

Fireground STRATEGIES



Fireground Officer Development

Lesson 1

Fireground Organization

ANTHONY AVILLO *Second Edition*

1

What's The Story?

Control of the fire begins with control of the fireground

Control of the fireground begins with setting expectations

What expectations do you set?

Incident Command

2

Tactical Mistakes

- Prior to the Incident
- Failure to Familiarize with your District

Incident Command

3

Your Plan

Must meet 3 primary objectives of the IC:

1. Get 'em in safe
2. Work 'em safe
3. Get 'em out safe

Incident Command

4

Steps of Fireground Control

- Pre-fire planning
- Scene Size-up
- Preliminary Size-up Report
- Strategy Determination
- Initial Progress Report
- Decentralization
- Feedback / Evaluation / Adjustment
- Continuing Progress Reports
- Post Control Activities

Incident Command

5

13 Point size-up

- | | |
|---------------------------|-----------------------|
| ■ C-Construction | ■ W-Weather |
| ■ O-Occupancy | ■ E-Exposures |
| ■ A-Apparatus & Personnel | ■ A-Area |
| ■ L-Life Hazard | ■ L-Location & Extent |
| ■ W-Water | ■ T-Time |
| ■ A-Auxiliary Appliance | ■ H-Height |
| ■ S-Street Conditions | |

Which is most important?
How much of this can you know before the fire?

Incident Command

6

Tactical Mistakes

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

Incident Command 7

Scene Reports

- Purpose and benefits
 - Paint a picture
 - Same Page Concept
 - Preparation of assignments
 - Standardized Reporting
- Preliminary Size-Up Report
- Initial Progress Report
- Command Progress Reports

Incident Command 8

Preliminary Size-Up Report -- Starts the Ball Rolling

- Announce Arrival (Give Unit I.D. and state address)
- Establish Command /I.D. C P
- Describe Construction / Occupancy
- State Arrival Conditions
- I.D. Special Concerns
- State Actions Taken

Incident Command 9

Assuming Command

- Get Briefing from Outgoing IC
 - Situation
 - Deployment
 - Resources
 - Don't Be in a Rush – Get info you need before letting go of Outgoing IC
- Announce Command transfer over Radio



Incident Command

Tactical Mistakes

- Arrival and Operations
- Failure to Request early Assistance

Incident Command

11

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
 - Reflex Time Ripple Effect
- ALL INCIDENTS REQUIRE A TACTICAL RESERVE**

Incident Command

12

Safety Officer Duties

- Should be "all over the fireground"
 - Not doing Job by Hanging out at the CP
- Monitor Radio Transmissions
 - Go to Where the Problems Are
- Should not be a Safety Cop
 - Disciplined Ops allow S.O. to see the Big Picture

Incident Command

13

RIC Teams

Help FF's inside help themselves out

- Size up / Create Entry and Exit Points
- Stage Construction-Specific Tools
- Light Area
- Raise Ground Ladders
 - Announce where they are
- Force Exterior Doors / Cutting Fences
- Stage a Hoseline Dedicated for RIC Team use
- Monitor Command Board and radio

Incident Command

14

Firefighter Rehab

- Assign a dedicated Rehab Company
- Officer is Rehab Division Supervisor
- Accountability/Company Integrity Must be Maintained
- Order them out if you need to – see Tactical Reserve



Incident Command

15

Firefighter Accountability

- I.C.'s Primary Responsibility
- Riding Lists
- Tag Systems
- Tool Assignments

All Based on Discipline

Incident Command 16

Initial Progress Reports 

- Building / Fire Conditions
- Exposures
- Actions So Far
 - Lines / Search / Vent
- Incident Status Report
 - Doubtful Will Hold
 - Probable Will Hold
 - Situation Improving or Unchanged
 - Under-Control
- Additional Alarms?

Incident Command 17

Strategy Selection 

- Factors Instrumental in the Strategic Decision:
 - What is Causing Main Problem?
 - ❖ Fire / Haz Mat / Tech Rescue
 - What is the Life Hazard?
 - ❖ Firefighter / Civilian

Incident Command 18

Strategy Selection

■ Factors Instrumental in the Strategic Decision:

- How much Building is Involved Now?
- How Much is Uninvolved & Threatened?
- Is Structural Stability Compromised?
- What is Personnel / Apparatus Profile?

