Objectives:

21.1 Illustrate at least three characteristics of organizational decision making under crisis conditions

21.2 Explain the functioning and typical staffing of an emergency operations center (EOC)

21.3 Explain at least two EOC management models

21.4 Describe the decision-making climate within an EOC

21.5 Describe five common EOC problems

21.6 Define “groupthink” and explain its relevance to crisis decision making.

Scope:

In this session students are introduced to crisis decision making and the conditions that characterize it. The functioning, staffing, and organization of emergency operations centers (EOCs) are reviewed as are common problems.

Readings:

Student Reading:


Professor Readings:


**Background References:**


**General Requirements:**

Overheads (21-1 through 21-12 appended).

See individual requirements for each objective.

**Objective 21.1 Illustrate at least three characteristics of crisis decision making.**

**Requirements:**

Use Overheads 21-1 through 21-5.

**Remarks:**

I. Cosgrove typology of crisis decisions.

   A. Exercise.
1. **Remind** students of exercise procedures.

2. **Divide** class into four groups and assign roles.
   
   a. Chair.
   
   b. Reporter.
   
   c. Timer.

3. **Announce** time limit: 5 minutes.

B. **Display** Overhead 21-1; “Cosgrove Typology of Crisis Decisions”.

   1. **Remind** students of the three dimensions proposed by Cosgrove (1996).
      
      a. Urgency.
      
      b. Acceptance.
      
      c. Quality.

   2. Emergency managers should **evaluate** the decisions required and **respond** to them appropriately. Some require group input (acceptance), while others can best be **delegated** to a subordinate or single agency.

   3. **The overhead** is a diagrammatic presentation of Cosgrove’s analysis.

   4. **Most common responses** are these (see Cosgrove 1996, p. 34).
      
      a. Delegate (low quality problem).
      
      b. Delegate only with care (high quality problem).
      
      c. Maximize future choice (urgent).
      
      d. Apply normal decision roles (non-urgent).
      
      e. Consult (high need for acceptance).
      
      f. Take decision (low need for acceptance).

C. **Display** Overhead 21-2; “Extrapolation of Cosgrove Typology”.

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Session 21
1. **Explain** the extrapolation and relate to the diagram of the typology, i.e., Overhead 21-1.

2. **Elaborate** as necessary to insure that all students understand an example of a decision that fits at least one of the cells in the typology.

   a. **Example**: cell Number 1.

      1) High on all three dimensions.
      2) “Case B” by Cosgrove (pp. 33-34).
      3) “A refugee camp management received notice that problems in the food pipeline would probably lead to a break in food supplies for one or two months.” (p. 33).

   b. **Example**: cell Number 8.

      1) Low on all three dimensions.
      2) “Case 1” by Cosgrove (p. 31).
      3) “Water distribution points to be serviced by a water tanker were to be placed along the access road of a refugee camp. . . . should these points be placed to the north or the south of this road?” (p. 31).

D. **Display** Overhead 21-3; “Workshop Tasks”.

   1. Task: Using the Cosgrove Typology, formulate one decision that illustrates each of the two cells assigned to your group. Explain how your decision example reflects the three dimensions in the Typology. Use Cosgrove’s examples only for guidance; create your own illustrations.

   2. Group 1 – Cells 1 and 5.
   5. Group 4 – Cells 4 and 8.

E. **Start** discussion.

F. **Stop** discussion.
G. **All group reports**: 2 minutes each.

H. **Compare** and contrast the student generated examples.

I. **Explain** any errors by discussing which of the three dimensions are not reflected in the example presented.

II. Characteristics of crisis situations.

A. **Definition**: a crisis is a time of acute danger or difficulty; also defined as a time when decisive decisions are required.

B. **Explain**:
   1. Dynes, Quarantelli and Kreps (1972) studied dozens of disaster case studies.
   2. They identified six commonalities.
   3. These commonalities are the key features of crisis situations and the types of community changes that define them.

C. **Display** Overhead 21-4; “Characteristics of Crisis Situations.”

D. **Review** and illustrate as required.

   1. Uncertainty.
   2. Urgency.
   3. Emergency consensus.
   4. Expansion of citizenship role.
   5. Deemphasis of contractual and impersonal relationships.

