twice in leg
    - Round severed femoral artery
    - Victim recognized severe blood loss and fashioned makeshift tourniquet from electrical cord
    - Tactical medic in building applied mechanical tourniquet

Tactical Medics as the answer

- BUT are not always readily available
  - Few teams are full time
  - Typically respond with SWAT team
    - Delay in SWAT on-scene time is what caused police response paradigm shift
- Have a different dedicated job to do
  - Certainly can provide some aid but as a whole are dedicated to care for SWAT officers and SWAT mission
- Limited resource
  - How many medics on team??

The New EMS/Fire Response

- Arguments against rapid deployment of EMS/Fire into Indirect Threat area
  - "Operating in an unsecured environment is too much risk for us to assume!"
  - "There could be another shooter who is hiding and could attack us!"
  - "The police can bring the wounded to us."
  - "That is why we have tactical medics"
  - **"It is not our incident, and we've just never done it that way."**

“We have never done it that way”

- Some people think that the World is flat, regardless of what the data and science say….

“We have never done it that way”

- The answer to those who resist changing the paradigm is to address their concerns with

TRAINING

TACTICS

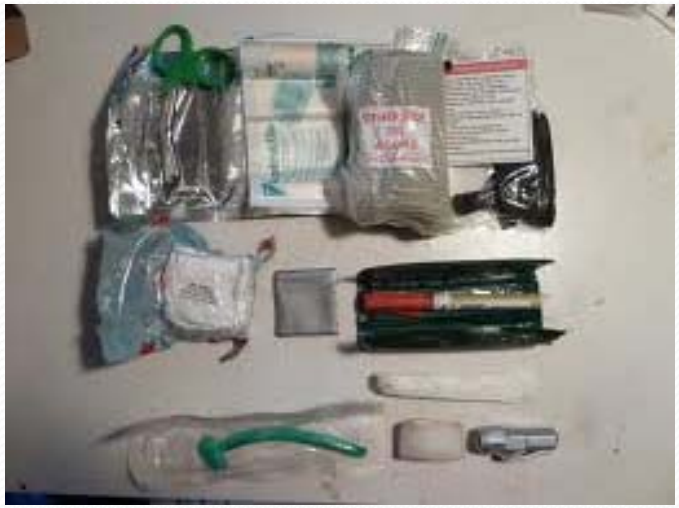
EQUIPMENT

Treatment

- Treatment needs to change based on the type of incident
- START Triage or rapid treatment and evacuation.
- Tactical Emergency Casualty Care (TECC)

Tactical Emergency Casualty Care

- Stop life threatening injuries
- **S**ituation **C**irculation **A**irway and **B**reathing and **E**vacuation
- Using simple life saving procedures to maximize patient survival



With Our Powers Combined

Getting Everyone On Board

- Local Law Enforcement
- Fire
- EMS
- Office of Emergency Management
- Any other agencies needed

Your Style of Response

- Based on location and time of dispatch
- Amount of units available
- Paid vs. Volunteer
- Mutual Aid

Your Style of Response

- Protective Corridor
  - Casualty Collection Point (CCP) established at easy egress site
  - Wounded are stabilized by law enforcement and handed over to EMS at CCP
  - Under over watch protection patients are then moved again to a triage and treatment area

ACFD Rescue Task Force

ACFD Rescue Task Force

- ACFD's answer to the issue of rapidly providing stabilizing medical care in areas that are clear but not secure

- NIMS compliant name
  - **Task Force:** Any combination of single resources, but typically two to five, assembled to meet a specific tactical need

