

Fireground Strategies: **Control of the Hard Environment**



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Regional Tour Commander
North Hudson Regional Fire & Rescue

NHRFR est. 1999



North Hudson Regional Fire and Rescue serves the northern most section of Hudson County





**NHRFR – Exposure
Central**

Your Plan



Must meet 3 primary objectives of the IC:

- 1. Get `em in safe**
- 2. Work `em safe**
- 3. Get `em out safe**

Accountability is based on all Officers doing their job all the time



**The hardest
work is done
before you
arrive**

95% to 5%

Hard Environment

vs.

Soft Environment

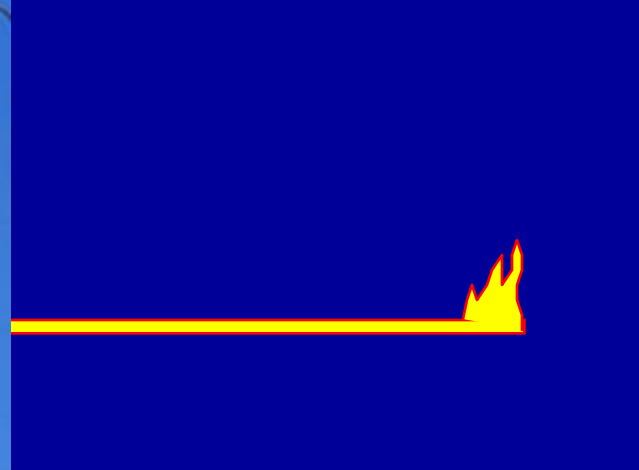
**Actions in the 95% dictate actions
in the 5%**

“Flip the Switch” mentality a myth

Not addressing this



**C'mon
Man!!!**



**Results in
this**

Supervision



- You ARE Responsible
- You WILL be Held Accountable
- You MAY Be Unpopular
- You MUST be Satisfied



[Video](#)

Policy



**C'mon
Man!!!**



PPE Policy Enforcement

[video](#)

T
H
E

B
A
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C
S

- **Waist Straps**
- **Wear your Hood**
- **Chin Strap belongs Under Your Chin**
- **Wear the proper gloves!!**



**If you are not doing this right
what else are you doing wrong?**

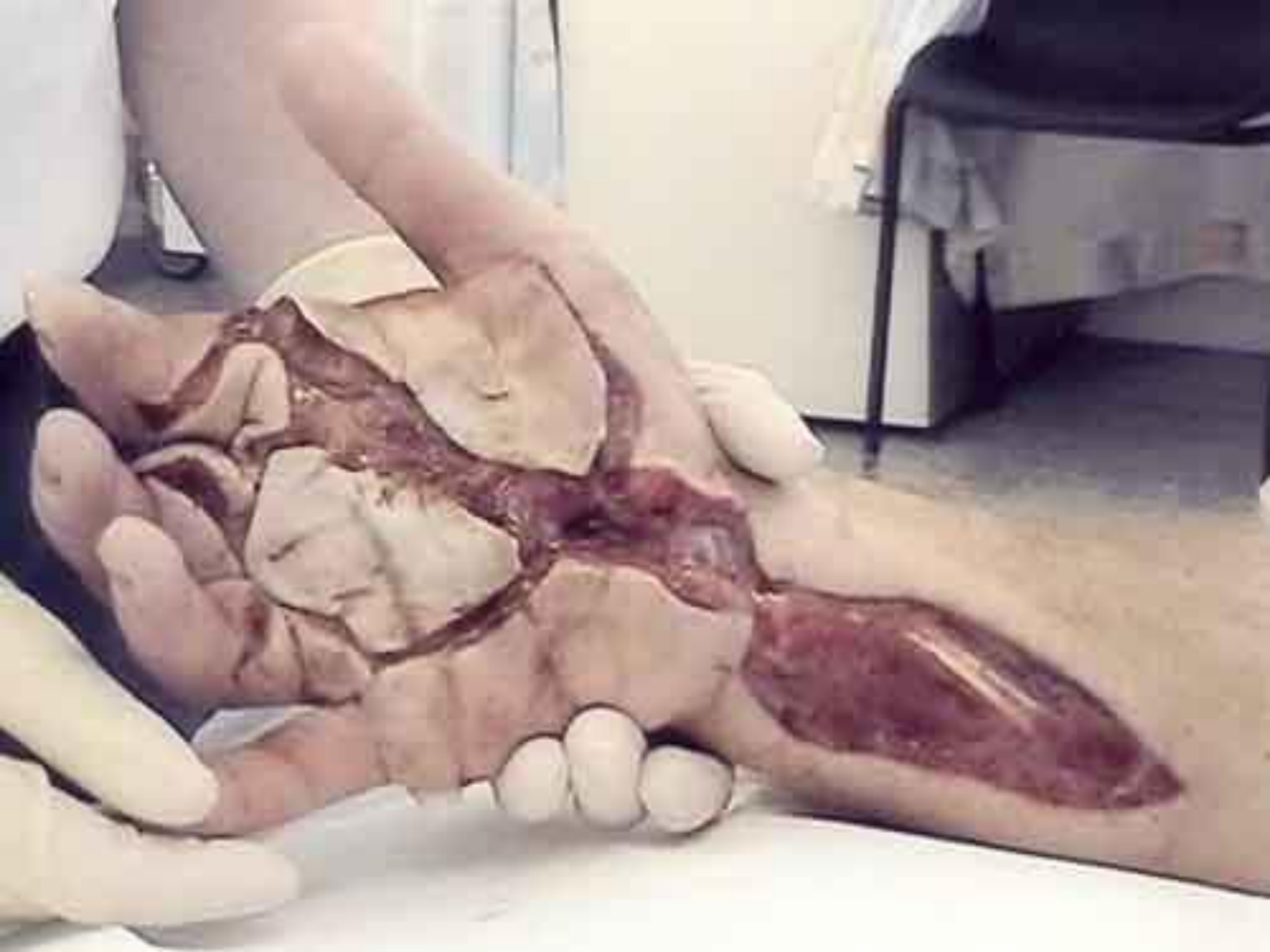


- **This is NOT setting the example**

**DON'T
SUCK AT
BEING SAFE**



**C'mon
Man!!!**





Dangerous Tools:

As soon as you go from comfortable to cocky, trouble starts: John Prachar

Supervision



- **The Dichotomy of Comfort**
 - **Acceptable vs. Unacceptable Discomfort**
 - **The ultimate measure of an individual is not where he stands in moments of comfort, but where he stands at times of challenge and controversy**

---MLK

The Dichotomy of Comfort



- **Acceptable vs. Unacceptable Discomfort**

- **Do you have the right to be comfortable?**
- **What should your level of comfort be?**
- **What makes your superior and the organization uncomfortable better make you uncomfortable**
- **Don't let your superior be uncomfortable for you**

CONFRONT THE UNCOMFORTABLE

Supervision



- **“It’s OK”**
- **“Don’t Worry About it”**
- **“It’s no big deal”**

How many officers have regretted saying those words?

Unintended Consequences

Failure of Imagination



Supervision



-
- **Everything is not always OK – never dismiss an opportunity to fix yourself and your people**
 - **The opportunity you miss (or ignore) on this alarm might be disastrous on the next**
 - **Do not be afraid to address unacceptable performance – that is your job**
 - **Keep it constructive, but make sure the issue is addressed and an understanding (and expectation) is agreed upon**



George Washington

vs.

George Wishy-Washington

UNDERSTAND THIS: YOU OWN EVERYTHING



Be a Boss!!

I can be your friend and I can be your Boss. If I can only choose one, I have to be your Boss.

**--BC Frank Vasta
NHRFR (ret.)**

Be a Boss!!

**A friend may get you killed.
A Boss will get you home.**

**--BC Steve Quidor
NHRFR (ret.)**

Hurt Feelings Report

and

UNFAIR TREATMENT REPORT

DATA REQUIRED TO SUBMIT

PART I - ADMINISTRATIVE DATA

A. Whiners avatar name (Last, First, Middle)	B. Date of report:
C. Society (if applicable)	D. Society rank:

Part II - INCIDENT REPORT

A. Date feelings were hurt or unfair treatment	B. Time of hurtfulness or unfair treatment
C. Location where hurtful incident or unfair treatment occurred	
D. Avatars sympathetic to Whiner	
E. Name of company who hurt your feelings (MA/FPC/EF)	

PART III - INJURY (mark all that apply)

A. Which eye read the words of hurtfulness/unfairness? <input type="checkbox"/> Left <input type="checkbox"/> Right <input type="checkbox"/> Both	B. Is there permanent feeling damage? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe
C. Did you require a tissue for tears? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> A full box	D. Has this resulted in a traumatic brain injury? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe

PART IV REASON FOR FILING THIS REPORT (mark all that apply)

<input type="checkbox"/> I am thin skinned	<input type="checkbox"/> MA/FPC/EF needs to fix my problems
<input type="checkbox"/> Two Beers are not enough	<input type="checkbox"/> I am a wimp
<input type="checkbox"/> My feelings are easily hurt	<input type="checkbox"/> It is unfair to me
<input type="checkbox"/> I didn't sign up for this	<input type="checkbox"/> loot is bad
<input type="checkbox"/> I am a crybaby	<input type="checkbox"/> I am going to quit if this is not fixed
<input type="checkbox"/> There are not enough items in loot	<input type="checkbox"/> Items in loot suck need better items
<input type="checkbox"/> My Commodore 64 can't play VU10	<input type="checkbox"/> I want my mommy
<input type="checkbox"/> MY CGA monitor displays all black	<input type="checkbox"/> The weather makes me cold
<input type="checkbox"/> I am scared of the dark	<input type="checkbox"/> My Beer is warm
<input type="checkbox"/> The ubers get all the good loot	<input type="checkbox"/> Noobies get all the good loot
<input type="checkbox"/> Sweat prices are too low	<input type="checkbox"/> Someone laughed at me in chat
<input type="checkbox"/> All of the above	<input type="checkbox"/> Other - submit form Mercury Meltdown

PART V NARRATIVE

Tell in your own words how your sensitive feelings were hurt or how you were treated unfairly.

Your People



- **Want to know when they are doing a good job**
- **They also know when they are not**
- **If you don't say anything, they will think you don't care!**
- **Discipline will erode further**
- **Do not widen the gap between acceptable and unacceptable discomfort – tougher to get back**



**C'mon
Man!!!!**

BOTTOM LINE



**You have to
give a**



Orders



- **What's an order????**
- **How is it given?**
- **How do they know?**

Where do you begin?



- **Begins with expectations / supervision**
- **Continues on the fireground when Nothing is Showing**
 - **If you allow a breakdown in discipline when there is nothing showing, forget about operational discipline when it is hitting the fan**

All Business



- **Little things done right in investigation mode pay BIG dividends when something is showing**
 - **Apparatus positioning**
 - **SOP adherence**
 - **PPE**
 - **Communications**

Dress Rehearsal mentality

Response



- **Proceed with Caution**
- **Slow the Companies down**
- **Are these phrases used?**
- **What do they mean?**

Command Post Positioning



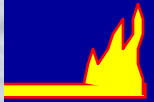
- Consider escalation
- Consider elements
 - bldg hijack
- CP as a manifold
- Proximity to Rehab
 - Keep the Kittens in the Box

Where is your Command Post?