III. Decision making in crisis situations.

A. **Explain**:
   1. Dynes and Quarantelli (1977) examined 301 field studies conducted by Disaster Research Center (DRC, Ohio State University at that time) staff.
2. Based on these and relevant theoretical formulations, they identified 126 propositions.

3. Each of these defined some types of change that seemed to occur in decision-making processes during crisis events (pp. 27-38).

4. **Examples of propositions.**

   a. “Hastily made decisions receive *ex post facto* legitimization.” (p. 9).

   b. “Under conditions of stress, and where legal jurisdictions overlap, there is a tendency to handle decisions informally.” (p. 9).

B. **Display** Overhead 21-5; “Decision Making in Crisis Situations.”

C. **Review** and **illustrate** as required.

   1. Speed of decision making increases.
   2. Number of decisions increases.
   3. More decisions made at lower levels.
   5. Less consultation.
   6. Higher individual autonomy.
   7. Quicker commitments.
   9. Ex Post Facto legitimization.

D. **Explain**: changes in the decision making process during a crisis reflects a **shift** from “coordination by plan” to “coordination by feedback.”

   1. **Plans can never cover** all contingencies.

   2. **Emergency managers must design** and implement **mechanisms** to facilitate feedback.
3. **As decisions are implemented** by one sector or unit within the emergency response, the consequences must be shared with others in a regular and timely manner.

**Supplemental Considerations:**

Some professors may wish to **expand** this section in any or all of several different ways. For example, after discussion Overhead 21-4, the class could be asked to **compare** this formulation with Cosgrove’s Typology. Conversely, similar class discussion could occur following **discussion** of Overhead 21-5. Finally, some may wish to **require additional student examples** and lengthen the discussion focused on the exercise portion of this section. Whatever strategy is adopted, the **key message** must not be lost, i.e., crisis decision making has **distinctive characteristics** which differentiate it from the routine organizational decision making process.

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**Objective 21.2  Explain the functioning and typical staffing of an emergency operations center.**

**Requirements:**

Overheads 21-6 and 21-7.

**Remarks:**

I. Functions of an emergency operation center (EOC).

   A. **Definition:** a **community** EOC is a location where representatives from relevant governmental and selected private sector agencies (e.g., Red Cross) can assemble.

   B. **Authority:** each participating agency must be represented by a staff member who has decision-making authority for their unit.

   C. **Display** Overhead 21-6; “Functions of an EOC.”

   D. **Review** and illustrate each function (based on Perry 1991, pp. 204-206).

      1. Assembly point.

      2. Coordination.

      3. Policy decisions.

      4. Operations management.
5. Information gathering.


7. Host VIP visitors.

II. Staffing a community EOC.

A. **Explain**: nomenclature for local government agencies varies somewhat throughout the U.S.A.

1. Example: some counties have police and fire departments, others do not.

2. Example: public works units may be labeled “streets and sanitation” or “roads and bridges” depending on locale.

B. **Explain**: by the term “community” reference is made to either a county or a municipality. The term “parish” is used in Louisiana and some eastern states are organized into “towns” and “townships”.

C. **Typical** local government departments and private sector agencies with personnel assigned to EOC.

1. Elected officials, e.g., city council, county commissioners.

2. Emergency manager.

3. Administrator, e.g., city manager.

4. Law enforcement.

5. Fire.

6. Public works.

7. Emergency medical, e.g., hospital representative and/or ambulance service.


9. Red Cross or other representative for voluntary organizations, e.g., Voluntary Organizations Active in Disaster (VOAD).

10. Public utilities, electric, gas, telephone.

12. Coroner, e.g., morgue and mortuary services.

13. Legal, e.g., county attorney.


15. Emergency communications, e.g., amateur radio.

16. Other units depending on agent characteristics, e.g., schools for shelter use and/or transportation, airport and/or other transportation authorities, e.g., subway, bus, etc.

D. **Remind** students of upcoming field trips to EOCs, e.g., community, state, federal and/or class visit by agency representative.

