***UNIT 3:***

***Fireground decision making***

*objectives*

*The students will:*

*1. Explain the need for a logical thought process.*

*2. State the difference between Classical Decision Making and Naturalistic Decision Making (NDM).*

*3. Assess an incident scene and determine whether Classical Decision Making or NDM is the appropriate decision making model to use at a particular incident.*

*4. State the importance of knowing when to be proactive and when to be reactive.*

points for the instructor

This unit explains and reinforces the difference between Classical Decision Making and Naturalistic Decision Making (NDM).

Classical Decision Making is used when the incident type presents cues with which the decision maker has little or no experience. The incident requires a set of reactions that the decision maker has not experienced or learned before the incident occurs. In this situation, the decision maker must process information by reading the cues, comparing those cues to what has been learned from similar situations, arriving at a conclusion or result by hypothesizing, determining the actual problems and strategy for the incident, evaluating and select the most effective tactics, and implementing the action plan. Having completed this process--and if the resulting actions are successful--the decision maker in future similar situations will simply use the NDM method to reach the desired conclusions and results.

NDM is a process in which extremely fast decisions can be made. The process depends on the experiences and training of the decision maker. The decision maker relies on reading critical cues from the incident, comparing those critical cues to previously witnessed or learned critical cues, and reacting to those critical cues in a manner previously witnessed or learned. For highest efficiency, the decision maker must know what critical cues are most important for the specific situation and must know the most effective specific response to each critical cue. For example, if one learns the correct critical cues but learns the incorrect response to those critical cues, the decisions made will be flawed and the most correct and efficient solutions will not be applied. NDM is extremely rapid and is the desired method for emergency operations.

The Command sequence is presented as an outline for officers to follow when developing and implementing an action plan using the classical method of problem-solving. By following the Command sequence, officers/crew leaders are forced to think before they act when they do not possess the ability to perform NDM. Skipping any one of the elements of the Command sequence can jeopardize the safety of personnel and the effectiveness of available resources. The Command sequence is the process tool that allows an officer/crew leader to develop the ability to apply critical-cue-directed results/ answers/solutions quickly.

It is important to remember and reinforce that the critical cues and responses must be learned if NDM is going to be improved. The Command sequence is not the end; it is simply a means to the end. The Command sequence should be used at the emergency scene when the decision maker lacks the ability to perform NDM at a specific incident. However, it will be most effective to use in a training environment in which the most correct critical cues and reactions can be chosen, modified, and reinforced. The highest level of learning the critical cues, conclusions, and results will be from experts reinforced by application (simulations).

attitudes to foster

Learning and reinforcing correct critical cues, conclusions, and results are often accomplished through a trial-and-error method. The expert instructor will often be challenging what a student already knows and what that student may consider the most appropriate conclusion or result for a specific situation. The instructor must foster student confidence in the instructor's expertise. Instructors must also recognize that the number of incident-scene variables is very high and that slight alterations in what those variables generate as critical cues may affect conclusions and results greatly. The instructor should listen closely to the student when there is a difference of opinion, attempt to understand and elicit from the student the applicable critical cues, and then form a value-based opinion on the best conclusion or result. In a number of cases, there may be several acceptable "best" answers.

methodology

This unit uses lecture and discussion. It is important that the instructor develop a supportive and open environment. Instructors should challenge the students to examine their present perceptions and values regarding incident priorities.

**(Total Time: 1 hr.)**

60 min. Lecture/Discussion

Objectives and Overview IG 3-5

Need for a Logical Thought Process IG 3-6

Incident-Scene Decision Making IG 3-8

Summary IG 3-12

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Slides 3-1 to 3-19

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| Slide 3-1 |  |  |
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|  |  |
| 60 min. |  |  |
| Lecture/Discussion |  |  |
|  |  | I. Objectives and Overview (5 min.) |
| Slide 3-2 |  |  |
|  |  | A. Objectives. |
|  |  |
|  | The students will: |
|  |  |
|  | 1. Explain the need for a logical thought process. |
|  |  |
|  | 2. State the difference between Classical Decision Making and Naturalistic Decision Making (NDM). |
|  |  |  |
|  |  | 3. Assess an incident scene and determine whether Classical Decision Making or NDM is the appropriate decision making model to use at a particular incident. |
|  |  |  |
|  |  | 4. State the importance of knowing when to be proactive and when to be reactive. |
| Slide 3-3 |  |  |
|  |  | B. Introduction. |
|  |  |
|  | 1. This unit explains the difference between Classical Decision Making and NDM. |
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|  | 2. It uses the Command sequence to teach the classical methodology. |
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|  |  | a. The expert way of making incident-scene decisions is cue-based. |
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|  |  | b. Therefore, this unit presents incident information in the form of cues that should trigger conclusions or actions to take or avoid. |