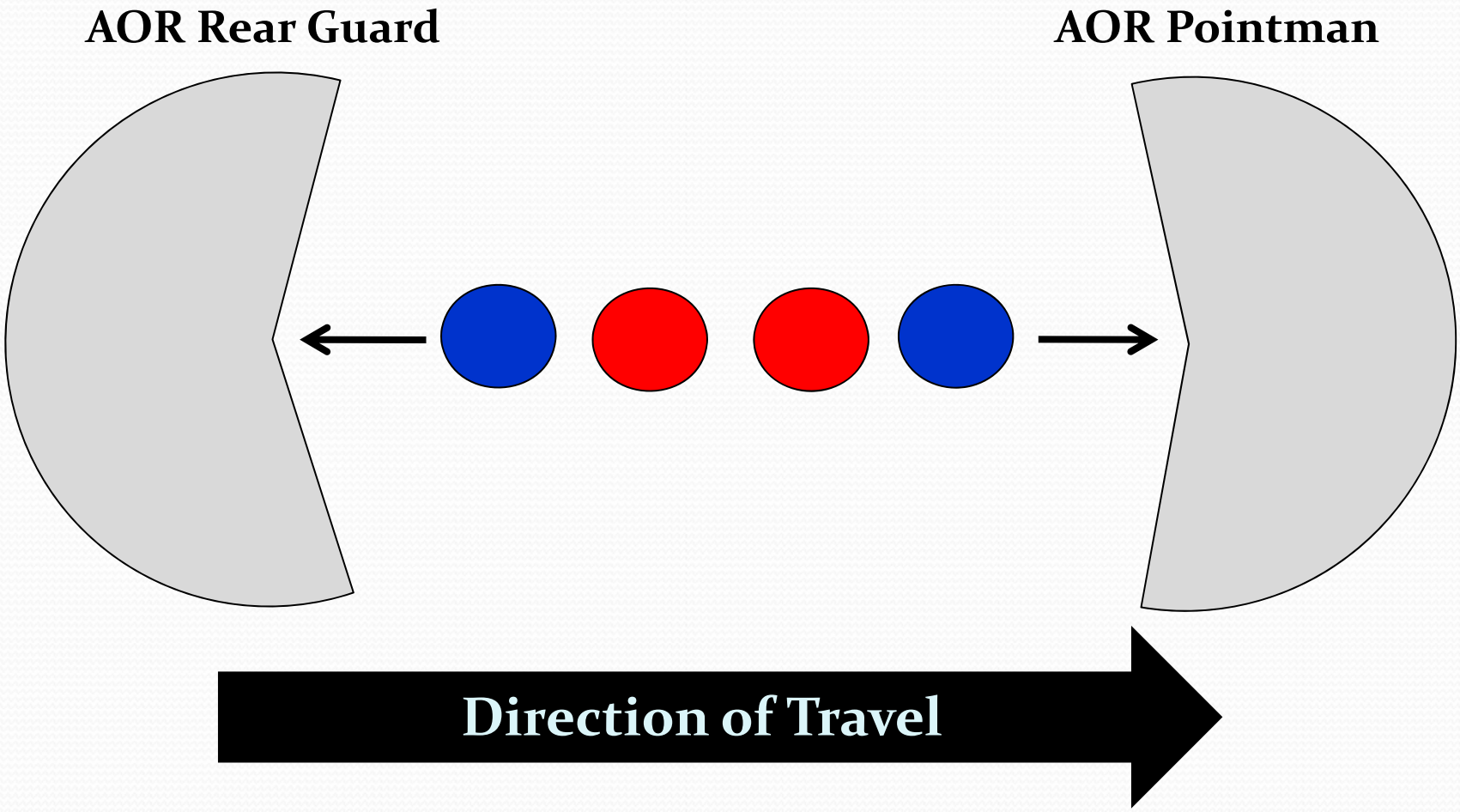
Rescue Task Force Concept

- First arriving street medics (NOT tactical medics) team up with 2 patrol officers to move quickly into "warm" zone areas along cleared corridors to initiate treatment and evacuation of victims

Rescue Task Force Concept

- 2 patrol officers for front and rear security
  - Readily available resource
  - Do NOT assist medics in care
  - Responsible for security and movement only
- 2 street medics in ballistic gear with supplies to treat up to 14 patients
  - Readily available resource
  - Able to initiate TECC care and rapidly evacuate