III. **Different types of operations centers.**

A. **Explain**: community EOCs are only one of several types.

B. **Disaster responses** may involve any or all of these types of EOCs with different terms used to differentiate them.

C. **Primary functions differ.**

1. **Agency command centers.**
   
   a. **Within** a single large agency, a command center may be established to facilitate resource and personnel within that agency.
   
   b. May be primary point of contact between community EOC and the agency.
   
   c. **Example**: large police or fire department may establish an internal command center.
   
   d. **Example**: local Red Cross chapter may establish a command center at headquarters to facilitate coordination among other voluntary organizations.

2. **On-scene tactical command centers.**
   
   a. One or more **tactical** command centers may be established near an impact area.
b. In highly diffuse events, certain agencies may establish two or more such centers, e.g., one on each side of a flooding river.

D. Strategic versus tactical roles.

1. Community EOC focuses on strategic issues.

2. Agency and on-scene centers focus on tactical issues.

E. State and Federal EOCs.

1. Implemented in larger, severe disasters.

2. Will establish linkages to local EOCs.

3. Agency representatives will reflect relevant state and federal resource units.

4. Remind students of discussion of intergovernmental coordination in Session No. 6; “All-Hazards Emergency Management”; Objective 6.9, Section II.B.9.

Supplemental Considerations:

Depending on the context within which this course is offered, this brief overview may be all that is required. Some professors may wish to distribute an outline or diagram of the EOC within their local community. Others may use a disaster case study to illustrate the types of EOCs that were established and the differentiation of roles.

Objective 21.3 Explain at least two EOC management models.

Requirements:

Use Overheads 21-7 and 21-8.

Remarks:

I. Four functional groups.

A. Some local emergency managers will divide the community, including EOC representatives, into four major groups.

B. Remind students of discussion in Session No. 6; “All-Hazards Emergency Management,” Objective 6.9, Section II.B.9.
C. **Display** Overhead 21-7; “Four Functional Groups”.

D. **Review** and illustrate as necessary (for elaboration and examples see the section of Objective 6.9 noted above).

   1. The policy group.
   2. The coordinating group.
   3. The operational response group.
   4. The field response group.

II. Incident Command System (ICS).

   A. **Explain ICS Basics**:

      1. The ICS had its **origins** within fire services.
      2. **Widely adopted** within emergency management.
      3. **Prime objective** is to obtain unity of command.
      4. **Historical analysis** and modifications, see Yates (1999).
      5. **Promotes** common terminology.
      6. **Provides** manageable span of control.

   B. **Display** Overhead 21-8; “Incident Command System (ICS) Organization”.


      1. **The command function** (IC = Incident Commander).

         a. May delegate authority as required and/or expand the ICS organization.

         b. Staff positions.

            1) Information officer.

            2) Safety officer.
3) Liaison officer.

2. **The planning section.**
   
a. Collection, evaluation, dissemination and use of incident information.

b. Status of resources.

c. Prepare Incident Action Plan (IAP).

3. **The operations section.**
   
a. Direct and coordinate all operations.

b. Assist the IC in developing response goals and objectives.

c. Implement the IAP.

d. Request resources.

e. Keep IC informed.

4. **The logistics section.**
   
a. Responsible for facilities, services and materials.

b. Responsible for personnel.

5. **Finance/administration section.**
   
a. Tracks incident costs.

b. Reimbursement accounting.

III. Federal Response Plan.

A. **Some local emergency managers** have implemented modifications of the Emergency Support Function (ESF) management model adopted by FEMA.

B. **Remind** students that the 12 ESFs were discussed in Session No. 6; “All-Hazards Emergency Management”; Objective 6.9, Section II.B.9.

C. **Display** Overhead 21-9; “The Federal Response Plan.”

D. **Review** and illustrate as required.
1. Transportation.
2. Communication.
3. Public works and engineering.
4. Firefighting.
5. Information and planning.
7. Resource support.
8. Health and human services.
9. Urban search and rescue.
11. Food.

**Supplemental Considerations:**

The key message of this section is the three management models and the reality that different local emergency managers use them in varied combinations. Some have implemented the ICS system and use it exclusively. Others have adopted the ESF model and modified it somewhat to fit their community. Still others have integrated aspects of both of these while others use the four functional groups as the key management tool. These variations are documented and described briefly by Drabek (2003c).

