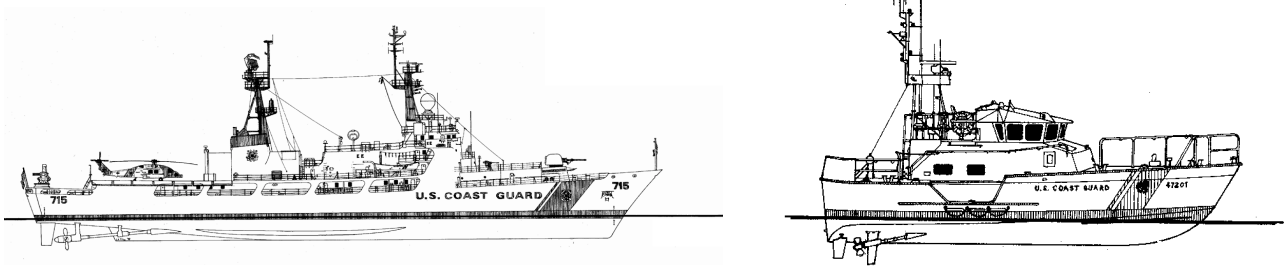
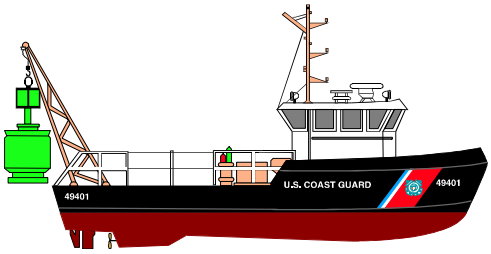
U.S. Department
of Transportation

United States
Coast Guard

TEAM COORDINATION TRAINING
INSTRUCTOR GUIDE





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TEAM COORDINATION TRAINING

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TEAM COORDINATION TRAINING

LESSON: Introduction to Team Coordination Training

LESSON TIME: 45 Minutes

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

C. Text, Team Coordination Training Exercises and Case Studies

D. Video: *Who Rescues the Coast Guard?*

TERMINAL OBJECTIVE:

At the completion of the Introduction Module the student shall be capable of describing the seven critical skills for effective teams and be aware of the constructive behaviors expected of effective team members.

ENABLING OBJECTIVES:

After the introduction presentation, the student will assess the strengths and weaknesses in his/her own performance and the collective performance of the team.

INTRODUCTION

Instructional Outline

SCOPE

The U.S. Coast Guard has found that Team Coordination Training (TCT) can reduce mishap potential. The Introduction To TCT has been selected as the opening lesson to assist individuals in identifying the seven critical skill areas that can reduce the potential for human error.

LESSON OBJECTIVE

At the completion of the Introduction Module the student shall be capable of describing the seven critical skills for effective teams and be aware of the constructive behaviors expected of effective team members.

LESSON OVERVIEW

Critical areas of this lesson include:

- Seven skills to enhance team performance.
- Behaviors shown in teams performing under stress.

TEAM COORDINATION

PROBLEM

Human error continues to be the most significant cause of U.S. Coast Guard mishaps. Studies show that 60% to 65% of cutter and boat navigation mishaps have had human error as a contributing cause. Ninety percent of the human error-caused mishaps were due to:

- **Poor judgment** (67%), which includes: not knowing or understanding the situation, loss of situational awareness; inadequate assessment of risks or environment, made GO when NO-GO decision may have been prudent; using incorrect information in decision-making.
- **Inattention** (more than 16%), which includes: failing to monitor displays; not maintaining a good lookout; forgetting to do something; doing something improperly; negligence.
- **Ineffective Supervision** (more than 5%), that includes: lax enforcement of standards, procedures; inadequate oversight or not verifying job done correctly.

SOLUTION

Team Coordination Training (TCT) is a program that focuses on reducing the probability for human error by increasing individual and team effectiveness. Safety has long been the Commanding Officer's responsibility and, until recently, was assumed to be the logical result of finely tuned technical skills. USCG mishap data suggests that while technical skills are an essential component of any job, they alone will not ensure safety.

Safe, effective Coast Guard operations depend on coordinated actions among team members. Figure 1-1 demonstrates the effectiveness of TCT in reducing Coast Guard mishap rates. Rates have been determined from mishaps involving mobility and navigation of the vessel. Additionally, the total number of marine and marine-related Class A, B, and C mishaps have significantly decreased over the past several years (225 FY95, 158 FY96, 112 FY97, and 87 FY98).

VESSEL MISHAP RATES

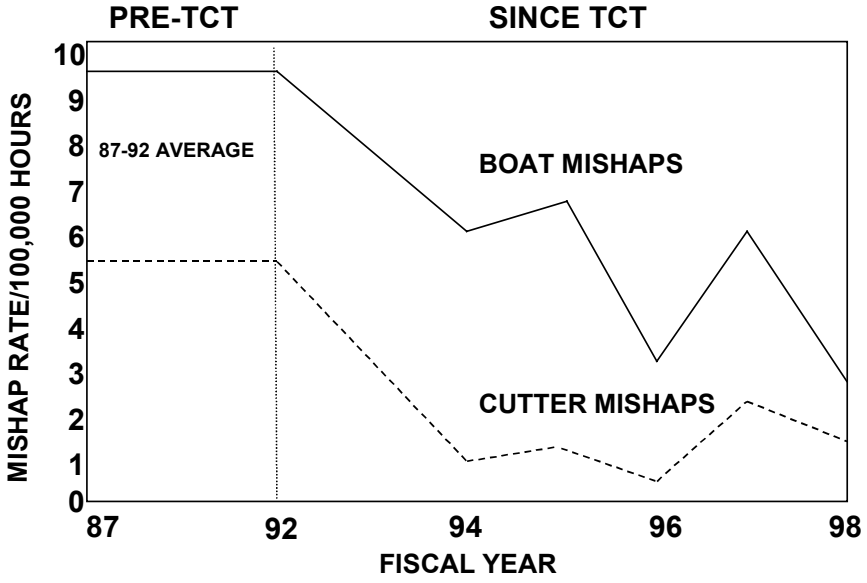

Figure 1-1

WHAT IS A TEAM?

A Team is a collection of people, built primarily on the technical capabilities of its members, working in pursuit of a common mission. They have been each assigned a specific function to perform. *Team Coordination Training* is directed at operational Coast Guard teams. Examples used in this program will focus on operational teams found throughout Coast Guard Operations.

TRAINING OBJECTIVE

This course identifies factors that affect performance. It is the responsibility of each team leader to provide the leadership necessary to increase team performance. This training has been developed for both afloat and shore-based communities. The concepts apply to a broad spectrum of afloat and shore operations and will benefit teams within operations, deck, and engineering departments. This training assumes that individual team members are technically proficient in their assigned tasks. Mission planning and execution will be conducted in accordance with Coast Guard directives and command leadership.

WHO IS PART OF YOUR TEAM?

In many Coast Guard operations, the team extends beyond the bounds of assigned personnel and Coast Guard assets. For example, a boat consisting of a coxswain and crew is one team, but seldom performs its mission without interacting with members of a larger team. **We must fully understand and be aware of who is included in our team at all times.**

- **Chain-Of-Command**. The assets on scene represent only a small part of the Coast Guard. Ensure that the organization that deploys you is part of your team; tap their resources and seek their direction. These team members could include mission coordinators, officers-in-charge, duty officers, or other Coast Guard assets.

- **Other Authorities**. When working with other federal, state, or local authorities, treat them as members of the "larger team." They will serve us better if they are integrated into our team operation.

- **The Customer**. The public we serve can be a valuable asset to our teams. They are often the focus of our mission. Do not forget to include them, lest you limit the capabilities of your team.

WHAT IS TEAM COORDINATION?

It is the process of coordinated action among team members that enables them to interact effectively while performing mission tasks. Seven critical team skills have been identified that can be employed to reduce the probability for human error. These skills are:

- Leadership.
- Mission Analysis.
- Adaptability and Flexibility.
- Situational Awareness.
- Decision-Making.
- Communication.
- Assertiveness.

Leadership

Directing and guiding the activities of other team members, stimulating personnel to work together as a team, and providing feedback to team members regarding their performance.

Mission Analysis

Making long-term and contingency plans, and organizing, allocating, and monitoring team resources.

Adaptability and Flexibility

Altering a course of action to meet changing demands, maintaining constructive behavior under pressure, and working effectively with other team members.

Situational Awareness

Knowing at all times what is happening to the team, the unit, and the mission.

Decision Making	Applying logical and sound judgment based on the information available.
Communication	Clearly and accurately sending and acknowledging information, instructions, and commands; and providing useful feedback.
Assertiveness	Actively participating, stating, and maintaining a position until convinced by the facts (not the authority or personality of another) that your position is wrong. Taking action when necessary.
TRAINING HAS TO BE USED TO BE EFFECTIVE; **Your Role**	Team Coordination training is part of command and control, cutter, and small boat crew training. You should expect and encourage all Coast Guard teams to use these principles. Likewise, you are expected to apply these principles in your duties.
IS TEAM PERFORMANCE MEASURED?	The seven critical skills for effective teams came from an examination of various team processes. These processes are: • Orientation. • Resource Distribution. • Timing and Pacing Activities. • Error Trapping. • Procedure Maintenance.

Orientation	• How do team members get and pass information necessary for mission completion in the planning process? • How do members communicate during the mission about changes in equipment status, personnel readiness, changes in weather, and whether mission objectives are still applicable? • How are task priorities assigned or changed?
Resource Distribution	• How well are team member capabilities matched to task requirements? • How effectively are workloads balanced during the course of the mission?
Timing or Pacing Activities	• How effective was the planning process in identifying critical factors and forecasting the mission tempo? • How effectively was the team and individuals in adapting to mission tempo changes?
Error Trapping	• How effective was the team and individuals in detecting errors in the nature or timing of activities? • How well did the team and individuals adjust activities in response to errors and omissions?
Procedure Maintenance	• How well did the team monitor compliance with established mission standards, as in the proper coordination of individual activities? • How well did the team adjust to nonstandard activities?

LESSON SUMMARY

LESSON OBJECTIVE

This lesson has prepared you to describe the seven critical skills for effective teams and be aware of the constructive behaviors expected of effective team members.

LESSON OVERVIEW

The critical areas covered in this lesson have included:

- Seven skills to enhance team performance.
- Behaviors shown in teams performing under stress.

APPLICATION

Because TCT can reduce the potential for mishaps the U.S. Coast Guard can and is doing something about it. The Team Coordination Training you are about to participate in will not only make you aware of the causes of human error but what you and your team can do about it.

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INTRODUCTION

INSTRUCTOR LESSON PLAN #1

1. LESSON TITLE: Introduction to Team Coordination Training

2. TIME: 45 minutes.

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 1-1 to 1-9
- Video Guidance: Pg. 1-15
- Exercise Guidance: Pg. 1-16
- Case Study Guidance: Pg. 1-19

B. Student Guide

- Lesson Material: Pg. 1-1 to 1-6

B. Team Coordination Training Exercises and Case Studies

- Exercise: Galley Exercise, Pg. I-5
- Case: Select a case appropriate to this skill area.

C. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 27

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead slides

B. Team Coordination Training Exercises and Case Studies

- Exercise: Galley Exercise, Pg. I-5
- Case: Select a case appropriate to the skill area you are presenting.

C. Video: *Introduction to TCT*

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 27

7. STUDENT STUDY ASSIGNMENTS:

A. Have the students read the Introduction To Team Coordination Training prior to class.

B. If you use a case study, assign it for reading prior to class.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Team Coordination Training and its affect on safety and mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of how a breakdown in team coordination could have, or did lead to a mishap.
- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and video approach. You must select the most appropriate method based on your experience and the experience of the group.

(3) We have provided you videos and different cases studies and exercises. The videos are for use in initial training. To be effective do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select one of the following approaches to reinforce learning. You may select one of the following approaches presented below:

(1) Galley Exercise. To process this exercise reproduce and use the handout in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 1-16 or;

(2) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 1-19 of this text.

(3) Video: Select the Introduction segment of the video and explain that it provides an overview of the program. Follow video guidance on page 1-15 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but to their jobs. You are a facilitator, the tools you have been provided with in this *Team Coordination Training Instructor Guide* include the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes. You will notice that in this manual *you have not been provided with a script of what to say or a description of how the concepts presented in each module integrate with one another*. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS: None

10. ROADBLOCKS: None

11. LESSON CONCLUSION: Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Introduction To TCT

Goals

1. To introduce the viewer to the critical areas of TCT.
2. To explore the impact that TCT has on mishap potential.

Group Size

Unlimited.

Time Required

Approximately 20 minutes.

Materials Required

1. A copy of "*Who Rescues the Coast Guard?*" video.
2. Pencil and paper for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Show the Introduction section of the video.
2. At the conclusion of the video, ask the group for examples of problems caused by deficiencies in one or more of these skills.

Suggested Process Questions:

1. **After watching the film, do you see any weaknesses in your own application of these skills?**

   (RECOMMENDED RESPONSE: Prompt the students to discuss similar problems that they have experienced in any of the seven skill areas).

GALLEY EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Introduction To TCT

Goals

1. To demonstrate how decision making, a TCT skill area, is improved by consensus seeking.
2. To explore the impact that assumptions have on decision-making.
3. Used as warm-up exercise and/or to support Introduction To TCT.

Group Size

An unlimited number of groups of five to seven participants each.

Time Required

Approximately 30 minutes.

Materials Required

1. A copy of the Galley Exercise Worksheet for each participant.
2. Pencil and paper for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Give one copy of the Galley Exercise Worksheet to each participant. Instruct them that they have five minutes to read "The Story" paragraph and then indicate whether each of the "Statements About the Story" is *true, false,* or *unknown* (indicated by a question mark).
2. Form subgroups of five to seven individuals. Inform each group that they have approximately ten minutes to reach consensus on whether each statement is *true, false,* or *unknown*.
3. Announce the "correct" answers. Statement 3 is false, statement 6 is true, and all other statements are unknown.
4. Lead a brief discussion of the activity. Focus on how individual and group decisions were made and how assumptions influenced the process.

Suggested Process Questions:

1. **How did you individually solve this problem? As a group?**

   (RECOMMENDED RESPONSE: Individually we generally rely on assumptions to answer the questions. As a group we usually discuss each one and consider alternate opinions. As a group we make less assumptions).

2. **Was there a difference in quality between your individual and group decisions? Why?**

   (RECOMMENDED RESPONSE: Group decisions are generally of better quality because of the expertise of the individual members).

3. **What role did assumptions play in your decision-making process or how do assumptions affect the way we process information?**

   (RECOMMENDED RESPONSE: Our assumptions usually lead us to jump to conclusions without considering all the facts. Assumptions create a bias that blocks out additional information).

4. **What kind of assumptions do we deal with on a daily basis as crew members?**

   (RECOMMENDED RESPONSE: Prompt the class to give personal examples of assumptions they make, i.e. the equipment we are provided is safe, we can count on other crewmembers to do their job).

5. **How do expectations influence assumptions?**

   (RECOMMENDED RESPONSE: Expectations generally cause us to have preconceived ideas that become assumptions).

6. **How can we reduce the number of assumptions we make?**

   (RECOMMENDED RESPONSE: We can do this by keeping an open mind and not promoting any preconceived notions).

7. **How can we test those assumptions?**

   (RECOMMENDED RESPONSE: It can be tested by considering the opposing viewpoint to the assumption. Does each viewpoint make sense? What are the advantages and disadvantages in each? In our exercise did having other viewpoints help us arrive at the correct answers? We need to remain open to alternatives to make optimal decisions!)

Adapted from
Structured Experience Kit
J. William Pfeifer and John E. Jones
San Diego, CA: UNIVERSITY ASSOCIATES, Inc., 1980

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: Introduction To TCT

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of team coordination on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 15 minutes. This assumes that the case study is read prior to the class. The 15 minutes is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercises and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the Case Study prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the questions asked.

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TEAM COORDINATION TRAINING

LESSON: Effective Leadership

LESSON TIME: 1 Hour and 30 minutes

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

C. Team Coordination Training Exercises and Case Studies

D. Video: *Who Rescues the Coast Guard?*

TERMINAL OBJECTIVE:

At the completion of the Leadership Module, the student shall be capable of directing and guiding the activities of other team members, stimulating personnel to work together as a team, and providing feedback to crew members regarding their performance.

ENABLING OBJECTIVES:

1. Given a demonstrated mission brief, the student will role-play and seek task-related input.

2. Given a demonstration, the student describes how the mishap team member's failure to regularly update the team on the mission's progress contributed to the mishap.

3. Given a demonstration, the student describes how alerting team members of their potential work overload may have avoided the mishap.

4. Given a demonstration, the student describes how the mishap team leader's feedback to the team on their performance may have avoided the mishap.

5. Given a demonstration, the student describes how to motivate an individual or team through positive vs. demeaning statements.

6. Given a demonstration with an erroneous agenda, the student describes how to inform team members of the error in a positive manner.

7. Given a demonstration, identify the designated and functional leaders according to the TCT definition.

EFFECTIVE LEADERSHIP

Instructional Outline

SCOPE

Leadership sets the stage for how individuals and teams function. The Leadership Module of Team Coordination Training assists individuals in identifying and applying the principles of effective leadership.

LESSON OBJECTIVE

At the completion of the Leadership Module the student shall be capable of directing and guiding the activities of other team members, stimulating personnel to work together as a team, and providing feedback to team members regarding their performance.

LESSON OVERVIEW

Critical areas of this lesson include:

- Skills for leaders.
- Effective feedback.
- Types of operational team leaders.

EFFECTIVE LEADERSHIP

OBJECTIVES

To successfully complete this module, you must study the text and master the following objectives:

- Be able to seek task-related input from another team member.
- Describe how failure to regularly update the team on the mission's progress may contribute to a mishap.
- Describe how failure to alert team members to potential work overload may contribute to a mishap.
- Describe how to motivate an individual or team member through positive vs. demeaning statements.
- Describe how to inform team members of an error in a positive manner.
- Define Designated Leadership.
- Define Functional Leadership.

COAST GUARD LEADERSHIP GOAL

Coast Guard Goal One is to provide leadership and a working environment that enables all our people to reach their full potential and maximize Coast Guard mission success. We articulate our core values: Honor, Respect, and Devotion to Duty, values that frame the behaviors the Coast Guard expects from its people. Coast Guard people constantly face challenges in mission operations. To meet these challenges, leaders must exercise competent leadership in their daily activities.

BEHAVIORAL TRAITS

The impact of the leader on team performance is a function of three things: Personality, Ability, and Leadership Style. Stephen R. Covey, author of *Principle-Centered Leadership*, identified seven behavioral traits that effective leaders demonstrate. These principles apply to the broader concerns of command and set a strong foundation for affecting leadership of teams. The seven traits are:

1. Proactiveness.
2. Imagination and Conscience.
3. Willpower.
4. Think Win/Win.
5. Courage Balanced with Consideration.
6. Synergy.
7. Continuous Improvement or Self-Renewal.

Proactiveness

Instill the belief in all members of the organization that "Quality begins with me, and I need to make my own decisions and be a stakeholder in the success of the organization." Team members must also be responsible for the performance of the organization.

Imagination and Conscience

Publicize your vision for your department through the clear expression of your hopes and purpose for your time aboard the unit. Ensure your vision considers the social responsibility you have to the people and their families.

Willpower

Maintain a disciplined life that focuses heavily on highly important, but not necessarily urgent activities. Take positive measures to minimize crisis management and maintain high moral values in your professional and personal life.

Think Win/Win	Share recognition and power by tapping the capabilities of all people in the department and routinely providing constructive feedback and praise. Attempt to reduce the friction, while recognizing that in an effective team, strength lies in diversity. Create an environment of trust.
Courage Balanced with Consideration	Actively listen to subordinates to clearly understand their ideas. Show restraint and respect in dealing with subordinates to maintain two-way communication. Foster mutual respect and build a complementary team where each individual strength is made productive and each individual weakness is made irrelevant.
Synergy	Permit solutions to be formulated through the open communication between respectful individuals. Problem-solve using information from those communications. Achieve creativity, improvement, and innovation beyond your own capability.
Continuous Improvement	Avoid becoming closed to new ideas. Pursue innovation and refinement in yourself and the department. Broaden cross-functional cooperation and communication; expand trust and synergy within the whole department.
LEADERSHIP COMPETENCIES	Leadership competencies are measurable patterns of behavior essential to leading. The Coast Guard has identified 21 competencies consistent with our missions, work force, and core values of Honor, Respect, and Devotion to Duty.

CATEGORIES

The competencies generally fall into three broad categories: SELF, WORKING WITH OTHERS, and PERFORMANCE, although some competencies overlap categories. Together, these leadership competencies are keys to success.

Self

Fundamental to successful development as a leader is an understanding of self and one's own abilities, including personality, values, preferences, and potential as a Coast Guard Member. Competencies in this area include:

- Accountability and Responsibility.
- Aligning Values.
- Followership.
- Health and Well-Being.
- Personal Conduct.
- Self-Awareness and Learning.
- Technical Proficiency.

Working With Others

Leadership involves working with and influencing others to achieve common goals. Coast Guard people interact with others in many ways, whether as a supervisor, mentor, manager, team member, team leader, peer, or subordinate. Positive professional relationships provide a foundation for the success of our Service. Competencies in this area include:

- Influencing Others.
- Respect for Others and Diversity Management.
- Looking out for Others.
- Effective Communication.
- Group Dynamics.
- Leadership Theory.
- Mentoring.

Performance

Coast Guard people constantly face challenges in mission operations. To meet these challenges, leaders must apply leadership competencies in their daily duties. Because of their importance to effective team coordination, a description of the behaviors associated with these competencies is included.

COMPETENCY	BEHAVIORS
Vision Development and Implementation.	• Establish and clearly communicate objectives. • Initiate action and provide support and systems to achieve goals.
Customer Focus.	• Actively seek feedback and suggestions and encourage others to do the same. • Ensure internal and external customer's needs are met.
Decision-Making and Problem Solving.	• Learn to consider and assess risks and alternatives. • Involve others in decisions that affect them.
Conflict Management.	• Encourage open communication. • Confront conflict constructively to minimize impact to self, others, and the organization.
Performance Appraisal.	• Articulate performance expectations to subordinates. • Coach and provide feedback to subordinates.
Management and Process Improvement.	• Evaluate progress and outcomes of current processes. • Use goals, milestones, and control mechanisms to measure and manage performance.
Workforce Management Systems.	• Use formal reward systems to recognize positive performance. • Support personnel working on advancement and training.

TEAM LEADERSHIP SKILLS

Team leaders direct and guide the activities of other team members, stimulate personnel to work together as a team, and provide feedback to team members regarding their performance. Effective team leaders demonstrate the following behaviors:

- Specify tasks to be assigned.
- Coordinate the gathering of required information.
- Make positive statements to motivate individuals and teams.
- Ask for task related input.
- Inform other team members of errors in a positive manner.
- Focus the team's attention on task.
- Consider and assess risks and alternatives.
- Look out for others in the team.
- Ensure the team(s) are fully informed.
- Inform team members of mission progress.
- Alert others to their actual or potential work overloads.
- Provide feedback to the team on performance.
- Continually assess and reassess the situation.

Translate Objectives Into Tasks

The leader must clearly understand the mission goals and objectives and translate them into team tasks. *In assigning tasks, the leader seeks the best match between team resources and tasks.*

Coordinate Information Gathering

Ensure that information processing is not reduced. Safe operations depend upon timely information flow within the team. The leader should be alert to problems that affect information collection or the communication of information.

Motivate Individuals	Team performance is dependent upon each individual. Acknowledging good performance cultivates effectiveness. This type of positive reinforcement also moderates the stress inherent in operational teams.
Promote Input	Actively solicit and accept input from other team members. Individuals may have relevant information that the leader does not have. The leader is seen as approachable by team members so that information relevant to decision-making is received in a timely manner.
Trap Errors, Not People	The team has a shared responsibility for trapping errors. When someone detects a human error, that team member assumes a leadership role to reduce the impact of that error on the team. An effective leader points out error while not diminishing the respect for the team member who committed it.
Keep The Team Focused	Minimizes distraction, and takes action to terminate fixation or preoccupation. All team members share this responsibility and need to assume a functional leadership role to mitigate the impact of inattention on team performance.
Assess Risk and Alternatives	All activities carry an element of risk. Effective teams are constantly evaluating risk and looking for alternatives that will serve to manage or reduce that risk.

Look Out for Others

Effective leaders identify others' needs and abilities. They ensure fair and equitable treatment, project high expectations for subordinates and their teams, know their job, express confidence in their abilities, and use reward systems effectively. Leaders appropriately support and assist in professional and personal situations and use formal and informal processes to resolve situations.

Ensure The Team(s) Are Fully Informed

Often this occurs for members and related as part of the briefing process. The key is to have all team members and their reliefs present, as well as leaders from the related teams. Members also must be made aware of key tasks and how to communicate during those tasks.

Example: Aboard a cutter the bridge, deck, and engineering teams need to be briefed to facilitate mooring operations. Otherwise, an individual not fully prepared could jeopardize a perfect approach.

At a Group, a training hoist evolution may require briefing the OPCEN watch, the helo, the standby boat, watch tower personnel, as well as the boat team performing a drill.

Update The Team On Mission Progress

When the leader tells the team what his/her understanding of the current state of the mission is, it allows the team to make internal alignment checks. This ensures that all team members share the same mental model. When differences in understanding exist, the effective team resolves the conflict.

Prevent Work Overload

The workload level for the typical Coast Guard mission is constantly changing. To help maintain an effective team, the leader monitors, recognizes, and adjusts for workload imbalances among team members. This helps reduce the potential for human error.

Provide Feedback

Feedback is part of the leader's routine. Effective leaders take time at lulls in the mission and at the debrief to provide constructive critiques. This includes explaining some of the leader's actions so the team can better understand and anticipate the leader's point of view. It is important to provide both positive and negative feedback.

- **Positive Feedback**: Focuses on what an individual or team does well. Positive feedback lets the person know what they should continue to do.

- **Negative Feedback**: Focuses on problems that one or more team members perceive. Negative feedback lets the person know what they should start or stop doing, or change. Negative feedback is not punishment it is constructive criticism.

Continually Assess the Situation

Plans must be continually updated as new information becomes available. Effective leaders are alert for change and revise the operations plan based on changes in the situation.

HOW TO GIVE EFFECTIVE FEEDBACK

Feedback does not happen by accident; it is the result of a deliberate, on-going questioning process engaged in by the sender. Feedback must be given so that a person receiving it can hear it in the most objective and least distorted way possible. To make team members open to TIMELY feedback, the feedback must have the following characteristics:

- Descriptive, ***not*** Evaluative.
- Well Intended, ***not*** Hurtful.
- Specific, ***not*** General.
- Well timed, ***not*** Delayed.
- Balanced, ***not*** One-Sided.

Describe the behavior, Don't evaluate the individual.

Feedback has more meaning when it is descriptive. Behavior or performance should be compared to successful performance or an objective standard. What success looks like and how it can be achieved should be stated. This will emphasize actions leading to a desired course of action. Avoiding evaluative language reduces the need for a defensive response.

Focus on the behavior, Not the worth of the person.

It is difficult for anyone to respond without being defensive to highly charged comments like "That was stupid" or "You're an idiot." When giving feedback, focus on the performance, not the personality of the individual. People may sometimes act stupid or behave in an insensitive way, but that does not mean they are a stupid or an insensitive person. Evaluating a person rather than their behaviors casts you in the role of judge and makes the other person respond defensively. Provide feedback on the specific behavior that you observed.

Make specific comments, Avoid generalities.

When feedback is specific, it leaves little doubt exactly what the sender is referring to or what behavior is desired for the receiver to change.

Example: To be told "I want more information about the bottom" will probably not be as useful as "I want you to call out the soundings every..."

Give Immediate and Well-Timed Feedback

Timing feedback is important. Consider the significance of the situation and the person's readiness to deal with feedback.

When feedback is given immediately after an event, the event is fresh in everyone's mind. When feedback is given immediately, behavior is easier to recall and feedback is not confused with subsequent events or behavior.

Providing negative feedback in public may be perceived as punishment. That is why it is important that all negative feedback be constructive.

Balanced, Not One-Sided

Feedback is most effective when it highlights what was done well AND what to be improved upon. To ensure clear communication, have the receiver rephrase your feedback to see if it corresponds to what you had in mind. Use the following steps:

1. Start with what went well;
2. Identify what needs to be improved;
3. Summarize by indicating how the operation went overall.

During post-mission briefs, it is often valuable to have junior personnel assess their own performance first.

Example: After a 6-hour Person-In-The-Water (PIW) search, the PIW was found floating face down. Initial thoughts were that the PIW had expired. The EMT at the scene decided to treat the person as a "cold water drowning." The person was successfully revived.

Upon debriefing the case, the consequences of either attempting or not attempting victim revival were discussed. This heightened Group-wide awareness of the method and the potential for success in similar circumstances. It changed many people's attitudes in how to treat PIW rescues.

Continually Assess the Situation

Effective leaders are proactive. They continually monitor the plan by assessing and reassessing the situation and updating the plan based on their assessment. As a part of this process, they communicate changes to ensure that everyone is shares the same expectations and has the same information.

TYPES OF TEAM LEADERS

Team leadership comes from either a Designated Leader or a Functional Leader. You do not have to be designated as a team leader to demonstrate leadership. *Some leadership behaviors are characteristics of all effective team members.* They need to be cultivated and rewarded in case the situation requires control of the team to be temporarily transferred within it.

Designated Leadership

This is the person assigned by Watch, Quarter, and Station Bill to be the team's leader. An important role of the leader is to ensure that the team maintains Situational Awareness. *The effective team leader ensures that he/she, or a designated "safety" observer, maintains some distance from the team's activities in order to monitor behavior.* Continuous monitoring of team activities is critical for detecting errors and recognizing poor judgments.

Functional Leadership

This leadership is based on knowledge or expertise. *Functional Leadership* has the following characteristics:

- It is situational and temporary, not a change in command.
- A team member with specific knowledge or expertise may assume a leadership role when this information becomes critical.
- The *Designated Leader* may or may not acknowledge the change. In teams composed of a small number of individuals with a lot of experience, this change may occur automatically.
- When the situation/challenge is resolved, *Functional Leadership* is discontinued.

Advantages Of Promoting Functional Leadership

To gain maximum advantage from *Functional Leader*s requires an atmosphere that encourages team members to voice opinions, provide information, and take the lead when necessary. Since the *Designated Leader* cannot be everywhere at the same time, it makes good sense to cultivate Functional Leadership among team members. Doing so has a number of advantages, such as:

- It allows for diversity in leadership to meet situational demands.
- It allows the most qualified (by knowledge or expertise) individual to take charge of the situation.
- It enhances teamwork in complex; fast-moving situations by allowing the team to collectively accomplish the mission.
- It is an effective way to groom junior officer and enlisted personnel for increased responsibility.

LESSON SUMMARY

LESSON OBJECTIVE

This lesson has prepared you to be capable of directing and guiding the activities of other team members, stimulating personnel to work together as a team, and providing feedback to team members regarding their performance.

LESSON OVERVIEW

The critical areas covered in this lesson have included:

- Skills for leaders.
- Effective feedback
- Types of operational team leaders

APPLICATION

Because effective leaders are successful in directing and guiding the activities of other team members, it is essential that we learn the principles that stimulate people to work together. Each individual in the team must be able and willing to exercise leadership. The principles covered in this module will assist you in becoming a more effective leader, regardless of your position in the team.

SELF-QUIZ #1

1. Match the seven effective leaders' behavioral traits in column A with their characteristics in column B.

Column A	Column B
_____ 1. Proactiveness	a. Publicize your vision for the organization through the clear your vision considers the expression of your hopes and purpose for your time aboard the unit. Ensure social responsibility you have to your crew.
_____ 2. Imagination And Conscience	b. Permit solutions to be formulated through the open communication between respectful individuals.
_____ 3. Willpower	c. Actively listen to subordinates to clearly understand their ideas. Show restraint and respect in dealing with subordinates to maintain tow-way communication
_____ 4. Think Win/Win	d. Instill the belief in all members of the organization that "Quality begins with me, and I need to make my own decisions and be a stockholder in the success of the organization".
_____ 5. Courage Balanced With Consideration	e. Maintain a highly disciplined life that focuses heavily on Highly important, but not necessarily urgent activities. Take positive measures to minimize crisis management and have high moral values in your life.
_____ 6. Synergy	f. Avoid becoming closed to new ideas. Pursue innovation and refinement in yourself and the organization.
_____ 7. Continuous Improvement	g. Share recognition and power by tapping the capabilities of all people in the organization and routinely providing constructive feedback and praise.