Rescue Task Force Concept

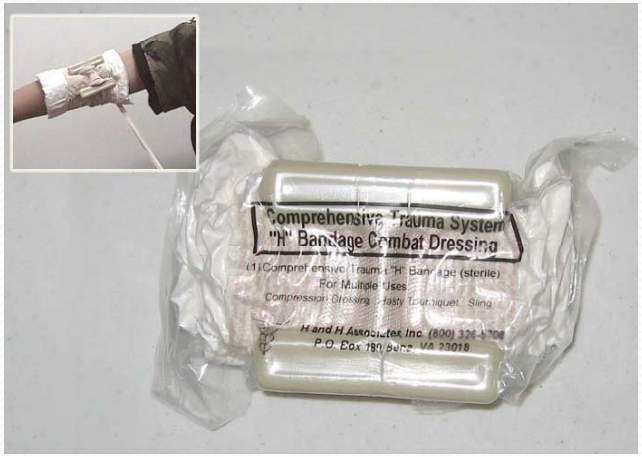


Rescue Task Force Concept

- Dual communications
  - Police communicate with Tactical Police Command
    - Locations of injured and team
    - Threat and other tactical information
  - Medics communicate with Fire Command
    - Location of injured and team
    - Casualty information

Personal Protective Equipment

Equipment and Supplies



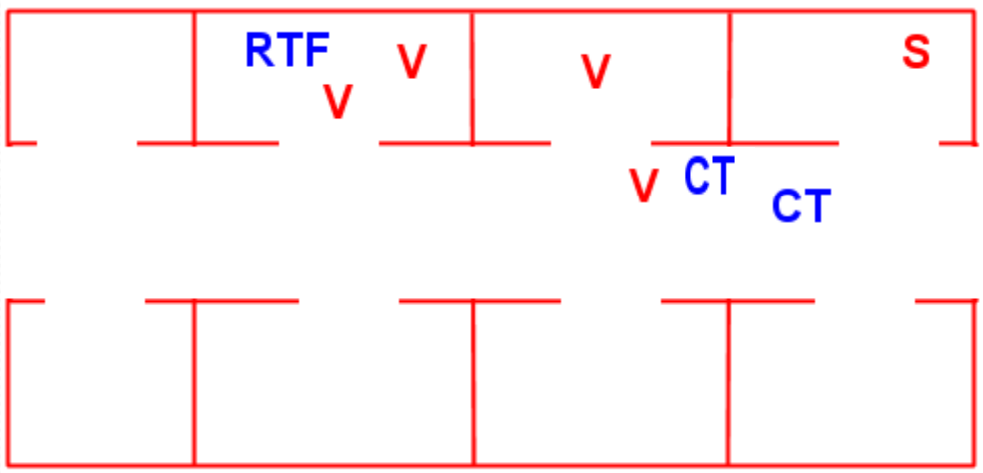
RTF Operations

- Initial responding patrol officers form 2-3 contact teams that all enter building along same corridor and move quickly to engage shooter

RTF Operations

- Contact teams essentially are clearing the primary corridor as they move to sound of shooting
  - Identify and notifty command of threats (IEDs, etc)
  - Do not open locked doors unless sound from behind would indicate threat
  - Do not aide or assist injured
  - As victims encountered, notify Command of location

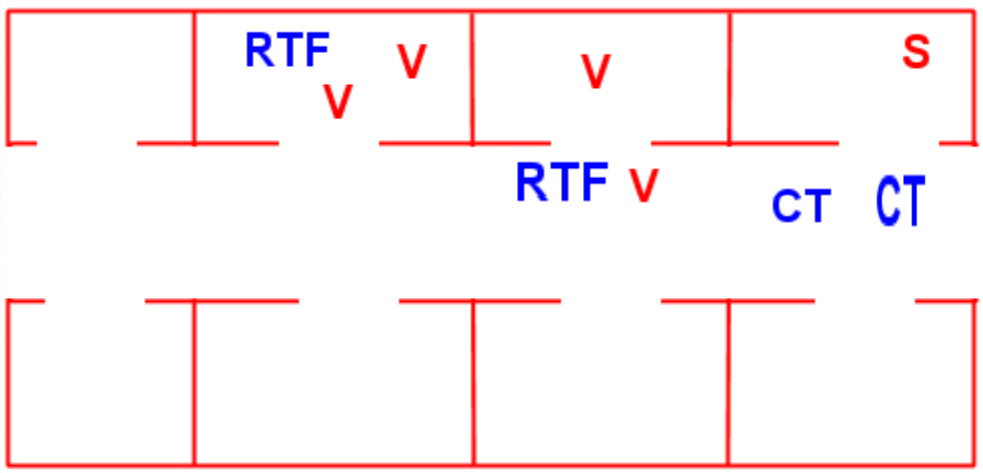
RTF Operations



RTF Operations

- Need for RTF identified by Contact Teams
- Initial RTF team formed and quickly moves into area down the corridor cleared by the contact teams
  - Will not move into un-cleared areas or get in front of contact teams