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**Objective 21.4** Describe the decision-making climate within an EOC.

**Requirements:**

Use Overhead 21-10.

**Remarks:**

I. Display Overhead 21-10; “EOC Decision-Making Climate.”
II. **Explain:** based on Perry’s (1991) literature analysis and personal observations in community EOCs.

III. **Review** and illustrate as necessary.

A. Pressure to take action.

B. Limited and uncertain information.

C. Shifting priorities.

D. Overlapping lines of authority and responsibility.

IV. **Ask students:** “How do these EOC climate characteristics compare to Cosgrove’s Typology?” (**Answer:** dimensions of urgency, quality and acceptance are reflected).

**Supplemental Considerations:**

The section may be **very brief.** The purpose is to provide a **basis for discussion** whereby the professor can integrate the more abstract **theoretically based** typology developed by Cosgrove with descriptions of the EOC environment. It should serve as an **integrative tool** for the various components of the session.

**Objective 21.5 Describe five common EOC problems.**

**Requirements:**

Use Overhead 21-11.

**Remarks:**

I. Common problems.

A. **Explain** Scanlon research (1994).

1. Reviewed U.S.A. research on EOC problems.

2. Reviewed Canadian research on EOC problems.

3. Conducted field research following 19 disasters in different Canadian communities.

B. **Display** Overhead 21-11; “Common EOC Problems.”
C. Review and illustrate with examples like these.

1. Overcrowding.
   a. Example: “In three incidents, EOC’s became overcrowded, in one case so crowded the EOC manager refused to let some agencies in, in another so crowded a roster was prepared and some persons were told they were no longer welcome.” (Scanlon 1994, p. 60).
   b. Example: Following an airplane crash just after take off at the Gander airport in Newfoundland (December 12, 1985) “... despite the fact the EOC was in a secure area, the airport manager felt too many persons were wandering in and out ...” (Scanlon 1994, p. 60).

2. Authority ambiguity.
   a. Example: In response to a massive tire fire (14 million tires) in Nanticoke, Ontario, the local mayor initially took charge (February 12, 1990). When declared a regional emergency, control was surrendered to the elected head of the regional council. (Scanlon 1994, p. 74). Such shifts in authority, may precipitate perceptions of ambiguity as to who is in charge. When an EOC is not established such perceptions are encouraged.
   b. Example: During the response to multicounty flooding in the Texas Hill Country during the Summer of 1978, Drabek et al. (1981) document several operational problems that reflected ambiguity of authority. “In one county, the sheriff and local CD director established separate EOC’s which were not well integrated. As one sheriff put it: this was ‘... the most unorganized situation I’ve ever been involved in.’” (Drabek et al. 1981, p. 89).

3. Inadequate communication.
   a. Example: Following a tornado in Edmonton, Alberta (July 31, 1987), “... it was 21 minutes after impact before volunteer firefighters reached a trailer park, the worst hit place in the city, much longer before details reached the EOC.” (Scanlon 1994, p. 65).
   b. Example: During the response to multicounty flooding in the Texas Hill Country during the summer of 1978, Drabek et al.
(1981) documented that poor interagency communications was the leading cause of coordination difficulties. “Most frequently cited were the indirect pathways required to communicate with helicopter pilots.” (Drabek et al. 1981, p. 89).

c. **A continuing problem.** Despite three decades of social science research repeatedly documenting such failures, the problems continue.

   1) **World Trade Center** attacks (September 11, 2001). “Tragically, hundreds of New York firefighters didn’t receive that warning [i.e., helicopter pilots advised incident commanders of the possible collapse] because they were using a different radio communications system. Totally unaware of the impending collapse, at least 127 firefighters, most within striking distance of safety, according to *The New York Times*, died.” (National Task Force on Interoperability 2003, p. 4).

   2) **Columbine High School** shooting spree in Littleton, Colorado (April 20, 1999). “Precious minutes were lost because command personnel were forced to send runners to communicate crucial information. Incompatible radio communication systems were a significant factor, according to the Columbine Review Commission.” (National Task Force on Interoperability 2003, p. 4).