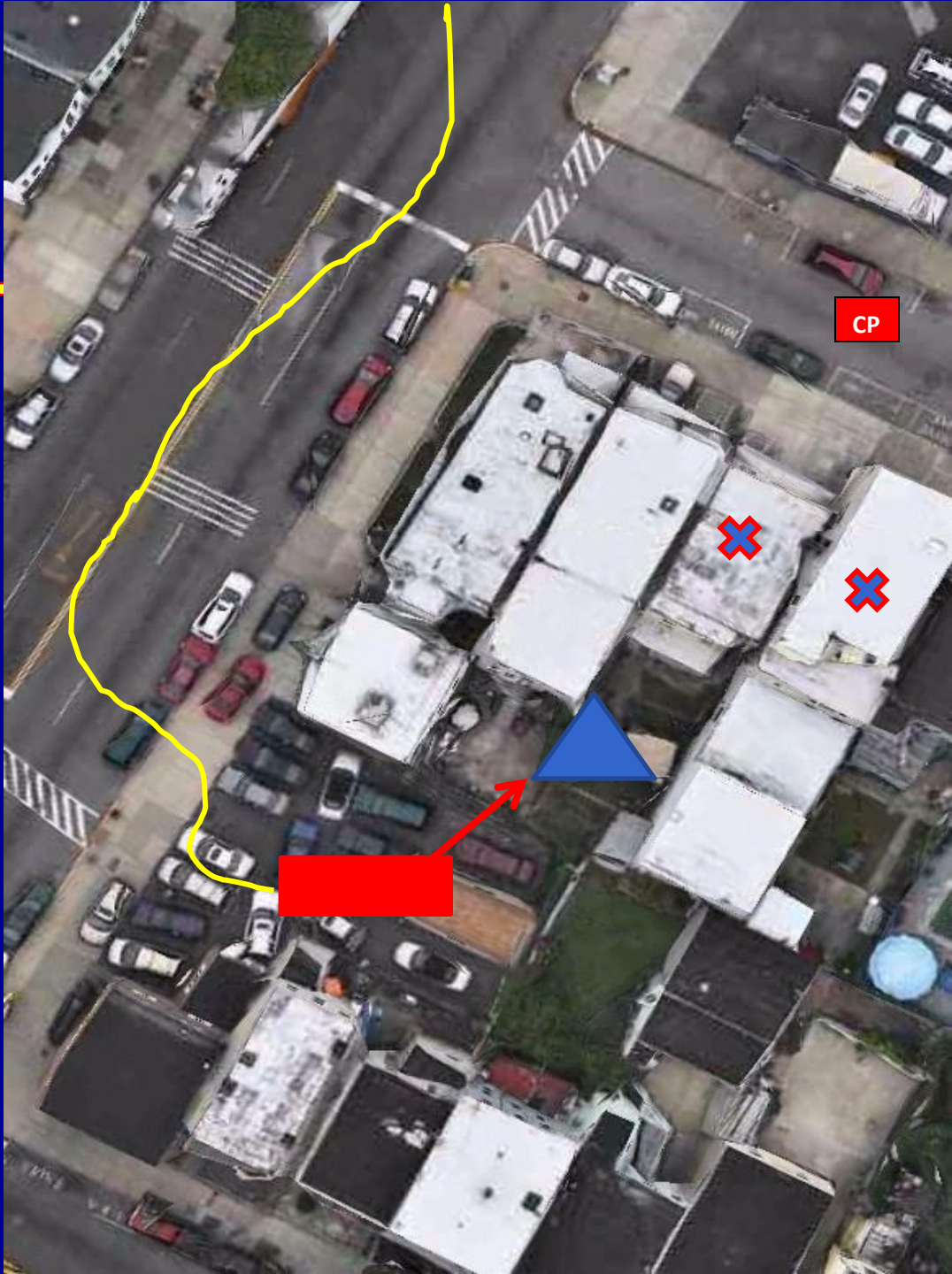


Intelligence and Technology

- **Modern Tools of Command**
 - **Toughbook**
 - **Cell Phone**
 - **Google Earth**
 - **Google Maps**
 - **Drones**