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|  |  | 3. Throughout this unit and the course activities, students will recognize that NDM is more effective for the incident scene. |
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| Slide 3-4 |  |  |
|  |  | II. Need for a Logical Thought Process  (20 min.) |
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|  | A. Emergency scene can be confusing on arrival. |
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|  | 1. High demand to take immediate action. |
|  |  |
|  | 2. Limited resources on arrival. |
|  |  |  |
|  |  | 3. Many decisions to be made with minimal information. |
|  |  |  |
|  |  | 4. Radio traffic at its peak. |
| Slide 3-5 |  |  |
|  |  | B. Proactive versus reactive. |
|  |  |
|  | 1. Every incident has a leader. |
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|  | a. If you react without assessing the incident, sometimes the incident leads. |
|  |  |
|  |  | b. Sometimes the Incident Commander (IC) is the leader. |
|  |  |  |
|  |  | 2. When the incident leads. |
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|  |  | a. Events occur and we react. |
|  |  |  |
|  |  | b. We continue to react until the fire goes out. |
|  |  |  |
|  |  | c. We are in reactive mode. |
|  |  |  |
|  |  | 3. When the IC leads. |
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|  |  | a. Initial assessment is made, objectives are developed. |
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|  |  | b. Strategy is established. |

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|  |  | c. Resources are evaluated. |
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|  |  | d. Tactics are developed that maximize the use of resources to deal with the incident. |
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|  |  | e. Potential problems and resource needs are identified. |
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|  |  | f. The IC is being **proactive**. |
| Slide 3-6 |  |  |
|  |  | C. Dangers of being reactive. |
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|  | 1. Safety of firefighting personnel and civilians is jeopardized. |
|  |  |
|  | 2. Objectives are not developed or identified, or are inappropriate. |
|  |  |
|  |  | 3. Strategy or plan for the effective use of resources is not in place. |
|  |  |  |
|  |  | 4. Tactics to deal with the incident are not appropriate for the situation resources available or developed. |
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|  |  | 5. Increases damage or growth of incident. |
| Slide 3-7 |  |  |
|  |  | D. Points to remember. |
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|  | 1. We respond to other people's actions and mistakes. |
|  |  |
|  | 2. Don't compound other people's mistakes by making mistakes of your own. |
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|  |  | 3. We may have only one chance to do it right. |
| Slide 3-8 |  |  |
|  |  | E. How to stay proactive. |
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|  | 1. Use a logical thought process at every incident. |
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|  | 2. Take time to gather your thoughts and to settle down when you first arrive at an incident. A few seconds taken here can save hours in the history of an incident. |
|  |  | 3. gyst definition: **G**ather **Y**our**s**elf **T**ogether. |
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| Slide 3-9 |  |  |
|  |  | III. Incident-Scene Decision Making (30 min.) |
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|  | A. **Two primary methods** are used by incident-scene decision makers to reach conclusions, determine results, and institute actions. |
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|  | 1. Classical Decision Making--based on training without a depth of experience. |
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|  |  | 2. NDM--based on experience. |
| Slide 3-10 |  |  |
|  |  | B. The **classical** method is a time-consuming process. The decision maker: |
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|  | 1. **Gathers** information. |
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|  | 2. **Analyzes** the information. |
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|  | 3. **Determines** the problems that are present and selects and prioritizes those problems in order of importance (objectives). |
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|  |  | 4. **Determines** and **prioritizes** what the solutions must be (strategy). |
|  |  |  |
|  |  | 5. **Selects** tactics from one or more options (tactics). |
|  |  |  |
|  |  | 6. **Issues** directives to have the tactics implemented (tactics). |
| Slide 3-11 |  |  |
|  |  | C. The **classical** process is used when the decision maker is in **training**. |
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|  | 1. Being taught the critical cues, conclusions, results, and actions for an **incident type not previously learned**, or learned incorrectly. For example, an **urban or city** fire officer learning **wildland firefighting** decision making from a wildland expert. |
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|  |  | 2. **Evaluating** and **comparing** the critical cues used, conclusions and results determined, and actions taken by other decision makers, e.g., case studies. |
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|  |  | a. To **determine** obvious and subtle **differences**. |
|  |  |  |
|  |  | b. To **provide** **optional** conclusion, result, and action sets based on those differences. |
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|  |  | c. To provide **cues** that would indicate that **certain** actions should **not** be directed. |
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|  |  | 3. The classical process is used during evaluation and planning when time is not a factor. |
| Slide 3-12 |  |  |
|  |  | D. The classical process is needed when the decision maker is at an **actual incident scene** and there has been **little** or **no previous experience** or **training** with this specific incident type or **little** or **no previous experience** or **training** with an incident with the **variables** that are now present. |
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|  | 1. The decision maker must **not** direct tactical actions until a basic plan has been formulated. A process that **does not include** an evaluation of the incident information, risk-benefit analysis, and appropriate strategies and tactics is not a **plan--it is a design for disaster**. |
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|  |  | 2. The plan **must be based on** incident information (**critical cues**), real problems, and appropriate broad solutions (**strategies**). |
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|  |  | 3. The best specific solutions (tactics) must be applied, and most often, these tactics will be chosen from several options. |