4. **Personnel shifts over time.**

   a. **Example:** During the response to the airplane crash at Gander (see 1.b. above) “ . . . the EOC did not initially include anyone from the town but, . . . when spilled jet fuel threatened Gander’s water supply, the acting mayor was invited to join in. Later, because the crash involved United States Army personnel, an American general was invited as well.” (Scanlon 1994, p. 65).

   b. **Example:** “Membership in the EOCs studied proved to be quite fluid.” (Scanlon 1994, p. 65).

II. **Conclusion:** “An EOC is an effective way to achieve coordination among agencies responding to a major emergency or disaster. The absence of an EOC seems to encourage the opposite.” (Scanlon 1994, p. 70).

III. Lessons from the Hurricane Andrew response (Averch and Dluhy 1997).
A. Anticipate system breakdown.

1. “In a Category 4 or 5 hurricane, the civilian intergovernmental response pattern is inherently political and contentious.” (p. 88).

2. “It will tend to break down because there is not enough time to carry out the ad hoc negotiations and bargaining necessary for political equilibrium.” (p. 88).

B. Marginal improvement.

1. Corrective measures for improvement (p. 89):
   a. Communications.
   b. Repositioning.
   c. Clearer standard operating procedures.

2. Despite such measures, the crisis management system can be improved only marginally (p. 89).

C. Warning tradeoffs.

1. The timing of hurricane watches and warnings reflect tradeoffs (p. 89).

2. Tradeoffs, in turn, reflect “. . . different incentives and interests of the actors and agents involved.” (p. 89).

D. Use of disaster for political gain reflects (pp. 89-90):

1. Pre-event cleavages.

2. Lack of disaster experience.

3. Lack of political and bargaining skills.

4. History of non-cooperation.

IV. Multiple EOCs: a case study.

A. Event (Scanlon 2002).

1. The attacks on September 11, 2001 caused a temporary closure of U.S. airspace.
2. In Canada most flights in the air were diverted to large airports in Halifax on Vancouver. The airports at small town of Gander, Ontario (population: 10,347), however, had 38 planes carrying 6,600 passengers arrive (p. 370).

3. Security procedures for unloading passengers had to be devised and implemented. “As passengers came off their planes, they walked through a cordon of soldiers. Once inside, they walked through a footbath set up by the Canadian Food Inspection Agency because of foot-and-mouth disease. Then at tables staffed by CM [Royal Canadian Mounted Police] and military personnel, all hand baggage was searched. Then they reached Customs where they were screened and, if necessary, referred to Immigration or Health.” (p. 379).

4. Following a suggestion from E.L. Quarantelli, Scanlon labeled such diverted passengers as the “other victims”. (p. 395).

5. Among the biggest problems encountered was to satisfy passengers, once flights resumed, when they discovered their flight was returning to Europe. “That satisfied a few Europeans who were anxious to return home. It did not satisfy Americans on European aircraft. They wanted to get home.” (p. 386). A few mild “revolts” occurred, but most took the return to Europe in stride when they were advised they would do an immediate turnaround.

B. Why multiple EOCs worked.

1. Attitudes of cooperation were high among officials and the public. “The residents saw the diverted passengers as homeless victims, persons not responsible for their misfortune. They wanted to help.” (p. 391).

2. Economic impact on the airport was understood by local residents who were “. . . aware that the closing of U.S. airspace would impact Gander. They were already preparing their response before U.S. airspace was closed.” (p. 391).

3. Prior experience and subsequent planning were key elements that guided the response (p. 391). For example, “During the response to the 1985 crash, the town was not invited to the airport EOC, and, when the deputy mayor became a participant, she was not made welcome. This time, the airport welcomed the support of the town, and, in turn, the town welcomed the support of various emergent groups.” (p. 391).

4. Multiple EOCs and command posts coordinated activities (p. 392).
a. **At least eight EOCs** or command posts operated simultaneously.

1) Airport (managed services for aircraft including when and how it was to be unloaded).

2) Fire department (managed transportation).

3) Hospital (managed health services).

4) Human Resources and Development, Province of Newfoundland (identified shelters).

5) Gander town (managed where passengers would be sent).


7) New Tel Communications (managed telephone services).