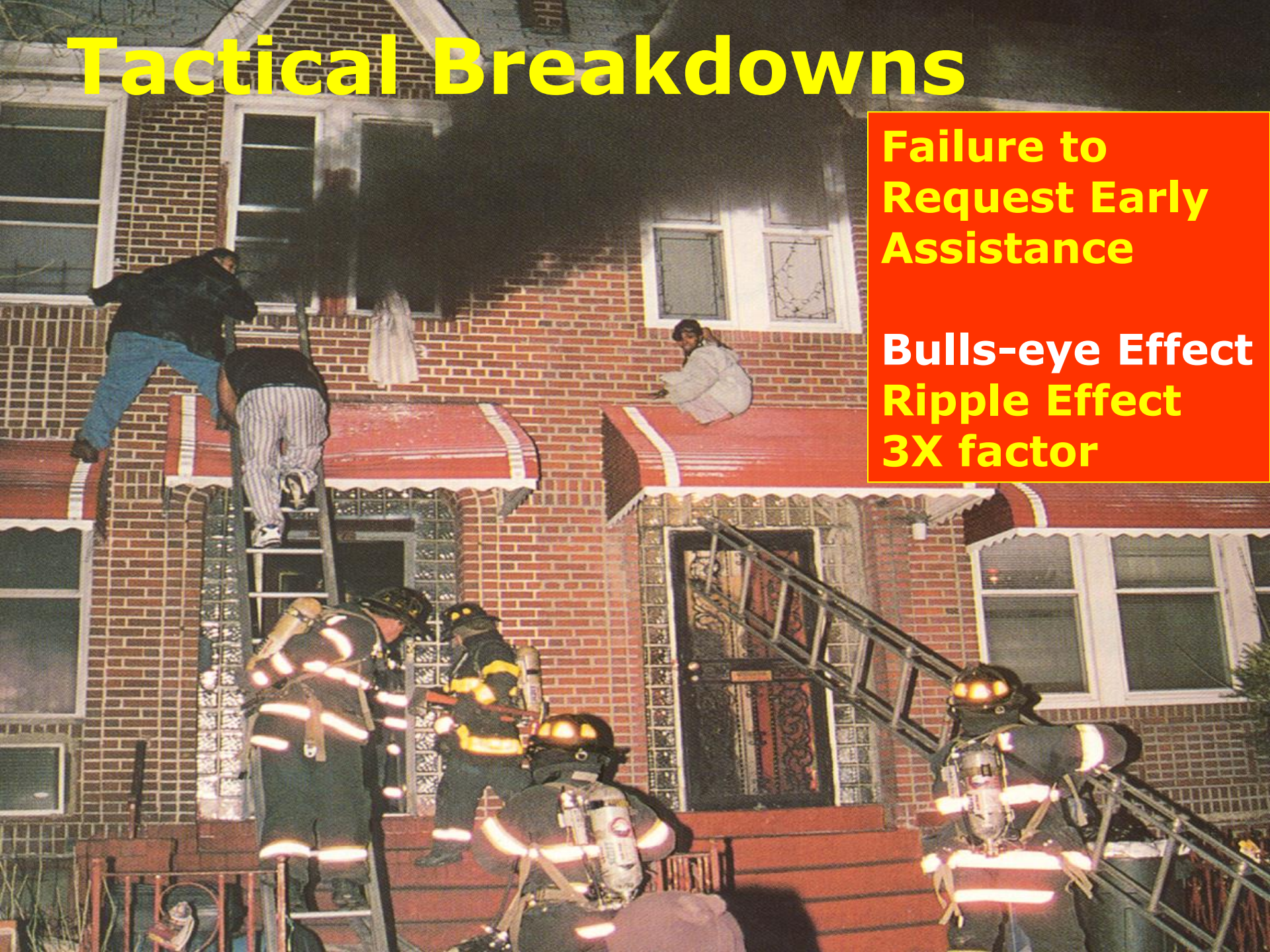
CP



Tactical Breakdowns

**Failure to
Request Early
Assistance**

**Bulls-eye Effect
Ripple Effect
3X factor**



Additional Alarm Rule of Thumb



- **If the incident is still escalating and you do not have at least 3 companies in reserve, order an additional alarm**
 - **Relief / Reinforcement**
 - **Unplanned for problems**
 - **Hydraulic Reserve**
 - **Reflex Time Ripple Effect**

**ALL INCIDENTS REQUIRE A
TACTICAL RESERVE**

Resources



**Better to be
looking at them
than looking for
them**

--Tommy Gavin

Controlling Rehab is essential to controlling the fireground

FF Rehab



Make Your Accountability System Compliance Friendly

Rehab Guidelines



- **Rehab does not mean go and get lost**
- **Rest the company and get back to the CP**
- **Minimum 15 minute rest period after 2 cylinder uses**
- **If you are closing in on 1/2 hour at rehab, you are there too long – we need you back to CP**
 - **We shouldn't have to call you**



- **The Best Accountability System is a Strong Command Structure**

Freelancing



- **Is it an accepted evil as a part of your fireground?**
- **How do you prevent it?**

**UNITED
FRONT**

Task Assignment Model (Decentralized Command Ops)



- 1. Stay Together as a Unit**
- 2. Report to C.P. for Assignment**
- 3. Report to Assigned Operational Area**
 - Report Progress to Division Supervisor**
- 4. Operate in Assigned Division ONLY**
- 5. When Relieved, Report Back to C.P. for Re-assignment or Rehab**
- 6. If Re-assigned, Go Back to Step #3**
- 7. When Rehab is Complete, Go to Step #2**

The Accountability Model

Foundation of Fireground Organization

Operating

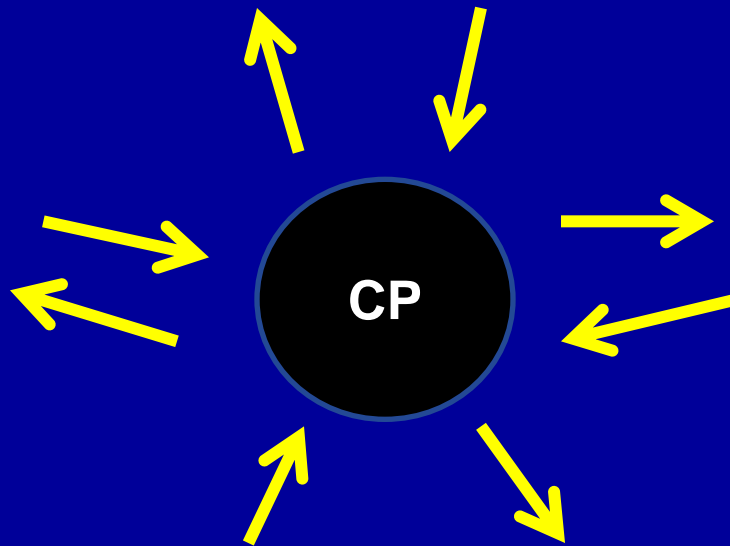
Staged

Rehab

CP

Arrival

Release



Accountability and the Command Board



- **Company Officer roles:**
 - **Get and Follow orders**
 - **Ensure company integrity**
 - **Keep Command informed of status**
 - **Operating**
 - **Rehab**
 - **Staged**

**No Independent Action
...EVER!!!**



ALL

**Assignments Begin and End
at the Command Post**

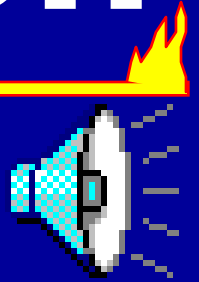
Accountability



**Whatever you think
is the right thing to do
is the WRONG thing
if it does not go through the
COMMAND POST**

Decentralization

- **Breaks the fireground into manageable portions**
- **Assigns responsibility to major operational areas**
- **Provides greater accountability**
- **Decreases span of control**
- **Reduces radio traffic**
- **Breaks up the opinion brigade**



CASE STUDY

- **Roc Harbor Complex**
- **North Bergen NJ**
- **Lightweight wood frame**
- **No sprinklers**
- **Rear of buildings front on access road**
- **Entrances in “Horseshoe”**

Roc Harbour North Bergen, N. J.