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| Slide 3-13 |  |  |
|  |  | E. The **naturalistic** method is a process in which the decision maker: |
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|  | 1. **Looks** for certain critical cues (visual, verbal, audible, touch, smell). |
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|  | 2. **Relates** those critical cues to previous similar situations (experience or training). |
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|  |  | 3. **Recalls** the previous conclusions, results, and actions that best fit the new situation. |
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|  |  | 4. **Issues** directives to have the tactics implemented. |
| Slide 3-14 |  |  |
|  |  | F. The **greater** one's experience on the **same type** of incident, the greater one's ability to read the subtle differences at any incident of that type, draw **refined** conclusions, and direct the most appropriate actions to provide a solution. |
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| Slide 3-15 |  |  |
|  |  | G. Basing decisions on outcomes from previous experience can produce action results much faster than following a step-by-step intellectual process. |
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| Slide 3-16 |  |  |
|  |  | H. When the decision maker has adequate experience or training for the incident type, the NDM method will be used. |
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|  | 1. NDM is the way the brain normally works. It will always try to perform NDM to solve any problem or answer any question. |
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|  | 2. When NDM fails to provide the solution or answer, then you must have a method of providing said answers and solutions. |
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|  |  | 3. The NDM method is almost **instant** recall of previously learned information. |
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|  |  | a. It includes the **interrelationships** of specific information with conclusions, results, and actions based on whether or not they worked previously. |
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|  |  | b. Therefore, it provides a direct, **lightning**-**fast** link from what I see, hear, smell, and feel to what I do. |
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|  |  | 4. Because of the **time-pressure** nature of emergency-scene decision making, the **choice** between NDM and classical methods will **not** be conscious. The decision maker's brain **always** will attempt NDM first. |
| Slide 3-17 |  |  |
|  |  | I. The decision maker must recognize when he/she possesses **insufficient** information to use the NDM method: |
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|  | 1. When it is obvious to the decision maker that there has been **no** experience or too **little** training on the specific incident. |
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|  |  | 2. When the decision maker recognizes that the incident cues are **very unfamiliar** and do **not** immediately result in what he/she considers appropriate action. |
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|  |  | 3. When the decision maker feels **lost** or **overwhelmed**, **cannot** **think**, or is **in** **a** **panic**, the **classical** method is probably the appropriate response. |
| Slide 3-18 |  |  |
|  |  | J. The decision maker will use the **classical** method to evaluate **naturalistic** actions that have been ordered in a specific situation to ensure that what is being done is achieving the desired result. |
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| Slide 3-19 |  |  |
|  |  | IV. Summary (5 min.) |
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|  | A. In this unit we discussed the difference between NDM and Classical Decision Making. |
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|  | B. You saw how decisions are made at an incident scene and how they can impact the entire situation. |
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|  |  | C. You saw how important it is to have a logical thought process in the midst of confusion and chaos. |
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|  |  | D. Last, we discussed the importance of being proactive at the incident scene. |
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