SELF-QUIZ #1 (continued)

2. List the behaviors that are demonstrated by effective team leaders

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

   f. _____

   g. _____

   h. _____

   i. _____

   j. _____

3. Define Designated Leader and give an example?

_____

_____

_____

4. Define Functional Leader and give an example?

_____

_____

_____

ANSWERS TO SELF QUIZ #1

Question	Answer	Reference
1.	1. d 2. a 3. e 4. g 5. c 6. b 7. f	2-4 thru 2-5
2.	a. Translate objectives into tasks.	2-8
	b. Coordinate information gathering.	2-8
	c. Motivate individuals.	2-9
	d. Promote input.	2-9
	e. Trap errors, not people.	2-9
	f. Keep the team focused.	2-9
	g. Assess risk and alternatives.	2-9
	h. Look out for others.	2-10
	i. Ensure the team(s) are fully informed.	2-10
	j. Update the team on mission progress.	2-10
	k. Prevent work overload.	2-11
	l. Provide feedback.	2-11
3.	This is the person assigned by the Watch, Quarter and Station Bill to be the team's leader.	2-15
4.	This leadership is based on knowledge or experience.	2-15

EFFECTIVE LEADERSHIP

INSTRUCTOR LESSON PLAN #2

1. LESSON TITLE: Effective Leadership

2. TIME: 1 hours and 30 minutes.

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 2-1 to 2-20
- Case Study Guidance: Pg. 2-41
- Exercise Guidance: Pg. 2-25, 2-29
- Video Guidance: Pg. 2-42

B. Student Guide

- Lesson Material: Pg 2-1 to 2-14

C. Team Coordination Training Exercises and Case Studies

- Case Study: Select an appropriate case

- Exercise: Attitude Survey Exercise, Pg. I-7

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 27

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead slides

B. Team Coordination Training Exercises and Case Studies

- Case: Select a case appropriate to the skill area you are presenting.
- Exercise: Attitude Survey Exercise, Pg. I-7

C. Video: *"Who Rescues the Coast Guard?*

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 27

7. STUDENT STUDY ASSIGNMENTS:

A. Have the students complete the Attitude Exercise for homework prior to class.

B. If you use any case studies and want additional time in class, assign them as homework.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Leadership and its affect on safety and mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of how a breakdown in leadership could have, or did lead to a mishap.
- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and exercise approach. You must select the most appropriate method based on your experience and the experience of the group.

(3) We have provided you with videos and different cases and exercises. To be effective do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select one of the following approaches to reinforce learning. You may select one of the three approaches presented below. Teams with many new members should do the Attitude Exercise (both score comparison *and* discussion).

(1) Attitude Survey Exercise (Score Comparison Method). To process this exercise reproduce the exercise in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 2-25.

(2) Attitude Survey Exercise (Question Discussion Method). To process this exercise reproduce the exercise in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 2-29.

(3) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 2-41 of this text.

(4) Video: Select one of the Leadership scenarios. Scenarios are indexed on Pg. II-4 of *the Team Coordination Training Exercises and Case Studies* text. Reproduce the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text and distribute to each individual. Follow the video guidance on page 2-42 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but also to their jobs. You are a facilitator, the tools you have been provided with in this *Team Coordination Training Instructor Guide* include

the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes. You will notice that in this manual *you have not provided you with a script of what to say or a description of how the concepts presented in each module integrate with one another*. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS:

A. Leader Skills - Used to direct and guide the activities of team members.

B. How To Give Feedback - Used to focus and package comments by a leader.

10. ROADBLOCKS:

A. Personality - Some individuals are more open to communications than others.

B. Position/Rank/Status - Each of these affects an individual's perception of their ability to act as a leader.

C. Climate - The climate set by the Team Leader will ultimately determine the willingness of individuals to act as leaders and provide feedback.

11. LESSON CONCLUSION: Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

ATTITUDE SURVEY EXERCISE INSTRUCTOR GUIDANCE

SCORE COMPARISON METHOD

Suitable Skill Area: Leadership

Goals

1. To identify the attitudes of team members as they relate to leadership and teamwork.
2. To compare the class scores with the Coast Guard averages.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. One copy of the Attitude Survey for each participant.
2. Pencil for each participant.

Physical Setting

A room large enough for individuals and groups to work without being distracted by others.

Process

1. Assign the Attitude Survey for homework.
2. Have the students record their scores for each dimension (Communication, Teamwork, and Personal Limitations). Do not collect the names with the scores.
3. Compute the averages for each of the dimensions.
4. On a piece of butcher paper draw a graph with the three dimensions and post the group and Coast Guard averages. Figure 1 is an example of how the graph should look.

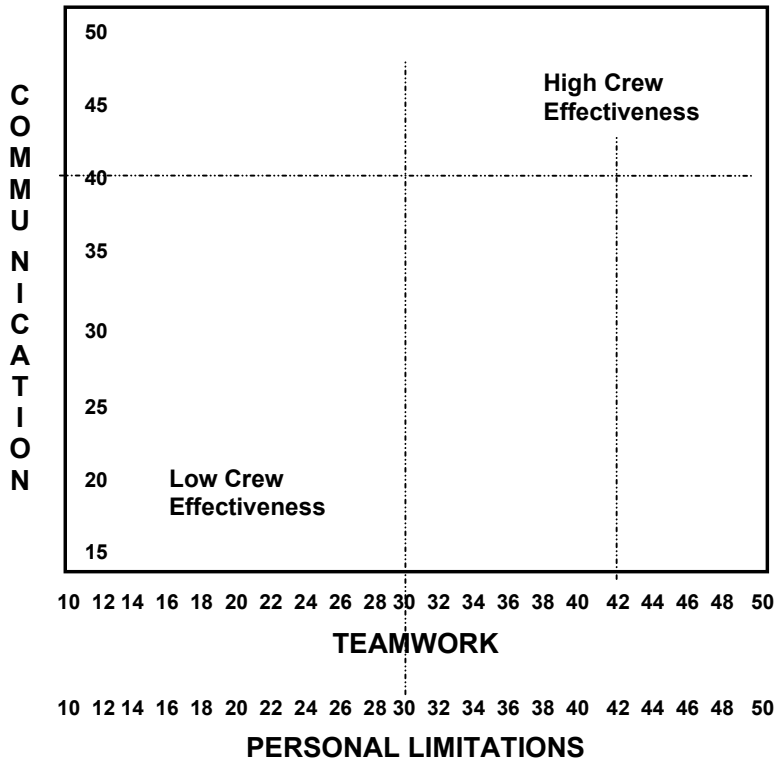

FIGURE 1

5. The Coast Guard averages and standard deviations (SD) are as follows:

   Communications: Average 40, Standard Deviation 5 (The higher the score the more we value communications. The lower the score the less we value communications).

   Teamwork: Average 42, Standard Deviation 4 (The higher the score the more we value teamwork. The lower the score the less we value teamwork).

   Personal Limitations: Average 30, Standard Deviation 6 (The higher the score the more aware we are of our limitations. The lower the score the more we tend to underestimate our limitations).

6. The standard deviation (SD) is simply a measure of variance that enables us to tell if a single score is significant when compared to the average. Knowing the standard deviation enables us to compute just how statistically significant any single score is. The following can be used as a guideline: 1 SD is not

considered significant, 2 SD is significant at the 95% level. That means there is a 95% chance that the score is not due to chance but is a result of what is you are trying to measure.

7. For the purposes of this exercise we will consider 1 1/2 SD significant. An individual score of plus or minus 8 for Communications, 6 for Teamwork, and 8 for Personal Limitations, from the USCG average is considered significant. While these scores may be considered statistically significant, only you can tell if this is significant to you. You can do this by relating it to your behavior. If the high or low score matches your behavior it is probably significant and you have learned something about yourself. You may want to check with others to see if they notice the behavior in you.

8. Discuss with the group that each person's nature has elements of each of these attitudes. Exhibiting extremes in any of these attitudes can cause problems in making safe decisions. Point out that high scores in some areas can compensate for low scores in other areas. For example by communicating effectively and working in teams we can offset the lesser awareness of our limitations.

9. Lead a discussion around the averages and explain the following:

   - We tend to answer the questions based on our own frame of reference and experience level.

   - The scores measure our attitudes about Communications, Teamwork, and Personal Limitations.

   - The questions you should ask yourself are "how effective is the crew if there are truly differing attitudes in some of these areas?" "Could the differences in attitudes lead to conflict, differences in priorities, confusion during emergencies, etc.?"

   - Point out that individuals with a low Personal Limitations score (22 or less) tend to overestimate their limits and increase their risk. This risk can be managed better if the individuals have at least average or higher scores on Communications and Teamwork. It is not a single score that is so important but the interaction of each of the scores that lead to a certain behavior.

   - Have the group discuss the behavior they may see if the scores are high or low in any of the three dimensions.

Suggested Process Questions:

1. If your score was 1.5 (1 1/2) Standard Deviations above or below the USCG average do you see this reflected in your behavior? How?

ATTITUDE SURVEY INSTRUCTOR GUIDANCE

QUESTION DISCUSSION METHOD

Suitable Skill Area: Leadership

Goals

1. To identify the attitudes of team members as they relate to areas of leadership.
2. To clarify expectations among team members.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. One copy of the Attitude Survey for each participant.
2. Pencil for each participant.

Physical Setting

A room large enough for individuals and groups to work without being distracted by others.

Process

1. Have the students complete the Attitude Survey for homework.

2. Divide the class in half to review the questions. Give the following instructions:

   (a) One group does #1-#15; the other #16-#30. Give them 25 minutes to do this.

   (b) Compare your answers (to all or selected questions) and develop a group consensus response for each question. Remember that diversity (differences in opinion) is a help not a hindrance. Here are some guidelines to use in reaching consensus

      (1) Avoid arguing for your own individual judgments. Approach the task on the basis of logic.

      (2) Avoid changing your mind if it is to only reach agreement and avoid conflict. Support only solutions with which you are able to agree at least somewhat.

      (3) Avoid "conflict-reducing" techniques such as majority vote, averaging, or trading in reaching your decisions.

      (4) View differences of opinion as a help rather than a hindrance.

   (c) Your consensus should be on whether you *generally* agree or disagree with the question. It is not important whether you strongly or slightly agree or disagree. Neutral responses are <u>not</u> permitted.

   (d) Develop a group justification for your answers.

   (e) If your group <u>absolutely</u> cannot reach consensus, you are permitted to change the wording of the question so that consensus can be reached.

3. Following completion of the exercise, lead a discussion around the questions selected for group work. The material on page 2-28 through 2-36 will guide you. Stress the "Safety Optimal Response" and clarify any questions or misconceptions. Use this activity to promote team discussions around leadership, teamwork, communications, and the effects of stress on individual and team performance. If time is limited, use selected questions to stimulate discussions. In all cases, relate individual and team responses to safety.

Suggested Process Questions:

1. **How do these questions apply to leadership?**

   (RECOMMENDED RESPONSE: The attitudes you have regarding the answer to these questions shape your personal leadership style).

2. **Who is the leader?**

   (RECOMMENDED RESPONSE: Leadership must come from each of the team members).

3. **Which question(s) generated the most discussion? Why?**

   (RECOMMENDED RESPONSE: The questions generating the most discussion are usually those that have words that are open to individual interpretation. Once the group discusses the wording they usually resolve the differences. In some cases actual attitudes are different and individuals may not agree).

4. **How did you resolve conflict?**

   (RECOMMENDED RESPONSE: Conflict resolution usually involves discussing the meaning of the words and exploring individual attitudes).

5. **What did you learn about other members of your group during this exercise?**

   (RECOMMENDED RESPONSE: Individual's should learn something about the individual attitudes of the team members).

6. **What did you learn from this exercise that you can apply to your job? On shore? At sea?**

ATTITUDE SURVEY INSTRUCTOR GUIDANCE

QUESTION DISCUSSION

The discussion following each of the questions focuses on the "Safety Optimal Response". A panel of human factor experts determined the "Safety Optimal Response" for each question. In some cases, there may be exceptions based on the particular situation. Some key points to keep in mind when we discuss the "Safety Optimal Response":

- **THIS IS NOT A TEST.**
- We tend to answer the questions based on our own frame of reference and experience level.
- Many people will not agree with all the "Safety Optimal Response. Even the best crewmembers may disagree with some. Most individuals can think of situations where the "Safety Optimal Response" would not apply, at least not as presented.
- More important than the answer are the discussions that take place among the groups. Listen to the answers and the discussion that goes on. Remember that the discussion is nothing more than people verbalizing their attitudes, values, and beliefs.
- The questions you should ask yourself are "how effective is the crew if there are truly differing attitudes in some of these areas?" "Could the differences in attitudes lead to conflict, differences in priorities, confusion during emergencies, etc.?"
- What is being assessed with this instrument is the ability to manage resources and <u>not</u> the technical ability of the individual.

Question 1: Crewmembers should avoid disagreeing with others because conflicts create tension and reduce crew effectiveness.

Discussion: Conflict should be viewed as nothing more than differing ideas between people. Different ideas are helpful aboard the vessel because they stimulate communication and provide additional information for making sound decisions. Do not avoid disagreements but assertively state your position and the facts.

Question 2: Vessel crewmembers should feel obligated to mention their own psychological stress or physical problems to other crewmembers before getting underway or during a mission.

Discussion: Since stress and physical problems have been shown to lead to a decrease in performance, it is essential that we recognize when the problem exists and inform other crewmembers of this. This will enable others to weigh this factor in their decision making process.

Question 3: It is important to avoid negative comments about the procedures and techniques of other crewmembers.

Discussion: It is important to provide each member of the crew with honest feedback on his performance. Negative comments must not be avoided because they are essential in evaluating overall performance. It is important to keep in mind that when giving negative feedback it must be done at the appropriate time and in a constructive manner.

Question 4: The CO/OIC/DWO/Coxswain/Buoy Deck Supervisor should dictate all procedures to other crewmembers.

Discussion: The individual who constantly dictates all procedures to others can seriously undermine their ability to exercise initiative and sound judgment. Constantly dictating procedures also sets the expectation that when the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor wants something, they will dictate that it be done. In his or her Pre-Brief, the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor should be clear about what is expected from each crewmember. Specifically dictating procedures should only be an issue with certain key duties or procedures and if situations outside of the planned mission profile arise.

Question 5: Casual, social conversation during periods of low workload can improve crew performance.

Discussion: During periods of low workload, the level of arousal is usually low and performance may subsequently be low. Casual conversation is one way to increase the level of arousal, thereby increasing performance by enhancing our ability to process information. During periods of high workload, we can generally assume that the level of arousal will be relatively high. Increasing conversation during high workload situations will have two effects: First, it may increase the level of arousal to a point that exceeds our capability for optimum performance. Second, it may cause us to shift our focus of attention away from essential tasks. Another concept to consider is that of teamwork. Teamwork implies that good working relations exist among the members of the group. Teamwork facilitates information flow and contributes to a comfortable atmosphere and effectiveness aboard the vessel. A tense atmosphere, on the other hand, leads to increased levels of stress and restricted information flow. Crews working together and passing information freely characterize a cooperative atmosphere aboard the vessel.

Question 6: Each crewmember should monitor other crewmembers for signs of stress or fatigue, and should discuss the situation with the crewmember.

Discussion: Since stress and fatigue both lead to increased levels of arousal and decrease in performance, it is every crew members responsibility to monitor this, not only in ourselves but in others.

Question 7: Good communications and crew coordination are as important as technical proficiency for safe vessel operations.

Discussion: Technical proficiency is usually considered a given. Our initial training included all the knowledge and skills needed to perform our jobs. In most cases, however, our training never included the fundamentals of crew coordination or how to communicate effectively. In over 85% of the accidents, communications and crew coordination, not technical skills, are factors. Communication and crew coordination skills are as important as technical skills.

Question 8: Crewmembers should be aware of, and sensitive to, the personal problems of other crewmembers.

Discussion: Since personal problems directly equate to increased levels of stress, we must be aware of the factors that not only affect ourselves, but other crewmembers as well. Being aware that a problem exists and being sensitive to it in effect works to reduce the level of stress that a person is feeling; this in turn will lead to increased performance.

Question 9: The CO/OIC/DWO should verbalize plans for procedures or maneuvers and should be sure that the information is understood and acknowledged by crewmembers affected.

Discussion: It is essential that each crewmember know what is going on during the operation. If an individual is to constantly monitor the conduct of the operation, he/she must know what to expect. With this information at hand, the other crewmembers will be able to independently evaluate their own responsibilities.

Question 10: Other crewmembers should not question the decisions or actions of the CO/OIC/DWO except when these actions threaten the safety of the vessel or the crew.

Discussion: If a question exists as to why a decision was reached or a certain course of action selected, it is essential that it be resolved. Each crewmember needs all the information to evaluate decisions and courses off actions. When vessel or individual safety is a factor, questions should be immediate. This is also an excellent opportunity to provide training and encourage crew coordination.

Question 11: Crewmembers should alert others to their actual or potential work overloads.

Discussion: The most effective way to deal with work overload is to reduce it. One way to effectively reduce the workload is by discussing it with other crewmembers and sharing the work. Discussing workload status also prevents another crewmember from placing additional demands on people already over-loaded.

Question 12: Even when fatigued, I perform effectively during critical vessel operations.

Discussion: You may think so, but it's not true. We often tend to overestimate our personal limitations because we are rarely pushed to the limits. Fatigue results in stress on the body and degrades our performance. Even though performance may only be slightly decreased, you may need that extra margin.

Question 13: The CO/OIC/ should encourage other crewmembers to question procedures during normal operations and in emergencies.

Discussion: If there is any doubt as to why a certain procedure or course of action is selected, then more information is needed. In order to constantly monitor the performance of the operation, we must have all the information available. Remember that we are not questioning the authority of the CO/OIC/ DWO.

Question 14: A debriefing and critique of procedures and decisions is an important part of developing and maintaining effective crew coordination.

Discussion: A debriefing allows us to evaluate the effectiveness of what we have done and allows us to plan for corrections in the future. It is essential that we receive feedback for the good actions as well as suggested correction for those things that did not go so well. This is the only way we will change our behavior in the future.

Question 15: My performance is adversely affected by working with an inexperienced or less capable crewmember.

Discussion: Although <u>you</u> may not see your performance affected by inexperienced or less capable crewmembers, it in fact probably is. Effective performance requires that each person contribute his or her share. Using the knowledge and experience of other crewmembers increases mission effectiveness and hence your effectiveness. Less capable crewmembers do not allow you to reach your potential, and in reality may cause your performance to be adversely affected.

Question 16: Overall, successful mission accomplishment is primarily a function of the technical proficiency of the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor.

Discussion: The technical proficiency of the CO/OIC/ DWO/Coxswain is important but it is only one factor. The key to successful mission accomplishment lies in effective teamwork and using all the resources available to you.

Question 17: Training is one of the most important responsibilities of the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor.

Discussion: Each operation we conduct has potential training value. As the responsible individual, the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor should ensure this opportunity is used. Feedback and critique by the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor has excellent training value for less experienced crewmembers.

Question 18: Good crew coordination is more important in emergency or abnormal situations than in normal routine operations.

Discussion: Good crew coordination is equally important in all situations. Very few accidents occur during emergency or abnormal situations. Good crew coordination will help you to function better under low and normal stress situations as well as high stress situations.

Question 19: The pre-mission crew briefing is important for safety and for effective crew management.

Discussion: The time to work out many of the ideas we are talking about is prior to conducting an operation. When a situation arises that we are not prepared for, it takes all our attention and effort to deal with it at the time. Prior discussion about appropriate responsibilities and courses of action free up space in our working memory to deal with critical problems during the operation. Another benefit of the pre-mission briefing is that it establishes expectations so that each crewmember knows what they are responsible for and what to expect.

Question 20: Effective crew coordination requires crewmembers to take into account the attitudes, personalities and values of other crewmembers.

Discussion: Each individual is different and responds to given situations in different ways. We must realize this fact and adjust how we deal with individuals based on their personality and the situation. In one case, you may direct a crewmember to do exactly what you want done (emergency situation/time critical) where in another situation you may request assistance with a certain portion of the mission.

Question 21: The responsibilities of the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor include coordination of other crew personnel.

Discussion: In the interest of vessel safety, it is essential that someone coordinate the activities of the crew. The logical choice for this task is the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor. Each crewmember has a responsibility to participate in crew activities and ensure safety.

Question 22: A truly professional crewmember can leave the effects of personal problems behind when performing his/her job.

Discussion: You may think you can leave behind personal problems, but they will ultimately increase your level of stress and impact adversely on your performance. Remember that stress has a cumulative effect and during routine operations we may not experience any critical problems. During emergency situations, the added stress may push us over the line and cause decreased performance.

Question 23: My decision-making ability is as good in emergencies as in routine mission situations.

Discussion: We would all like to think we are just as good during emergencies, but the fact is, we are not. When you are experiencing high levels of stress your performance will decrease. Remember this level varies with each individual.

Question 24: Training during normal missions can be accomplished without affecting safety and mission accomplishment.

Discussion: Training should take place during every operation since it can be accomplished safely within all mission parameters. We are not necessarily talking about formal instruction. Feedback on our performance can also be a learning experience and should occur naturally. Simply reviewing what went well and what could be done better is training.

Question 25: Leadership of the team is expected to come solely from the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor.

Discussion: Leadership aboard the vessel should come from everyone. The CO/OIC has the responsibility for the vessel/mission, but each crewmember must contribute to make the mission a success. Each crewmember has the responsibility to provide leadership.

Question 26: Questions and suggestions from all crewmembers should be considered by the CO/OIC/DWO/Coxswain/Buoy Deck Supervisor.

Discussion: Questions and suggestions from <u>everyone</u> should be considered. This must be viewed as another avenue for obtaining information to use in the problem solving process.

Question 27: When joining a crew for the first time, a new crewmember should willingly offer suggestions or opinions even if not asked.

Discussion: When a crewmember joins a crew for the first time, a number of events take place. A team forms and norms are established which will determine future behaviors. A new crewmember should freely offer suggestions or opinions during this time. It will set the stage for future behavior of the crew and will provide vital information to the new crewmember regarding the conduct of the operation and his role.

Question 28: Aboard the vessel it is reasonable to expect that status or seniority differences among crew members will create barriers that threaten mission safety and crew effectiveness.

Discussion: Status, or seniority differences, do exist aboard the vessel. It is important that these factors do not interfere with the safety of operation. These barriers must be broken so that everyone focuses on the primary goal of vessel safety.

Question 29: A CO/OIC/DWO/Coxswain/Buoy Deck Supervisor who accepts and implements suggestions from the crew lessens his stature and reduces his authority.

Discussion: Any crewmember that accepts and implements suggestions from others is smart. No one person has all the information or answers. Gathering information from all available sources and using it in the problem solving process actually increases that person's stature and authority.

Question 30: Vessel crews that work together as a team, know what is expected of them, and communicate problems to others can greatly reduce risk in any operation.

Discussion: It has been shown that effective teamwork is the key to reducing risk in any operation. Teamwork does not undermine the authority of anyone; it strengthens it.

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: Leadership

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of leadership on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 1 hour. This assumes that the case study is read prior to the class. The one-hour time is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercises and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the case prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, and ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the topic of leadership and the questions asked.

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Leadership

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of leadership on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. A copy of the "*Who Rescues the Coast Guard?*" video.
2. Pencil and paper for each participant.
3. Copy of the case study worksheet for each individual.

Physical Setting

A room large enough for individuals and groups to work without being distracted or overheard by others.

Process

1. Show an appropriate Leadership scenario from the Video. Instruct the students to take notes.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer questions regarding the mishap. Instruct them to stay focused on the questions asked.

TEAM COORDINATION TRAINING

LESSON: Effective Mission Analysis

LESSON TIME: 2 Hours and 30 minutes for supervisory level students and 2 hours for team members.

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

B. Team Coordination Training Exercises and Case Studies

C. Video: *Who Rescues the Coast Guard?* and *Coast Guard, The Series.*

TERMINAL OBJECTIVE:

At the completion of the Mission Analysis Module, the student shall be capable of making long-term and contingency plans, and organizing, allocating, and monitoring team resources.

ENABLING OBJECTIVES: This lesson is directed at students who are supervising personnel. The first two enabling objectives are pertinent to all students; supervisors and team members.

1. Given a demonstration, all students define the tasks they must do to ensure safety of the mission.

2. Given a demonstration, all the students will assess risk using the two TCT risk management models.

3. Given a demonstrated mission briefing, the supervisory-level student should critique the information, objectives, and plans to identify mission risks, decision points, and/or team responsibilities.

EFFECTIVE MISSION ANALYSIS

Instructional Outline

SCOPE

The Mission Analysis Module of Team Coordination Training provides team awareness of actions important to mission safety in the planning stage and gives two methods for managing risk. The module also provides supervisors with briefing techniques that will enhance mission safety.

LESSON OBJECTIVE

At the completion of the Mission Analysis Module, the student shall be capable of making long-term and contingency plans, and organizing, allocating, and monitoring team resources.

LESSON OVERVIEW

Critical areas of this lesson include:

- Characteristics of effective team members.
- Risk management.
- The briefing process.

EFFECTIVE MISSION ANALYSIS

OBJECTIVES

To successfully complete this module, you must study the text and master the following objectives:

- List the steps that effective leaders use to develop safe and effective operational plans.
- List the three elements of the SPE (Severity, Probability, Exposure) risk assessment model and state what it is used to evaluate.
- List the six elements of the GAR (Green, Amber, Red) risk assessment model.
- List the steps of the risk management process
- State the purpose of a routine brief.
- State the purpose of a routine debrief.

HOW TO DEVELOP SAFE AND EFFECTIVE OPERATIONAL PLANS

Mission Analysis is the process by which the operating plan and contingency plans are developed. It includes organizing the team to meet the mission objectives, allocating resources to perform the critical tasks, and monitoring the team and the environment to adjust resources as necessary. To be effective we must:

- Define tasks based on mission requirements.
- Question data or ideas as they relate to mission accomplishment.
- Discuss long and short term plans for the mission.
- Identify the impact of potential hazards and unplanned events on the mission.
- Structure tasks, plans, and objectives related to the mission.
- Thoroughly critique existing plans for potential problems.

Define Required Tasks	A task analysis based on anticipated mission requirements is the first step in developing an operating plan.
Verify Data, Double Check The Work	Plans developed around incorrect information put the team at a disadvantage. Double check data, in particular environmental conditions and external control systems (e.g. traffic schemes and communications plans), before beginning a plan. Double checks must be independent computations that arrive at the same conclusion. Ineffective double checks contribute to mishaps.
Discuss Objectives	All team members need to understand the mission in terms of both the short term and long term objectives. By outlining all objectives the team can provide better input on how to best achieve them.
Assess Risk	This requires two steps: *safety risk identification* and *evaluation of the loss potential* (e.g. catastrophic to minor). Risk assessment is a key part of the risk management process, which is discussed later in this chapter.
Assemble the Plan	The mission needs, resources, and assessed risks are then assembled into a plan. Safety risks that are unacceptable to the Coast Guard, the unit, or the team are managed in the plan.
Critique the Plan	All team members should be empowered to question and provide feedback on the plan. No plan is perfect or can be designed to meet all contingencies.

MANAGING RISK

Risk management is a process by which we can maintain an *acceptable* level of safety during the conduct of our mission. Safety is defined as: "*The identification and control of risk."* Risk management is the identification and control of risk, *according to a set of preconceived parameters.* The parameters and the acceptable limits vary with the type of operation. Rescue operations, buoy tending, ice breaking, law enforcement, etc., all have different risks. Controlling the risks means we eliminate, reduce, or manage hazards that can lead to mishaps.

Operational Risk Management

Operational Risk Management (ORM) does not only apply to operational units or operational missions in the usual sense that "operations" are defined. All Coast Guard Missions and daily activities, both on-duty and off-duty, require decisions that involve risk management. The term "operational" in ORM includes any military or civilian member of the Coast Guard who contributes to the overall goal of increasing unit effectiveness. All levels of the organization contribute, either directly or indirectly, to operational mission successes. Every individual is responsible for identifying potential risks and compensating accordingly. Therefore, the ORM target audience includes all those involved in operations, maintenance, and support activities.

A risk management program is used to encourage the making of safe decisions and stands behind those who make those decisions. The consistent application of risk management techniques can help modify team member attitudes and change motivational factors that have been known to put people at risk. Risk management philosophy is to increase mission success while reducing the risk to personnel and resources to an acceptable level.

Risk Management (Cont.)

As the Coast Guard continues to operate in a streamlined environment, preventing losses becomes even more critical to maintain mission readiness. Beyond preventing losses, ORM also provides a logical process to identify and exploit opportunities that provide the greatest return on our investment of time, dollars, and personnel.

PRINCIPLES OF OPERATIONAL RISK MANAGEMENT

These basic decision-making principles must be applied before any anticipated job, task, or mission is performed:

- Accept no unnecessary risk.
- Make risk decisions at the appropriate level.
- Accept risk when benefits outweigh the costs.
- Integrate ORM into Coast Guard doctrine and planning at all levels.

Accept no unnecessary risk

Unnecessary risk contributes no benefits to the safe accomplishment of a task or mission. The most logical choices for accomplishing a mission are those that meet all the mission requirements while exposing personnel and resources to the lowest possible risk.

Make risk decisions at the appropriate level

Making risk decisions at the appropriate level establishes clear accountability. Those accountable for the success or failure of a mission must be included in the risk decision process. Supervisors at all levels must ensure subordinates know how much risk they can accept and when they must elevate the decision to a higher level.

Accept risk when benefits outweigh costs

Weighing risks against opportunities and benefits helps to maximize unit capability. Even high-risk endeavors may be undertaken when there is clear knowledge that the sum of the benefits exceeds the sum of the costs.

Integrate ORM into doctrine and planning

To effectively apply risk management, leaders at all levels must dedicate time and resources to incorporate risk management principles into the planning and execution phases of all operations. Integrating risk management into planning as early as possible provides the decision-maker with the greatest opportunity to apply ORM principles.

ASSUMPTIONS ABOUT RISK MANAGEMENT

The Operational Risk Management program assumes:

- Every event/evolution has some degree of risk exposure.
- All the risks will never be known.
- Every event/evolution requires managing risk by applying adequate risk controls.
- Resources available to identify and manage risk are limited.
- The goal is to eliminate all *unacceptable* risk in each event/evolution.

LEVELS OF RISK MANAGEMENT

While it would be preferable to perform an in-depth application of risk management for every task, time and other resource limitations apply. Therefore, risk management exists on three levels to meet an appropriate need:

- Time Critical.
- Deliberate.
- Strategic.

Time Critical

Time critical risk management is an "on-the-run" mental or verbal review of the situation using the basic risk management process without necessarily recording the information. This process is used to consider risk while making decisions in a time-compressed situation. It is particularly helpful for choosing the appropriate course of action when an unplanned event occurs during execution of a planned operation or daily routine.

Deliberate

Deliberate risk management is the application of the complete process. It primarily uses experience and brainstorming to identify hazards and develop controls and is therefore most effective when done in a group. Examples of Deliberate applications include planning operations, reviewing standard operating procedures, and damage control or disaster response planning.

Strategic

This is the deliberate process with more thorough hazard identification and risk assessment involving research of available data, use of diagram and analysis tools, formal testing, or long term tracking of hazards associated with the system or operation. It is used to study the hazards associated in a complex operation or system, or one in which the hazards and their associated risks are not well understood. Examples of Strategic applications include long-term planning of complex operations, design of new equipment, and major system overhaul or repair.

Operational Risk Management Steps

Every event requires that we manage risk to keep it within acceptable boundaries (e.g. slowing to a safe speed in fog,). How we keep risks in check is therefore very important. Figure 3-1 lists the steps to a systematic approach:

RISK MANAGEMENT STEPS

Figure 3-1

1. Define the Mission/Task

This step is accomplished by reviewing current and planned operations describing the mission at hand. To assist with this step, construct a list or chart depicting major phases of the operation or task. Break down the operation or task into "bite-size" pieces.

---

2. Identify the Hazards

The key to successfully analyzing risk is the careful definition of the hazard. Hazard identification can be accomplished by one or more of the following methods:

1. Consideration of known sources of hazards usually identified by reviewing past accidents or losses.
2. Brainstorming by a team that understands all aspects of the system under consideration. List all hazards associated with major steps in the task formulated in Step One.

---

2. Identify the Hazards (Cont.)

3. Identification of risk scenarios through personal observation, professional judgment, or task analysis.

Potential failures (things that can go wrong) can be equipment or operational in nature and can be both internal and external to the *team*. Examining each element of the "PEACE" Model (**P**lanning, **E**vent Complexity, **A**sset Selection, **C**ommunication (and supervision), and **E**nvironmental Conditions) will ensure effective hazard identification in each of the following three main categories:

- **Equipment:** Is the equipment functioning properly and can it be expected to function properly throughout the planned task or evolution?
- **Environment:** How will the weather, sea conditions, proximity to shoals, vessel traffic, and available light affect the task or event?
- **Personnel:** Is the team properly trained and capable of handling the demands of the mission? Are they fatigued, complacent, or suffering from the affects of physical or mental stress?