Roc Harbour North Bergen, N. J.



F/R

**Decentralization & Progress
Reports**



**Get the Chiefs
off the Street
and into the
buildings**

**Subordinate
Chiefs Belong
Here**

F/R



F/R



F/R

Result: Only 1 Apt. *Unit* lost

3/6/00

Saved



Lost



Saved



F/R



12/31/12



Lessons Learned / Reinforced



Operating

Rehab

Staging

Rehab and Staging

Lessons Learned / Reinforced

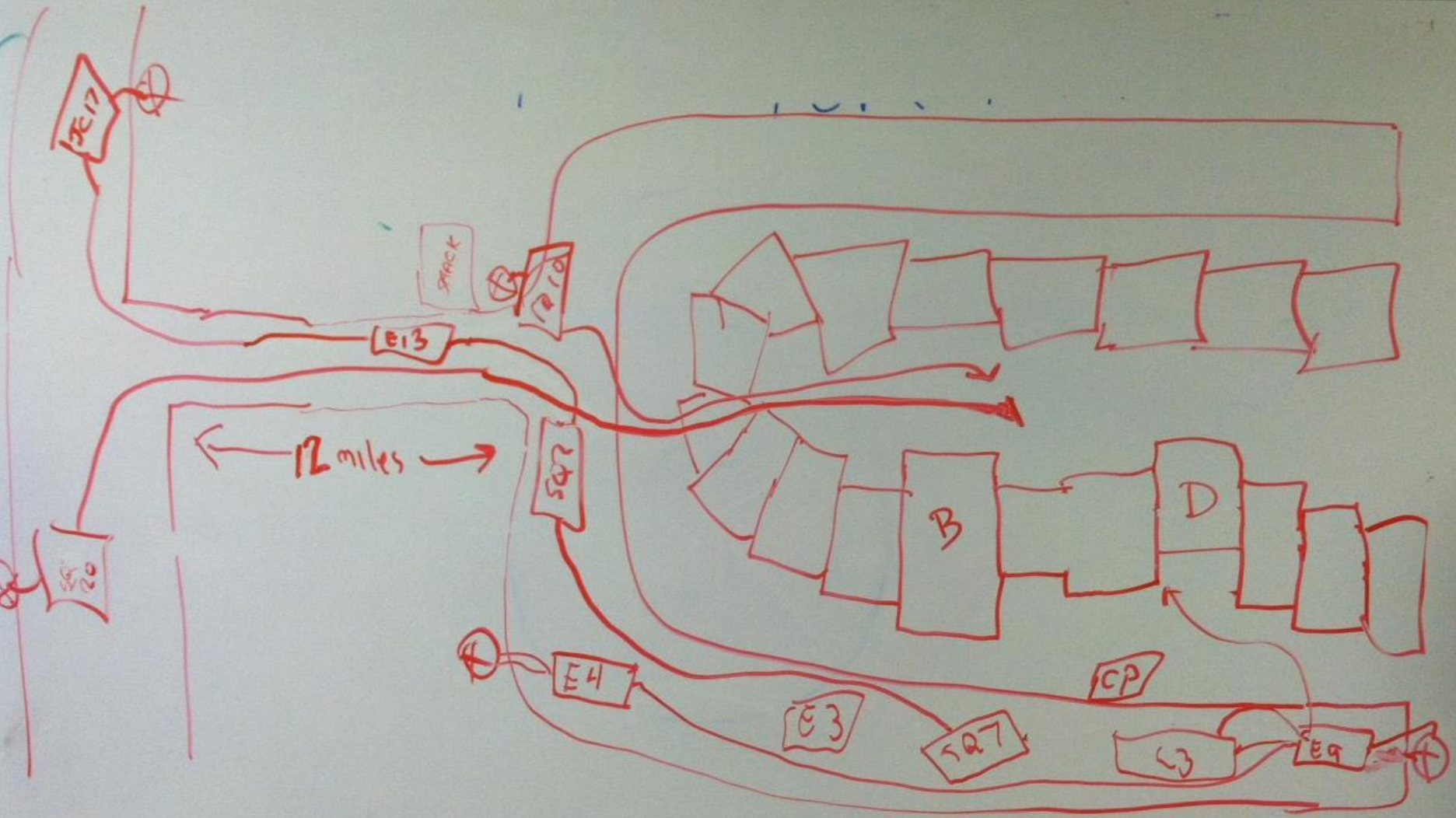


- **Water Supply**
 - **1st hydrant dead**
- **Hydraulic Reserve**
 - **5 water supplies**
 - **Water Supply Officer**
 - **Personnel intensive LDH**
- **Manifolds and Deck Guns**
 - **If you can go big**

Lessons Learned / Reinforced



Water Supply











[video](#)



Accountability



**Division Supervisors set up early
Provide REAL Accountability**

- **Account for:**
 - **Who is in Division (Div. PAR)**
 - **Where they should be**
 - **What they are doing**
 - **When they should come out**