Incident Command

19

Strategy Selection

■ Factors Instrumental in the Strategic Decision:

- How Threatened are Exposures?
- Can I Get Building Vented?
- Additional Resources Reflex Time
- What Special Circumstances are Present?
 - ❖ Weather / Utility / Accessibility / Weird Stuff

Incident Command

20

Strategy Selection

■ Basic Strategic Modes

- Offensive
- Offensive-Defensive
- Defensive-Offensive
- Defensive
- No Attack (Non-Intervention)

FF Intervention Ranges from Total to Non-Existent

Incident Command

21

Strategy Selection

- Offensive – Most common strategy
 - Fire forces operate inside the building
 - Lines stretched to seat of fire
 - Primary search conducted
 - Coordinated support activities
 - ❖ Forcible entry / vent / extension prevention
 - Continuously monitor conditions and reports for cues to strategy modification

Incident Command

22

Tactical Mistakes

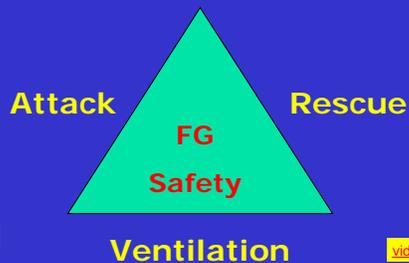
- Arrival and Operations
- Failure to Coordinate Fireground Operations

video

Incident Command

23

Fire Coordination Triangle



video

video

Incident Command

24

Tactical Mistakes 

- Arrival and Operations
- Crowding the Hall or Stairs
- Overloading the Roof
- Failure to Sound the Roof or Floor

Incident Command 25

Tactical Mistakes 

- Arrival and Operations
- Failure to Charge the Line Before Descending Below Grade

Incident Command 26

Tactical Mistakes 

- Arrival and Operations
- Failure to Establish and identify Secondary Means of Egress

Incident Command 27

Tactical Mistakes

- Arrival and Operations
- Failure to Properly Support stretching of the 1st line
- Failure to Back-up Attack Lines
- Failure to chock doors
- Failure to stretch proper size line for fire/occupancy confronted

Incident Command 28

Tactical Mistakes

- Arrival and Operations
- Stretching too many hoselines through one opening

Video

Incident Command 29

Tactical Mistakes

- Arrival and Ops
- Failure to Utilize a Lifeline for search
 - Is there a Policy??



Incident Command

Tactical Mistakes

- Arrival and Operations
- Failure to Light the Fireground
- Roof too

Incident Command 31

Strategy Selection

- Cues to consider strategy modification
 - 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

Incident Command 32

Strategy Selection

- Cues to consider strategy modification
 - 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

Incident Command 33

Strategy Selection

■ Offensive-Defensive

- Requires Immediate primary search
- Major portion of on-scene resources operate on main fire problem (confine/ extinguish)
- Smaller portion tend to exposure control (confine)
 - ❖ May require reinforcement based on reports
 - ❖ Assign Div Cmdrs to oversee vulnerable areas
- Often used in attached buildings
 - ❖ Common cockloft

Incident Command

34

Attached Building Strategy

- Put someone in charge of it
- Check for shafts
- Search / evac
- Protective lines
- Vent it
- Coordination – No cockloft B/D's
- Check for extension
- Salvage
- Reports

Incident Command

35

Strategy Selection

■ Defensive-offensive – Holding action

- Companies operate in “holding”, usually defensive action until more reinforcements arrive, then go offensive
 - ❖ Limited primary search in vicinity of egress
- Blitz Attack
- Fire spreading up combustible exterior

Incident Command

36

Strategy Selection

- **Defensive -- exterior operations**
 - Outside collapse zone
 - No primary search
 - Exposure protection is a priority
- **Defensive decision primarily based on:**
 - Location and extent
 - Exposures
 - Personnel
 - Water Supply

Incident Command 37

Tactical Mistakes

- **Arrival and Operations**
- **Failure to Establish and Maintain/Respect a Collapse Zone**

Incident Command 38

Strategy Selection

- **Interior Defensive Operations**
 - Establishes a "Stop" point inside building
 - MUST be Strictly Controlled
 - Assign a Division Commander
 - Continuously evaluate Risk vs. gain

Incident Command 39

Strategy Selection

■ No Attack (Non-Intervention)

- Hazards so great, intervention may create more problems than it sets out to solve
 - ❖ Pesticide involvement
 - ❖ Explosives involved or seriously exposed
 - ❖ Lack of water supply or proper extinguishing agent

Incident Command

40

Strategy Selection

■ No Attack (Non-Intervention)

- Incident beyond scope of FD capability
 - ❖ Haz Mat / Building collapse / Terrorist incidents
 - ❖ Major Utility Incidents/ Technical Rescue
- Best action is to:
 - ❖ Protect life
 - ❖ Call In experts to mitigate
 - ❖ FD usually in support role

Incident Command

41

Strategy Selection

■ Strategy Modification

- Fireground management **MUST** be Open-minded
 - ❖ Strategy not a closed-ended decision
 - ❖ I.C. must maintain "What-if" mentality
 - ❖ Have "Plan B" (and C and D) in your back pocket

Modification MUST not be a crisis

Incident Command

42

Tactical Mistakes

- Arrival and Operations
- Combining offensive and defensive attacks in the same area

videovideo

Incident Command 43

Strategy Selection

- Influenced by Timely and Accurate Progress Reports
- Decentralization Assists in Reducing Span of Control
- Enhances the Decision-Making Process
- The day of the fire is not the day to set this up or figure this out

Incident Command 44

Tactical Mistakes

- Arrival and Operations
- Failure to maintain a proper span of control
- Decentralize