Example: Your vessel is constrained by draft to navigate within the channel. You are outbound. You receive a series of reports.

- A vessel is sighted inbound.
- The vessel is constrained by draft.
- The vessel is going to anchorage.
- It has to cross the outbound channel to get to its anchorage.
- At present course and speed, the crossing will have you close aboard.

Adequately defining the hazard often requires us to put many pieces of information together. The definition of the hazard will directly affect how you evaluate the level of risk. In the preceding example there are a number of actual and potential hazards. One hazard can be identified in the following manner:

Identified Hazard: Possible collision with inbound vessel as it crosses the outbound channel.

The more specific the hazard identification is, the more accurate will its risk assessment be and more thorough the development of risk control options. **In planning a mission or a task, anyone can miss or fail to recognize a hazard. It is important for the team to discuss hazards to prevent this mistake.**

3. Assess The Risk

Risk must be considered as it applies to the unit and the mission. Individual risk levels must be determined for each hazard identified. Risk assessment is conducted by evaluating specific elements or factors, that when combined, define risk. The level of risk must be understood as it applies to the team and/or the mission. *Two different methods to evaluate risk will be discussed later in this chapter*. They differ by the way they look at the hazards you identified in step #2.

1. **Specific hazards**, such as those involved in launching or recovering a small boat or the meeting of two vessels in a congested waterway, can be addressed by *the SPE Model*.
2. **General hazards:** The *GAR Model* can address more general risk concerns, which involve planning operations, or reassessing risks as we reach milestones within our plans.

THE RISK ASSESSMENT QUESTIONING TECHNIQUE

This simple technique employs the use of five questions that may be asked by anyone, anywhere, anytime. No documentation is required and this method can be applied quickly and easily. Use it to reduce risk in everything that you do. The five questions are:

1. ***Why*** am I doing it at all?
2. ***What*** could go wrong?
3. ***How*** will it affect others or me?
4. ***How*** likely is it to happen to me?
5. ***What*** can I do about it?

Example: You can promote this technique and encourage all employees to be aware of risk by distributing and wearing in the workplace tags inscribed with these five basic questions. It serves as a reminder to assess risk in all of our daily activities.

4. Identify the Options

A. Starting with the highest risk hazards as assessed in Step 3, identify as many risk control options as possible for all hazards that exceed an acceptable level of risk. Risk control options include:

- Spread out.
- Transfer.
- Avoid.
- Accept.
- Reduce.

Spread Out

Risk is commonly spread out by either increasing exposure distance or by lengthening the time between exposure events.

Transfer	Risk transference does not change probability or severity; however, possible losses or costs are shifted to another entity.
Avoid	Avoiding risk altogether requires canceling or delaying the job, mission, or operation, but is an option that is rarely exercised due to mission importance. However, it may be possible to avoid specific risks until conditions are more suitable.
Accept	Risk is accepted when the benefits clearly outweigh the costs, and only as much as necessary to accomplish the mission or task.
Reduce	Risk can be reduced. The overall goal of risk management is to plan missions or design systems that do not contain hazards. In complex systems, however, this is usually impractical or impossible. The easiest way to reduce risk is by increasing individual awareness of the hazard and its associated risk.
4. Identify the Options (Cont.)	B. *Brainstorm* a list of ways to reduce the risk levels that you considered acceptable in step #3. C. *Determine the consequences* of each alternative on mission and/or team goals. D. *Select the best alternative or combination of alternatives*. The mission priority and time criticality will often drive which option is chosen.

5. Evaluate Risk vs. Gain

Determine if the benefits of the operation now exceed the levels of risk that the operation presents, considering the cumulative risk of all the hazards and the long-term consequences of the decision. *Very high risk versus gain decisions require the concurrence of the appropriate level of command.* The Chain of Command shares responsibility for the risks taken by your *team* in the performance of the mission. This step also serves as a reality check to verify that the objective is still valid. However, it is important to note that expected value of a loss differs from person to person based on individual perceptions of risk. Therefore, one should consider the perceived value as well as the expected value of a loss when making risk decisions.

6. Execute the Decision

Take action! This may mean increasing, replacing, or reassigning unit or team resources (i.e. people, equipment, and/or information), and ensuring the risk controls are known by all and enforced.

Example: Posting additional lookouts will require added watchstanders. They have to be identified, notified regarding their duty, trained, and provided necessary gear and a means to communicate.

A high level of risk that cannot be effectively controlled should be reported through the Chain of Command to the appropriate leadership level!

7. Monitor The Situation

Are the controls and risks in balance? Are changes to the operation, equipment, environment, and/or people effective in lowering risk? It is important to remember that *risk management is a continuous process!* React to changes in the situation by returning to Step #1. At key points in the mission, it is important to assess risk. Figure 3-2 provides an example of a generic afloat mission showing where risk should be assessed.

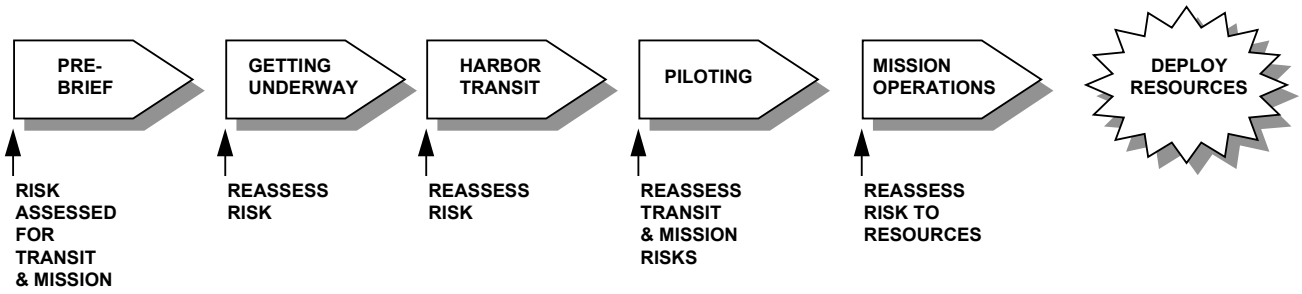

Figure 3-2

SPE MODEL

Risk for a specific hazard can be assessed using the SPE Model, computed as:

Risk = Severity X Probability X Exposure

Figure 3-3 presents the risk assessment process using the SPE Model.

SPE RISK ASSESSMENT MODEL

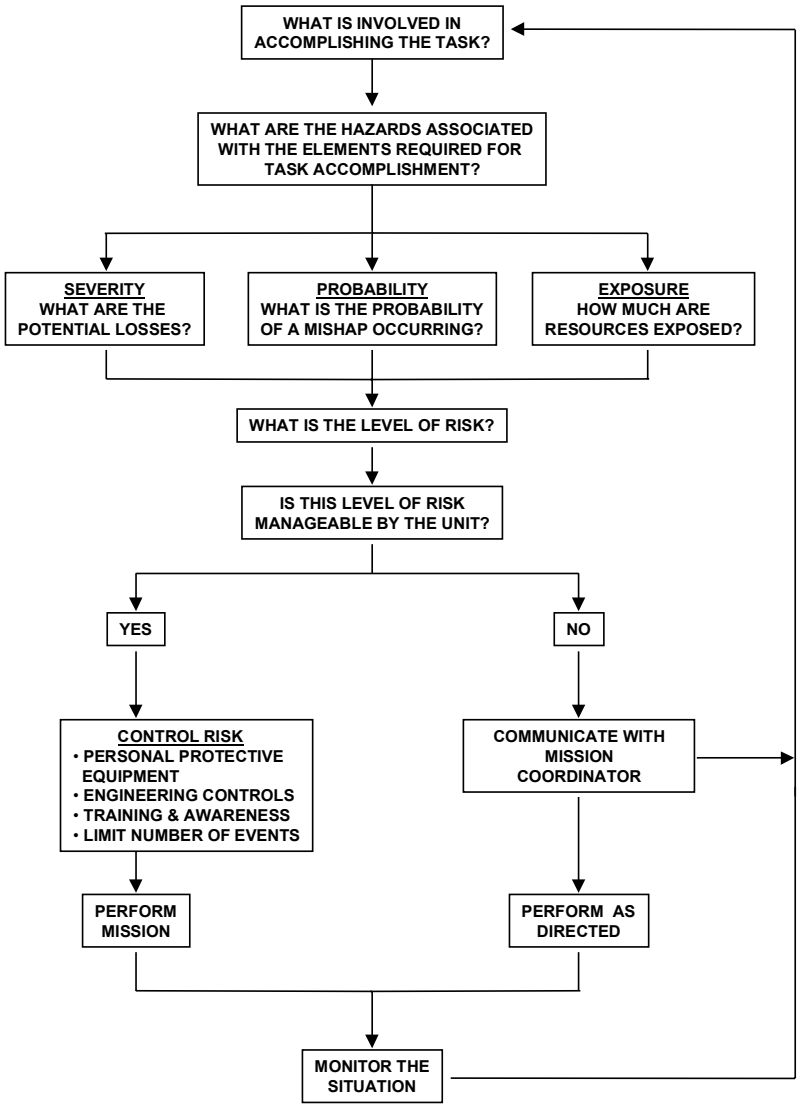

Figure 3-3

Severity

Describes the potential loss or consequences of a mishap. Should something go wrong, the results are likely to be found in the following areas:

- Injury, occupational illness or death.
- Equipment damage.
- Mission degradation.
- Reduced morale.
- Adverse publicity.
- Administrative and/or disciplinary actions

Severity can vary from 1 to 5.

1 = None or slight
2 = Minimal
3 = Significant
4 = Major
5 = Catastrophic

Risk Control: Protective devices, engineering controls, and personal protective equipment are used to control Severity.

Probability

The likelihood that given exposure, the projected consequences will occur. Probability can vary from 1 to 5.

1 = Impossible or remote under any conditions
2 = Unlikely under normal conditions
3 = About 50-50
4 = Greater than 50%
5 = Very likely to happen

Risk Control: Training, awareness, attitude change, etc., are used to control Probability.

Exposure

The amount of time, number of cycles, number of people involved, and/or amount of equipment involved. Exposure can vary from 1 to 4.

1 = None or below average
2 = Average
3 = Above average
4 = Great

Risk Control: Exposure is usually controlled by reducing the number of people involved, the number of events, cycles, evolutions, etc.

Calculating Risk Using SPE Model

By computing the level of risk, the effectiveness of mission and execution can be evaluated. For the formula R = S x P x E, those risks that are substantial to very high need to be controlled.

Values	Risk Level	Action
80-100	Very High	Discontinue, Stop
60-79	High	Immediate Correction
40-59	Substantial	Correction Required
20-39	Possible	Attention Needed
1-19	Slight	Possibly Acceptable

After computing the risk levels for each hazard identified, those hazards can be rank ordered from the highest to the lowest risk. This allows you to focus on the areas of most concern first under conditions of limited resources.

GAR MODEL

More general risk concerns that involve operations planning or reassessing risks as milestones are achieved can be addressed using the GAR Model. A survey of Coast Guard accidents identified 6 elements that affect risk in operations.

- Supervision.
- Planning.
- Team Selection.
- Team Fitness.
- Environment.
- Task Complexity.

These elements are incorporated into the *GAR* (Green, Amber, Red) Risk Assessment Model (Figure 3-4). This model provides the team with another way of assessing risk and may be used as an alternative to the SPE Model.

GAR RISK ASSESSMENT MODEL

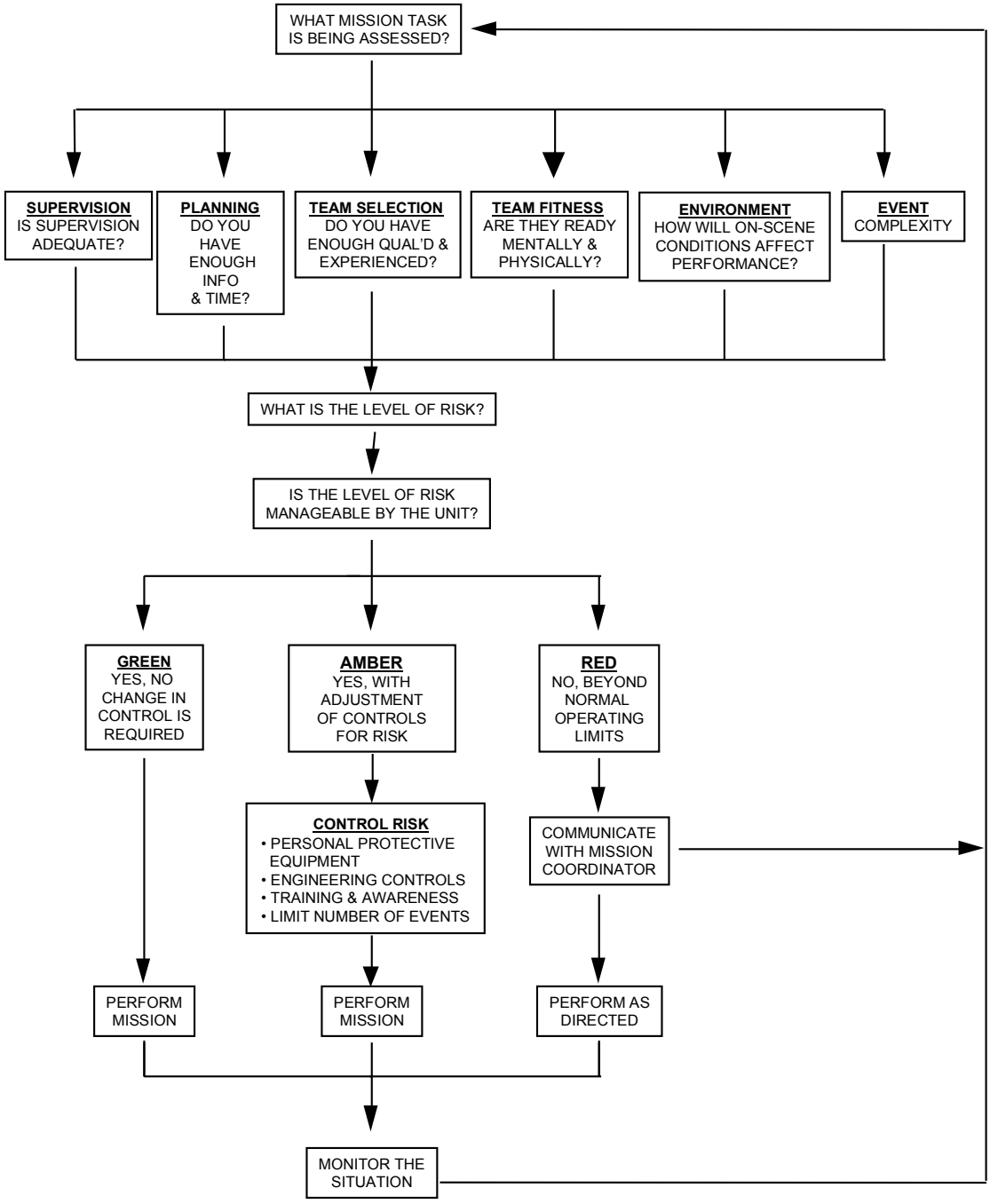

Figure 3-4

Supervision

Supervisory Control considers how qualified the supervisor is and whether effective supervision is taking place. Even if a person is qualified to perform a task, supervision acts as a control to minimize risk. This may simply be someone checking what is being done to ensure it is being done correctly. The higher the risk, the more the supervisor needs to be focused on observing and checking.

A supervisor who is actively involved in a task (doing something) is easily distracted and should not be considered an effective safety observer in moderate to high-risk conditions.

Planning

Planning and preparation should consider how much information you have, how clear it is, and how much time you have to plan the evolution or evaluate the situation.

Team Selection

Team selection should consider the qualifications and experience level of the individuals used for the specific event/evolution. Individuals may need to be replaced during the event/evolution and the experience level of the new team members should be assessed.

Team Fitness

Team fitness should consider the physical and mental state of the crew. This is a function of the amount and quality of rest a crewmember has had. Quality of rest should consider how the ship rides, its habitability, potential sleep length, and any interruptions.

Fatigue normally becomes a factor after 18 hours without rest; however, lack of quality sleep builds a deficit that worsens the effects of fatigue.

Environment	Environment should consider factors affecting personnel performance as well as the performance of the asset or resource. This includes, but is not limited to, time of day, temperature, humidity, precipitation, wind and sea conditions, proximity of aerial/navigational hazards and other exposures (e.g., oxygen deficiency, toxic chemicals, and/or injury from falls and sharp objects).
Event or Evolution Complexity	Event/Evolution complexity should consider both the required time and the situation. Generally, the longer one is exposed to a hazard, the greater are the risks. However, each circumstance is unique. For example, more iterations of an evolution can increase the opportunity for a loss to occur, but may have the positive effect of improving the proficiency of the team, thus possibly decreasing the chance of error. This would depend upon the experience level of the team. The situation includes considering how long the environmental conditions will remain stable and the complexity of the work.
Calculating Risk Using GAR Model	To compute the total level of risk for each hazard previously identified, assign a risk code of 0 (For No Risk) through 10 (For Maximum Risk) to each of the six elements. This is your personal estimate of the risk. Add the risk scores to come up with a Total Risk Score for each hazard. See Figure 3-5.
Color Coding Risk	The mission risk can be visualized using the colors of a traffic light. If the total risk value falls in the *GREEN ZONE* (1-23), risk is rated as low. If the total risk value falls in the *AMBER ZONE* (24-44), risk is moderate and you should consider adopting procedures to minimize the risk. If the total value falls in the *RED ZONE* (45-60), you should implement measures to reduce the risk prior to starting the event or evolution. See Figure 3-5.

Risk Calculation Worksheet

Supervision	_____
Planning	_____
Team Selection	_____
Team Fitness	_____
Environment	_____
Event/Evolution Complexity	_____
Total Risk Score	_____

GAR Evaluation Scale
For Color Coding the Level of Risk

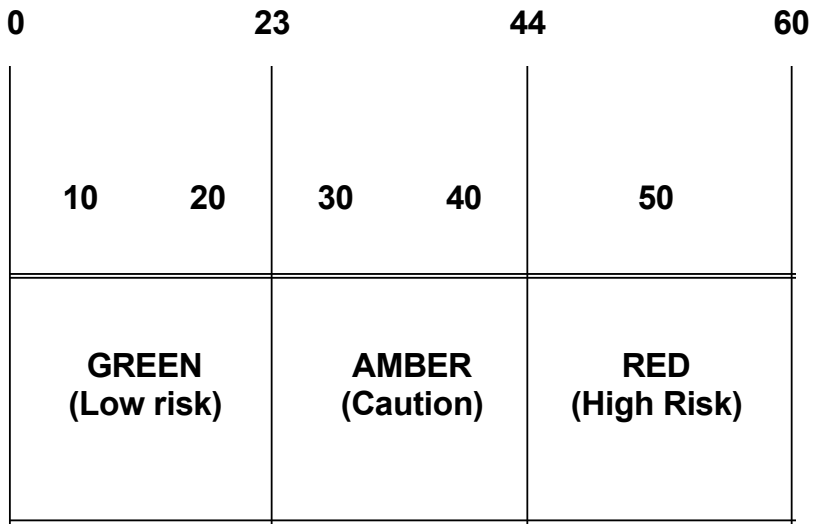

Figure 3-5

The GAR Model is good for a general assessment of a task or mission. If there is a concern for high risk levels in one or more of the above elements, a second assessment using the SPE Model should be done for each element of concern, since the SPE Model is designed for more specific assessments. As with the SPE Model, all hazards should be rank ordered from the highest to the lowest risk levels to target areas of greatest concern first.

The ability to assign numerical values or "color codes" to hazards using either the SPE or the GAR Model is not the most important part of risk assessment. What is critical to this step in the ORM process is team discussions leading to an understanding of the risks and how they will be managed.

RISK RATINGS

Different operational communities within the Coast Guard have adopted the GAR Model, but can have different interpretations for "Green," "Amber," and "Red." The following chart illustrates some of these differences:

AFLOAT	AVIATION	LAW ENF.	MAR. SAFETY
Green	Low	N/A	Low
Amber	Medium	Medium	Medium
Red	High	High	High

Because a Low/Medium/High scale is a widely used standard throughout the safety industry, risk level discussions between various Coast Guard activities should be in terms of Low, Medium, and High to facilitate communications during joint operations. However, each community will define the meaning of Low, Medium, and High risk in terms that are meaningful to their personnel.

BRIEFINGS

The briefing includes not only what you will be doing, but also how it will be done. The success of the plan is often determined by the quality of the briefing process. Briefings fall into two categories: Brief and Debrief.

BRIEF

The Brief sets the stage for what is to follow. It clarifies expectations for team members and establishes the ground rules for the task. Make the following process part of your routine Brief:

- Specify desired results.
- Set expectations.

BRIEF (Cont.)

- Clarify responsibilities.
- Identify available resources.
- Establish a climate for learning.
- Accept/encourage input from team members.
- Maintain a positive attitude.
- Define accountability.

Specify Desired Results

What is the desired result or objective? What do you want in terms of quality and quantity?

Example: "It's important that we arrive at our destination such that the first line is on the pier by 0900. We have to be sharp in our final approach because the City Fathers will be waiting on the pier to greet us to their city."

Set Expectations

Explain what you expect from other team members and what they can expect from you, as well as from the mission. This is also your opportunity to ensure that your expectations of fellow team members are accurate and that there have been no changes in personnel, equipment, etc. that will affect the outcome of the mission.

Clarify Responsibilities

Discuss with the team whatever principles, policies, and procedures are considered essential to achieving the desired results. Review lessons learned to determine critical tasks and "No-No's". When identifying "No-No's", also identify what level of initiative is expected from specific team members (i.e. Wait until told; Ask whenever there is a question; Always provide a recommended course of action; Do it and report your actions immediately; or, Report back routinely).

Clarify Responsibilities	**Example:** "It is highly important that we stay alert to traffic communications since we will be mooring at a blind bend in the river. The OOD is to keep me abreast of all communications between traffic within one mile of us."
Identify Available Resources	Ensure the team has all applicable information and that equipment capability is understood. Ensure all personnel who have a need to know have been included in the team planning process. For major evolutions, that means several shipboard teams need to be represented at planning briefs.
Establish a Climate for Learning	There is a learning opportunity available during each and every task or evolution. Create a climate for learning by ensuring that all team members understand this is an objective and take advantage of the opportunities as they arise.
Accept/Encourage Input	If you truly want team members to be assertive, you must give them permission to do so. The time you spend encouraging and accepting input during the Brief will set the stage for the rest of the mission.
Maintain a Positive Attitude	Your attitude as a team leader is contagious. A positive attitude demonstrated by the leader will lead to positive attitudes by all team members. This is especially critical during high risk, high stress missions.

Make Your Team Accountable	Ensure team members understand the standards for performance (e.g. Navigation Standards, Standing Orders, SOPs, Training Assessment/Ready For Operations Checklists etc.) that will be used in evaluating the results. Set aside a specific time when you will debrief the team.
DEBRIEF	The Debrief provides an opportunity to evaluate and recognize teams or individuals for their performance. This includes identifying areas where performance needs improvement. It is a feedback session. Make the following behaviors part of your routine Debrief: • Conduct self-critique. • Accept/encourage feedback and suggestions. • Focus on process. • Demonstrate consistency.
Conduct Self Critique	Openly critique your actions and determine what you can learn from them. Encourage similar behavior on the part of other team members. This should be approached as an opportunity to learn from recent experience. Unless you are aware of your performance, you cannot know what you should continue doing or what you should change.
Encourage Feedback	Be open to feedback and actively solicit it.

Focus On Process

It is important that the team understands its effectiveness in the process. Doing things right is only half way to effective team coordination. Doing "*the right thing right"* is the ultimate goal. In describing process, address: what, why, how, when, where, as well as who. When evaluating individuals or teams, apply the principles of Effective Feedback.

Demonstrate Consistency

Make debriefs a routine part of the job. They are critical to continuous improvement and doing "*the right thing right*." Make time for the debriefing process!

LESSON SUMMARY

LESSON OBJECTIVE

At the completion of the Mission Analysis Module, the student shall be capable of making long-term and contingency plans, and organizing, allocating, and monitoring team resources.

LESSON OVERVIEW

The critical areas covered in this lesson have included:

- Characteristics of effective team members.
- Risk management.
- The briefing process.

APPLICATION

Supervisory-level Personnel: Because Mission Analysis can assist supervisors in making long-term and contingency plans it is a valuable tool in managing risk. Using the briefing format provided in this lesson, combined with the risk management process, will enable them to better organize, allocate, and monitor team resources.

Team Members: Mission Analysis skills are important to team members since they provide valuable information and feedback to supervisors during mission planning and risk assessment. Increasing the awareness of team members of their responsibilities can enhance mission safety.

SELF-QUIZ #2

1. What are the steps that effective leaders use to develop safe and effective operational plans?

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

   f. _____

2. What are the three elements of the SPE Risk Assessment Model?

   a. _____

   b. _____

   c. _____

3. What are the six elements of the GAR Risk Assessment Model?

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

   f. _____

SELF-QUIZ #2 (continued)

4. What are the seven steps in the risk management process?

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

   f. _____

   g. _____

5. What is the purpose of a routine Brief?

_____

_____

6. What is the purpose of a routine Debrief?

_____

_____

ANSWERS TO SELF QUIZ #2

Question	Answer	Reference
1.	a. Define required tasks. b. Verify data, double-check the work. c. Discuss objectives. d. Assess risk. e. Assemble the plan. f. Critique the plan.	3-3
2.	a. Severity. b. Probability. c. Exposure.	3-16
3.	a. Supervision. b. Planning. c. Team selection. d. Team fitness. e. Environment. f. Event/Evolution complexity.	3-19
4.	a. Define mission/task. b. Identify hazards. c. Assess the risk. d. Identify options. e. Evaluate risk vs. gain. f. Execute the decision. g. Monitor the situation.	3-9
5.	The Brief sets the stage for what is to follow. It clarifies expectations for team members and establishes the ground rules for the mission.	3-24
6.	The Debrief provides an opportunity to evaluate and recognize teams or individuals for their performance.	3-27

EFFECTIVE MISSION ANALYSIS

INSTRUCTOR LESSON PLAN #3

1. LESSON TITLE: Effective Mission Analysis

2. TIME: 2 hours and 30 minutes for supervisory-level personnel and 2 hours for team members..

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 3-1 to 3-32
- Video Guidance: Pg. 3-45
- Exercise Guidance: Pg. 3-38
- Case Study Guidance: Pg. 3-43

B. Student Guide

- Lesson Material: Pg. 3-1 to 3-26

C. Team Coordination Training Exercises and Case Studies

- Case Study: Select an appropriate case
- Exercise: Missing At Sea Exercise, Pg. I-15 to I-16

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 27

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead slides

B. Team Coordination Training Exercises and Case Studies

- Case Study: Pg. II-33
- Exercise: Missing At Sea Exercise, Pg. I-15 to I-16

C. Videos: *"Coast Guard, The Series"* and *"Who Rescues the Coast Guard?"*

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 27

7. STUDENT STUDY ASSIGNMENTS:

A. If you use any case studies and want additional time in class, assign them as homework.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Mission Analysis, Risk Management, and Briefings and their affect on safety and mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of how poor mission planning, risk management, and briefings could have, or did lead to a mishap.
- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and exercise approach. You must select the most appropriate method based on your experience and the experience of the group.

(3) We have provided you with videos and different cases and exercises. To be effective, do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select one of the following approaches to reinforce learning:

(1) Missing At Sea Exercise. To process this exercise reproduce the exercise in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 3-38 or;

(2) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 3-43 of this text.

(3) Video: Select one of the Mission Analysis scenarios, such as *"The Distressed Tugboat",* from the *"Who Rescues the Coast Guard?* video. When conducting training for Auxiliarists, use the *"F/V Gambler"* segment from the *"Coast Guard, The Series"* video. Scenarios are indexed on page II-4 of the Team Coordination Training Exercises and Case Studies text. Reproduce the Case Study Worksheet from that text and distribute to each individual. Follow the Video Guidance on page 3-45 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but to their jobs. You are a facilitator, the tools you have been provided with in this *Team Coordination Training Instructor Guide* include the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes. You will notice that in this manual *you have not been provided with a script of what to say or a description of how the concepts presented in each module integrate with one another*. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS:

A. Characteristics of Effective Teams - Used to identify key tasks in an effective mission analysis.

B. SPE Risk Management Model - Used to evaluate the severity, probability, and exposure related to risk.

C. GAR Risk Management Model - Used to evaluate the risk factors of supervision, planning, crew selection, crew fitness, environment, and event/evolution complexity.

D. Briefings - Used to guide supervisors in relaying information before and after mission execution.

10. ROADBLOCKS:

A. Time - Sufficient time may not be available for detailed briefings or risk management. This should not preclude them from being done.

B. Individual Interpretation - Each individual views the situation (i.e. risks) differently. Working together as a team will minimize this.

C. Experience - Different levels of experience will cause team members to view the situation differently. You must consider the experience level of each member of the team.

11. LESSON CONCLUSION: Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

MISSING AT SEA EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Mission Analysis
Leadership
Decision Making

Goals

1. To demonstrate how the objective you select, in the analysis phase, affects the decision-making process.
2. To teach the effectiveness of consensus-seeking behavior in task groups through comparative experiences with both individual decision-making and group decision-making.
3. Use in support of Effective Mission Analysis.

Group Size

Two to three groups of three to seven participants each.

Time Required

Approximately 1 hour.

Materials Required

1. Pencils.
2. Copy of the Missing At Sea Individual Worksheet for each participant. This is located on page 79 of the *Team Coordination Training Exercises and Case Studies* text.
3. Copy of the Missing At Sea Group Worksheet for each subgroup. This is located on page 80 of the *Team Coordination Training Exercises and Case Studies* text.
4. Copy of the Missing At Sea Answer and Rationale sheet, pages 3-34 and 3-35, for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Discuss the section on Mission Analysis, Leadership, or Decision Making. Discuss how problem solving is a group process and consists of leadership, sharing information, risk assessment, and objective setting.

2. Distribute copies of the Missing At Sea Individual Worksheet to each participant and ask them to independently complete them.

3. After 5-10 minutes, separate the group into 3 subgroups. Read the instructions on the Group Worksheet to the groups and ask them to complete the Group Worksheet.

4. Provide one of the following special instructions to each subgroup:

    a. Your single objective is to survive for up to five days when you know you will be rescued by a search party that knows where you are located.

    b. Your single objective is to signal to a rescue naval vessel or aircraft that you know will be looking for you at your current position within the next 18 hours. The ship is searching for you and will be close enough to see your signal.

    c. No special instructions.

    NOTE: If only two subgroups are available, give one group no special instructions. Choose one of the above instructions for the other group.

5. After approximately 20 minutes, call a halt to the exercise.

6. Post on butcher paper the top six items from each group.

7. Pass out the solution.

8. Lead a discussion of the activity. Focus on how clear objectives influence decision-making.

Suggested Process Questions:

1. **How did your objective influence your decision?**

   (RECOMMENDED RESPONSE: The objective we select provides a filter for evaluating alternatives. If we select the wrong objective we are likely to miss important alternatives).

2. **For the group without instructions, what was the objective you selected? Did you discuss it?**

   (RECOMMENDED RESPONSE: The group probably selected a balanced objective focusing on survival and rescue).

3. **How can what you learned from this exercise be applied to your job?**

   (RECOMMENDED RESPONSE: It is important to set objectives so that we have a direction for what we do).

Adapted from
Structured Experience Kit
J. William Pfeiffer and John E. Jones
San Diego, CA: UNIVERSITY ASSOCIATES, Inc., 1980

MISSING AT SEA ANSWER AND RATIONALE SHEET

According to the "experts," the basic supplies needed when a person is stranded in mid ocean are articles to attract attention and articles to aid survival *until rescuers* arrive. Most rescues occur during the first thirty-six hours, and one can survive without food and water during this period. Therefore, items like the mirror are of primary importance. A brief rationale is provided for each item. Depending on the objective you selected, your answers may differ from those of the "experts".

1. **Shaving mirror**
   Critical for signaling air-sea rescue.

2. **Two-gallon can of oil-gas mixture**
   Critical for signaling. The oil-gas mixture will float on the water and could be ignited with a dollar bill and a match (obviously, outside the raft).

3. **Five-gallon can of water**
   Necessary to replenish loss by perspiring, etc.

4. **One case of U S Army C rations**
   Provides basic food intake.

5. **Twenty square feet of opaque plastic**
   Utilized to collect rain water, provide shelter from the elements.