DECENTRALIZATION

Command Limitations



- **Virtually ALL Command problems come from areas he/she can't see**

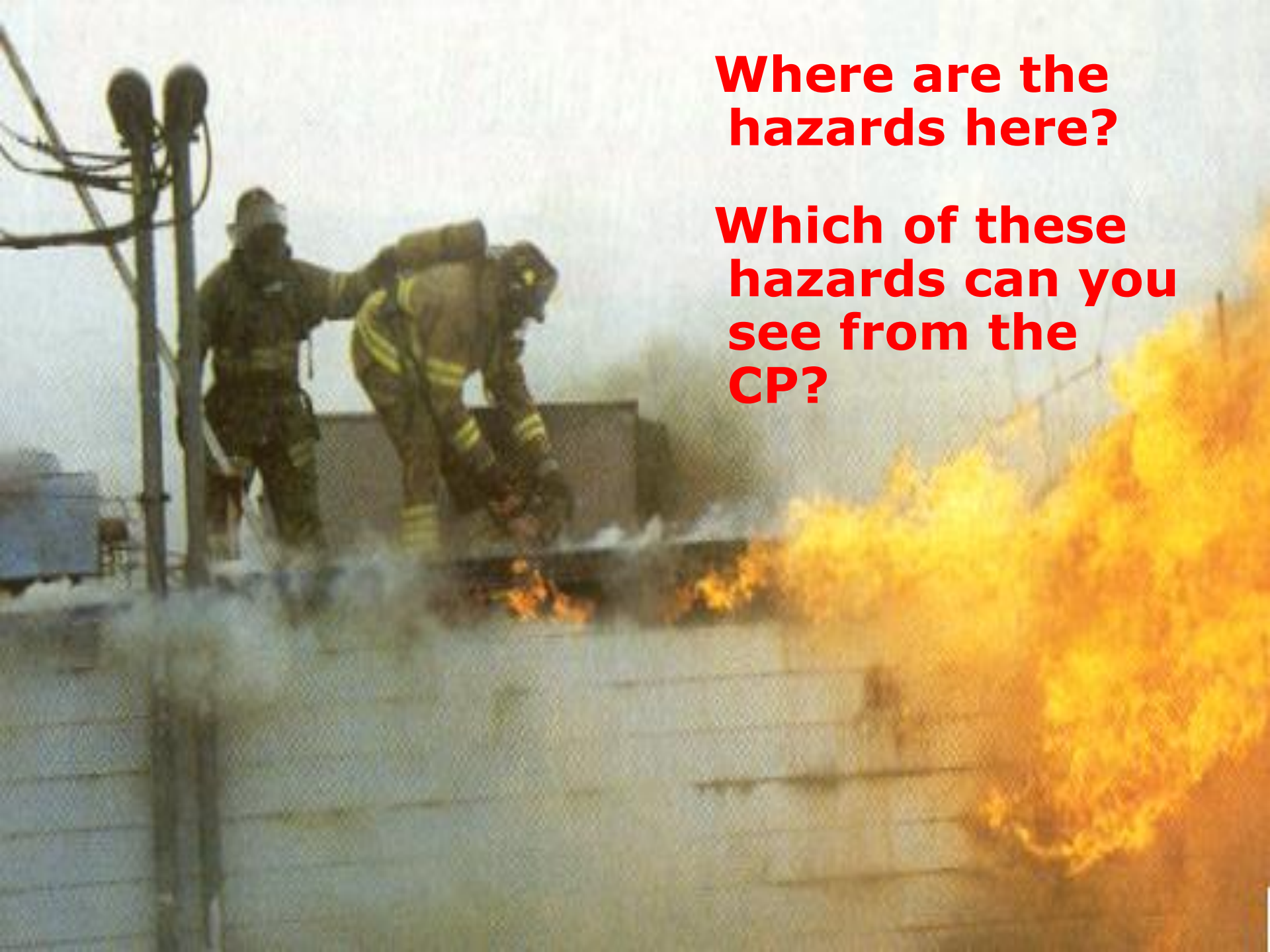
- **Rear**
- **Roof**
- **Shafts**
- **Interior**
- **Exposures**

BE NOSY!!!!!!

**TIMELY PROGRESS REPORTS FROM ALL
AREAS HELP DEFEAT THIS HANDICAP**



- **Will someone tell you about this condition while you still can do something about it?**



Where are the hazards here?

Which of these hazards can you see from the CP?







[video](#)







Interior vs. Exterior Perspective

Strategy Modification



- **Cues to consider:**
 - **Discovery / presence of lightweight construction – check involvement!!**
 - **Failure to locate seat of fire in timely manner**
 - **Evidence of smoke conditions worsening even though water is being applied**
 - **Forcible entry difficulty**
 - **Ventilation difficulty**
 - **Water supply problems**

Guard dog barriers



Additional Water – Plan!!





Strategy Modification



- **Cues to consider:**
- **Indicators of flashover / structural compromise**
 - **Operations that “eat up” personnel (tough rescue)**
 - **Fires in attached buildings w/ any of above concerns**
 - **Fireground experience or gut feelings**

More critical during offensive ops because personnel are inside building



**Projectile
Smoke
Vomiting**

Defensive Ops Control



**NO HALF ASS
COLLAPSE
ZONES**

[video](#)

[video](#)

Tactical Breakdown



- **Arrival and Operations**
- **Failure to Recognize / Respect the Presence of Truss / Lightweight Construction**

Lightweight Structures



- **How do you tell?**
- **No roof ops except from independent support**
- **Cautious attack from protected area**
- **Careful assessment of voids**

DON'T TRUST THE TRUSS

LIGHTWEIGHT BUILDING INDUSTRY AND POLITICIANS:

TRYING TO KILL FIREFIGHTERS ONE PIECE OF
CRAP BUILDING AT A TIME









Is Lightweight Construction present?
(Recognition)

Yes

No

**Involved or
threatened?**

**Operate in safe manner
consistent with building
construction and
structural conditions**

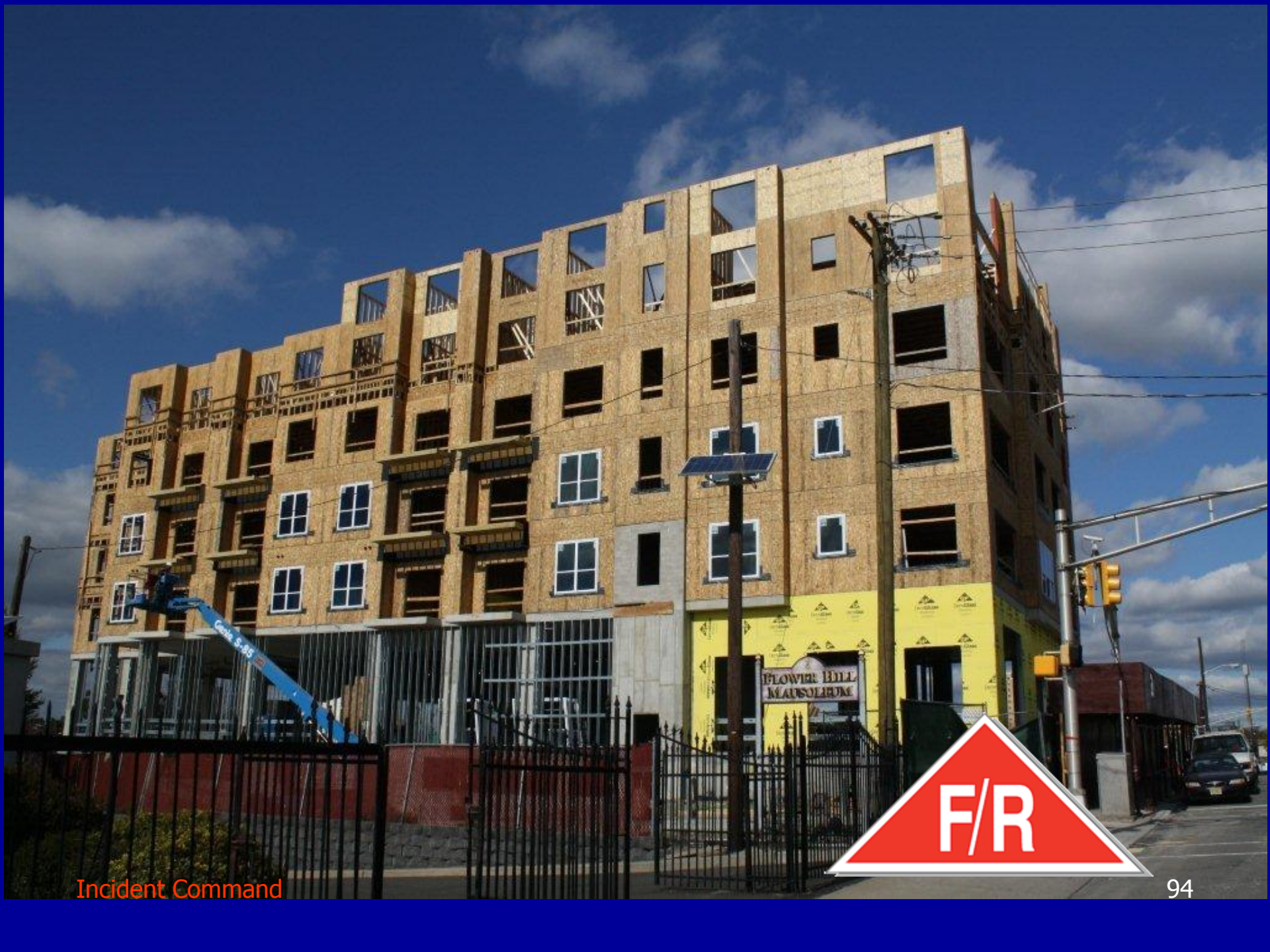
Yes

No

- 1. Withdraw from area or building**
- 2. Prepare for collapse**
- 3. Consider “stop” point based on fire extent and building layout**

- 1. Increase Supervision**
- 2. Operate cautiously**
- 3. Continue to monitor voids**
- 4. Reinforce operation**





Incident Command





[Video](#) 8/11/12/15



Firefighters narrowly escape [REDACTED] collapse

Firefighters in Edgewater evacuated a burning structure just moments before there was total failure of lightweight truss construction, sending a large portion of the second floor into the first, averting what could have been a tragedy on April 29, 2010.

Shortly after midnight, Edgewater firefighters were dispatched to 880 River Road for a report of a fire. A heavy smoke condition in a two story approximately 65x125 row of stores was visible on arrival. The smoke appeared to be coming from between the two floors in an area of the building that had a passway from front to back on the first floor and part of a Karaoke bar on the second.

A line was stretched to the second floor as the front of the structure was opened up. Flames were soon venting out of the openings made between the two floors.

Without warning, conditions rapidly deteriorated and all members were ordered to evacuate the building. Firefighters quickly left the building, by both the interior stairs and bailing out the windows to ladders outside. The hoseline and some equipment had to be left inside.



JUMP TO FILE #
042910111



Once fire has entered the truss area, it is time to GET OUT!



