



# Stamford Fire Department

## 201 E McHarg

### Stamford, Texas 79553

Subject: Fireground Factors  
Revised: 11-16/08

## 22.00 FIREGROUND FACTORS

- Fireground factors offer a standard list of basic items Command must consider in the evaluation of tactical situations. This list should provide Command with a "checklist" of the basic items that are involved in size-up, decision-making, initiating action, review and revision on the fireground.
- The effective Command officer soon learns that he can only deal with a limited number of factors of any kind on the fireground. Within the framework of that limitation, the identification of the critical factors is extremely important. All the factors are not critical in any one tactical situation. Command must identify the critical fireground factors that are present in each tactical situation, the list of factors offers a framework for that process.
- Many times we begin operations before adequately considering the critical fireground factors. Size-up is a conscious process involving the very rapid but deliberate consideration of the critical factors and the development of a rational plan of attack based on those conditions. Attack is many times an instinctive action-oriented process that involves taking the shortest and quickest route directly to the fire. Action feels good in fireground situations while thinking delays action; and beware of non-thinking attack situations and non-thinking attackers.
- Fireground factors represent an array of items that are dynamic during the entire fireground process and the relative importance of each factor necessarily changes throughout that time frame. Command must continually deal with these changes and base decisions on factor information that is timely and current. Beware of developing an initial plan of attack and sticking to that same initial plan throughout the fire, even though conditions continue to change. Effective fire operations require attack plan revisions that continually reconsider fireground factors based upon information feedback.
- In critical fire situations, Command may develop an initial plan and initiate an attack based on an incomplete evaluation of fireground factors. In such cases, he must continue throughout the operation to improve the information he bases his decisions upon. He will seldom operate with complete information during initial operations.



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The effective management of each fireground factor requires Command to apply a somewhat different form of information management (visual, recon, preplan) to that factor. This is particularly true between the major categories of factors. Command must link the best way to deal with each factor to that factor.

- Most tactical situations represent a complex problem with regard to how Command deals with fireground factor information. There are factors that can be determined from his operating position on the outside of the structure and other factors that can only be determined from other operating positions for both outside and inside the structure. Fireground intelligence available to Command is developed utilizing an overlapping variety of these information factors and forms.

#### **These forms of information revolve around the three following basic factors:**

1. **Visual Factors** - These factors include those obvious to visual observation and those absorbed subconsciously. This visual information is categorized as the type that can normally be gained by actually looking at a tactical situation from the outside. This form of intelligence involves the perceptive capability of Command.

2. **Reconnaissance Factors** - These factors include information that is not visually available to Command from his position on the outside of a tactical situation and must be gained by actually sending someone to check-out, go-see, look-up, research, advise, call, go-find, etc. This generally involves Command making a specific assignment and then receiving an information-oriented report.

3. **Preplanning and Familiarity Factors** - These factors include the intelligence that is gained from formal pre- fire planning and by general informal familiarization activities. Such intelligence increases the information initially available to Command from the **OUTSIDE** of a tactical situation. This information arms Command with intelligence that he would normally have to assign as a Reconnaissance Factor or do without.



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#### - BUILDING

Size

Interior arrangement/access (***stairs, halls, elevators***) Construction type

Age

Condition - faults/weaknesses

Value

Compartmentation/separation

Vertical- horizontal openings, shafts, channels

Outside openings - doors and windows/degree of security Utility characteristics

***(hazards/controls)***.

Concealed spaces/attic characteristics

Exterior access

Effect the fire has had on the structure (***at this point***).

Time projection on continuing fire effect on building

#### - FIRE

Size

Extent (***% of structure involved***)

Location

Stage (***inception to flashover***).

Direction of travel (***most dangerous***)

Time of involvement

Type of amount of material involved – structure/interior finish/contents/everything

Type and amount of material left to burn

#### - OCCUPANCY

Specific occupancy

Type-group (***business, mercantile, public assembly, institutional, residential, hazardous, industrial, storage, school***)

Value characteristics associated with occupancy

Fire load (***size,-nature***)

Status (***open, closed, occupied, vacant, abandoned, under construction***)

Occupancy associated characteristics/hazards

Type of contents (***based on occupancy***)

Time - as it affects occupancy use

Property conservation profile/susceptibility of contents to damage/need for salvage

Moral hazard



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#### - LIFE HAZARD

Number of occupants

Location of occupants (*in relation to the fire*)

Condition of occupants (*by virtue of fire exposure*)

Incapacities of occupants

Commitment required for search and rescue (*men, equipment, and command*)

Fire control required for search and rescue

Needs for EMS

Time estimate of fire effect on victims

Exposure of spectators/control of spectators

Hazards to fire personnel

Access rescue forces have to victims

Characteristics of escape routes/avenues of escape (*type, safety, fire conditions, etc.*)

#### - ARRANGEMENT

Access, arrangement, and distance of external exposure

Combustibility of exposures

Access, arrangement, and nature of internal exposures

Severity and urgency of exposures (*fire effect*)

Value of exposures

Most dangerous direction - avenue of spread

Time estimate of fire effect on exposures (*internal and external*)

Obstructions to operations

Capability/limitations on apparatus movement and use

#### - RESOURCES

Manpower and equipment on scene

Manpower and equipment responding

Manpower and equipment available in reserve

Estimate of response time for men and equipment

Condition of men and equipment

Capability and willingness of personnel

Capability of commanders

Nature of command systems available to Command

Number and location of hydrants

Supplemental water sources

Adequacy of water supply

Built-in private fire protection (*sprinkler, standpipe, alarms Outside agency resource and response time*)



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**- OTHER FACTORS/CONDITIONS**

Time of day/night

Day of week

Season

Special hazards by virtue of holidays and special events

Weather (***wind, rain, heat, cold, humid, visibility***)

Traffic conditions

Social conditions (***strike, riot, mob, rock festival***)