6. **Two boxes of chocolate bars**
   A reserve food supply.

7. **Fishing kit**
   Ranked lower than the candy bars because "one bird in the hand is worth two in the bush " There is no assurance that you will catch any fish.

8. **Fifteen feet of nylon rope**
   May be used to lash equipment together to prevent it from falling overboard.

9. **Floating seat cushion**
   If someone fell overboard, it could function as a life preserver.

10. **Shark repellent**
    Obvious.

11. **One quart of 160-proof Puerto Rican rum**
    Contains 80 percent alcohol Enough to use as a potential antiseptic for any injuries incurred; of little value otherwise; will cause dehydration if ingested.

12. **Small transistor radio**
    Of little value since there is no transmitter (unfortunately, you are out of range of your favorite AM radio stations).

13. **Maps of the Pacific Ocean**
    Worthless without additional navigational equipment - it does not really matter where you are but where the rescuers are!

14. **Mosquito netting**
    There are no mosquitoes in the mid Pacific.

15. **Sextant**
    Without tables and a chronometer, it is relatively useless.

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: Risk Management
Mission Analysis

Goals

1. To study an accident relevant to your operations.
2. To demonstrate how the GAR Risk Management Model can be used to assess risk or; to identify the amount of mission analysis conducted by the crew.
3. To identify the elements of risk or mission analysis and their effect on the outcome of the case studied.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 1 hour. This assumes that the case study is read prior to the class. The 1 hour time is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercises and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the case prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, or the process sheet on the next page, ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the topic of risk management and the questions asked.

Suggested Process Questions

Refer to the six components of the GAR Risk Management Model in this module. They are: Supervision, Planning, Crew Selection, Crew Fitness, Environment, and Event and Evolution complexity.

1. In terms of the Mesquite case discuss each of these components in your group and complete the following Risk Evaluation Worksheet:

SUPERVISION	_____
PLANNING	_____
TEAM SELECTION	_____
TEAM FITNESS	_____
ENVIRONMENT	_____
TASK/EVENT/EVOLUTION COMPLEXITY	_____
TOTAL SCORE	_____

2. What could have been done to reduce the risk of some of these components?

3. Compute the risk of the mission using the following formula:

RISK = SEVERITY X PROBABILITY X EXPOSURE

SEVERITY = _____

PROBABILITY = _____

EXPOSURE = _____

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Mission Analysis

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of mission analysis on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. Copies of the "*Who Rescues the Coast Guard*?" and *"Coast Guard, The Series*" tapes.
2. Pencil and paper for each participant.
3. Copy of the case study worksheet for each individual.

Physical Setting

A room large enough for individuals and groups to work without being distracted or overheard by others.

Process

1. Select and show the appropriate scenarios. Instruct the students to take notes.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, or the process sheet on the next page, ask the students to answer questions regarding the mishap. Instruct them to stay focused on the questions asked.

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TEAM COORDINATION TRAINING

LESSON: Adaptability and Flexibility

LESSON TIME: 2 hours and 30 minutes

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

C. Team Coordination Training Exercises and Case Studies

D. Video: *Who Rescues the Coast Guard?*

TERMINAL OBJECTIVE:

At the completion of the Adaptability and Flexibility Module, the student shall be capable of altering a course of action to meet situational demands, maintaining constructive behavior under pressure, and interacting constructively with other team members.

ENABLING OBJECTIVES:

1. Given a personality/attitude survey the student shall self-assess his/her predominant attitudes and/or thought patterns.

2. Given a demonstration, involving hazardous thought patterns; the student will describe options to prevent the patterns from affecting team performance.

ADAPTABILITY AND FLEXIBILITY

Instructional Outline

SCOPE

The Adaptability and Flexibility Module of Team Coordination Training assists individuals in recognizing factors affecting them and understand how they will perform in stressful situations.

LESSON OBJECTIVE

At the completion of the Adaptability and Flexibility Module the student shall be capable of altering a course of action to meet situational demands, maintaining constructive behavior under pressure, and interacting constructively with other team members.

LESSON OVERVIEW

Critical areas of this lesson include:

- Information processing.
- The affects of stress and fatigue.
- Hazardous thought patterns.

ADAPTABILITY AND FLEXIBILITY

OBJECTIVES

To successfully complete this module, you must study the text and master the following objectives:

- Be able to assess your predominant attitudes and/or thought patterns as they relate to safety.
- Describe options to prevent thought patterns from affecting team performance.

THE NEED TO UNDERSTAND ADAPTABILITY AND FLEXIBILITY

Many Coast Guard operations do not go as planned. Their complexity and the ever-changing environment requires Coast Guard teams to be alert and to quickly respond to changes that can affect their mission. How effectively the team can respond to these situational demands often determine mission success and safety.

INFORMATION PROCESSING

Our effectiveness in processing information (i.e. making sense out of it) and taking action is affected by our ability to adapt and be flexible under different levels of stress. By effectively processing information we can:

1. Better understand the present situation.
2. Quickly recognize changes in the situation that will affect the team.

AND

3. Trap errors to minimize decision based on bad information.

To effectively process information we must become more aware of how we respond to stimuli and how we often filter information or subconsciously choose not to act. Figure 4-1 shows the different levels that information must pass through to be transformed into action by a person.

STIMULUS THRESHOLDS

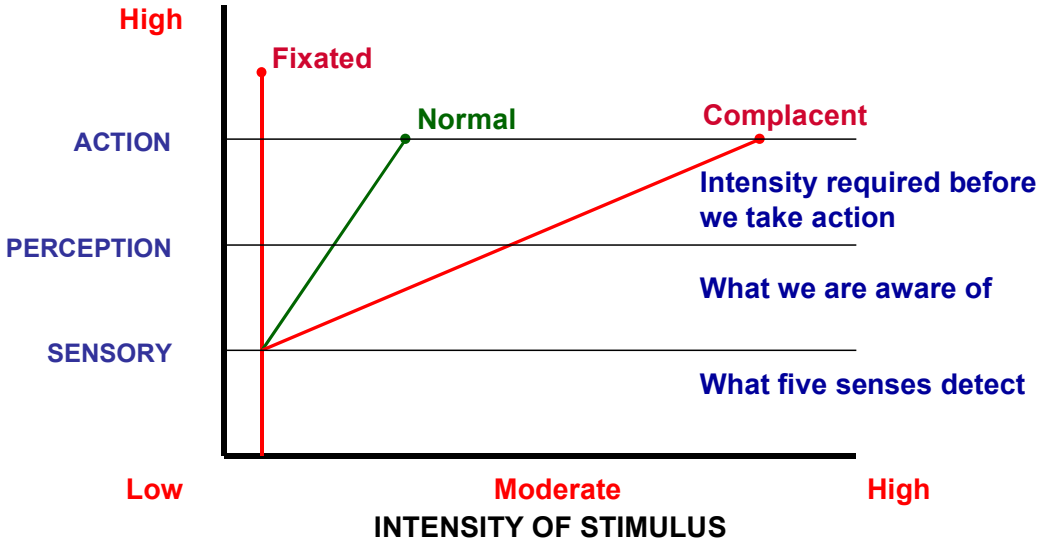

Figure 4-1

Sensory Threshold: Detection

The nervous system (our 5 senses) is designed to detect stimulus. To detect the stimulus the intensity must be high enough to break through a minimum level (threshold).

Example: Someone has to speak loud enough to be heard; light must be bright enough to be seen.

Perceptual Threshold: Awareness

How much information can we perceive or be aware of at one time? We are not conscious of all the things going on around us. A great deal of information is not important enough to get to the perceptual level. To reach the perceptual level information needs to be considered important or the stimulus intensity needs to be higher.

Example: Hearing is not listening for meaning; seeing a traffic "red" light may not be recognizing it as a warning.

Action Threshold: Assessment

Just because we are aware, do we take action? It depends. Often we want a higher level of stimulus, or more information, before we act.

Example: Have you ever had a fire alarm go off and you did not leave the building? You probably looked for additional information to confirm that a fire existed.

STRESS

Stress is the effect that a stimulus has on the body. Stress is anything that thrills us, worries us, prods us, scares us, or threatens us. In doing our operational tasks, we routinely deal with stress and have learned to use it to our advantage. Stress can improve performance, but it can just as easily degrade it. In understanding the relationship between stress and performance, it is important to first consider the effects of stress on the body.

Physical Affects of Stress

When an individual experiences a stressful event, a natural physical response occurs, preparing the body to cope with the event. There are three stages associated with this response: Alarm, Resistance, and Exhaustion. These three stages are shown in Figure 4-2

GENERAL ADAPTATION SYNDROME

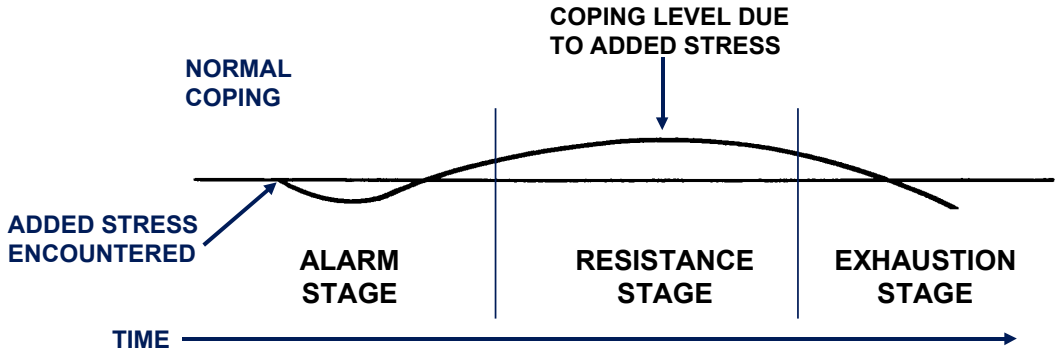

Figure 4-2

Alarm Stage: Fight-or-Flight

When a stressful event is first encountered, the body is not prepared to handle it and our ability to cope with stress is reduced. Very quickly we produce hormones that help us cope with the added stress and our ability to cope increases greatly. Body functions change to help us conserve energy to fight the stress. The Alarm Stage allows us to cope on a temporary basis; as long as the body can produce hormones to deal with the stress. Symptoms of this stage include headaches, fatigue, sore muscles, rapid heart rate, shortness of breath, and loss of energy.

Resistance Stage: Adaptation, But At A Cost

As the body fights the original source of the stress, the symptoms gradually disappear. The Resistance Stage begins. The body pays a price for this outwardly normal appearance. We adapt to the higher level of stress, but our ability to cope with other stressors is diminished. Eventually our ability to cope with stress begins to fade and we move to the next stage.

Example: An individual who is placed in a very cold environment becomes resistant to the cold, but more susceptible to infection.

Exhaustion Stage: Health Depleted

This occurs when the body's resources (stress hormones) are depleted. Unless a way is found to alleviate stress, serious loss of health or complete collapse occurs.

AROUSAL

Arousal is the alertness of an individual, and directly affects the way we process information.

STRESS versus PERFORMANCE

Arousal of the nervous system is a consequence of stress. Stress has two affects on us:

- Energizing → Increases Performance
- Interfering → Detracts from Performance

Each person has his or her own optimal level of stress that dictates his or her peak performance as shown in figure 4-2.

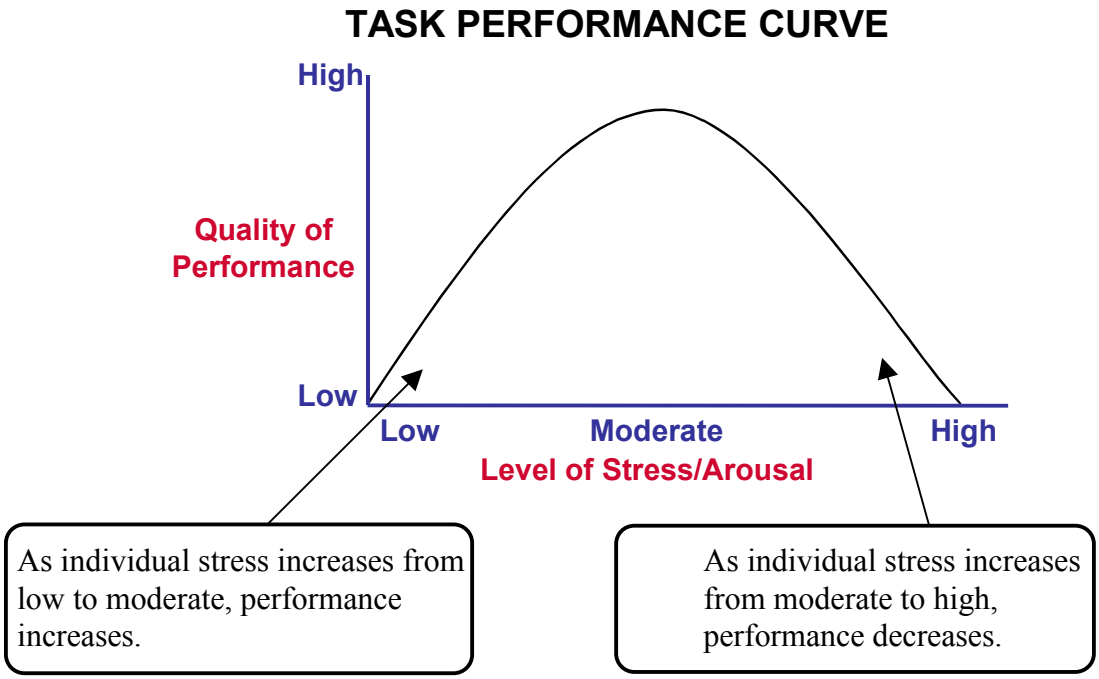

Figure 4-3

We each have our own curve defining what is low, moderate and high. Experience, level of proficiency and training all play an important part in this. What is low for one person may be high for another.

Too Little Stress

This can occur when the mission requires *infrequent activities*. Individuals and teams may:

- **Become bored or complacent.** Team members become inattentive or less aware of the information around them. *Low workload can degrade performance in 20-30 minutes.*
- **Fail to take action**. They react rather than anticipate the need for action

Too Much Stress

Very high stress greatly affects the performance of individuals and teams.

- **Attention or focus narrows** and tunnel vision occurs. Ability to infer what is happening around him/her is diminished causing a reduction of situational awareness.
- **Doesn't remain open to discussion** of alternatives to control the situation. Often implements one of the first alternatives considered.
- **Relies on past experiences** and knowledge for a solution. Will apply an alternative that closely resembles a solution found for a similar problem in the past. The superficial search for alternatives may result in the best alternative being overlooked.
- **Fails to see things** that individuals under less stress would see.
- **Becomes hypervigilant**. Hypervigilance, which is a form of panic, may occur during emergencies when a lot of conflicting information is being received. It diffuses attention and limits concentration. Hypervigilant individuals also become more compulsive.
- **The group becomes susceptible to group think.** This is when the team shifts its goal from solving problems to achieving consensus in its decisions

Optimal Stress

The operational tempo is such that team members are engaged in activities over which they have control. The workload provides time to plan. Individuals are:

- **Monitoring the situation.**
- **Anticipating** potential problems, and developing contingency plans. We are *vigilant*!

STRESS AND PERFORMANCE

Operational teams under stress show behavior that affects overall performance. The effective and ineffective behaviors described below will be discussed in more detail in the following chapters.

Ineffective Teams

- Have increased error frequency.
- Communicate poorly among team members.
- Share less information among team members.
- Become more reliant on a leader to pull them through the situation. They see themselves as unimportant players in the leader's decision-making process.
- Group think takes over; cooperation falls apart. The total decisions of the team, if any, are not as good as a decision by the most competent person in the group if he/she acted alone.

Effective Teams

- Adapt to changing conditions.
- Coordinate their actions as one. Team members anticipate other member's needs to minimize requests for information. Expectations are shared.
- Optimize team resources. They routinely check for errors, double checking each other. They compensate for changes in workload and capabilities, ensuring balance is maintained within the team.

VIGILANCE

It is the mental processes that take place in the absence of stimulus (i.e. *alert when nothing is happening*, maintaining a "proper lookout". Optimal Stress provides the greatest opportunity to be vigilant.

STRESS vs. TASKING

In understanding this relationship better, Figure 4-3 shows the level of stress and performance as it relates to task complexity.

- *Simple* tasks are performed better under *higher* stress.
- *Complex* tasks are performed better under *lower* stress.

TASK CURVES

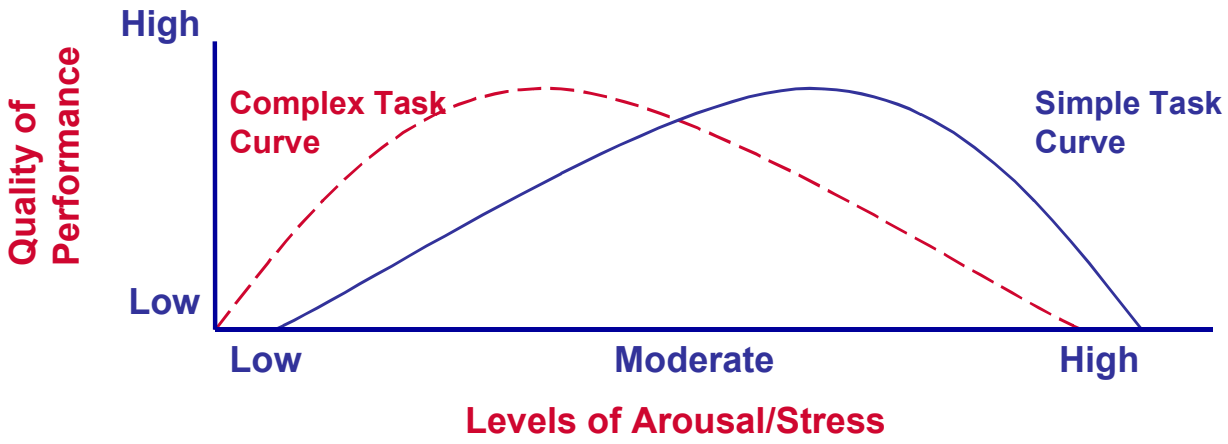

Figure 4-4

Example: To ensure safe night time operations you need to keep the team's stress level lower that during daytime operations to achieve the same safe level of performance.

TASK LOAD versus PERFORMANCE	The work performed by individuals can be mentally and/or physically fatiguing. How much work an individual can safely perform is a function of the task, the environment, and the skill, habits and attitude of the individual. There are four levels of work loading.
Underload; Marginal Safe Performance	Infrequent activities can quickly lead to boredom, complacency, and poor information processing. Procedures may be shortcut. Within 20-30 minutes performance has decreased. Individuals are caught by situational changes and must react. *Vigilance is lost*.
Moderate Workload; Optimal Safe Performance	During periods of low task demands, team members are inclined to perform tasks ahead of schedule. They monitor their situation, anticipate potential problems, and develop contingency plans. This elevates current workload to reduce their workload later. They are proactive and *most vigilant*.
High Workload; Marginal Safe Performance	Most people can do no more than 4 thought-provoking tasks at one time. When the operational tempo is high or unplanned events occur, team members tend to respond to each task demand in turn as it occurs. The team may fall behind schedule. Planning, monitoring, prioritizing tasks, and anticipating requires added commitment.
Overload; High Potential For Loss	As task demands continue to increase, team members defer less critical tasks, off-load tasks to others, or decide not to perform a task at all. Fixation may also occur. The overall performance and safety of the mission depends on which tasks are accomplished and in what priority.

FATIGUE

Fatigue is defined as the state of feeling tired, weary, or sleepy that results from prolonged mental or physical work, extended periods of anxiety, exposure to harsh environments, or loss of sleep. Boring or monotonous tasks will increase feelings of fatigue. Generally, fatigue interrupts attention and causes slow and inaccurate performance. *Fatigue affects individual vigilance and performance.* Fatigue induced human error, inattentiveness, and failures of cognitive reasoning cause 80% of all transportation accidents. Unfortunately, our 24-hour society is habitually sleep deprived. Eight (8) hours of sleep is normally required to avoid creating a sleep debt, but few of us ever obtain this amount.

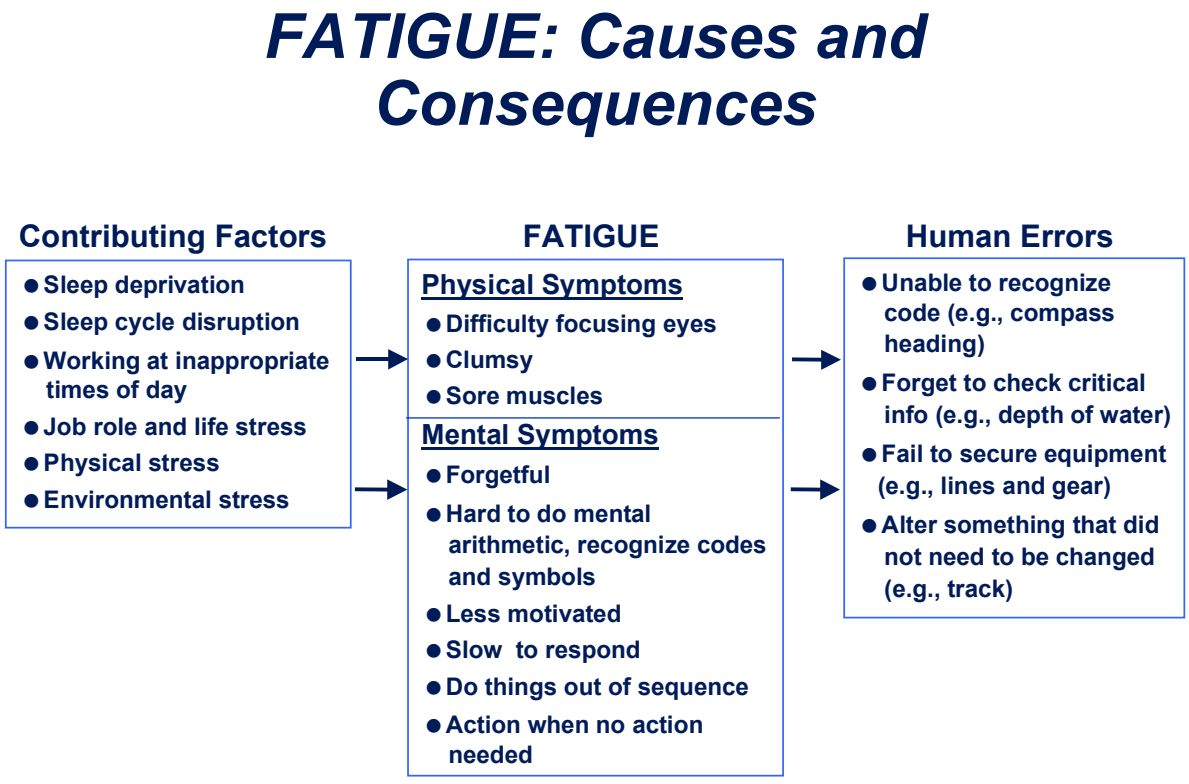

Figure 4-5

Affects On The Body

Fatigue slows several mental processes, including:

- Visual perception (e.g., maintaining a proper lookout)
- Decision-making and memory tasks (e.g., applying Rules of the Road)
- Mental arithmetic (e.g., shipping and navigation solutions)
- Reaction times slow for both simple and complex tasks.
- Alertness is difficult to sustain. *Between 0300 and 0700 we are biologically at our lowest level of alertness*. Tasks performed during this period have a higher probability for error.

Impairment Is Undetected.

Fatigued individuals are at high risk because they are unable to determine how badly affected they are or when they started being affected by fatigue.

Potential Outcomes Caused By Fatigue

Substandard performance by fatigued team members can include:

- Errors of omission. Many fatigued people forget to do something.
- Slower task performance or lower productivity.
- Decreased morale and motivation. Fatigued individuals often become moody.
- Poor communications. They talk less.
- Sleeping on duty. This can also take the form of microsleep. Sleeping with the eyes open. Stimulus still is perceived, but reaction time is greatly slowed.
- Difficulty concentrating and thinking clearly.
- Inattention to minor, but potentially important, details.
- Complaints of headaches and stomachaches.

Control of Fatigue

Several strategies are available to temporarily reduce the effects of fatigue on job performance. However, there is no substitute for adequate sleep, rest, and time off. For short-term solutions, individuals can:

- Work at a moderate pace on physically demanding tasks.
- Take periodic rest breaks to permit physiological and/or mental recovery.
- Engage in diverting physical activities (e.g., working alternately between heavy and light duty tasks).
- Maintain high standards of physical fitness.
- Ensure you are adequately rested before the work shift.
- Adjust the complexity of duties and make changes in assignments to prevent boredom.
- Eat nutritional food before, after, and/or during work.

Prediction of Fatigue

Individuals can frequently predict the development of fatigue by anticipating the level of stress (both physical and mental) likely to result from planned activities. Predicting levels of stress and fatigue may allow implementation of controls before the risk becomes unacceptable.

SLEEP-WAKE CYCLE; Maintaining Alertness

Our sleep-wake cycle is regulated by a 24± hour biological clock. This clock is day oriented and controls specific patterns of hormones, alertness, and core body temperature. The word *circadian* (Latin: circa = about; dies = day) is used to describe biological and behavioral rhythms regulated by the body clock. This internal clock is reset daily by sunlight striking the retina in our eyes. (Our clock cannot be reset by most types of artificial light.) This clock times our potential for alertness, performance, hormonal secretions, and body temperature. Sleep and our biological rhythm shown in Figure 4-6, help us sustain a 16-hour level of alertness that permits us to be productive, social, thinking animals. Sleep is the very important starting energy for our alertness.

TIME OF DAY vs. ALERTNESS

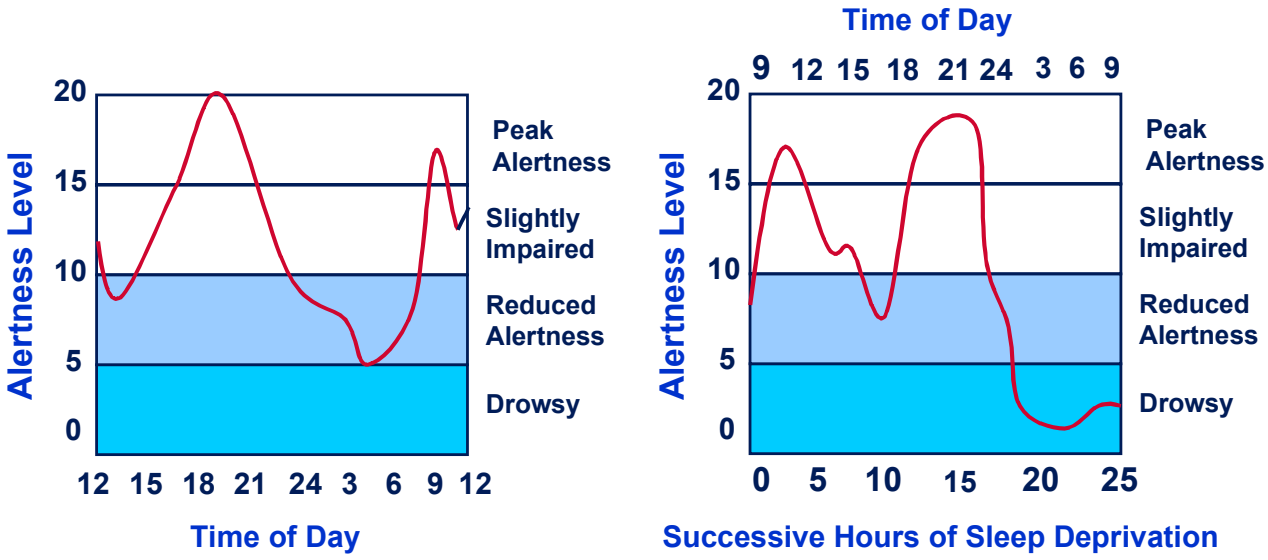

Figure 4-6

FIGHTING FATIGUE

It is often difficult because our biological needs and work environment, especially when underway, tend to induce a sleep deficit and encourage sleep. Countermeasures for fatigue include:

- Get adequate sleep.
- Lifestyle and well-being.
- Strategic use of caffeine.
- Operational strategies.

Get Adequate Sleep

Several strategies are available to temporarily reduce the effects of fatigue on job performance. However, there is no substitute for adequate sleep and rest. Consider the following techniques to enhance the quality of your sleep:

- Develop good sleep habits. Try to sleep at the same time every day, including weekends. If possible, go to bed at the same time and get up at the same time each day.

Get Adequate Sleep (Cont.)

- When trying to sleep outside the usual sleep period (e.g., during the day), prepare as if it is the normal sleep period. Wear normal sleep clothes, darken the room as much as possible, keep noise to a minimum, and use a white-noise generator, such as a fan, if possible.
- Alcohol should never be used as a sleep aid. Although sleep onset may come more quickly, it is more disrupted and lest restful after the first 1 to 2 hours of sleep.
- If you cannot sleep within 30 minutes, get up and do something else.

Lifestyle and Well-being

- Exercise regularly.
- Eat a well balanced diet and stay hydrated.
- Trust your body and nap when possible.
- Learn to relax and do not take work or problems to bed.

Strategic use of Caffeine

- Avoid eating or drinking substances that contain caffeine (coffee, tea, and chocolate) 4 to 5 hours before bedtime.
- Use for acute increase in alertness. Avoid heavy use because you will build up a tolerance for its effects. Use in small doses immediately prior to the performance period.
- Caffeine is a diuretic, so stay hydrated.

Operational Strategies

- Schedule work to coincide with peak alertness.
- Coordinate critical operations with most rested people.
- Schedule rest breaks to provide relief for long periods of continuous work and extreme environmental stressors.

Biological Factors

Biological factors that affect sleepiness include:

- **Time of work** with regard to our biological clock (e.g., circadian rhythms).
- **Cumulative sleep loss**, which can include long (over 18) waking hours and lack of sleep over several days.
- **Quality of last sleep**, which is a function of both duration and timing in the sleep-wake cycle. Sleeping when the body wants to be alert reduces the benefit of sleeping.
- **Use of alcohol and drugs**. Alertness studies have clearly documented the effects of caffeine in improving alertness and of alcohol in decreasing alertness. Sleeping pills, while increasing the duration of sleep, may result in deteriorated alertness the subsequent day.
- **Medical conditions**. Certain medical conditions can affect both the quality and duration of sleep. Some medical conditions cause the individual to feel sleepy even after a lengthy sleep period.

Other Factors Affecting Sleepiness

Factors that increase sleepiness include:

- Limited exposure to sunlight.
- Background "white" noise and vibration.
- Warm environment.
- Lack of interaction with other team members.
- Watch schedules.

ALTERNATE WATCH STANDING SCHEDULES

Standing watches influences the amount of sleep acquired and the number of opportunities needed to obtain that sleep. Therefore, teams should be aware of the potential benefits for alternate watch scheduling. To facilitate the possibilities of alternate watch scheduling, team members should be better educated on the need for recovery sleep. Recovery sleep is quality rest between work cycles during traditional (night sleep) and non-traditional (afternoon naps) rest periods. For example, 24 hours recovery between night work periods helps keep the human circadian rhythm aligned with the day-night cycle. This helps prevent the general feeling of malaise and other jet-lag like symptoms, including an increased risk of errors, experienced by watchstanders. Encouraging mid-afternoon naps for night workers instead of late sleeping is also a good strategy to help maintain a constant day-night cycle.

Factors to consider in examining alternate watch schedules include:

1. Minimize the exposure to night work between 24-hour rest periods;
2. Start each sequence of watch periods at noon, when team members are relatively rested;
3. End each sequence at midnight, allowing adequate recovery sleep to be acquired at night; and
4. Maximize the balance between the number of people available and time spent off from watchstanding.

An example of an alternate to the traditional 1 in 4 schedule is shown below. It is important to note that this alternative ***does not represent official Coast Guard policy***. However, it does help to illustrate the factors discussed above.

4-PERSON, 4-HOUR 3:1 ROTATION
An Alternative to the 1 in 4 Schedule

Sequence of Watch Periods	Suggested Sleep Period
12-16:00	Evening nap
00-04:00	Late sleep
16-20:00	Early sleep
04-08:00	Afternoon nap
20-00:00	Night sleep
08-12:00	Night sleep
24 h off	Night sleep

MONITORING PERFORMANCE

Monitoring performance of others is the responsibility of all team members. Team members may look well and appear to be fully conscious, when they may not be aware of, or capable of rationally evaluating a problem. Recognizing this condition is difficult because we commonly assume that affected individuals have a purpose for everything they do, even if they do nothing.

Early recognition of individual performance problems is essential for the conduct of vessel operations. The best way to identify a problem is to look for deviations from normal behavior or standard performance.

MONITORING PERFORMANCE (Cont.)