F/R

I- Stairs



THE UL / NIST STUDY



- **Strict control over Attack / Ventilation Coordination**
- **Based on new fire loads and how they behave in modern buildings**
 - **Legacy contents: 8.5 minutes to flashover AFTER ventilation**
- **Modern Contents: 2 minutes to flashover AFTER ventilation**



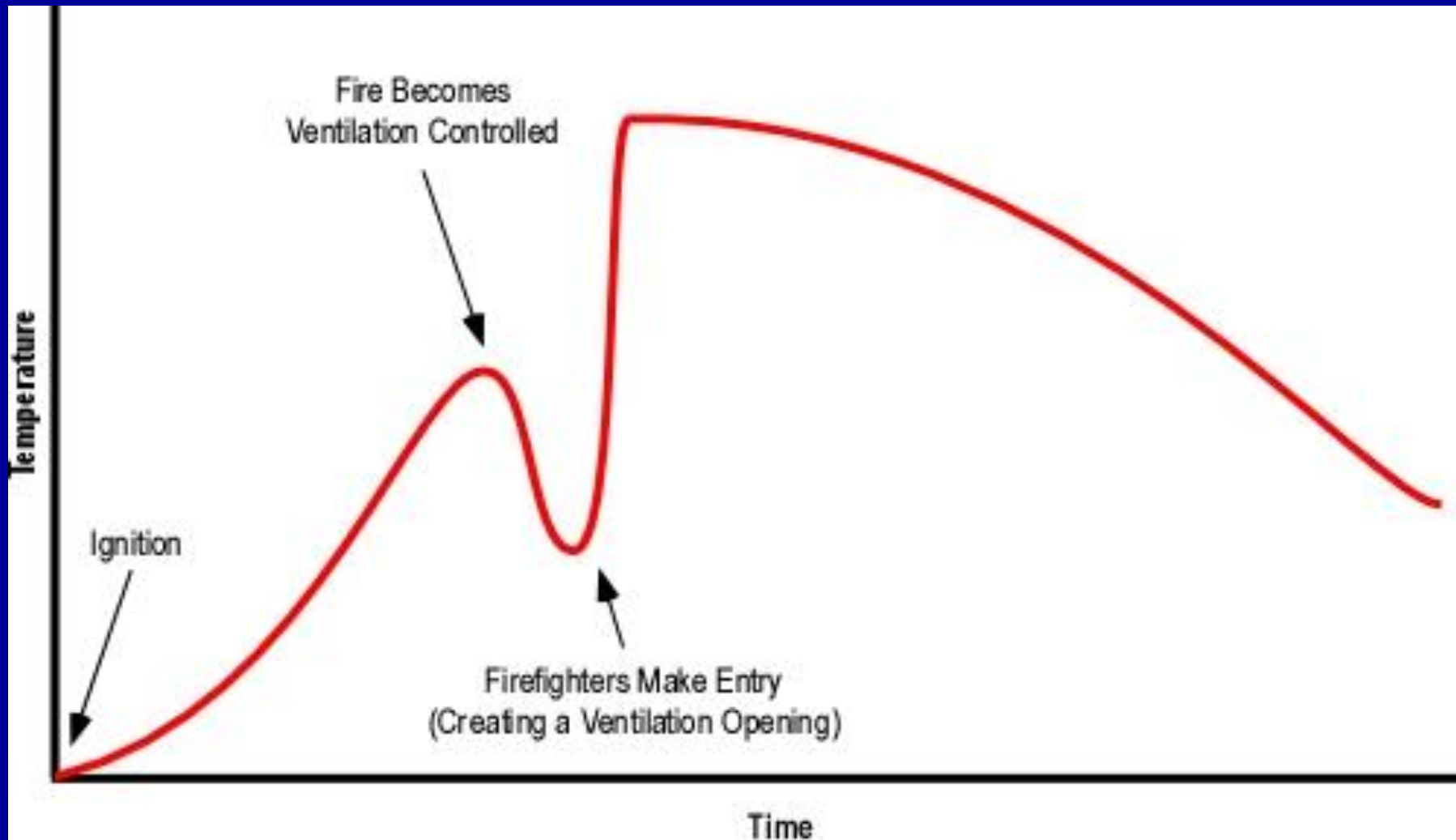
This ain't your Daddy's fire

THE UL / NIST STUDY



- **Starve the fire until attack is ready – water in line at fire area**
- **Control the flow paths** [video](#)
- **KEEP THE BEAST IN THE CAGE**
- **ANY building openings without water application spikes temperatures**
- **Air introduced by openings (doors and windows) feeds fire. No H2O = bigger fire**
- **EVERYONE MUST REVIEW THIS STUDY**

TIME TEMPERATURE CURVE



Vent to Untenability



- **1 story**
 - **100 seconds**
- **2 story**
 - **200 seconds**
- **Flashover generally occurs less than 10 seconds later**





**MINI-
BLITZ**

THE UL / NIST STUDY GUIDELINES



- **A FF without a hoseline DOES NOT belong in any flow path under any circumstances**
- **All openings in the building must be controlled until water is flowing on the fire**
- **Attack doorway should be controlled until water is at a place where it can be applied to the burning material**
 - **Door control assignment**

THE UL / NIST STUDY GUIDELINES



- **Don't be between the fire and where it wants to go**
- **No venting OF ANY KIND without water on fire**
 - **Control all openings**
 - **Door control**
 - **VEIS – close the door immediately**
 - **Use the reach of the stream**
 - **KEEP THE BEAST IN THE CAGE**

THE UL / NIST STUDY GUIDELINES



- **Both horizontal and vertical ventilation should be conducted only after water is being applied to the fire**
- **VEIS firefighters must get in and get to the door to the room and close it as a first action**

THE UL / NIST STUDY GUIDELINES



- **Do not rule out the Mini-Blitz**
- **Think cooling: Putting water on the fire NEVER made the situation worse**
- **Don't trust the modern fire environment**

- **KEEP THE BEAST IN THE CAGE!!!!**



Thank you

**Be safe
out there**

Incident Command

Deputy1 @optonline.net