RTF Operations



RTF Operations

- Goal of initial RTF team is to stabilize as many victims as possible using TECC principles
  - Will penetrate into building as far as possible until they run out of accessible victims or out of supplies
  - “Stabilize, position, and move on”

RTF Operations

RTF Operations

- Once RTF operational, Fire Command will establish:
  - RTF re-supply near point of entry
  - External casualty collection point
  - Dedicate non-RTF assets to assist in transfer of patients from RTF assets for external evacuation

RTF Operations

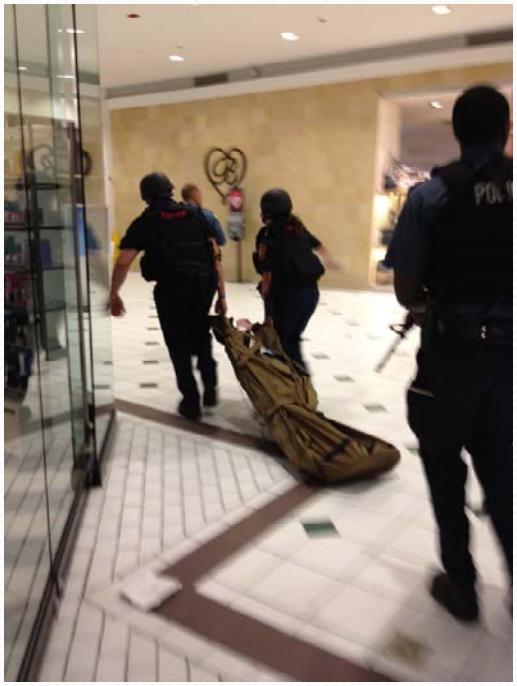
- The role of additional RTFs will depending on the number of victims and the need
  - May begin evacuating victims that have already been stabilized
  - May leap frog the first RTF to continue penetrating to stabilize victims if first RTF has changed over to evacuation

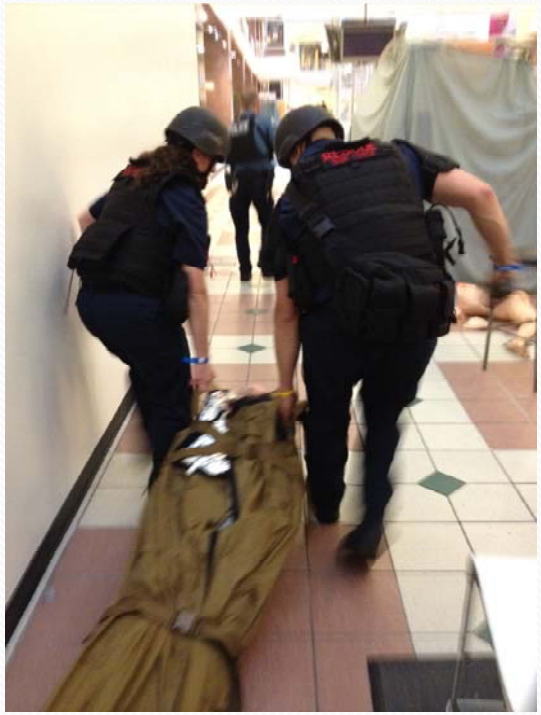
RTF Operations

- Once the first RTF runs out of supplies or all accessible patients have been treated, they grab a victim and evacuate out

RTF Operations

- RTF teams continue to operate in the corridors cleared by the contact teams until all patients evacuated





Lessons Learned

- Work with small incidents first then branch off
- Concentrate on boots on the ground
- Understand that it will not be perfect over night
- Use familiar equipment
- It takes a village to raise a child or . . Writing an SOP
- Be flexible in training with other jurisdictions and agencies
- Have enthusiasts and skeptics in development group

Questions??

Lt. Matthew Dreher
mdreher@arlingtonva.us