Some symptoms to look for include:

- Deviations from established procedures.
- Low standards for the required tasks.
- Lack of discipline, greater tolerance for error.
- No monitoring or cross-checking.
- No response to inquiries by others.
- Frequent minor errors by team members.
- Extreme tiredness.
- Unusual irritability.
- Obvious physical problems.
- Increased lapses of attention.
- Overall reduction in performance.

CREW ENDURANCE PLANNING

Fatigue countermeasures focus on alleviating the negative effects of fatigue. Crew Endurance Planning is a leadership technique for planning and coordinating work activities to ensure that personnel get adequate rest and prevents fatigue from becoming a safety issue. It is a "systems approach" to fatigue prevention based on mission requirements.

Mission demands directly determine personnel schedules, etc., and are frequently impossible to control. However, once mission requirements have been determined, leaders are often able to implement specific strategies to reduce fatigue at the following three levels:

- Individual Level.
- Unit Level.
- Material Level.

INDIVIDUAL LEVEL

This level includes plans and strategies for fatigue management and quality sleep enhancement that are created by leaders and implemented by individuals. Strategies and plans developed at this level include:

- Managing Sleep Periods.
- Managing Exposure to Light.
- Managing the Environment.

Managing Sleep Periods

Sleep management should include development of a Sleep Management Plan designed to allow a continuous sleep period of up to 8 hours. After considering mission requirements, activities and schedules should be arranged in a manner that supports the Sleep Management Plan. In addition, personnel should be encouraged to get adequate rest when not on duty.

Managing Exposure to Light

The Light Management Plan provides specific instructions regarding when to avoid or seek exposure to daylight. This is particularly important for individuals engaged in shift work. Strategies that can be implemented at this level include:

- Sleep must always take place in darkness. Individuals standing watch or on shifts should be encouraged to wear sleep masks while sleeping.
- Blacking out windows to exclude light and using sleep masks should be used whenever possible.
- Individuals shifting to day-oriented works schedules should seek as much daylight exposure as possible

Managing the environment

Noise and daylight intrusion into sleeping quarters must be controlled as much as possible.

- Reduce disruptive environmental noise during the sleep period by using good sound masking. Good sources of masking sound are fans, generators, or commercially available devices that produce a rushing sound.
- Use sleep masks during the day if sleeping quarters cannot be blacked out.

UNIT LEVEL

Strategies developed at the unit level include coordination of scheduled activities that involve individuals and teams. These elements must be scheduled after considering the individual level schedules (e.g., meal schedules should be developed after the sleep management plan is completed). Elements are:

- Briefing schedules.
- Meal schedules.
- Training schedules.

Briefing Schedules

Schedule briefings to occur outside of the designated sleep period.

Meal Schedules

Meals should be provided so that scheduled sleep periods are not disturbed and should be shifted to match the sleep/wake cycle. That is, the first meal upon awakening should be breakfast, regardless of when that meal occurs.

Training Schedules

Training schedules can disrupt a well-planned crew endurance strategy. Allowances can be made to allow night operations personnel to participate in training activities outside the designated sleep period.

MATERIAL LEVEL

Strategies developed at this level involve work schedules and activities associated with the equipment used to accomplish mission objectives. In the Coast Guard vessel community, elements at the material level are primarily concerned with the operation and maintenance of vessels and associated equipment. Material level elements include activities such as:

- Maintenance.
- Operational Considerations.

Maintenance

- Coordinate an effective maintenance network to provide support for individuals and teams who must retire before mandatory maintenance has been completed in order to comply with crew endurance guidelines.
- Schedule critical maintenance activities during daylight when personnel are alert and less error prone.

Operational Considerations

The Coast Guard mission demands 24-hour operations. To the greatest extent possible, schedule *routine* operational activities outside designated sleep periods.

DESIGNING THE CREW ENDURANCE PLAN

Sleep management implies the identification of bedtimes and wake-up times that are likely to provide sufficient rest and return personnel to duty with maximum alertness.

Leader Strategy: Formulating the Crew Endurance Plan requires an understanding of mission objectives and schedules supporting the accomplishment of each objective. Other critical unit activities must also be identified, such as maintenance schedules, watch schedules, training schedules, etc. Then taking into account all elements of the process, a sleep and daylight exposure management plan can be designed.

OTHER FACTORS AFFECTING INDIVIDUAL PERFORMANCE

Why some individuals adapt to changing situations more effectively than others involves many different factors. Some of these factors are:

- Evaluation.
- Distraction.
- Self-Awareness.

Evaluation

Knowing that your performance might be evaluated by others increases your motivation to do well. Likewise the fear of criticism of failure can interfere with performance. For simple tasks, evaluation normally facilitates performance. For complex tasks, it can lead to impaired performance.

Leader Strategy: Emphasize the positive and encourage individuals to describe what lessons they learned from their performance.

Distraction

Having non-team members present is a distraction. The distraction could cause information to be missed that may lead to an error. Individual team members may react by narrowing their attention to a smaller range of task inputs. For tasks that have few relevant inputs, the narrowing can improve performance. In tasks with many relevant inputs, narrowing impairs performance.

Leader Strategy: Control distractions generated from outside the team or outside standard procedures. If need be, isolate essential tasks from unplanned/unwanted distractions (e.g. confine conversation on the bridge during critical evolutions to matters relating to the task at hand).

Self-Awareness

Focusing too much attention on your performance interferes with the smooth execution of complicated, well-learned, or highly skilled tasks.

Self-Awareness (Cont.)

When people believed that others expected superior performance on a complex task, their performance was often poorer than when they perceived that others were indifferent or expected just satisfactory task completion.

Leader Strategy: Allow for human error and intervene when safety dictates. Discuss expected performance based on equivalent grades, knowledge, skill, and ability.

OTHER FACTORS AFFECTING TEAM PERFORMANCE

Three factors have been identified that affect performance of the team. These factors are:

- Size.
- Structure.
- Cohesion.

Size

As team size increases, coordination among members becomes more difficult. Increasing the number of member interactions increases the opportunity for communications errors and may slow the tempo of the team functions.

Leader Strategy: Ensure changes made to a team's size are clearly understood by all team members. Changes in how each member contributes to the mission should be understood by all members. How each member of the team interacts with other members should be defined.

Structure

Reluctance to question superiors or assume a leadership role is caused by rank structure barriers. Likewise, perceived roles or status of interdependent teams can determine how well they work together (e.g. the relationship between primary and secondary navigation teams).

Structure (Cont.)

Leader Strategy: Advocate assertive communications beginning in the planning stage. Ensure everyone understands that they are a stakeholder in the success of the mission, that it is desirable behavior to express concern, and how to do it. Provide positive feedback when subordinates are assertive.

Cohesion

Teams that effectively coordinate their internal tasks tend to have members who are motivated to interact in a positive way and are not inhibited to communicate. They consistently trap errors and aid in decision-making.

Team cohesion is a building process requiring time and practice. Personnel actions (e.g. transfers, TAD, leave) routinely disrupt the cohesiveness of a team. Established teams that are missing members can often adapt to a vacancy faster than integrating a new member into the team.

Leader Strategy: Plan personnel actions to minimize changes to a team immediately before and during mission execution. Actions that address the other factors affecting individual and team performance will enhance team cohesion.

HAZARDOUS THOUGHT PATTERNS

There are five attitudes, or hazardous thought patterns, that affect our judgment in high stress situations and during the decision-making process. These attitudes also have a profound affect on our ability to adapt to changing situations. While some of these may sound similar, they are distinctly different. The way to tell which hazardous thought pattern is in operation is by looking at the rationale a person uses for his/her action.

HAZARDOUS THOUGHT PATTERNS (Cont.)

Each of the five hazardous thought patterns is listed with its rationale and an initial strategy to modify the pattern. The five hazardous thought patterns are:

- Anti-Authority.
- Impulsiveness.
- Invulnerability.
- Macho.
- Resignation.

Anti-Authority

Thought Pattern*: "No one tells me what to do."*

This is the thought pattern of people who resent being told what to do, either by other people or through rules and regulations. Their behavior is often contrary to their own better judgment because they do what they want, not what someone else wants. The objective of the Anti-Authority individual is to do the opposite of what someone in authority wants or what the rules and regulations say.

Leader Strategy: *"Follow the rules. They are the best we have for now."*

Team members must be held accountable for adherence to established rules and procedures. Only the leader has limited authority to modify procedures. It is important that standards be applied "across the board" to everyone.

Impulsiveness

Thought Pattern*: "Do something quickly, anything."*

This is the thought pattern of people who frequently feel the need to do something, anything, immediately. They do not stop to think before they act. They do the first thing that comes to mind. The objective of the impulsive person is to do something. It does not usually matter what, just as long as it is something.

Impulsiveness (Cont.)

Leader Strategy: ***"Not so fast. Think first."***

Ensure that they stop and look at the situation and check the alternatives available to them.

Invulnerability

Thought Pattern***: "It won't happen to me."***

Many people feel that accidents happen only to others. This hazardous thought pattern does not result from an overestimation of a person's capabilities, but more a denial of the risks involved. They never really believe they will be the one involved. The objective of the Invulnerable person is to deny the risk, not because they think they are skilled, they just do not think that it will happen to them.

Leader Strategy: ***"Consider the possibility that It could happen to you."***

Have them review their personal experiences and they can be shown that they are not invulnerable. An effective safety training program can help show individuals that they are not invulnerable.

Macho

Thought Pattern***: "I can do it."***

People who are always trying to prove that they are better than anyone else think, "I can do it!" They prove themselves by taking risks and by trying to impress others. This is different than invulnerability because the person may overestimate their personal capabilities and those of their equipment. To prove themselves, they push outside the "envelope". The objective of the Macho person is to do things that prove to others that they are highly skilled and daring.

Macho (Cont.)

Team Strategy: ***"Safety first is smart."***

Maybe the person can do it, but why take unnecessary risks. Peer pressure and an effective safety training program are excellent ways to overcome this pattern. Regardless, every team member has the responsibility to prevent others from endangering themselves or equipment. Promote safety!

Resignation

Thought Pattern*: "What's the use?"*

People who think, "What's the use", do not see themselves as making a great deal of difference in what happens to them. They leave the action to others - for better or worse. The objective of the person in Resignation is to deny responsibility. They feel others are responsible for their actions and in control of what they do.

Leader Strategy: ***"You can make a difference."***

Counseling is appropriate. Like persons demonstrating Anti-authority, they must be aligned with the team and held accountable for compliance with standards.

PUTTING IT ALL TOGETHER

Our ability to adapt to changing situations can often mean the difference between success and failure. Effective teams:

- Alter behavior to meet situational demands.
- React to and comment on other's ideas in a positive manner.
- Provide assistance to other team members as needed.
- Alter tactical plans to meet evolving situational demands.
- Do not allow personality conflicts to interfere with work.

LESSON SUMMARY

LESSON OBJECTIVE

This lesson has prepared you to alter a course of action to meet situational demands, maintain constructive behavior under pressure, and interact constructively with other team members.

LESSON OVERVIEW

The critical areas of this lesson include:

- Information processing.
- The affects of stress and fatigue.
- Hazardous thought patterns.

APPLICATION

Because the situation is always changing, the mission requires us to be adaptable and flexible. Understanding the factors affecting individuals and teams is critical. This understanding can help team members identify optimal levels of stress and permit us to adapt to changing situations.

SELF-QUIZ #3

1. Match the three levels of stress in column A with their descriptions in column B.

Column A	Column B
_____ 1. Low	a. The operational tempo is such that team members are engaged in activities over which they have control. The workload provides time to plan
_____ 2. Moderate	b. Team members become board or complacent. They could become inattentive. They react rather than anticipate the need for action.
_____ 3. High	c. Attention of focus narrows. Team members don't remain open to discussion. They rely on past experiences, fail to see things. Becomes hypervigilant, and becomes susceptible to group think.

2. What is fatigue and how does it affect the body?

_____

_____

_____

3. List the five hazardous thought patterns.

a. _____

b. _____

c. _____

d. _____

e. _____

SELF-QUIZ #3 (continued)

4. List the leader strategy for each of the five hazardous thought patterns?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____

ANSWERS TO SELF-QUIZ #3

Question	Answer	Reference
1	1. b 2. a 3. c	4-9 4-8 4-8
2.	Fatigue is defined as the state of feeling tired, weary, or sleepy that results from prolonged mental or physical work, extended periods of anxiety, exposure to harsh environments, or loss of sleep.	4-12
3.	a. Anti-Authority b. Impulsiveness c. Invulnerability d. Macho e. Resignation	4-28
4.	a. "Follow the rules. They are the best we have for now." b. "Not so fast. Think First." c. "Consider the possibility that it could happen to you." d. "Safety first is smart." e. "You can make a difference."	4-28 thru 4-30

ADAPTABILITY AND FLEXIBILITY

INSTRUCTOR LESSON PLAN #4

1. LESSON TITLE: Adaptability and Flexibility

2. TIME: 2 hours and 30 minutes.

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 4-1 to 4-34
- Video Guidance: Pg. 4-49
- Exercise Guidance: Pg. 4-40, 4-46
- Case Study Guidance: Pg. 4-48

B. Student Guide

- Lesson Material: Pg. 4-1 to 4-28

C. Team Coordination Training Exercises and Case Studies

- Case Studies: Select an appropriate case
- Exercises: Judgment Exercise, Pg. I-17
  How Much Stress In Your Life, Pg. I-25

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead Slides

B. Team Coordination Training Exercises and Case Studies

- Case: Select a case appropriate to the skill area you are presenting.
- Exercises: I-17 and I-25

C. Video: "*Who Rescues the Coast Guard*?"

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

7. STUDENT STUDY ASSIGNMENTS:

A. Have the students complete the Judgment Exercise for homework prior to class.

B. If you use any case studies and want additional time in class, assign them as homework.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Adaptability and Flexibility and its affect on safety and mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of how stress and attitudes affect behavior and could have, or did lead to a mishap.
- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and exercise approach. You must select the most appropriate method based on your experience and the experience of the group you are working with.

(3) We have provided you with videos and different cases and exercises. To be effective, do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select one of the following approaches to reinforce learning:

(1) Judgment Exercise. To process this exercise reproduce the exercise in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 4-40 or;

(2) How Much Stress In Your Life Exercise. To process this exercise reproduce the exercise in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 4-46 or;

(3) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 4-48 of this text.

(4) Video: Select one of the Adaptability and Flexibility scenarios. Scenarios are indexed on Pg. II-4 of *the Team Coordination Training Exercises and Case Studies* text. Reproduce the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text and distribute to each individual. Follow the video guidance on page 4-49 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but also to their jobs. You are a facilitator, the tools you have been provided with in this Team Coordination Training Instructor Guide include the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes. You will notice that in this manual *you have not been provided with a script of what to say or a description of how the concepts presented in each module integrate with one another*. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS:

A. Stress - Performance Relationship - Used to help individuals identify the optimal level of stress for the task being performed.

B. Fatigue - Symptoms - Used to help individuals recognize when others may be impaired from sleep loss.

C. Hazardous Thought Patterns - Used to explain how attitudes affect behavior.

10. ROADBLOCKS:

A. Noise - Boats and cutters are noisy. These factors greatly affect our ability to detect stimulus.

B. Cohesion - Cohesive teams work well together but the nature of the Coast Guard makes it difficult to maintain cohesive teams.

C. Stress - Stress from factors outside the job have an affect on performance. Individuals must monitor and help each other deal with stress.

D. Denial of Hazardous Thoughts - Many individuals deny that the Judgment Survey pertains to them. Explain that this is not a scientific instrument, but many people find it beneficial, especially if your scores do match your known behaviors.

11. **LESSON CONCLUSION:** Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

JUDGMENT EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Adaptability and Flexibility

Goals

1. To identify individual attitudes and thought patterns.
2. To compare these scores to USCG norms.

Group Size

Unlimited.

Time Required

Approximately 1 hour and 30 minutes.

Materials Required

1. One copy of the Judgment Exercise for each participant.
2. Pencil for each participant.

Physical Setting

A room large enough for individuals and groups to work without being distracted by others.

Process

1. The Judgment Exercise should be completed for homework.
2. Have the participants record their scores for each dimension (Anti-Authority, Impulsivity, Invulnerability, Macho, and Resignation). Do not collect the names with the scores. Do the discussion first having the class decide what type of thought pattern they think the Coast Guard would prefer.
3. Discuss with the group that each person's nature has elements of all of these attitudes. We need to recognize that there is a range, a scale, or a continuum for each attitude. The extremes on the scale are stereotypes. Most people in our Coast Guard teams are found somewhere between these stereotypes. Exhibiting extremes in any of these attitudes can cause problems in making safe decisions. The lesson defines what a person who exhibits the thought pattern would act like.

4. Have the class build a table like the one below. Draw the outline of a table with the titles that appear in bold letters for the columns. Discuss each thought pattern. Explain the stereotypes for extreme scores, the safety process affected, and ways to control this behavior. More information is provided on pages 4-30 and 4-31. Continue the discussion as to where the Coast Guard would want its operational team members to be on this profile graph.

PATTERNS	-50- STEREOTYPE	-10- STEREOTYPE	SAFETY PROCESS AFFECTED	CONTROLS
ANTI-AUTHORITY	FREE SPIRIT	BLIND FOLLOWER	COMPLIANCE WITH PROCEDURES	ACCOUNT-ABILITY THRU ADMINISTRA-TIVE DISCIPLINE
IMPULSIVENESS	ACTS WITHOUT THOUGHT, GO-GO-GO	PARALYSIS BY ANALYSIS	DETERMINING SIGNIFICANCE OF CHANGE, CHOOSING ALTERNATIVES	CHECKLISTS
INVULNERABILITY	DENIES THE ODDS, TEENAGE DRIVER	PARANOID	RECOGNIZING RISK	SAFETY TRAINING
MACHO	PUSHES ENVELOPE, OVERESTIMATES, SHOW-OFF	FEARS FAILURE, UNDERACHIEVERS, PLAYS REAL SAFE	IDENTIFYING BEST RISK CONTROLS	GROUP NORMS, PEER PRESSURE
RESIGNATION	DETACHED, A WEATHERVANE	RUSTED WEATHERVANE, DOESN'T KNOW WHEN TO CHANGE DIRECTION, WE'VE ALWAYS DONE IT THIS WAY	CHOOSING OBJECTIVES	COUNSELING, PERSONNEL ACTIONS

5. Compute the averages for each of the dimensions and on a piece of butcher paper draw a graph with the five dimensions and post the class and Coast Guard averages. Figure 1 is an example of how the graph should look.
6. The Coast Guard averages and standard deviations (SD) are as follows:

   Anti-Authority: Average 26, Standard Deviation 4

   Impulsiveness: Average 30, Standard Deviation 4

   Invulnerability: Average 34, Standard Deviation 4

   Macho: Average 33, Standard Deviation 4

   Resignation: Average 27, Standard Deviation 4

7. The standard deviation (SD) is simply a measure of variance that enables us to tell if a single score is significant when compared to the average. Knowing the standard deviation enables us to compute just how statistically significant any single score is. The following can be used as a guideline: 1 SD is not considered significant, 2 SD is significant at the 95% level. That means there is a 95% chance that the score is not due to chance but is a result of what it is you are trying to measure.

8. For the purposes of this exercise we will consider 1 1/2 SD significant. Since the SD for each attitude is 4 then an individual score of plus or minus 6, from the USCG average is considered significant. While 6 may be considered statistically significant, only you can tell if this is significant to you. You can do this by relating it to your behavior. If the high or low score matches your behavior it is probably significant and you have learned something about yourself. You may want to check with others to see if they notice the behavior in you.

PROFILE GRAPH

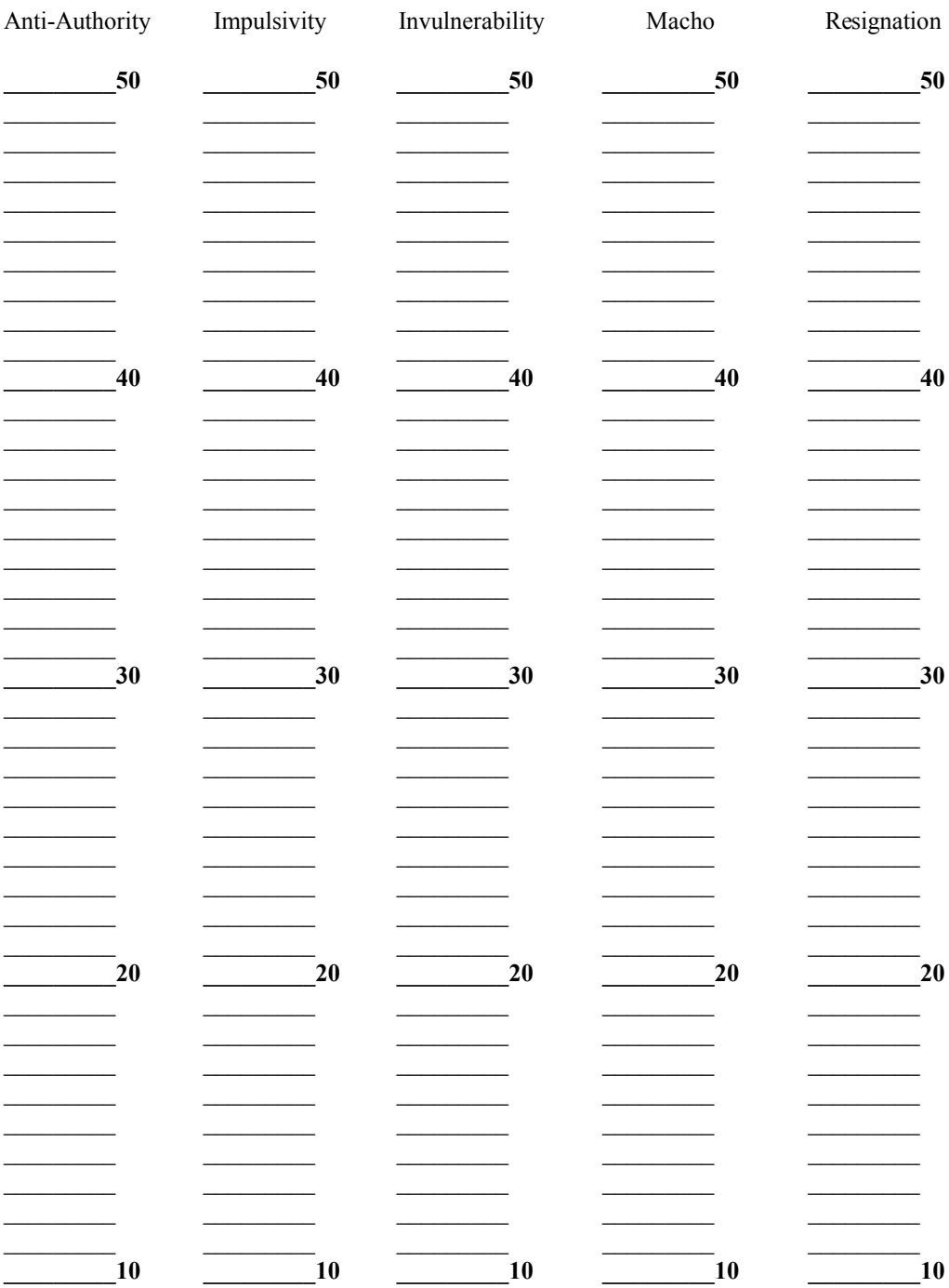

FIGURE 1

ATTITUDES

Anti-Authority:

Too High: Individuals do not follow the rules. They just do whatever they want or what goes against authority.

Too Low: Individuals tend to follow blindly and not think for themselves.

Safety Process Affected: Compliance with procedures.

Impulsiveness:

Too High: Individuals act without thinking.

Too Low: Individuals never act. They always want more information and usually defer to others for decisions.

Safety Process Affected: Estimating significance of changes and selecting alternatives.

Invulnerability:

Too High: Individuals engage in high-risk situations because they deny it will affect them. They feel others may be affected but not them.

Too Low: Individuals are afraid of any risk situations. This fear is irrational and usually leads to inaction and working far below potential.

Safety Process Affected: Risk recognition.

Macho:

Too High: Individuals engage in high-risk situations because they wish to prove to others that they are highly skilled. It is not a denial of the risk, they just believe they are better than everyone else is.

Too Low: Individuals severely underestimate their capabilities and fear failure. They do less than expected and are viewed as under achievers.

Safety Process Affected: Identifying best risk controls.

Resignation:

Too High: Individuals give up easy because they do not feel they are in control. They often blame others for their actions.

Too Low: Individuals do not know when to take another course of action. They tend to stick with poor decisions.

Safety Process Affected: Selecting objectives.

Suggested Process Questions:

1. **If your score on any dimension is plus or minus 6 or more from the USCG average, does it match your behavior?**

2. **Describe options to prevent the patterns from affecting individual and team performance.**

   (RECOMMENDED RESPONSE: If you know you are susceptible to one of these attitudes, stop before making a decision and ask yourself "Is the attitude affecting my decision now." You can do the same for team members you work with).

3. **What value has this been to you?**

   (RECOMMENDED RESPONSE: You need to have an appreciation of who is working in your team and the types of behavior they exhibit. It is too late when you are in the midst of a mission under high stress. Knowing yourself and your people is crucial in predicting behavior).

HOW MUCH STRESS IN YOUR LIFE EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Adaptability and Flexibility

Goals

1. To enhance your awareness about the sources of stress in your life.

Group Size

This is an individual exercise that can be done with any size group.

Time Required

Approximately 20 minutes.

Materials Required

1. A copy of the How Much Stress In Your Life Worksheet for each participant.
2. A pencil for each participant.

Physical Setting

A room large enough for individuals to work without being distracted by others.

Process

1. Give one copy of the How Much Stress In Your Life Worksheet to each participant. Instruct them to read and answer the questions.
2. Review the information in the "What Your Score May Mean" sheet with the group.
3. Lead a brief discussion and ask the group how they deal with stress.

Suggested Process Questions:

1. What are some of the effective ways you have found to deal with stress?
2. Describe some of the ways you have seen stress affect your performance.

WHAT YOUR SCORE MAY MEAN

After studying the recent histories of people with medical problems, Homes and Holmes (1970) concluded that any number of illnesses, and not just commonly recognized psycho-physiological disorders, can be precipitated by the stress accompanying changes in one's life. To measure the impact of different kinds of changes, Holmes and Rahe (1967) developed the Social Readjustment Rating Scale, which rates each kind of potentially stressful event in terms of "Life Change Units" (LCU's).

In their study, Holmes and Rahe found that of those persons who reported LCUs that totaled between 150 and 199 points, 37 percent had associated health changes within a 2-year period of such life crisis. Of those with between 200-299 LCUs, 51 percent reported health changes, and of those with over 300 LCUs, 79 percent had injuries or illnesses to report. On the average, health changes followed life crisis by one year.

EFFECTS OF STRESS IN YOUR LIFE

If you hope to succeed at reducing stress associated with crisis management at sea, or with your job, it is essential to begin by making a personal assessment of stress in all areas of your life. You may face major stressors such as a loss of income, serious illness, death of a family member, change in residence, or birth of a baby, plus a multitude of comparatively minor positive and negative stressors. These major and minor stressors, representing BOTH "positive" and "negative" life events, have a cumulative effect which constitutes your total stress-adaptation capability and which can vary from year to year.

Each of us has personal stress-adaptation limitations. When we exceed this level, stress overload may lead to poor health, illness, or errors in judgment. To avoid exceeding your personal limits, learn to recognize the warning signals from your body and mind telling you when stress levels are getting too high. In addition, monitor other team members for changes in their stress levels.

The Coast Guard's Work/Life Program, Employee Assistance Program, and Wellness Program can provide team members with tools/help to better manage these types of stressors.

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: Adaptability and Flexibility

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of stress and information processing on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 30 minutes. This assumes that the case study is read prior to the class. The 30 minutes time is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercises and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the case prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the topic of stress and information processing as they pertain to the questions asked.

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Adaptability and Flexibility

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of Adaptability and Flexibility on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. A copy of the "*Who Rescues the Coast Guard*?" video.
2. Pencil and paper for each participant.
2. Copy of the case study worksheet for each individual.

Physical Setting

A room large enough for individuals and groups to work without being distracted or overheard by others.

Process

1. Select and show and appropriate scenario. Instruct the students to take notes.
2. Break the group into sub-groups of five to seven individuals.
2. Referring to the case study worksheet, ask the students to answer questions regarding the mishap. Instruct them to stay focused on the questions asked.

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TEAM COORDINATION TRAINING

LESSON: Situational Awareness

LESSON TIME: 3 Hours

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

C. Team Coordination Training Exercises and Case Studies

D. Video: *Who Rescues the Coast Guard*?

TERMINAL OBJECTIVE:

At the completion of the Situational Awareness Module, the student shall be capable of identifying, labeling, assimilating, and comprehending the critical elements of what is happening to the team, its facility, and the mission.

ENABLING OBJECTIVES:

1. Given a demonstration, the student explains how the crew's awareness either enhanced the success of the mission or could have avoided the mishap.

2. Given a demonstration, the student identifies and labels the loss of situational awareness that affected the safety and completion of the mission.

3. Given a demonstration, the student demonstrates understanding of the situation by responding to facilitated questions regarding mission status.

4. Given a demonstration, the student will identify a course of action to recapture or maintain situational awareness as needed.

5. Given a list of possible ways to lose situational awareness, provide three examples.

6. Given a list of possible ways to regain or maintain situational awareness, provide two examples.

7. Given the definition of "errors", "slips", and "mistakes" and a demonstration including those, be able to recognize and discuss the difference.

SITUATIONAL AWARENESS

Instructional Outline

SCOPE

The USCG has found a direct relationship between high levels of situational awareness and reduced mishap potential. It is essential that not only individuals but the team maintain high levels of situational awareness. The Situational Awareness Module of Team Coordination Training helps individuals detect when awareness is lost and how to regain it. The module specifically addresses trapping errors and breaking poor judgment chains.

LESSON OBJECTIVE

At the completion of the Situational Awareness Module, the student shall be capable of identifying, labeling, assimilating, and comprehending the critical elements of what is happening to the team, its facility, and the mission.

LESSON OVERVIEW

Critical areas of this lesson include:

- Clues to the loss of situational awareness.
- Levels of human error.
- Recognizing and breaking poor judgment chains.

SITUATIONAL AWARENESS

OBJECTIVES

To successfully complete this assignment, you must study the text and master the following objectives:

- State the actions required to maintain situational awareness.
- State the clues to loss of situational awareness.
- Define the five barriers to situational awareness.
- Describe the three levels of human error.

DEFINITION

Situational Awareness is the ability to identify, process, and comprehend the critical elements of information about what is happening to the team with regards to the mission. More simply, it's *knowing what is going on around you.*

CONSEQUENCES OF LOSS

When we lose the bubble (i.e., Situational Awareness) we increase the potential for human error mishaps. Coast Guard analysis of navigational mishaps for cutters and boats revealed that 40% were due to a loss of situational awareness.

SITUATIONAL AWARENESS AND TEAM PERFORMANCE

Effective team situational awareness depends on team members developing *accurate expectations* for team performance by drawing on a common knowledge base. This concept, known as maintaining a *"Shared Mental Model"* allows team members to effectively:

- Anticipate the needs of other team members.
- Predict the needs of other team members.
- Adapt to task demands efficiently.

WHAT KNOWLEDGE NEEDS TO BE SHARED?

To ensure a Shared Mental Model of the situation, team members must share their knowledge relative to:

- The task and team goals.
- Their individual tasks.
- Team member roles and responsibilities.

To provide a solid base for building team situational awareness, team members need to have information that will help them develop relevant expectations about the entire team task.

CLUES TO LOSS

The loss of Situational Awareness usually occurs over a period of time and will leave a trail of clues. Be alert for the following clues that will warn of lost or diminished Situational Awareness:

- Confusion or gut feeling.
- No one watching or looking for hazards.
- Use of improper procedures.
- Departure from regulations.
- Failure to meet planned targets.
- Unresolved discrepancies.
- Ambiguity.
- Fixation or preoccupation.

Confusion

Disorder within the team or a gut feeling that things are not right. This clue is one of the most reliable because the body is able to detect stimulus long before we have consciously put it all together. Trust your feelings!

No one Watching or Looking for Hazards

Vessel operations require more than just driving the bow of the cutter or boat. The proper assignment and performance of tasks, particularly supervisory and lookout ones, is essential to safe vessel operations.