8) Regional headquarters of Salvation Army (managed a central food service).

b. Each EOC identified an area of responsibility and stuck to it.

c. None of the responsibility areas overlapped.

5. **Passenger cooperation.** After seeing media coverage of the WTC, these “other victims” “... were grateful to be alive and thankful for anything that was done for them. Most were also overwhelmed by the compelling generosity of the local residents and anxious to do anything to avoid offending their hosts.” (p. 395).

**Supplemental Considerations:**

This brief section highlights problems **commonly reported** in the research literature regarding EOCs. Some professors may wish to **expand** it somewhat through a more detailed discussion of the Scanlon (2002) case study, an additional case study, or analysis of a specialized issue like interoperability. **Further analysis** of any or all of these topics could easily **double the length** of this session. Additionally, analysis of incidents wherein EOCs have been damaged (e.g., Kendra and Wachtendorf’s [2002] analysis of the New York City EOC which was destroyed in the WTC attacks). The following observation by Kendra and Wachtendorf could be used as a class discussion topic. “One key aspect of the response to the September 11 attack is that, although the emergency
operations center was destroyed, the emergency management organization was not. Rather, the organization itself exhibited resilient, adaptive behavior.” (p. 20). Given the importance of the topic, and depending on the course context, e.g., availability of related courses, some professors may wish to expand this session and delete others.

Objective 21.6 Define “groupthink” and explain its relevance to crisis decision making.

Requirements:

Use Overhead 21-12.

Remarks:

I. Origins.

A. Extensive research by Irvin Janis (1982).

1. Analysis of numerous group policy decisions.

2. Example: unsuccessful Bay of Pigs invasion of Cuba during Kennedy administration.


1. Analysis of numerous system failures in the United Kingdom.

2. Example: airplane crash investigations.

II. The concept of groupthink.

A. Definition: a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when members’ strivings for unanimity override their motivation to realistically appraise alternative courses of action (adapted from Fortune and Peters 1995, p. 46 and based on Janis 1982).

B. Display Overhead 21-12; “Three Types of Groupthink”.

C. Review each type listed and illustrate with comments like these (adapted from Fortune and Peters, 1995, p. 47).

1. Type I: Overestimates.

   a. Groups may overestimate their power or sense of morality.
b. Two common processes whereby this occurs.

1) **Illusion of invulnerability**: group members convince each other of excessive perceptions of invulnerability which in turn promotes excessive optimism and taking extreme risks.

2) **Inherent morality**: group promotes an unquestioned belief in their view of morality which in turn encourages them to ignore considerations of the moral consequences of their decisions.

2. **Type II: closed-mindedness.**

   a. **Discount conflicting information**: group members ignore warnings or other information that might require them to reconsider their assumptions which in turn encourages them to recommit themselves to their past policy decisions.

   b. **Stereotypes of leaders**: group members reinforce with each other with views of enemy leaders reflecting stereotypes of evilness, weakness and/or stupidity which in turn rationalizes their pursuit of high risk courses of action.

3. **Type III: pressures toward uniformity.**

   a. **Self-censorship**: group discourages any view that counters the consensus thereby minimizing any doubt about the course of action selected.

   b. **Illusion of unanimity**: group censorship and a false assumption that silence means consent encourages all to assume that there is total consensus.

   c. **Pressure for loyalty**: members who might express arguments counter to the prevailing view are labeled as disloyal; this precludes confronting or examining their challenges.

   d. **Mindguard emergence**: certain group members will limit adverse information to the others so as to promote an illusion that there is a broad base of consensus that extends beyond the immediate group.

D. **Relevance to emergency managers.**
1. **Groupthink processes** may emerge within the EOC and **must be curtailed**.

2. **Terrorist attacks** may stimulate such processes more so than natural disaster responses.

3. **Technological disasters**, especially if there are potential liability issues, may encourage these processes.

**Supplemental Considerations:**

While the **research base** on groupthink and its consequences **remains very thin**, the topic merits consideration within the context of this session. Some professors may choose to keep this section **very brief** and cover only the material outlined above. Other professors may wish to **expand** this section through the introduction of one or more case studies and/or more extensive class discussion.

**Course Developer References:**


