

Fireground Tactics

A firefighter's Experience in Istanbul*

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* Views expressed in this presentation are only presenters personal views and based on personal observations and experiences.

ISTANBUL

- Official population: 14.377.018
- Around 19-20 m people
- 5.343 Km2 area
 - Rural,
 - Urban/rural interface,
 - Industrial,
 - Metropolitan,



ISTANBUL

- Old buildings
- Narrow/complex streets
- Stair streets
- Steep hills



MAJOR RISKS

- Fires
- Floods
- Civil unrest
- Terrorist attacks
- Earthquakes



ISTANBUL FIRE DEPARTMENT

- Founded in 1715
- 4420 Career Firefighters / 474 Volunteer Firefighters
- 244 EMTs and Doctors
- 739 Fire appliances
- 92 career stations / 21 volunteer stations



ISTANBUL FIRE DEPARTMENT

- 49,482 Calls in 2014 (EMS not included)
- 22,848 Fire Calls
 - 13,342 Structural fires



Response system

Groups

- Fire team (standard response to a structure fire)
 - Rescue- Pump -Ladder - Water tender
- Initial response
 - Pumper /w rescue capacity
 - Water tender
- Speciality appliances
 - Heavy rescue
 - Elevated streams
 - High aerials
 - High capacity pumps
 - HAZMAT
 - Etc.

Platoons

- Platoon response
 - Pumper w/Rescue capacity – Ladder * water tender
- Speciality appliances

4-5 appliances and 12-16 FFs in first 6 minutes

8-10 appliances and 24- 30 FFs in first 12 minutes

Firefighter Safety

National Occupational Safety Regulations regarding fire service

- Firefighters are bound by occupational safety law only when they are performing their station duties.
- Occupational safety law is not applied during disaster and emergency operations

Pedestals for Firefighter Safety at Fires

- Training
- PPE
- Incident Command
- **Common Sense & Reasonable action**

Wellnes & Health

- Every station has cleaning machine to clean turnout gear.
- Turn out gear is replaced fairly often
- Seperate time for sports and GYM
- Working cycle and firefighter lifestyle may cause more stress than fires themselves

Firefighter Safety vs Efficency*



*My personal half assed theory on relationship between safety and efficency

Firefighter Training

Training

- Firefighters may be employed among the graduates from Firefighting technical schools, ordinary high schools, various four year university programs.
- All of them has to complete five months of basic training.
- After two years firefighters start speciality courses on various topics like rope rescue, water rescue, fire response techniques, hazmat etc.
- Officer's training do not include technical topics about fire and rescue diciplines. It only covers relevant regulations and laws

Fire Training

- There is no dedicated CFBT program in training agenda.
- Scientific basis for fire behavior training is neglected.
- Small scale models are not utilized.
- Not enough of interest in recent scientific developments.



On The Job Training

- Most effective among other training methods.
- Firefighters usually get used to the job by going to fires and following experienced firefighters.
- Watch managers ensure everybody is able to perform their duties as an individual and as a member of the team.
- They blend their experience with the theoretical knowledge disseminated by training center.

Incident Command

Incident Command

- Not very strict command structure.
- High degree of initiative given to firefighters.
- Routines
 - No rigid and definitive SOP's
 - Loose routines that may be altered based on fireground needs

Fire Operations

Flow Rates

- High pressure low flow hose reels as primary attack line
 - Maneuverability
 - Less water damage
 - Enough for most of the residential fires
- Low pressure handlines (52mm)
 - For 52mm hoses 400 LPM to 800 lpm
 - Deployed as back up lines for booster lines
 - Primary attack lines for fires that clearly require more water than booster lines

Water Supply

- Relies on on board waters and water tenders
- Problematic hydrant system
- Private water basins

CAFS

- CAFS is used for both interior and exterior applications.
 - Interior: Wet foam for direct attack
 - Exterior:
 - External fire attack for fully involved spaces
 - Exposure protection

Ventilation

- Anti ventilation as primary ventilation strategy.
 - No official close the door procedure.
- Horizontal and vertical ventilation is utilized after darkening down the fire.
- PPV for only smoke removal

Rules of Engagement

- Early water on the fire
 - Preferably from interior,
 - If interior not possible, exterior application commenced,
 - Search and Rescue and Fire attack starts simultaneously,
 - If not enough staff on scene fire attack has the priority,



Rules of Engagement

- Decision to go in
 - Fuel characteristics (Chemicals etc.)
 - Fire conditions
 - Construction type.
 - Combustible or fire resistive
 - Collapse indicators

Rules of Engagement

- Interior attack
 - To a room and contents fire in a concrete building
 - To a room and contents fire in a combustible building
 - To a room and contents fire in an industrial building
 - To any fire in a large scale commercial fire

Rules of Engagement

- No two in two out
 - No two in two out system
 - All available resources are committed to the fire operations
 - On major fires there may be units waiting on deck
- No RIT
 - Firefighters in distress rescued by members who are operating together.

LODD's or Near Misses

- No deaths caused by fire behaviour related events
- LODD's resulted from
 - Structural/non structural collapse
- Near misses/injuries
 - Collapses
 - No visibility conditions
- LODD's (Istanbul)
 - 2015: 1
 - 2009: 1
 - 2005: 1
 - 2002: 1
 - 2001: 2
 - 1997: 2

Thanks