Use of Improper Procedures	This puts the individual or team in a gray area where no one may be able to predict outcomes with any certainty.
Departure from Regulations	In addition to violating procedures, we are operating in an unknown area where the consequences of our actions cannot be predicted with any degree of certainty.
Failure to Meet Planned Targets	During each evolution, we set certain goals or targets to meet, such as speed of advance, waypoints, and soundings. When they are not met, we must question why and systematically begin to evaluate our situation.
Unresolved Discrepancies	When two or more pieces of information do not agree, we must continue to search for information until the discrepancy is resolved.
Ambiguity	When information we need is confusing or unclear, we must clarify or to fill in the missing pieces before proceeding.
Fixation or Preoccupation	When someone fixates on one task or becomes preoccupied with work or personal matters, they lose the ability to detect other important information. Early detection of both fixation and preoccupation is essential to safe vessel operations. The best way to identify these clues is by knowing the behavior of your team members and being alert to change. Preoccupation with personal matters can often lead to subtle changes in performance.

MAINTAINING AWARENESS

Maintenance of situational awareness occurs through *effective communications* and a combination of the following actions.

- Recognize and make others aware when the team deviates from standard procedures.
- Monitor the performance of other team members.
- Provide information in advance.
- Identify potential or existing problems (i.e. equipment-related or operational).
- Demonstrate awareness of task performance.
- Communicate a course of action to follow as needed.
- Demonstrate ongoing awareness of mission status.
- Continually assess and reassess the situation in relation to the mission goal(s).
- Clarifying expectations of all team members eliminates doubt.

Comment on Deviations

When deviations are noted, effective team members comment in specific, assertive terms.

Monitor Performance of Others

Be alert for changes in the performance of other team members caused by work overload, stress, errors, etc. When changes are noted, take action by speaking up.

Provide Information

Don't wait to be asked. When you have information critical to team performance, speak up!

Identify Problems

All team members are tasked to identify problems before they affect mission accomplishment.

Demonstrate your awareness of task performance

Know how your job and those of other teams members contribute to overall mission accomplishment.

EXAMPLE: It may not be necessary to know the technical aspects of other team member's jobs, but you must be aware of what actions, information, etc. they need from you to do their jobs effectively.

Communicate a Course of Action

Effective communications may be the most important factor in achieving and maintaining situational awareness. To ensure a Shared Mental Model, speak up and verbalize any intended action. Understand that the level of situational awareness achieved is related to the level and quality of communication observed in team members.

Demonstrate Awareness of Mission/Task

Ensure that your performance reflects an understanding and awareness of the mission or task being performed.

EXAMPLE: Effective team leaders plan ahead and communicate the plan to team members. This ensures that everyone is aware of the plan and builds a Shared Mental Model of the situation.

Continually Assess the Situation

In the dynamic world of Coast Guard operations plan on change and continually assess and reassess the situation to determine if the team is on track to safely and effectively accomplish the mission goal.

Clarify Expectations

Understand that clear expectations lead to a Shared Mental Model of the situation and ensures high levels of situational awareness by all team members.

TWO CHALLENGE RULE

The Two-Challenge Rule has been used effectively in aviation to detect fixation in a team member. If a team member fails to adequately respond to two or more challenges regarding omissions or questionable actions, the individual is assumed to have lost situational awareness and some action is required. Apply this rule in daily operations.

BARRIERS TO SITUATIONAL AWARENESS

The following barriers reduce our ability to understand the situation. Recognizing these barriers and taking corrective action is the responsibility of all team members.

- Perception based on faulty information processing.
- Excessive motivation.
- Complacency.
- Overload.
- Fatigue.
- Poor communications.

Perception

Perception is our mental picture of reality. The amount and quality of information available limit all pictures of our current operational state. Insufficient information makes it difficult to ensure that our mental picture is always aligned with reality. Our mental picture is affected by:

- *Past Experiences*: We act on information based on our knowledge. When something looks similar to what we are familiar with, we may react as if it were the same.
- *Expectations*: We interpret information in such a way that it affirms the planned action. We may rationalize that the ship is being set by a current that was incorrectly computed, when in reality no one has compensated for bearing errors in the instruments.
- *Filters*: We are provided with information, but we don't use it. We don't pay attention to information that doesn't match our mental picture.

Excessive Motivation	This behavior imposes expectations and filters that affect our ability to fully assess the situation and any safety risks. It includes, but is not limited to, "GET HOME-itis" and an overriding sense of mission importance (e.g. "you have to go out. . ."). Performing the 7-step Risk Management Process, using an effective decision-making strategy (Chapter 6) and seeking feedback on judgments can reduce the potential for unsafe acts.
Complacency	Assuming everything is under control affects vigilance. When things are slow, tasks are routine, and/or when the vessel's employment objectives have been achieved, complacency can occur. *Challenging yourself and/or the team to be prepared for contingencies (e.g. planning or training) can deter complacency.*
Overload	Overload causes distraction; fixation; increased errors, and high stress. *Prioritizing and delegating tasks and minimizing job distractions can improve safety in conditions of overload.*
Fatigue	Fatigue affects vigilance. Adjusting work routine and imposing sleep discipline to prevent wake cycles longer than 18 hours and permit at least 5 and preferably 8 hours/day of sound sleep can minimize sleep deprivation. This includes enforcing lights out, permitting late sleepers, and as needed having stand-downs.
Poor Communications	The level of situational awareness achieved is related to the level and quality of communications observed in the team.

HUMAN ERROR

The large amount of information processed by teams and the many necessary interactions within and between teams provides the opportunity for human error. Chains of human error are normal and should be expected. There are three levels of human error.

- Slips.
- Mistakes.
- Errors.

Slips

Slips are the incorrect sending of information or mis-communication. Often well-formed habits take over and we make a slip. Slips often occur in giving rudder or engine commands, or in responding on the radio. These slips may be humorous or seem insignificant, but they are a visual or auditory form of human error. They may indicate that the individual making the slip is under added stress. Unfortunately, the individual may not recognize the slip.

Example: An example is a verbal rudder order for left rudder when the direction of the hand was toward the right. The wrong call sign that is used to respond to another vessel is another example of a slip.

Corrective Action: Inform the individual of the slip, regardless of differences in rank.

Mistakes

Mistakes are failures in planning. Mistakes almost always have to do with the selection of objectives and the time required to achieve them.

Example: This may be a wrong trackline chosen because of improper reading of the compass rose. In the engine room it may be the timing for engine maintenance that conflicts with a planned, though poorly promulgated, restricted maneuvering event.

Corrective Action: Questioning the plan during the brief and performing thorough double checks, can reduce the probability of these mistakes.

Errors

Errors are flawed execution; incorrect actions based on either correct or incorrect information. Errors, because they are defined as actions, are *the most serious form of human error.*

Example: The helmsman applying rudder in accordance with the conning officer's slip is an error; likewise, the helmsman applying the opposite rudder to that which was correctly ordered creates a similar error.

Corrective Action: *Effective teams are alert to errors and use assertive communications to alert others to the problem.*

ERROR TRAPPING; When To Do It And Who Should Do It

Trapping slips, mistakes, and errors, (or breaking an error chain), is a key mechanism to avoiding mishaps. Human error can occur at anytime. The earlier human error enters the process and/or the longer it goes undetected, the less effective the team will be and the greater the potential for mishaps.

Regulations are implemented to control some of the known errors, but regulations and standard operating procedures are not fail-safe mechanisms.

Team members must be able to identify all levels of human error and be empowered to take corrective action!

DEFINING JUDGMENT AND JUDGMENT CHAINS

Judgment is a process that produces a thoughtful, considered decision. In other words, it is the ability to perceive a situation and make a decision. Good decisions equal good judgment; poor decisions equal poor judgment. Judgment determines team actions in a given situation and depends on information that team members have about themselves, their unit, and the environment. In performing the mission, many judgments are made. This series of judgments is called a judgment chain.

How Poor Judgments Are Formed

Poor judgments may be the outcome of applying erroneous information or using an ineffective decision-strategy (discussed in Chapter 6). If an 'up stream' judgment is flawed, it can affect the other ones 'down stream'. "Garbage In = Garbage Out."

Recognizing Poor Judgment Chains

When individuals exercise poor judgment and are not aware of it:

- **Reality Is Distorted.** They are lulled into a misperception of reality. They rationalize why things are happening using this reality as fact.
- **False Information is Perpetuated.** They often create false information that they use to make future judgments. The probability is high that these judgments will be flawed.
- **Fewer Alternatives Seem Acceptable.** As more poor judgments or false information is added to the chain, the seemingly available alternatives for solving problems narrow.

Example: If a cutter decides to transit unfamiliar waters without proper charts, the lack of knowledge limits its ability to deal with navigational hazards.

BREAKING POOR JUDGMENT CHAINS

A structured approach to decision-making is important to prevent a poor judgment chain from either forming or growing. (See the DECIDE Model outlined in Chapter 6). This approach includes a step to *evaluate* judgments. To be effective this step has three parts.

1. Seek feedback and point out errors.
2. Assess stress level within team.
3. Manage resulting risk.

For any poor judgment chain to be broken, team leaders and members must recognize that they are human. *Be open to the possibility that you can make poor judgments. Be willing to admit and correct errors.*

Seek Feedback & Point Out Errors

To recognize a poor judgment get feedback. Feedback can come from two sources: your senses (e.g. clues to loss of situational awareness) or from an observer. Generally, the best feedback comes from others. Although senior team members are expected to use their knowledge and experience to critique their judgments, don't hesitate to get a double-check/a second opinion.

Assess Stress Level Within Team

Too much or too little stress can reduce our ability to exercise good judgment. Assess the stress and attempt to obtain an optimal level before continuing.

Manage Resulting Risk

Apply the 7 steps of Risk Management to correct any hazardous situations resulting from poor judgment.

SUMMARY

Situational awareness is dynamic, hard to maintain, and easy to lose. Knowing what is going on all the time is very difficult for any one person, especially during complex high stress operations. Therefore it is important that we know what behavior is effective in keeping us situationally aware. The following actions can help a team retain or regain situational awareness.

- Be alert for deviations from standard procedures.
- Watch for changes in the performance of other team members.
- Be proactive, provide information in advance.
- Identify problems in a timely manner.
- Show you are aware of what's going on around you.
- Communicate effectively.
- Keep abreast of the mission status.
- Continually assess and reassess the situation.
- Ensure that all expectations are shared for complete awareness by the whole team.

LESSON SUMMARY

LESSON OBJECTIVE

This lesson has prepared you to identify, label, assimilate, and comprehend the critical elements of what is happening to the team, its facility, and the mission.

LESSON OVERVIEW

The critical areas covered in this lesson have included:

- Clues to the loss of situational awareness.
- Levels of human error.
- Recognizing and breaking poor judgment chains.

APPLICATION

Because Situational Awareness is hard to keep and an individual may not know when he/she has lost it, the team must practice behaviors that facilitate awareness and error trapping. Such proactive efforts to stay situationally aware can help prevent human error from causing mishaps.

SELF QUIZ #4

1. What actions are observed in teams which are situationally aware?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____
   g. _____

2. What are the clues to loss of situational awareness?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____
   g. _____
   h. _____

3. What is the Two-Challenge Rule?

   _____
   _____
   _____
   _____

4. What are the six barriers to situational awareness?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____

SELF-QUIZ #4 (continued)

5. List the three levels of human error
   a. _____
   b. _____
   c. _____

6. Define Error Trapping.

   _____

   _____

ANSWERS TO SELF-QUIZ #4

Question	Answer	Reference
1.	a. Anticipate the needs of other team members. b. Predict the needs of other team members. c. Adapt to task demands efficiently.	5-3
2.	a. Confusion. b. No one watching or looking for hazards. c. Use of improper procedures d. Departure from regulations. e. Failure to meet planned targets. f. Unresolved discrepancies. g. Ambiguity. h. Fixation or Preoccupation.	5-4
3.	If a team member fails to adequately respond to two or more challenges regarding omissions or questionable actions. The individual is assumed to have lost situational awareness.	5-8
4.	a. Perception. b. Excessive Motivation. c. Complacency. d. Overload. e. Fatigue. f. Poor Communication.	5-8
5.	a. Slips. b. Mistakes. c. Errors.	5-10
6.	Trapping slips, mistakes, and errors (or breaking an error chain).	5-11

SITUATIONAL AWARENESS

INSTRUCTOR LESSON PLAN #5

1. LESSON TITLE: Situational Awareness

2. TIME: 3 hours.

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 5-1 to 5-18
- Video Guidance: Pg. 5-28
- Exercise Guidance: Pg. 5-23, 5-25
- Case Study Guidance: Pg. 5-27

B. Student Guide

- Lesson Material: Pg. 5-1 to 5-16

C. Team Coordination Training Exercises and Case Studies

- Case Study: Select an appropriate case
- Exercise: Finished Files: Pg. I-31

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead slides

B. Team Coordination Training Exercises and Case Studies

- Case: Select a case appropriate to the skill area you are presenting.
- Exercise: Select exercise and handouts as appropriate.

C. Video: *Who Rescues the Coast Guard*?

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

7. STUDENT STUDY ASSIGNMENTS:

A. If you use any case studies and want additional time in class, assign them as homework.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Situational Awareness and its affect on safety and mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of how low levels of situational awareness could have, or did lead to a mishap.
- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and exercise approach. You must select the most appropriate method based on your experience and the experience of the group you are working with.

(3) We have provided you with videos and different cases and exercises. To be effective do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select one of the following approaches to reinforce learning:

(1) Finished Files Exercise. To process this exercise reproduce the exercise in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 5-23 or;

(2) Use the other exercise that has been provided. Guidance for presenting the exercise may be found on pg. 5-25 to 5-26 of this text.

(3) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 5-27 of this text.

(4) Video: Select one of trhe Situational Awareness scenarios. Scenarios are indexed on Pg. II-4 of *the Team Coordination Training Exercises and Case Studies* text. Reproduce the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text and distribute to each individual. Follow the video guidance on page 5-28 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but to their jobs. You are a facilitator, the tools you have been provided with in this Team Coordination Training Instructor Guide include the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes. You will notice that in this manual *you have not been provided with a script of what to say or a description of how the concepts presented in each module integrate with one*

another. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS:

A. Clues To the Loss Of Situational Awareness - Used to identify when situational awareness may have been lost.

B. Two-Challenge Rule - Used to detect fixation or preoccupation.

C. Levels of Human Error - Used to increase awareness of potential for human error before inappropriate action is taken.

D. Characteristics of Poor Judgment Chains - Used to increase awareness of outcomes (understand gut feelings) caused by poor judgments.

E. Breaking Poor Judgment Chains - Used to assess judgments and return to situational awareness.

10. ROADBLOCKS:

A. Individual Detection - It is difficult to detect and admit the loss of Situational Awareness in ourselves.

B. Individual Responsibility - Many individuals feel it is not their responsibility to correct others. We must encourage all team members to contribute.

11. LESSON CONCLUSION: Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

FINISHED FILES EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Situational Awareness

Goals

1. To demonstrate the different ways in which individuals perceive situations.
2. To demonstrate how expectations influence how we process information and affect situational awareness.
3. To explore how we process information.

Group Size

This is an individual exercise that can be done with any size group.

Time Required

Approximately 15 minutes.

Materials Required

1. A copy of the Finished Files Worksheet for each participant.
2. Pencil and paper for each participant.

Physical Setting

A room large enough for individuals to work without being distracted by others.

Process

1. Give one copy of the Finished Files Worksheet to each participant. Instruct them read the sentence in the box. Now count the F's in the sentence. Count them once, and do not go back and count them again.
2. Ask for a show of hands of those individuals who counted 1, 2, 3, 4, 5 or 6 F's. On butcher paper or a blackboard, record the number of participants who counted 1, 2, 3, 4, 5, or 6 F's.
3. Repeat the exercise completely.
4. If necessary, repeat the exercise a third time. This time specify that they are not to read the words and are to count the Fs from the bottom right to the top left of the box.
5. Announce the "correct" answer. There are six (6) F's in the sentence.

6. Lead a brief discussion of the activity. Focus on how people look at the same situation differently. What you see may only be part of what's actually there. This exercise requires us to change how we process information. To be effective we had to look for the "Fs". The process of reading changed our ability to process the information, we could ignore many Fs that were tied to lessor words. Is "of" considered important - not really. It serves to link important words. However in this exercise, scanning words limited our ability.
7. Tie this exercise into how we sometimes lose situational awareness. Many times we lose situational awareness because we did not consider all the information provided. The information was in messages or "words" we considered unimportant.

Suggested Process Questions:

1. **Why were you not aware of the words "OF" as you initially read the sentence?**

   (RECOMMENDED RESPONSE: Individuals usually do not follow the instructions and count the Fs but in fact read the words. When you initially read the word OF it is filed away as a sound "ah" and not "f". When you keep looking for the letter "F" you actually scan the words and miss the letter).

2. **What effect would personal stress or fatigue have on our ability to complete this exercise correctly?**

   (RECOMMENDED RESPONSE: As stress and fatigue increases we tend to fixate more on the words than the letters. It becomes harder to see the letter "F".)

3. **How can we apply the lessons from this exercise to the real world?**

   (RECOMMENDED RESPONSE: In real life we often look at a situation and do not really see what is going on or see all the pieces. We must take the time to carefully look for what it is we are looking for and not just focus on the big picture).

4. **Discuss what can be done to ensure that we process information effectively?**

   (RECOMMENDED RESPONSE: Set intermediate objectives that lead to the goal. It is easier focusing on the objectives).

THE LEMON EXCHANGE EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Situational Awareness

Goals

To vividly illustrate the importance of individual differences, the need for astute observational skills, and sensitivity to personal characteristics. To demonstrate that most adults listen at about a 25% level of efficiency.

Group Size

Any number of participants.

Time Required

Approximately 30 minutes.

Materials Required

1. Adequate supply of lemons or any fruit.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Distribute one piece to each member of the group.
2. Direct each person to examine their lemon carefully by rolling it, squeezing it, fondling it, inspecting it, etc. Ask them to get to know their lemon (always good for a few laughs). Tell them to pick a name for it. Encourage them to identify in their minds the strengths and weaknesses of their lemon.
3. Collect all the lemons and visibly mix them up in front of the group.
4. Spread out all the lemons on a table, and ask all persons to come forward and select their original lemon.
5. If conflicts develop over their choices, assist the parties in reconciling their differences, or simply note the failure to agree and use that as a basis for

later discussion. (Note: In smaller groups, the vast majority successfully identifies their own lemon.)

Suggested Process Questions:

1. How many are very sure they reclaimed their original lemon? How do you know?
2. What parallels are there between differentiating many lemons and differentiating many people? What differences are there?
3. Why can't we get to know people just as rapidly as we did our lemons? What role does the skin play (for lemons and for people)?

Source: Unknown

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: Situational Awareness

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of the clues to the loss of situational awareness.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 30 minutes. This assumes that the case study is read prior to the class. The 30 minutes time is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercises and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the case prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the topic of situational awareness as it pertains to the questions asked.

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Situational Awareness

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of situational awareness on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. A copy of the *Who Rescues the Coast Guard*? video.
2. Pencil and paper for each participant.
3. Copy of the case study worksheet for each individual.

Physical Setting

A room large enough for individuals and groups to work without being distracted or overheard by others.

Process

1. Select and show an appropriate scenario. Instruct the students to take notes.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer questions regarding the mishap. Instruct them to stay focused on the questions asked.

TEAM COORDINATION TRAINING

LESSON: Decision-Making

LESSON TIME: 2 Hours and 30 minutes.

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

C. Team Coordination Training Exercises and Case Studies

D. Video: *Who Rescues the Coast Guard*?

TERMINAL OBJECTIVE:

At the completion of the Decision Making Module, the student shall be capable of applying logical and sound judgment based on the information available per the following list of objectives.

ENABLING OBJECTIVES:

1. Given a presentation on the DECIDE model, the student lists the elements.

2. Given a demonstration, the student will identify the decision strategy used.

3. Given a demonstration, the student will discuss consequences of the decision strategy on the mission.

4. Given a demonstration, the student will list all alternatives or contingencies available to the team.

5. Given a demonstration, the student states a solution and defends it before the team.

6. Given a demonstration, the student will describe how cross checking information sources for agreement or confirmation may have avoided the mishap.

DECISION MAKING

Instructional Outline

SCOPE

The USCG has found a direct relationship between systematic problem-solving and reduced mishap potential. The Decision-Making Module of Team Coordination Training provides awareness of decision-making strategies, how stress affects them, and optimal method for decision-making.

LESSON OBJECTIVE

At the completion of the Decision-Making Module, the student shall be capable of applying logical and sound judgment based on the information available.

LESSON OVERVIEW

Critical Areas of this lesson include:

- Decision-making strategies.
- A systematic problem-solving model.
- Decision-making under stress.

DECISION-MAKING

OBJECTIVES

To successfully complete this assignment, you must study the text and master the following objectives:

- Describe the six strategies used to make decisions.
- State the steps in the Decide problem-solving model.

DECISION MAKING

Decision-making is an essential skill for operational team leaders. Applying a systematic method to solve problems is critical to team performance and the safety of operations. Team members share the responsibility for solving problems by contributing timely and valuable information to the team leader.

Observable Behavior In Making Sound Decisions

The following actions have been observed in effective decision-making.

- Gather information before making a decision.
- Cross check information sources for agreement.
- Identify alternatives/contingencies so that possible solutions may be explored.
- Discuss consequences of decisions in an effort to enhance the decision-making process.
- Provide the rationale for decisions.

DECISION-MAKING STRATEGIES

There are six decision strategies we use to make decisions. They are used either consciously or unconsciously. These strategies form the basis for how and 'if' we solve problems. We need to know how we make decisions and ensure we have good decision-making habits. The six strategies are:

1. Minimize
2. Moralize
3. Muddle
4. Scan
5. Deny
6. Optimize

Minimize

Select a course of action based on a minimum set of requirements. Once the minimum requirements are established the mind searches for and selects the first course of action that satisfies the minimum requirements set.

Example: The leader tells his team, "All we have to do is keep the vessel off the shoals! Just take a fix when we aren't sure where we are."

Disadvantage: Results in a superficial search for additional information.

Moralize

Make a decision based on a perceived moral obligation. Factors leading to this strategy often include requests by individuals in authority, direct orders, and perceived life and death situations where the team member feels he/she can make the difference.

Example: Many times we continue to make heroic attempts to save vessels that are on fire or sinking, when the situation is really a salvage operation. Another example would be GET-HOME-ITIS.

Disadvantage: Decisions are made without considering sufficient alternatives. Higher risks are taken than necessary, especially during SAR cases.

Muddle

Incremental decision making. The focus is on crisis management or "putting out fires", rather than selecting a superior course of action. This usually starts with minor safety shortcuts that continue until they reach the point where the team member makes serious mistakes.

The team member downplays the significance of change in a situation by engaging in superficial decision making. Risk management is not done.

Example: Several course corrections are ordered to correct for being off track without any information on the observed set and drift.

Disadvantage: Continued deviations will eventually lead to a mishap or accident.

Scan

Solve a problem by classifying information as either "important" or "unimportant". Scanning is then done on only those alternatives containing "important" information. All other alternatives are treated as superficial.

Example: Only relying on time to turn based on fix information, when turn bearings or ranges could have been used.

Disadvantage: Leads to a failure to properly assess potentially serious problems.

Deny

Eliminate the problem by denying it exists. This generally happens when stress is extremely high and one can't cope.

Example: The conn is having a hard time resolving the navigation picture, when he realizes that a close aboard situation with another ship is likely. He eliminates the possibility of a collision by insisting that the other ship will take timely appropriate action. No contingencies are considered.

Disadvantage: The problem is not solved and the decision-maker cuts off all additional information that could increase his/her stress.

ARE THESE 5 STRATEGIES EVER EFFECTIVE?

When we do not have much time, don't we do the minimum to get by? Don't we take shortcuts that do not have serious consequences? In emergencies, don't we separate important from unimportant information?

Do we *always* not have enough time, or is *everything* an emergency?

- *If the answer is yes*, we may be habitually using these decision strategies. This *unconscious* habit increases our risk of a mishap.
- *If the answer is no*, we have to determine how frequently and why we are faced with these crises. Making a *conscious* decision to solve a problem is good. When we do this, the questions asked earlier describe the ways we can prioritize alternatives, not a decision strategy.

Optimizing

The sixth and most effective decision strategy is Optimizing. It considers a wide range of choices and weighs each of the consequences.

Each of the other strategies limit decision making effectiveness, because they failed to fully examine and process all available data.

To ensure all available data are effectively used in making a decision, it is best to use a structured approach. The **DECIDE** Model in Figure 6-1 provides a 6-step process to make decisions. The model has been used successfully in the aviation industry for some time and is described in DOT/FAA/PM-86/45, *Aeronautical Decision Making for Helicopter Pilots*.

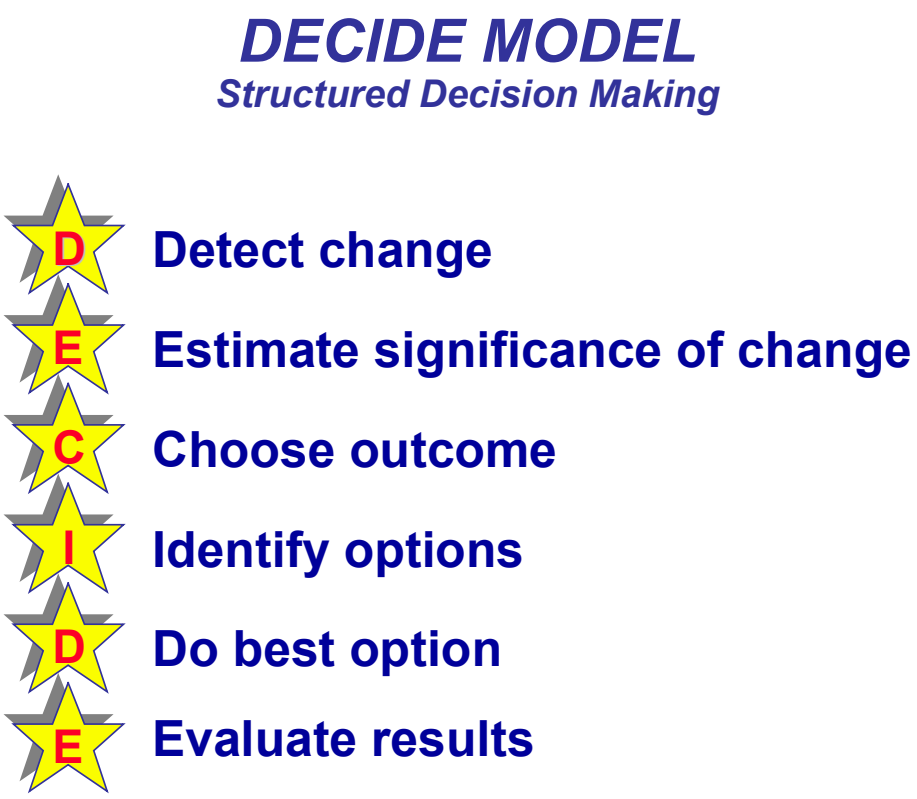


Figure 6-1

D - Detect Change

You can't solve a problem unless you know it exists. Change exists when there is a difference between "what is happening" and "what is desired to happen."

E - Estimate Its Affect On The Situation

This requires that the team verify its information and the affect the information has on the situation. It also requires us to determine if we need to react to the change. Questions that help estimate the significance include:

- **Who** is affected; who is not?
- **What** situation is affected; what related things are not affected?
- **Where** is the problem?
- **When** did the problem occur?
- Do areas affected by the problem affect other areas? To what extent?

Pitfall: Too often, teams detect change and want to immediately take action without a thorough analysis.

> **Example**: Making continual course corrections for set and drift may not be the best course of action. What may be seen as an environmental force being exerted on the vessel may actually be an uncorrected error in navigation fixing.

C - Choose An Objective

An objective is not an alternative; it is the final measure of success. This could also be an intermediate objective that will get the team back on track with the mission plan, or an entirely new objective. *Objective selection may be the most important step in the process. The final solution will be driven by the objective that is selected.*

Pitfall: Select the wrong objective and you will probably arrive at an incomplete or incorrect solution. As a result, the team may become wrapped up in crisis management.

I - Identify Alternatives

The more choices available to decision-makers, the more likely an optimal solution can be found. Lessons learned from navigational mishap analysis point out that problems could have been detected early and that ample time existed to identify more than one alternative. Given that teams are composed of more than one person, the resources required to identify more than one alternative are usually available.

Pitfall: Too often, team members believe that they don't have the time to make suggestions, even when they see other alternatives. Usually the first course of action considered is the one taken. Conducting only a superficial search for alternatives results in less than optimum decisions.

D - Do The Best Alternative

The risk to safety of each alternative should be assessed along with its conformance to established standards (e.g. Rules of the Road). Effective teams routinely update contingencies during the mission so that the time it takes to affect this step is minimal. Act in accordance with the alternative that best satisfies mission and safety criteria.

Pitfall: Too often, teams take shortcuts in choosing the best alternative by willfully not complying with known practices of prudent mariners and/or ignoring effective risk management principles.

E - Evaluate The Decision

Evaluation provides team members with feedback on the effects of their decisions. This in turn provides information regarding the need to adjust to additional change. If the alternative selected does not meet the objective, the problem solving process starts again.

AFFECT OF STRESS ON DECISION-MAKING

When an individual is faced with a decision in a high stress or crisis situation two factors must be considered: To make a good decision; and to reduce the level of stress.

There is usually an attempt on the part of the decision-maker to select a decision that will not only solve the problem but also reduce the stress. The higher the stress the more important it becomes to reduce it.

Figure 6-2 demonstrates how stress affects our selection of decision strategies. As the figure shows, the potential for error and lesser effective decision strategies increases, when stress is not well managed.

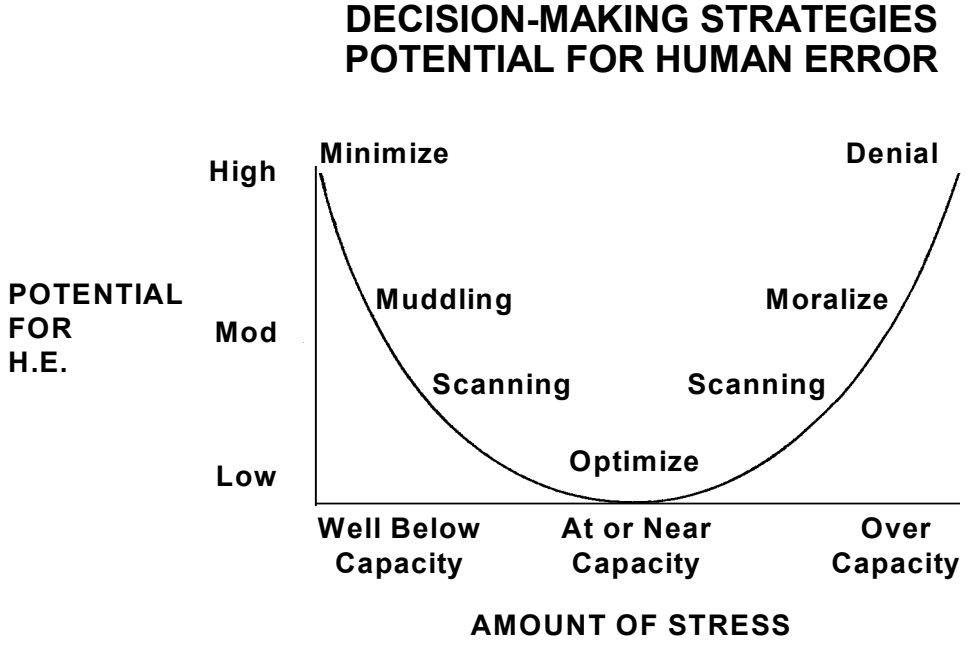


Figure 6-2

COPING WITH STRESS

There are five ways we make decisions under stress. The five ways we cope are:

- Ignore The Problem.
- Minor Protective Action.
- Avoid The Problem.
- Panic or Confusion.
- Vigilance.

Ignore The Problem

When faced with a decision under stress the easiest thing to do is nothing. Individuals who ignore the problem are actually saying **"The risks are not serious if I don't take any corrective action."**

Consequences: This causes the initial stress from the situation to subside and little or no stress will be caused by the problem. There ability to achieve a low level of stress can lead to complacency, lowered performance, and ignoring a serious safety risk.

Decision Strategy Used: They may *minimize* problems, settling for shortcuts and deviations from established practices.

Minor Protective Action

If the individual feels the risks are to high to ignore the problem the next easiest thing to do is the absolute minimum. Individuals who use minor protective actions are actually saying **"I can't ignore the problem but the risks seem low if I select the most available alternative or protective action."**

Consequences: This causes the stress to subside substantially. Something they failed to consider usually catches them by surprise.

Decision Strategies Used: Individuals may continue to employ the first alternative that appears to solve the problem, without looking at all the alternatives (*muddle*). They may often consider only the minimum requirements (*minimize*). They also may look (*scan)* for just those things they think are important.