Incident Command 45

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



Incident Command

46

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**

Incident Command

47

Closely-spaced Strategy

- Put someone in charge of it
- Exposure line -- watch the soffits
- Search / evac
- Protective lines inside
- Close windows / remove stuff
- Vent unexposed side – consider wind
- Check for extension
- Salvage
- Reports

video

Incident Command

48

Division Progress Report

- Command Does not Exist on an Island
- Progress Reports at Regular Intervals Assist I.C. in Evaluating Action Plan



Delta Division



Roof Division

Incident Command 49

Command Progress Report Information

- Given over the radio at ten or fifteen minute intervals
 - Info for report culled from operational areas Actions Underway or Completed
 - Eg. Line Placement and Status
 - Ventilation Progress
 - Search Results
- Incident Status Report
 - Doubtful Will Hold
 - Probable Will Hold
 - Situation Improving or Unchanged
 - Under-Control



Incident Command 50

THE BOTTOM LINE

There Is Absolutely No Way That the Incident Commander Can Evaluate the Effectiveness of an Operation Without Timely and *Concise* Reports From the Working Companies

Incident Command 51

Post Control Activities

- **Roll Call**
 - Provides Accountability
 - Reinforces Company Integrity
 - Company Should State Location
 - Allows Command Board to be Updated

Incident Command 52

Post Control Activities

- **Safety Survey**
 - Conducted Prior to Overhaul
 - Conducted by Safety Officer
 - ❖ Light Up Area
 - ❖ Rope Off Hazardous Conditions/Areas
 - ❖ Announce Via Radio Dangerous Areas
 - ❖ Suspend Operations (if Necessary) until Daylight
 - Maintain Fire Watch

Incident Command 53

Post Control Activities

- **Secondary Search**
 - Must Be Conducted and Reported at All Fires
 - Utilize Fresh Personnel
 - Must Include Entire Building and Area
 - Perimeter Too (Remember Those Jumpers)

Incident Command 54

Post Control Activities

- **Salvage**
 - Salvage must be important to IC
 - Think Like Water
 - Should Start Early
 - ❖ May Start with Pre-planning
 - Assign Salvage Group
 - Don't Forget the Exposures

Incident Command 55

Post Control Activities

- **Origin and Cause**
 - All Fires Must Be Investigated for Cause and Origin
 - ❖ Not Job for Amateurs (Call a Real Investigator)
 - Consider Suspending Overhaul Until Preliminary Investigation is Complete
 - Maintain Scene Custody as Long as Necessary (See Mich. V. Tyler)

Incident Command 56

Michigan V. Tyler

- F.D. Left Scene and then Returned to Collect Evidence
 - ❖ Determined to be Illegal Search/Seizure
- Judge: F.D. may Remain at Scene for a "Reasonable" Amount of Time to Conduct Investigation
- Once F.D. Leaves, Must Have a Warrant or Consent to Return
Moral: *STAY UNTIL YOU FINISH THE JOB*

Incident Command 57

Building Marking Systems

- Alerts Responders At-a-Glance to Unsafe Buildings and/or Conditions
 - IC / ISO Responsibility to Mark Building Properly
 - Placed in Conspicuous and Consistent Area (SOP-directed)

Incident Command

58

Building Marking Systems



No Entry



Use Caution



Entry Permitted

R/O = Roof Open

F/O = Floor Open

Incident Command



Incident Command

Post Control Activities

- Systems Restoration
 - ❖ Alarm Systems
 - ❖ Sprinkler/Standpipe
 - ❖ Utilities
- Usually *NOT* F.D.'s Responsibility
- If System is not Restored *Building Owner Must Provide Fire Watch*
- F.D. Must Follow-up on System Restoration

Incident Command

60

Post Control Activities

- De-escalate/Demobilize
 - Requires a Plan
 - ❖ Equipment/Apparatus
 - ❖ Personnel
 - Assign Demobilization Officer

Incident Command 61

Post Control Activities

- Return Property to Responsible Party
 - Explain F.D. Operations
 - Public Relations
 - ❖ Explain Necessary damage (Roof Cuts, windows Removed For Venting, Water, and Smoke)
 - Distribute After the Fire Pamphlet
 - ❖ I.D. Location to Obtain Fire Reports

Incident Command 62

Post Control Activities

- Termination
 - Follow Department Protocols
 - Return Companies To Service
 - Terminate Command
 - Conduct Post Fire Analysis
 - Look Forward to the Next Satisfied Customer

Incident Command 63

Post Fire Analysis

- Meet with Major Players
- Evaluates Operations / S.O.P.'s
- Identifies Strengths and Weaknesses
- Write Down Significant Points
- This is Critique Pre-Plan

Incident Command 64

Conclusion

- Success on the Fireground Begins and Ends With Strong Command and Disciplined Operations
- The Objective: Return Companies Home in the Same Condition as When They Left
- Safety is *Always* the Overriding Concern

Incident Command 65