Avoid The Problem

Avoidance happens when the individual realizes they can't ignore the problem and that the most available alternative may cause problems also. The individual knows that a better alternative is available, but chooses to avoid the problem to reduce stress. **"There may be a better way, but it is not realistic to hope that I will find it!" or "I may not want to know the answer".**

Consequences: Avoiding the problem reduces the stress but does nothing to solve the problem.

Decision Strategies Used: Any thing that stimulates anxiety or other painful feelings is avoided. The individual *denies* the problem exists. To reduce the stress further individuals may *moralize*, blaming others, and "passing the buck" for their predicament.

Panic or Confusion

If an individual can see that real danger is rapidly approaching and can see no route of escape, it is easy to assume that **"There does not appear to be sufficient time to solve the problem."**

Consequences: Stress becomes so high the individual is unable to process information effectively. This may be evidenced by confusion, even with simple tasks, and panic in some situations.

Decision Strategy Used: The individual *denies* the problem can be solved.

ARE THESE 4 WAYS OF COPING EVER GOOD?

What about when...

- We are busy and must ignore a problem?
- Doing the minimum lets us handle more important problems?
- Avoiding some problems lets us get on with more important things?

Making a *conscious* decision to solve a problem is good. When we do this, the questions asked above describe ways we can prioritize alternatives, not ways we cope.

Coping generally works at the *unconscious* level. We don't think about it. That's what makes these four ways risky. Unconsciously we are trying to reduce the stress and not solve the problem.

AVOIDING INEFFECTIVE COPING

To avoid these ineffective ways of coping make decisions a *conscious* process. When faced with a problem keep the following in mind:

- Don't ignore any problem.
- Selecting a course of action that meets the minimum requirements may work but can lead to bigger problems.
- Regardless of how bad the situation looks there is always something you can do.
- No matter how close the danger is, there is always time to do something.

This is often easier said than done. Following the guidance for breaking poor judgment chains is prudent. This guidance is in Chapter 5. It requires team members to be assertive and share the responsibility for overall team performance.

Vigilance

Vigilance is a *conscious* mental process that is alert to potential problems. It gives you the time and information needed to *optimize* decisions (the DECIDE model). Individuals who are vigilant have:

- A constant belief that sufficient time exists to solve the problem.
- High confidence in ability to find a solution to the problem
- A number of alternatives to decide from based on careful search and appraisal.

SUMMARY

Table 6-1 shows the relationship between human error potential, decision strategies, and the ways we cope. Team members who remain vigilant and use the optimizing strategy have the lowest potential for mishaps.

DECISION-MAKING UNDER STRESS AND ITS POTENTIAL FOR ERROR

COPING PATTERN	DECISION STRATEGIES	ERROR POTENTIAL
Ignore	Minimize	High
Minor Protective Action	Muddle	Moderate-High
	Scan or Minimize	Moderate-Low
Avoidance	Deny	High
	Moralize	Moderate-High
Panic or Confusion	Deny	High
Vigilance	Optimize	Low

Table 6-1

LESSON SUMMARY

LESSON OBJECTIVE	This lesson has prepared you to apply logical and sound judgment based on the information available.
LESSON OVERVIEW	The critical areas covered in this lesson have included: • Decision-making strategies. • A systematic problem-solving model. • Decision-making under stress.
APPLICATION	Because we face problems all the time it is important to keep in mind that the most effective way to solve problems is by the use of a systematic process. The DECIDE Model will help you to solve problems and reduce risk.

SELF-QUIZ #5

1. What are the six strategies people use to make decisions?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____

2. What are the five ways we make decisions under stress?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____

3. What are the steps in the Decide Model?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____

ANSWERS TO SELF-QUIZ #5

Question	Answer	Reference
1.	a. Minimize.	6-3
	b. Moralize.	
	c. Muddle.	
	d. Scan	
	e. Deny.	
	f. Optimize.	
2.	a. Ignore the problem.	6-11
	b. Minor protective action.	
	c. Avoid the problem.	
	d. Panic or confusion.	
	e. Vigilance.	
3.	a. Detect Change.	6-7
	b. Estimate the significance of the change.	
	c. Choose an outcome.	
	d. Identify options.	
	e. Do best option.	
	f. Evaluate.	

DECISION MAKING

INSTRUCTOR LESSON PLAN #6

1. **LESSON TITLE:** Decision Making

2. **TIME:** 2 hours and 30 minutes.

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 6-1 to 6-18
- Video Guidance: Pg. 6-32
- Exercise Guidance: Pg. 6-23, 6-27, 6-29
- Case Study Guidance: Pg. 6-31

B. Student Guide

- Lesson Material: Pg. 6-1 to 6-16

C. Team Coordination Training Exercises and Case Studies

- Case Study: Select an appropriate case
- Exercises: Hijacking At Sea: Pg. I-29
  The Farmer's Land Bequest: I-45
  Hidden Squares: I-47

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead slides

B. Team Coordination Training Exercises and Case Studies

- Case: Select a case appropriate to the skill area you are presenting.
- Exercise: Pg. I-27, I-45, or I-47. Select as appropriate.

C. Video: *Who Rescues the Coast Guard*?

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

7. STUDENT STUDY ASSIGNMENTS:

A. If you use any case studies and want additional time in class, assign them as homework.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Decision-Making and its affect on safety and mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of how faulty decision-making could have, or did lead to a mishap.

- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and exercise approach. You must select the most appropriate method based on your experience and the experience of the group.

(3) We have provided you with a video and different cases and exercises. To be effective do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select one of the following approaches to reinforce learning:

(1) Hijacking At Sea Exercise. To process this exercise reproduce the exercise in the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 6-23 or;

(2) Use one of the other exercises that have been provided. Guidance for presenting the exercises may be found on pg. 6-27 to 6-29 of this text. If student handouts are required, they may be found in the *Team Coordination Training Exercises and Case Studies* text.

(3) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 6-31 of this text.

(4) Video: Select one of the Decision-Making scenarios. Scenarios are indexed on Pg. II-4 of *the Team Coordination Training Exercises and Case Studies* text. Reproduce the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text and distribute to each individual. Follow the video guidance on page 6-32 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but also to their jobs. You are a facilitator, the tools you have been provided with in this Team Coordination Training Instructor Guide include the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes. You will notice that in this manual *you have not been provided with a script of what to say or a description of how the concepts presented in each module integrate with one another*. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS:

A. Decision Strategies - Used to explain how we make decisions.

B. DECIDE Model - Provides a systematic way of solving problems.

C. Coping Patterns - Used to explain how the decision process is affected by stress.

10. ROADBLOCKS:

A. Habit Patterns - Established patterns of behavior make it difficult to change the strategies we use.

B. Denial - This is very difficult to detect in us. Watch for it in others.

11. **LESSON CONCLUSION:** Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

HIJACKING AT SEA EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Decision-Making

Goals

1. To study how information is shared in a task-oriented group.
2. To study how individuals and groups process information and make decisions.
3. Used to demonstrate importance of setting and recognizing objectives as part of Decision-Making Module.

Group Size

From 7 to 10 participants in each group. Several groups may be directed simultaneously in the same room.

Time Required

Approximately 45 minutes.

Materials Required

1. A set of Hijacking At Sea Information Cards for each group (26 cards in a set). Make these 3x5 cards prior to the exercise. The information you need to make the cards is found in this section under HIJACKING AT SEA INFORMATION CARDS.
2. Copies of Hijacking At Sea Instructions contained in the *Team Coordination Training Exercises and Case Studies* text.
3. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Hijacking At Sea Instructions are distributed.
2. After participants have read the instructions; **randomly** distribute a set of Information Cards to each group. Each team must be given all twenty-six cards. Participants begin their task.

3. After the allotted time call a halt to the exercise.
4. Lead a discussion of the activity. Focus on information processing and how information is shared within the group. Decision-making for many individuals is based on habit patterns.
5. This exercise may also be used to demonstrate faulty problem solving. Often we begin to attempt to solve the problem before we have a clear idea of its parameters. Approximately 80% of time spent on problem solving should be spent on the first three steps of the DECIDE Model.
6. Explain that this is much like our operational teams who have a lot of information coming at them from different sources. They have to define what is important and what isn't.
7. The DECIDE Model provides a systematic process for problem solving. If used, participants will find it easier to discriminate between useful and irrelevant information. Consider the following points from the DECIDE Model:

   D - Detect what is happening; what is desired to happen. The captors want "time" as an answer. They want it in a new scale of measurement.

   E - Estimate the significance of the situation. We need to compute the "time" quickly because the answer is needed in 20 minutes. If we do not solve the problem in the required time or the solution is incorrect we will all die.

   C - Choose an objective. What action is necessary? We need to solve a time, distance, and speed equation. We need to look for information that defines these terms in the new scale of measurement. Other information adds no value. We need to organize our thoughts and verify our answer. We probably need to graph the problem to make it simpler to solve.

Solution: 23/30 (.766) wors or 3.83 mirs.

Suggested Process Questions:

1. **How did you solve this problem?**

   (RECOMMENDED RESPONSE: For each leg simply divide distance by the rate to determine the time. Add the time for each leg together for the total time. A to B is 4/24, B to C is 8/30, and C to end is 10/30. This adds up to 23/30). An alternate solution is to multiply .766 wors by 5 and get 3.83 mirs. This is okay because 1 wor = 5 mirs.

2. **How was information shared within the group?**

3. **How did you determine what information was relevant?**

4. **Who coordinated the sharing of information? How did they get that role?**

   a. What particular behaviors were helpful?

   b. What particular behaviors seemed to be a hindrance?

5. **How did the use of only verbal communication affect the difficulty of the task?**

6. **How did the "new language" affect the communications process? Why?**

   (RECOMMENDED RESPONSE: You felt confident with the old system of measurement. We often rely on past experiences to help us make decisions).

7. **Did the "new language" help or hinder the process of separating irrelevant from relevant data?**

   (RECOMMENDED RESPONSE: Experiences may detract from our decisions because they may not fully address the situation).

8. **How can what you learned from this exercise be applied to teams and crews in your organization?**

   (RECOMMENDED RESPONSE: (1) Ensure objectives are clearly understood; (2) Conduct a complete search for information; and (3) Check your work.)

Adapted from
Structured Experience Kit
J. William Pfeiffer and John E. Jones
San Diego, CA: UNIVERSITY ASSOCIATES, Inc., 1980

HIJACKING AT SEA INFORMATION CARDS

To make a set of cards, type each of the following statements on a 3" x 5" index card (a total of twenty-six). A set should be distributed randomly among members of each group. Each group must have all twenty-six cards.

1. A mipp is a way of measuring distance.
2. What is a mipp?
3. How many mirs are there in an hour?
4. How fast does the ship travel from Lighthouse Point to the buoy off Shark Point?
5. What is a mir?
6. How far is it from the buoy off Shark Point to the dock at the container yard?
7. A mir is a way of measuring time.
8. The ship travels from the current position to Lighthouse Point at the rate of 24 lutts per wor.
9. A lutt is 10 mipps.
10. It is 8 lutts from Lighthouse Point to the buoy off of Shark Point.
11. There are 2 mirs in an hour.
12. A wor is 5 mirs.
13. What is a dar?
14. A dar is 10 wors.
15. How far is it from the current position to Lighthouse Point?
16. How fast does the ship travel from the current position to Lighthouse Point?
17. The ship travels from the buoy off Shark Point to the dock at the container yard at the rate of 30 lutts per wor.
18. What is a wor?
19. What is a lutt?
20. There are 2 mipps in a mile.
21. It is 4 lutts from the current position to Lighthouse Point.
22. It is 10 lutts from Shark Point to the dock at the container yard.
23. The ship travels from Lighthouse Point to the buoy off Shark Point at the rate of 30 lutts per wor.
24. How far is it from Lighthouse Point to the buoy off Shark Point?
25. How many mipps are there in a mile?
26. How fast does the ship travel from Shark Point to the dock at the container yard?

THE FARMER'S LAND BEQUEST INSTRUCTOR GUIDANCE

Suitable Skill Area: Decision-Making

Goals

To encourage creative thought.

Group Size

Any number of participants.

Time Required

Approximately 20 minutes.

Materials Required

1. Pencils.
2. A flipchart, transparency, or handout with the figure of the Farmer's Land Sheet.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Provide each participant with a handout illustrating the shape of a piece of land (see following page).
2. Explain the task: To subdivide a farmer's property upon his death into four pieces of equal size and shape for distribution to his four offspring.
3. All land given to each offspring must be adjoining itself (e.g., it cannot be distributed piecemeal).
4. The following is the key.

1	1	2	2
1	3	3	2
4	3		
4	4		

Suggested Process Questions:

1. What previous experiences have you had that made it more difficult/easier for you to solve this problem?
2. What general problem type is this? What other problems are like this?
3. What general principle(s) could you invoke to aid you in solving future problems of a similar nature?

Source:

Adapted from N.R. F. Maier, Problem Solving and Creativity in Individuals ad Groups. (Belmont, CA: Brooks/Cole, 1970, pp. 96-97.

HIDDEN SQUARES EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Decision-Making

Goals

To encourage participants to dig deeper into problems, and visualize them from a different perspective; to see not only the whole, but also various combinations of parts to encourage creative thought.

Group Size

Any number of participants.

Time Required

Approximately 30 minutes.

Materials Required

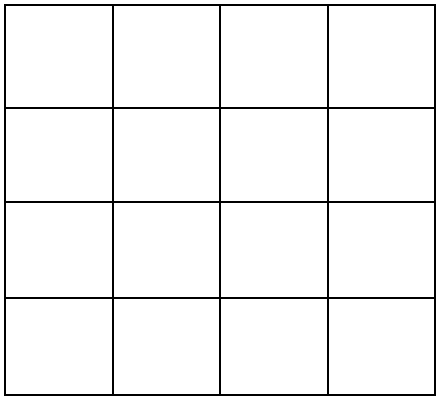
1. Pencils.
2. A flipchart, transparency, or handout with the figure of the Hidden Square's.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Participants are provided with a visual drawing of a large square, divided as shown below.
2. They are then directed to quickly count the total number of squares seen, and report that number orally.
3. Key: The correct answer is 30, developed as follows: 1 whole square, 16 individual squares, 9 squares of 4 units each, and 4 squares 9 units each.



Suggested Process Questions:

1. What factors prevent us from easily obtaining the correct answer? (We stop at the first answer, we work too fast)
2. How is this task like other problems we often face? (Many parts comprise the whole)
3. What can we learn from this illustration that can be generalized to other problems?

Source: Unknown

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: DECIDE Model

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the DECIDE Model.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 15 minutes. This assumes that the case study is read prior to the class. The 15 minutes time is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercises and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the case prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the topic of the DECIDE Model as it pertains to the questions asked.

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Decision-Making

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of decision-making on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. A copy of the *Who Rescues the Coast Guard*? video.
2. Pencil and paper for each participant.
3. Copy of the case study worksheet for each individual.

Physical Setting

A room large enough for individuals and groups to work without being distracted or overheard by others.

Process

1. Select and show an appropriate Decision-Making scenario. Instruct the students to take notes.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer questions regarding the mishap. Instruct them to stay focused on the questions asked.

TEAM COORDINATION TRAINING

LESSON: Communication

LESSON TIME: 1 Hour and 30 minutes

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

C. Text, Team Coordination Training Exercises and Case Studies

D. Video: *Who Rescues the Coast Guard*?

TERMINAL OBJECTIVE:

At the completion of the Communication Module the student shall be able to clearly and accurately send and acknowledge information, instructions, and commands; and provide useful feedback per the following list of objectives.

ENABLING OBJECTIVES:

1. Given a diagram of Shannon's model (or equivalent) of communications, the student will describe a minimum of 5 barriers to effective communications.

2. Given a diagram of Shannon's model (or equivalent) of communications, the student will describe how the following rules facilitate communication:

   - Organize and provide information when asked.

   - Repeat/feedback information to ensure communication is received accurately.

   - Use non-verbal communications appropriately.

3. Given a demonstration, the student will describe the elements of active listening and how it has either enhanced the success of the mission or could have prevented the mishap.

4. Given a demonstration, the student will send all of the information needed by a designated receiver, internal or external to the team, per the TCT technique.
5. Given a demonstration, the student will describe how keeping others informed of mission plans and changes may have either enhanced the success of the mission or avoided the mishap.

6. Given a demonstration, the student will describe how using proper orders and standard terminology may have either enhanced the success of the mission or avoided the mishap.

7. Given a demonstration, the student will describe how properly or improperly using volume, inflection, and pace (VIP) may have either enhanced the success of the mission or avoided the mishap.

EFFECTIVE COMMUNICATION

Instructional Outline

SCOPE

Communication is the process that permits us to effectively use the tools we have learned in the previous lessons. It is essential that team members communicate effectively at all times. Communication has been selected as a key lesson in Team Coordination Training to assist individuals and teams in reducing mishap potential through clear and effective communication.

LESSON OBJECTIVE

At the completion of the Communication Module the student shall be able to clearly and accurately send and acknowledge information, instructions, and commands; and provide useful feedback.

LESSON OVERVIEW

Critical areas of this lesson include:

- Effective ways to communicate.
- The communications model.
- Responsibilities of the sender and receiver.

EFFECTIVE COMMUNICATION

OBJECTIVES

To successfully complete this assignment, you must study the text and master the following objectives:

- Identify the parts of Shannon's communications model.
- State the barriers to effective communication.
- Define active listening.
- Describe how using proper orders and standard terminology may enhance safety and mission success.

DEFINITION

Communication is the process of exchanging information. Information is conveyed as words, tone of voice, and body language. Studies have shown that words account for 7 percent of the information communicated. Vocal tone accounts for 55 percent and body language accounts for 38 percent. To be effective communicators, team members must be aware of these forms, how to use them effectively, and barriers to the communications process.

Effective Ways To Communicate

The following actions have been observed in teams with effective communications skills.

- Acknowledge ("Roger") communications.
- Provide information in accordance with SOP's.
- Provide information when asked.
- Repeat, as necessary, to ensure communication is accurately received.

Effective Ways To Communicate (Cont.)

- Use standard terminology when communicating information.
- Request and provide clarification when needed.
- Ensure statements are direct and unambiguous.
- Inform the appropriate individuals when the mission or plans change.
- Communicate all information needed by those individuals or teams external to the team.
- Use nonverbal communication appropriately.
- Use proper order when communicating information.

PROCESS

To understand the complexity of the process and how it can be influenced, Figure 7-1 presents a communication model.

SHANNON'S COMMUNICATIONS MODEL

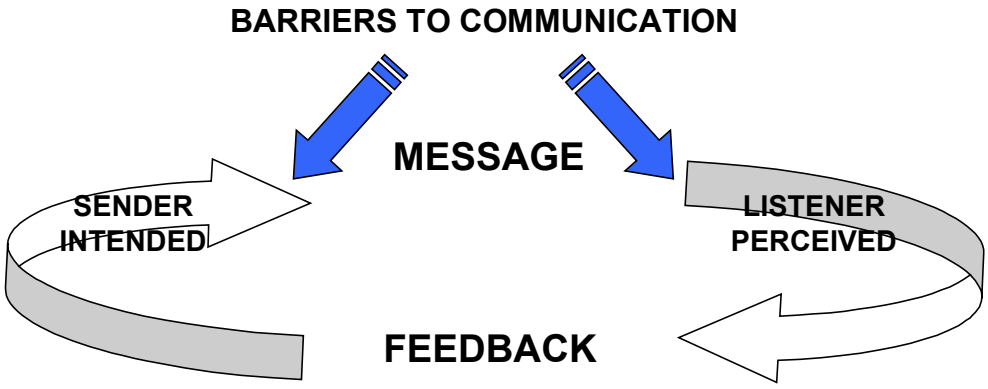


Figure 7-1

BARRIERS

Barriers are influencing factors which impede or breakdown the continuous communications loop. They block, distort, or alter the information. By identifying the barriers and applying countermeasures, team members can effectively communicate. Barriers include:

- Non-assertive behavior
- Task-preoccupation
- Anger or frustration
- Personal bias
- Team diversity
- Lack of confidence
- Inappropriate priorities
- Organizational structure
- Distractions
- Tunnel vision
- Interruptions
- Rank differences.

SENDER

Communications is a two-way process that starts with the sender. The sender should be conveying information necessary for mission accomplishment. The sender must be proactive in making the receiver understand the message. Too often, what is said is not always what is heard. To prevent this from happening, do the following:

- State one idea at a time.
- State ideas simply.
- Explain when appropriate.
- Repeat if appropriate.
- Encourage feedback.
- Read between the lines. Did your choice of words, tone of the sentence, and body language (intentional gestures or subconscious movements) convey the same meaning?

MESSAGE

The message is simply the information the sender wants to communicate to the receiver. The message is usually verbal, but it can also be non-verbal. To reduce potential problems, the sender should:

- Use correct terminology (standard commands).
- Speak clearly.
- Time the message to be sent when the receiver is able to listen.
- Use appropriate vocal tone and volume. Commands must be heard and perceived as an imperative, not a question or comment. *When breaking error chains, or returning others to situational awareness, express a tone of urgency and importance.*
- Be relevant to the receiver, not a distraction. *The message needs to be inclusive and informative. Inclusive means that it contains everything necessary for the receiver to understand the sender's point. Informational means it is something that the receiver needs to know.*

RECEIVER

The receiver needs information to accomplish his/her task. *The effectiveness of the team often rests on its members' ability to listen.* Unfortunately, most people find listening difficult.

The receiver must exert control over the communication process. For receivers to have control, it is important that they ensure that the senders understand what the receivers want and why they want it.

Example: Without the conning officer exerting positive control over the flow of information from the navigation evaluator and shipping officer, important information could be buried in the large amount of information that is periodically relayed during a transit in a congested waterway.

Active Listening

Active Listening is a process used by the receiver to facilitate communication and enhance performance. It requires the receiver to be active in the communications process. To actively listen, the receiver needs to:

- Focus attention on the message, giving it momentary priority. If possible, look at the sender.
- Listen and look for the indirect message content (nonverbal) as well as hearing the words. Observing non-verbal cues provides information regarding what the sender wants to convey. Your perception of the message and the sender's intent for the message may be different. Word choice, tone of voice, body position, gestures and eye movements reflect the feelings behind the spoken word.
- Keep an open mind and suspend judgment.
- Verify what was heard. Don't assume that your perception of the message agrees with the sender's intent. Provide the sender feedback.

MESSAGE FEEDBACK

Effective receivers verify their understanding of the message with the sender. They consider words, tone, and body language when they give feedback. Forms of feedback include:

- Acknowledgment.
- Parroting.
- Paraphrasing.

Acknowledging

"Rogering" a message is common courtesy. It demonstrates that the receiver has heard the message. However, for critical information or complicated ideas, acknowledgment normally is insufficient to ensure understanding.

Parroting

Parroting is repeating back verbatim the words of the speaker. It confirms to the speaker that the words transmitted were the words received. It is preferred in verifying receipt of standard commands. Like acknowledgement, it does not ensure the receiver understood the message.

Paraphrasing

Paraphrasing is rephrasing, in your own words, the content of the sender's message to the sender's satisfaction. It clarifies the message for both you and the sender. Paraphrasing allows you to check your understanding of the message and shows the sender, that you listened accurately (i.e., the content and intent was correctly understood). If you listened inaccurately, the sender has an opportunity to correct the communication error.

EFFECTIVE COMMUNICATION

Lesson Summary

LESSON OBJECTIVE

This lesson has prepared you to be able to clearly and accurately send and acknowledge information, instructions, and commands; and provide useful feedback.

LESSON OVERVIEW

The critical areas covered in this lesson have included:

- Effective ways to communicate.
- The communications model.
- Responsibilities of the sender and receiver.

APPLICATION

Because effective information processing is critical for teams it is essential that we learn to communicate effectively. Applying the principles found in this lesson can make you a more effective team member.

SELF-QUIZ #6

1. How is information conveyed?

_____

_____

_____

2. Which method of conveying information accounts for only 7% of the information actually conveyed? _____

3. What are the parts of the communications model?
   a. _____
   b. _____
   c. _____
   d. _____

4. Name three barriers to effective communication.
   a. _____
   b. _____
   c. _____

5. What is Active Listening?

_____

_____

_____

6. What is parroting?

_____

_____

7. What is paraphrasing?

_____

_____

_____

ANSWERS TO SELF-QUIZ #6

Question	Answer	Reference
1.	Information is conveyed as words, tone of voice, and body language.	7-4
2.	Words.	7-4
3.	a. Sender. b. Message. c. Receiver or listener. d. Feedback.	7-5
4	Identify three of the 12 barriers including: a. Non-assertive behavior. b. Task preoccupation. c. Anger or frustration.	7-6
5.	Active listening is the process used by the receiver to facilitate communication and enhance performance.	7-8
6.	Parroting is repeating back verbatim the words of the speaker.	7-9
7.	Paraphrasing is rephrasing, in your own words, the content of the sender's message to the sender's satisfaction.	7-9

EFFECTIVE COMMUNICATION

INSTRUCTOR LESSON PLAN #7

1. LESSON TITLE: Effective Communication

2. TIME: 1 hour and 30 minutes.

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 7-1 to 7-12
- Video Guidance: Pg. 7-30
- Exercise Guidance: Pg. 7-17, 7-19, 7-23, 7-25, 7-27
- Case Study Guidance: Pg. 7-29

B. Student Guide

- Lesson Material: Pg. 7-1 to 7-8

C. Team Coordination Training Exercises and Case Studies

- Case: Select an appropriate case
- Exercises:
    - Murder One Exercise: Pg. I-33 to I-44
    - Arithmetic Test Exercise: Pg. I-49
    - Ferry Boat Exercise: Pg. I-51
    - Communication Exercise: Pg. I-53 to I-54

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead slides

B. Team Coordination Training Exercises and Case Studies.

- Case: Select a case appropriate to the skill area you are presenting.
- Exercise: Select exercise and handouts as appropriate.

C. Video: "*Who Rescues the Coast Guard*?"

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

7. STUDENT STUDY ASSIGNMENTS:

A. If you use any case studies and want additional time in class, assign them as homework.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Communications and its affect on safety and mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of poor communications that could have, or did lead to a mishap.
- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and exercise approach. You must select the most appropriate method based on your experience and the experience of the group.

(3) We have provided you with videos and different cases and exercises. To be effective do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select one of the following approaches to reinforce learning.

(1) Communications Exercise. To process this exercise reproduce the exercise from the *Team Coordination Training Exercises and Case Studies* text pages I-53 and I-54 and follow the exercise guidance on page 7-17 or;

(2) Use one of the other exercises that have been provided. Guidance for presenting the exercises may be found on pg. 7-19 to 7-27 of this text. If student handouts are required, they may be found in the *Team Coordination Training Exercises and Case Studies* text.

(3) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 7-29 of this text.

(4) Video: Select one of the Communications scenarios. Scenarios are indexed on Pg. II-4 of *the Team Coordination Training Exercises and Case Studies* text. Reproduce the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text and distribute to each individual. Follow the video guidance on page 7-30 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but also to their jobs. You are a facilitator, the tools you have been provided with in this Team Coordination Training Instructor Guide include the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes. You will notice that in this manual *you have not been provided with a script of what to say or a description of how the concepts presented in each module integrate with one another*. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS:

A. Sender - Gives guidance in how to effectively package information.

B. Message - Gives guidance in how to effectively transmit information.

C. Active Listening - Gives guidance on how to prepare oneself to receive a message, so that information is clearly understood.

D. Feedback - Used to ensure the message is properly received.

10. ROADBLOCKS:

A. Soft Skills - Many people view communications as a soft skill and are not comfortable asking for or receiving feedback.

B. Personality - Introverts inherently communicate less than extroverts do.

11. LESSON CONCLUSION: Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

COMMUNICATIONS EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Communication

Goals

1. To demonstrate the different ways in which individuals communicate.
2. To look at the inhibitors to the communication process.

Group Size

Unlimited.

Time Required

Approximately 20 minutes.

Materials Required

1. A. A reproduction of Diagram 1 and 2 for the demonstrator.
2. A pencil for each participant.

Physical Setting

Participants should be seated facing the demonstrator, but in such a way that it will be difficult, to see each other's drawings.

Process

1. Select a demonstrator. Explain to the group that the demonstrator will give them directions for drawing a series of squares. Participants are instructed to draw the squares exactly as the demonstrator tells them.
2. Participants may neither ask questions nor give audible responses during the first drawing.
3. Have the demonstrator turn his/her back to the group, then give the group drawing instructions.
4. When the group has completed Diagram 1, explain that: (1) they will now draw Diagram 2, and that (2) they can ask questions if needed.
5. Again have the demonstrator turn around and give the drawing instructions. This time allow the group to ask questions and allow the demonstrator to answer them.

Suggested Process Questions:

1. **Why were you unable to draw Diagram 1 correctly?**

   (RECOMMENDED RESPONSE: The message probably came to you in a form that was difficult to understand [i.e. ideas not stated simply, more than one idea at a time, no feedback permitted]. These factors make it difficult to follow the sender and draw the figure).

2. **Why was it easier the second time?**

   (RECOMMENDED RESPONSE: Feedback allows us to clarify the message and fill in the missing pieces and clear up the confusion).

3. **How can we apply the lessons from this exercise to the real world?**

   (RECOMMENDED RESPONSE: Ensure that you use feedback).

MURDER ONE EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Communication

Goals

1. To explore the effects of cooperation-collaboration verses competition in group problem solving.
2. To demonstrate the need for information sharing and other problem-solving strategies in a task-oriented group.
3. To study the roles that emerge in a task group.

Group Size

At least two groups of 5 members each.

Time Required

Approximately one and one-half hours.

Materials Required

1. A copy of the Murder One Instruction Sheet for each participant.
2. A copy of the Murder One Suspect Data sheet for each participant.
3. One set of' Murder One Briefing Sheets for each group, a different sheet for each member. Each of' the five sheets is coded by the number of dots, ranging from one to five, at the end of the first and last paragraphs. Each sheet contains data that is not found on another sheet in that set.
4. Blank paper and a pencil for each participant.
5. A Murder One Solution Sheet for each participant.

Physical Setting

A room large enough for groups to meet simultaneously without disturbing each other or overhearing each other's solutions to the problem. Each group should have a table and chairs at which the members may work. An alternative is to have a separate room for each group, in which it can work during the problem-solving phase.

Process

1. The facilitator introduces the activity as a group problem-solving task. (He does not discuss at this time the need to share information.)
2. The facilitator divides the participants into groups of five members each. If' there are four or less participants remaining, they may serve as process observers.
3. The facilitator explains that each group's task is to decide who is the suspect to be arrested on a charge of first-degree murder. He indicates that there is only one correct solution to the problem and that each group is to reach its decision independent of' the other groups. He also says that when a group completes the task, its members may observe other groups still in process, but they may not interfere with or join the other group in any way.
4. The facilitator distributes a Murder One Instruction Sheet, Briefing Sheet, and Suspect Data Sheet, as well as paper and a pencil to each participant. He takes care to see that each member of a group has received a different Briefing Sheet (with a different number of dots following the first and last paragraphs).
5. The facilitator may privately brief any process consultants on what to look for during the group process. They are instructed to intervene as they deem necessary to help a group to clarify its process, and they are told not to participate in the group's discussion of the content. The facilitator then tells the groups that they have forty-five minutes in which to solve the problem and that they are to record their reasons for eliminating each suspect. He gives the signal to begin.
6. When all groups have reached a decision, or at the end of forty-five minutes, the entire group is reassembled. Each group reports on its solution and the facilitator may briefly outline the elimination process on paper. Then the Murder One Solution Sheets are distributed and explained.
7. The facilitator then leads a discussion of the experience, focusing on the effects of collaboration and competition, the need to share information in problem solving, the roles that were played by group members, and other task-related strategies or group dynamics.

Suggested Process Questions:

1. **Did you determine that there was different information on the sheets?**

   (RECOMMENDED RESPONSE: This is a group problem. If we do not work together as a group and discuss the problem, it is unlikely that we will determine that each person has different information.)

2. **How did you cross-level information once you determined that each person had different information.**

   (RECOMMENDED RESPONSE: While there are a number of ways available, the most efficient way is for one person to read aloud their data sheet while the other group members follow along by reading their own. When a discrepancy is identified, all group members add the new information to their own sheet.)

3. **Did everyone actively participate? If not, why?**

   (RECOMMENDED RESPONSE: Since everyone has different information, there is no way to successfully complete the exercise unless everyone participates.)

4. **How can what you learned from this exercise be applied to your job?**

   (RECOMMENDED RESPONSE: Critical information can come from the most unlikely source. If the all team members are not actively sharing information, critical information may be lost.)

Source:

Adapted from Structured Experience Kit, J. William Pfeiffer and John E. Jones San Diego, CA: UNIVERSITY ASSOCIATES, Inc., 1980

MURDER ONE SOLUTION SHEET

Note: Items printed in bold face italics indicate why the suspect could not have committed the murder. Everyone is eliminated except . . .

Name	Height	Weight	Age	Blood Type	Occupation at 7 p.m. (free to make phone call)	Occupation at 10 p.m. (free to commit murder)
Viron, Benjamin ("Benjie")	***5'4"***	220	49	B	Unknown	Unknown
Enopac, Alphonse ("Jumbo")	5'7"	245	52	***A***	Unknown	Unknown
Ollag, Joseph ("Chills")	5'7½"	***180***	52	***A***	Near social club	Unknown
Phelps, James ("Digger")	5'7"	210	52	B	***Conducting union meeting***	Unknown
Sutter, Edward ("Blue Eyes")	5'7"	240	51	B	Near social club	Unknown
Lagas, Franklin ("Hot Dog")	5'7"	235	50	B	Near off-track betting office	***In custody of Joint Task Force***
Aifam, George ("Gypsy")	5'7½"	245	***39***	B	Near off-track betting office	Unknown

ARITHMETIC TEST INSTRUCTOR GUIDANCE

Suitable Skill Area: Communication

Goals

To demonstrate that people do not always read or follow even simple, written directions.

Group Size

Any number of participants.

Time Required

Approximately 30 minutes.

Materials Required

1. Pencils.
2. Copy of the Arithmetic Test Worksheet for each participant. This is located on page 79 of the Team Coordination Training Exercises & Case Studies text.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. This is a one-page "test." Preface your instructions by commenting that the test is a very simple one involving easy addition, subtraction, multiplication, and division problems.
2. Pass the papers out face down. Then state, "As soon as I say 'Go', turn your papers over and work as fast as you possibly can. As soon as you finish, turn your papers back over, and raise your right hand in the air. Ready - Set - Go!"
3. Make certain your instructions are given hurriedly and allow no time for questions. Give the impression that time is very tight and they must rush this assignment.
4. Allow only around 30 seconds, and then interrupt, saying, "OK, I see most of you are finished, so let's check our answers." Pause. "The answer to

number 1, of course, is what?" (Note: Experience indicates that at least half of the audience will respond.) Acknowledge that "10" is correct, even though one or two people will correctly give the answer as "16."

5. Continue, "OK, the answer to number 2 is what?" After one or two more responses, demonstrate that there are different answers and ask the group, "Did you all get the same sheet?" Then let the group itself discover their problem by reading the directions to themselves.

Suggested Process Questions:

1. Remember the saying, "If all else fails, read the directions"? Why didn't we do so here? (Pressed for time; saw familiar problems).
2. Have you ever seen incidents where poorly given or rushed instructions may be worse than none at all?
3. Did anyone experience group pressure when you began to start this exercise? What effects did this have on your performance?

Source: Unknown

LISTENING EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Communication

Goals

To demonstrate that most adults listen at about a 25% level of efficiency.

Group Size

Any number of participants.

Time Required

Approximately 30 minutes.

Materials Required

1. Pencils.
2. Story from a newspaper.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Clip a story from a newspaper or magazine that is approximately two or three paragraphs long. With absolutely no introduction, casually mention to your group, "...some of you probably saw the item in the paper the other day," and read aloud the entire two to three paragraphs.
2. When finished, you will see a room of either bored or disinterested faces. Pull out a dollar bill and state, "OK, I've got a few questions for you based on the story you just heard, and whoever gets them all right wins this dollar."
3. Read eight to ten prepared questions (i.e., names, dates, places, etc.). In all likelihood, not one person will be able to answer all questions correctly.

Suggested Process Questions:

1. You all heard that story, yet few could remember very much about it. Why? (Disinterest, no objective, no advance reward)
2. Why didn't we listen? Is this typical? What can we do to sharpen our listening skills? (See paragraph 4 for a list of common suggestions)
3. If I had told you initially you could win some money, would you have listened more attentively? Why? How can we ensure better listening without monetary rewards)?
4. Cover the Guides to Good Listening:
    - Find an area of interest
    - Judge content, not delivery
    - Delay evaluation
    - Listen for ideas
    - Be flexible
    - Actively work at listening
    - Resist distractions
    - Exercise your mind
    - Keep your mind open
    - Capitalize on thought speed

Source: Unknown

FERRY BOAT EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Communication

Goals

To demonstrate the effectiveness of two-way communications (feedback) over one-way communication.

Group Size

Any size group. Three individuals are selected from the group.

Time Required

Approximately 30 minutes.

Materials Required

A copy of the Ferry boat Story evaluation sheet for each participant.

Physical Setting

A room large enough for all participants.

Process

1. Select three volunteers from the class, and have them temporarily leave the room.
2. Hand out the Ferry boat story fact sheets to the other members of the class. Explain to the class their evaluator role, as described in the exercise procedures below:

   A. One of three students who left the room will be brought back in. The instructor will read the story once slowly, then ask him/her to repeat it. If necessary, the instructor can repeat the story to the test subject, but should not read it aloud more than twice. Each student from the class evaluates the test subject on how well he/she remembers the details of the story by checking off the appropriate facts that are mentioned, and documents the total number of facts (1 - 16 from the sheet) on the bottom of their sheets. The instructor records the score on the board.

   B. After the first subject is evaluated, the second of the three test subjects comes into the classroom. The first subject tells everything that he/she

can remember of the story to the second subject only once. The second subject then repeats all the details he/she can remember from the story to the class, and the class evaluates him/her in the same manner as before. The instructor records the score on the board.

C. Finally, the last test subject returns to the classroom, and the second subject tells everything that he/she can remember of the story to the third subject only once. The last subject then repeats all the details he/she can remember from the story to the class, and the class evaluates him/her in the same manner as before. The instructor records the score on the board.

D. The instructor then leads a discussion with the class, comparing the results for each subject, and collecting feedback from the students on why they thought each subject scored as they did. An average score for items comprehended from the list is 6-8.

E. This exercise shows the effectiveness of two-way communications (feedback) over one-way communications.

Suggested Process Questions:

1. What factors prevent us from easily obtaining the correct answer? (We stop at the first answer, we work too fast)
2. How is this task like other problems we often face? (Many parts comprise the whole)
3. What can we learn from this illustration that can be a to other problems?

Source: Unknown

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: Communications

Goals

1. To study an accident relevant to your operations.
2. To study the roles that communication plays in the mishap.
3. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 30 minutes. This assumes that the case study is read prior to the class. The 30 minutes time is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercises and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the case prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the topic of communication as it pertains to the questions asked.

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Communication

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of communications on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. A copy of the *Who Rescues the Coast Guard*?
2. Pencil and paper for each participant.
3. Copy of the case study worksheet for each individual.

Physical Setting

A room large enough for individuals and groups to work without being distracted or overheard by others.

Process

1. Select and show an appropriate Communications video. Instruct the students to take notes.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer questions regarding the mishap. Instruct them to stay focused on the questions asked.

TEAM COORDINATION TRAINING

LESSON: **Assertiveness**

LESSON TIME: 1 hour and 30 minutes.

REQUIRED MATERIALS:

A. Instructor Guide

B. Instructor's Guide Addendum

C. Text, Team Coordination Training Exercises and Case Studies

D. Video: *Who Rescues the Coast Guard?*

TERMINAL OBJECTIVE:

At the completion of the Assertiveness Module, the students shall be actively participating, stating and maintaining a position until convinced by the facts (not the authority or personality of another) that their position is wrong, and taking action when necessary.

ENABLING OBJECTIVES:

1. Given a demonstration, the student states the ground rules as to when to use the assertive statement and the components that make up the statement.

2. During a demonstration, the student identifies when to speak up and what to say.

3. Given a demonstration, the student describes how asking for assistance when overloaded or having difficulty with a task could have avoided the mishap.

4. Given a demonstration, the student describes how confronting ambiguities and conflicts could have avoided the mishap.

5. Given a demonstration, the student describes how rank differences influenced team member's judgment and contributed to the mishap.

6. Given a demonstration, the student describes how maintaining a position until convinced by facts could have avoided the mishap.

ASSERTIVENESS

Instructional Outline

SCOPE

Assertive behavior is the most effective way of passing critical information and confronting human error that can affect safety and mission accomplishment. The Assertiveness Module of Team Coordination Training assists individuals in communicating effectively.

LESSON OBJECTIVE

At the completion of the Assertiveness Module, the students shall be actively participating, stating and maintaining a position until convinced by the facts (not the authority or personality of another) that their position is wrong, and taking action when necessary.

LESSON OVERVIEW

Critical areas of this lesson include:

- The rights of team members.
- Knowing when to speak up.
- Knowing what to say.
- Expected behavior of effective team members.
- Resolving conflict.

ASSERTIVENESS

OBJECTIVES

To successfully complete this assignment, you must study the text and master the following objectives:

- State the components of an assertive statement.
- Describe how to ask for assistance when overloaded or having difficulty with a task.
- Describe how confronting ambiguities and conflicts could have avoided a mishap.
- Describe how rank differences can influence team member's judgment and contribute to mishaps.
- Describe how maintaining a position until convinced by facts can avoid mishaps.

DEFINITION

Assertiveness is the ability of team members to state and maintain a position that may be counter to the position of others, until convinced by the facts, not the authority or personality of another, that their position is wrong. The effective team leader advocates open and questioning communication by team members. In their interactions, effective team members are mutually respectful to each other.

ACHIEVING ASSERTIVENESS

Assertiveness can be achieved if all people know they have "rights" and act accordingly. These rights are:

- The right to have and express your own ideas and feelings.
- The right to be listened to and taken seriously.
- The right to be treated with respect.
- The right to ask for information from others.
- The right to make mistakes.

HOW PEOPLE BEHAVE

How we interact with people aboard the vessel can be grouped into three behavioral styles:

- Passive
- Aggressive
- Assertive

PASSIVE BEHAVIOR

When people *allow their ideas or rights to be restricted by another individual or situation*, they are behaving passively. Actions that indicate passive behavior are:

- Use excessive professional courtesy.
- Use ambiguous statements and beat around the bush.
- Express concerns in the form of a question, rather than making a statement.
- Avoid conflict.
- Refrain from challenging questionable procedures used by another team member.
- Are labeled as, "along for the ride".

Passive Mannerisms

Mannerisms demonstrated by passive people include downcast eyes, shifting of weight, and slumped body. Passive words include qualifiers such as "maybe", "I guess", "would you mind if", "only", "just", "I can't", "if that's what you want."

Problems With Passive Behavior

These people tend to keep their feelings inside. Their emotions, such as fear, anxiety, depression, fatigue and nervousness may build to unsafe levels.

AGGRESSIVE BEHAVIOR

When someone *invades another's boundaries or individual rights*, that person is behaving aggressively. The intention of aggressive people is to dominate others to get their own way. Actions that indicate aggressive behavior include:

- Use statements that are confrontational, abusive, ridiculing, or hostile.
- Belittle and intimidate others to build themselves up.

Aggressive Mannerisms

Mannerisms demonstrated by aggressive people include leaning forward with glaring eyes, pointing a finger, and a raised tone of voice. Aggressive words include threats like, "you'd better" and "if you don't watch out." Sarcasm and put-downs like "oh, come on, you must be kidding" and evaluative comments like "should", "bad", and "must" are also aggressive characteristics.

Problems With Aggressive Behavior

Inappropriate anger, rage or misplaced hostility expresses aggressive responses. This behavior restricts communication within the team. Cohesiveness and synergy becomes difficult.

ASSERTIVE BEHAVIOR

Assertive people *recognize boundaries between their ideas and those of others*. People responding assertively are aware of their feelings. Tensions are kept in a normal, constructive, and situationally appropriate range. Actions that indicate assertive behavior include:

- Ask task-related questions.
- Suggest alternative solutions/courses of action.
- State opinions of decisions/procedures that have been suggested.
- Avoid letting rank differences threaten mission safety or performance (refuse an unreasonable request).
- Maintain their position when challenged, until convinced by facts.
- Confront ambiguities and conflicts.
- Ask for assistance when overloaded or having difficulty with a task.

Assertive Mannerisms

Assertive people stand comfortably, but firmly, and speak in a steady tone of voice. Assertive words include statements reflecting responsibility for self, "I think", "I feel", "I want," and cooperative words such as, "let's see, how can we resolve this," "what do you think", and "what do you see."

Problems With Assertive Behavior

Assertive people feel empowered to speak up and do it with respect. The team leader must be able to harness the energy of assertive team members.

HARNESSING ASSERTIVENESS

The team leader must promote and control the assertive behavior within the team. Being assertive is *not* in conflict with USCG culture. We have empowered our people to speak up! Empowering team members with the responsibility of overall team performance, encouraging feedback to trap errors and poor judgments can be highly productive and at times very challenging. The team leader should set down select rules. These rules include:

- When to speak up.
- How to speak up.

When To Speak Up

The team leader ensures all members understand that they have the responsibility to speak up. A good time to accomplish this is during the briefing process. Individuals should speak up when:

- Unsure of the events.
- Clearly believe they have the answer to a problem or the situation.
- Believe that they or the vessel are in danger.

Leader Strategy: *Effective team leaders reward assertive behavior by acknowledging it in their team.*

The **Two-Challenge Rule** (Chapter 5) may be used as a tool for knowing when to speak up. This rule is best applied between peers or within the command team (i.e. CO and XO). Concurrence, on how the Two Challenge Rule will be used, needs to be obtained before it is ever used.

What To Say

Informative and inclusive messages enhance team performance and often are critical to mission safety. These messages provide key information about the situation and its risks, the effectiveness of decisions and observed errors. This information must be clearly and precisely conveyed, and well timed. To facilitate this communication, it should have all of these elements:

1. An Opening.
2. A Specific Concern.
3. A Problem Statement.
4. A Solution.
5. A Request for Feedback.

MESSAGE FORMAT	SAMPLE MESSAGE
Opening:	OOD,
Specific concern using an owned emotion:	QMOW is VERY CONCERNED.
Problem Statement:	We have FIVE FEET under the keel, and it is shoaling.
Solution, if any:	Good water is to port. Recommend come left 30° to 270°T.
Request for feedback:	Do you suggest we call the CO?

Remember your ABCs...
Be ACCURATE, BOLD, and CONCISE!

CONFLICT: Differences Of Opinion

Conflict should be viewed as "differences in opinions," not fights or arguments regarding an issue. Unresolved conflict between team members can lead to reduced communications, distractions, and higher than normal levels of stress. In short, unresolved conflict leads to unsafe conditions.

DEALING WITH CONFLICT

The ways of dealing with our differences are related to our behavioral styles and are as follows:

- Passive Approach
  - Avoid
  - Accommodate
  - Suppress
- Aggressive Approach
  - Force
- Assertive Approach
  - Collaborate & Integrate

Effective Conflict Resolution

Effective resolution of conflicting opinions requires us to perceive *all positions as modifiable and to focus on solutions*, not on defending positions. It is imperative that the team leader resolves any lingering conflicts before they affect safe vessel operations.

FACTORS AFFECTING ASSERTIVE BEHAVIOR

Two factors have been identified that influence our decision to "speak up" or be assertive.

1. Our perception of the reaction of others to the situation and,
2. Perceived obedience to authority

Generally, in a group setting, if we see something wrong we first look at how others are reacting before we speak up. When we look at the reaction of others, we are checking to see if they appear concerned with the situation. If we find that others do not appear concerned then we will probably be reluctant to speak up.

We may also not "speak up" because we believe we are just following orders or that speaking up would represent questioning authority.

Team leaders can reduce these barriers by ensuring that team members understand that assertive behavior is demanded of all personnel. Junior members must be confident that senior leadership has empowered them to speak up, without fear of reprisal.

MAINTAINING ASSERTIVENESS; Alert To Barriers

Mutual respect and restraint promotes assertive behavior. However, miscommunication, misperception and other factors can create barriers. All team members must be aware of these potential barriers and share the responsibility of eliminating them. These barriers include:

- Lack of confidence in ones own ability.
- Perception that someone is not approachable; or by his/her position, rank, or knowledge should already know what is happening.

MAINTAINING ASSERTIVENESS; Alert To Barriers (Cont.)

- Perception that the leader is not interested in input. Conscientious leaders, in trying to promote assertive behavior, may do just the opposite. Be careful in how you ask for input; "*Read between the lines!*"

  Example: After the navigation brief the CO asked the assembled if, "any of you have any better ideas". Not surprisingly, no one had an idea better than their boss did.

- Fear of the answer; maybe the problem will go away.
- Fear of reprisal if a junior challenges a senior team member.
- Desire to avoid conflict and the perceived obedience to authority.

LESSON SUMMARY

LESSON OBJECTIVE

This lesson has prepared you to actively participate, state and maintain a position until convinced by the facts (not the authority or personality of another) that their position is wrong, and take action when necessary.

LESSON OVERVIEW

The critical areas covered in this lesson have included:

- The rights of team members.
- Knowing when to speak up.
- Knowing what to say.
- Expected behavior of effective team members
- Resolving conflict.

APPLICATION

Because team members have shared responsibility for team performance and may see things that others do not see, we must insist on assertive behavior. When individuals learn it is okay to speak up and how to effectively approach people, operations will be safer.

SELF-QUIZ #7

1. What is assertiveness?

_____
_____
_____
_____
_____

2. Describe passive behavior.

_____
_____

3. Describe aggressive behavior.

_____
_____
_____

4. Describe assertive behavior.

_____
_____

5. Name the five parts of an assertive message
   a. _____
   b. _____
   c. _____
   d. _____

6. What are the barriers to assertive behavior?
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____

ANSWERS TO SELF-QUIZ #7

1.	Assertiveness is the ability of team members to state and maintain a position that may be counter to the position of others, until convinced by the facts, not the authority or personality of another, that their position as wrong.	8-4
2.	When people allow their ideas or rights to be restricted by another individual or situation.	8-5
3.	When someone invades another's boundaries or individual rights, that person is behaving aggressively.	8-6
4.	Assertive people recognize boundaries between their ideas and those of others.	8-7
5.	a. An opening. b. A specific concern. c. A problem statement. d. A solution. e. e. A request for feedback.	8-9
6.	a. Lack of confidence in ones own ability. b. Perception that someone is not approachable; or by his/her position, rank, or knowledge should already know what is happening. c. Perception that the leader is not really interested in input. d. Fear of the answer; maybe the problem will go away. e. Fear of reprisal if a junior challenges a senior team member. f. Desire to avoid conflict.	8-11

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ASSERTIVENESS

INSTRUCTOR LESSON PLAN #8

1. LESSON TITLE: Assertiveness

2. TIME: 1 hour and 30 minutes.

3. INSTRUCTOR NOTES:

A. Approach the course as a facilitator, not an instructor. Encourage student participation by asking questions or requesting personal stories to illustrate Tools, Roadblocks, or Principles.

B. The more the students get involved, the more meaningful the course will be. Since not all people volunteer to speak publicly, encourage participation by requiring a short "close call" story from everyone (if time allows). Also, enforce a mix of different team members at each table.

C. Use your own experiences or knowledge of mishaps to illustrate concepts. Maximize the use of Coast Guard mishaps.

D. Breaks are essential to avoid class burnout. However, if a good discussion has been started, do not interrupt it for a scheduled break. Adjust break times according to the "flow" of the class, ensuring that periods between breaks are not too long.

E. In addition to demonstrating concepts, use class exercises (games) to liven up the class, break tension, or get them going again after lunch.

4. REFERENCES:

A. Instructor Guide

- Lesson Material: Pg. 8-1 to 8-15
- Video Guidance: Pg. 8-27
- Exercise Guidance: 8-21
- Case Study Guidance: Pg. 8-26

B. Student Guide

- Lesson Material: Pg. 8-1 to 8-12

C. Text, *Team Coordination Training Exercises and Case Studies*

- Exercise: Broken Squares Exercise, Pg. I-55
- Case: Select an appropriate case

D. Instructor's Guide Addendum

- Auxiliary Curriculum Outline: Pg. 28

5. EQUIPMENT NEEDED:

A. Overhead projector with screen.

B. Room large enough to allow group work.

6. TRAINING AIDS NEEDED:

A. Instructor Guide

- Overhead slides

B. Team Coordination Training Exercises and Case Studies

- Case: Select a case appropriate to the skill area you are presenting.
- Exercise: I-55

C. Video: *Who Rescues the Coast Guard?*

D. Instructor's Guide Addendum

- Auxilary Curriculum Outline: Pg. 28

7. STUDENT STUDY ASSIGNMENTS:

A. If you use any case studies and want additional time in class, assign them as homework.

8. MODULE AGENDA

A. LESSON INTRODUCTION:

(1) Motivation: Explain the importance of Assertiveness and its affect on mission accomplishment. Use an anecdote from your personal experience to do this.

(2) Communicating the Training Objectives:

- Ask the students for a few brief examples of how a lack of assertiveness could have, or did lead to a mishap.

- Review the Terminal and Enabling Objectives for this lesson. Tie in the examples the students used with the appropriate learning objective.

B. LESSON BODY:

(1) Cover the lesson material prepared for you in this section.

(2) As you cover this material you should mix the lecture, discussion, case study, and exercise approach. You must select the most appropriate method based on your experience and the experience of the group.

(3) We have provided you with videos and different cases and exercises. To be effective do not repeat the same approach in recurrent training.

C. CASE STUDY/EXERCISE APPROACHES: Based on time constraints and previous training provided on this module, select a case study to reinforce learning.

(1) Case Study: Select an appropriate case study from those included in the *Team Coordination Training Exercises and Case Studies* text. Case studies are keyed to specific skill areas and vessel communities. Reproduce the case and case study worksheet from the *Team Coordination Training Exercises and Case Studies* text. Follow the case study guidance on page 8-26 of this text.

(2) Broken Squares Exercise: To process this exercise reproduce the exercise on Pg. I-55 of the *Team Coordination Training Exercises and Case Studies* text and follow the exercise guidance on page 8-21 of this text.

(3) Video: Select one of the Assertiveness scenarios. Scenarios are indexed on Pg. II-4 of *the Team Coordination Training Exercises and Case Studies* text. Reproduce the case study worksheet from the *Team Coordination Training Exercises and Case Studies* text and distribute to each individual. Follow the video guidance on page 8-27 of this text.

WARNING: READ THE NEXT SECTION CAREFULLY

D. APPLICATION: The application process is accomplished by using the recommended cases/exercises in C above. The objective for a facilitator is to ensure that the students can apply the concepts, not only to the cases and exercises, but also to their jobs. You are a facilitator, the tools you have been provided with in this Team Coordination Training Instructor

Guide include the module outline, lesson material, lesson summary, instructor lesson plan, and case study/exercise instructor notes.

You will notice that in this manual *you have not been provided with a script of what to say or described how the concepts presented in each module integrate with one another*. If we did this it would be our course, not yours. As you facilitate groups you will become more and more familiar with the material. In practice during your facilitator training course, you will be able to develop an individual lesson plan that fits your style. Each of the exercise process sheets following this section includes information on the application of the concepts and some basic linkages.

9. TOOLS:

A. Styles of Communication - Used to make individuals aware of different behaviors, and which are expected.

B. When and How To Speak Up - Provides guidance to individuals on how to communicate critical information effectively.

C. Conflict Resolution Styles - Used to modify an opinion and focus on solutions, not defend a position.

10. ROADBLOCKS:

A. Perceptions - Many individuals think that assertive communication is challenging authority. Assertive individuals are only providing information, not challenging.

B. Experience/Position/Rank/Status - Each of these are roadblocks to assertiveness. Open communications depend on a top-down advocacy of team member rights to speak up.

C. Aggressive Individuals - Any communications with aggressive individuals can be difficult. Keep emotions in check.

D. Personality - Introverts inherently communicate less than extroverts do.

11. LESSON CONCLUSION: Review the learning objectives and summarize by having the students give some examples of how they will apply what they have learned in this module.

BROKEN SQUARES EXERCISE INSTRUCTOR GUIDANCE

Suitable Skill Area: Assertiveness
Communication

Goals

1. To analyze some aspects of cooperation in solving a group problem.
2. To sensitize participants to behaviors which may contribute toward or obstruct the solving of a group problem.

Group Size

Any number of groups of six participants each There are five participants and an observer/judge in each group.

Time Required

Approximately 45 minutes.

Materials Required

1. A set of broken squares (prepared according to directions following) for each group of five participants.
2. One copy for each group of the Broken Squares Group Instruction Sheet.
3. One copy for each observer of the Broken Squares Observer/Judge Instruction Sheet.

Physical Setting

A table that will seat five participants is needed for each group. Tables should be spaced far enough apart so that no group can see the puzzle-solving results of other groups.

Process

1. The facilitator begins with a discussion of the meaning of cooperation; this should lead to hypotheses about what is essential to successful group cooperation in problem solving. The facilitator indicates that the group will conduct all experiment to test these hypotheses. Points such as the following are likely to emerge:
    a. Each individual should understand the total problem.

b. Each individual should understand how he can contribute toward solving the problem.

c. Each individual should be aware of the potential contributions of other individuals.

d. There is a need to recognize the problems of other individuals in order to aid them in making their maximum contribution.

2. Groups that pay attention to their own problem-solving processes are likely to be more effective than groups that do not. The facilitator forms groups of five participants plus the observer/judge. These observers are each given a copy of the Broken Squares Observer/Judge Instruction Sheet. The facilitator then asks each group to distribute among its members the set of' broken squares (five envelopes). The envelopes are to remain unopened until the signal to begin work is given.

3. The facilitator gives to each group a copy of the Broken Squares Group Instruction Sheet. The facilitator reads these instructions to the group, calling for questions or questioning groups about their understanding of' the instructions.

4. He then tells the groups to begin work. It is important that the facilitator monitor tables during the exercise to enforce rules established in the instructions.

5. When all groups have completed the task, the facilitator engages the groups in it discussion of' the experience. Observations are solicited from observers/judges. The facilitator encourages the groups to relate this experience to their "back-home" situations.

Suggested Process Questions:

1. What factors prevent us from easily obtaining the correct answer? (We stop at the first answer, we work too fast)

2. How is this task like other problems we often face? (Many parts comprise the whole)

3. What can we learn from this illustration that can be a to other problems?

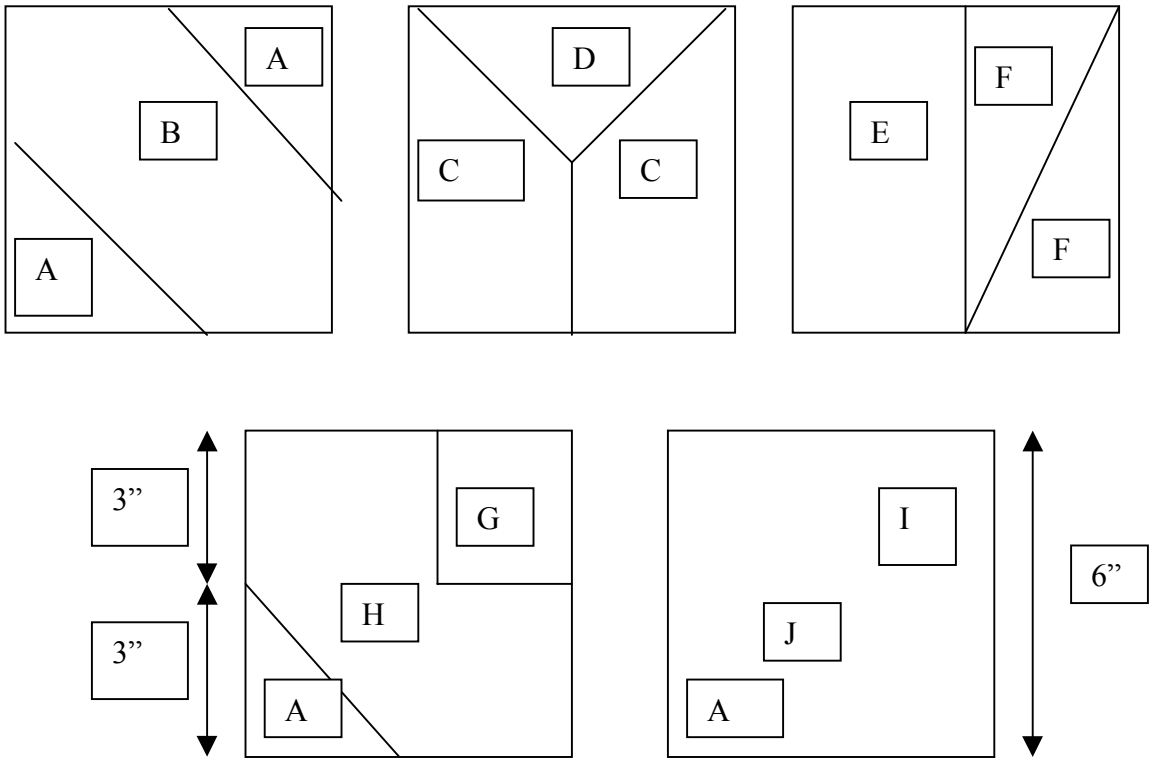
Source:

University Associates, Inc. San Diego, CA. Structured Experience Kit © 1980 International Authors B.V.

DIRECTIONS FOR MAKING A SET OF BROKEN SQUARES

1. A set consists of five envelopes containing pieces of cardboard cut into different patterns which, when properly arranged, will form five squares of equal size. One set should be provided for each group of five persons.

2. To prepare a set, cut out five cardboard squares, each exactly 6” x 6". Place the squares in a row and mark them as below, penciling the letters lightly so they can be erased.



3. The lines should be so drawn that, when the pieces are cut out, those marked A, will be exactly the same size, all pieces marked C the same size, etc. Several combinations are possible that will form one or two squares, but only one combination will form all five squares, each 6' x 6". After drawing the lines on the squares and labeling the sections with letters, cut each, square along the lines into smaller pieces to make the parts of the puzzle.

4. Label the five envelopes 1, 2, 3, 4, and 5. Distribute the cardboard pieces into tile five envelopes as follows: envelope 1 has pieces 1, H, E; 2 has A. A, A, C; 3 has A. J; 4 has D, F; and 5 has G, B, F, C.

5. Erase the penciled letter from each piece and write, instead the number of the envelope it is in. This makes it easy to return the pieces to the proper envelope for subsequent use, after a group has completed the task.

6. Each set may be made from a different color of cardboard.

BROKEN SQUARES OBSERVER/JUDGE INSTRUCTION SHEET

Your job is part observer and part judge. As a judge, you shouldmake sure each participant observes the following rules:

1. There is to be no talking, pointing, or any other kind of communicating.
2. Participants may give pieces directly to other participants but may not take pieces from other members.
3. Participants may not place their pieces into the centers for others to take.
4. It is permissible for a member to give away all the pieces to his puzzle, even if he has already formed a square.

As an observer, look for the following:

1. Who is willing to give away pieces of the puzzle?
2. Does anyone finish "his" puzzle and then withdraw from the group problem solving?
3. Is there anyone who continually struggles with his pieces, yet is unwilling to give any or all of them away?
4. How many people are actively engaged in putting the pieces together?
5. What is the level of frustration and anxiet?
6. Is there any turning point at which the group begins to cooperate?
7. Does anyone try to violate the rules by talking or pointing as a means of helping fellow members solve the problem?

CASE STUDY INSTRUCTOR GUIDANCE

Suitable Skill Area: Assertiveness

Goals

1. To study an accident relevant to your operations.
2. To demonstrate that assertive communications can reduce mishap potential.
3. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Any number of sub-groups of five to seven individuals.

Time Required

Approximately 20 minutes. This assumes that the case study is read prior to the class. The 20 minutes time is needed for group discussion and instructor processing.

Materials Required

1. Copy of a case study and case study worksheet for every individual. Refer to the *Team Coordination Training Exercise and Case Studies* text for this material.
2. Paper and pencil for each participant.

Physical Setting

A room large enough for groups and individuals to work without being distracted or overheard by others.

Process

1. Have the students read the case prior to the class.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer the questions regarding the mishap. Instruct them to stay focused on the topic of assertiveness as it pertains to the questions asked.

INSTRUCTOR GUIDANCE
TEAM COORDINATION TRAINING VIDEO:

Suitable Skill Area: Assertiveness

Goals

1. To study an accident relevant to your operations.
2. To study the roles individuals and groups played in the mishap.
3. To study the impact of assertiveness on the mishap.
4. To develop individual and team strategies that will enable your unit to prevent a similar mishap.

Group Size

Unlimited.

Time Required

Approximately 1 hour.

Materials Required

1. A copy of the *Who Rescues the Coast Guard*? video.
2. Pencil and paper for each participant.
3. Copy of the case study worksheet for each individual.

Physical Setting

A room large enough for individuals and groups to work without being distracted or overheard by others.

Process

1. Select and show an appropriate Assertiveness scenario. Instruct the students to take notes.
2. Break the group into sub-groups of five to seven individuals.
3. Referring to the case study worksheet, ask the students to answer questions regarding the mishap. Instruct them to stay focused on the questions asked.

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