

DESCRIPTION:

INTRODUCTORY TEACHING POINTS:

What is Situational Awareness?

Effective situational awareness refers to the degree of accuracy by which one's perception of the current environment mirrors reality. It includes the ability to:

- Identify the source and nature of problems
- Extract and interpret essential information
- Maintain an accurate perception of the external environment
- Detect a situation requiring action

Situational awareness requires that we know: **Who** is responsible for specific activities, **What** is happening, **When** events are supposed to occur, and **Where** the aircraft is in three-dimensional space.

Maintaining a correct image of reality:

Mission success depends on your maintaining or recovering situational awareness. Use the following techniques to maintain a correct image of flight:

- Detect and comment on deviations
- Provide information in advance
- Identify potential problems
- Demonstrate an awareness of task performance and mission status

Factors that Reduce Situational Awareness:

- Insufficient communication
- Fatigue/Stress
- Task overload/under load
- Group mindset
- "Press on Regardless" Philosophy
- Degraded operating conditions

Combat the Loss of Situational Awareness by:

- Actively questioning and evaluating your mission progress
- Using assertive behaviors when necessary
- Analyzing your situation
- Updating and revising your image of the mission

Remember:

- Situational awareness is a critical factor in our ability to respond effectively to a situation.
- Maintaining a high level of situational awareness will better prepare crews to respond to unexpected situations.

INSTRUCTOR DIRECTIONS: Divide the participants into case study discussion groups. If the class is small, each member can work on their own. Present the case study using the following steps:

1. Describe the goal of the case study exercise and present the focus questions. Ask if anyone has questions about the exercise objective or the focus questions.
2. Allow time to read and discuss the synopsis in relation to the focus questions.
3. Lead a discussion or have groups present their findings in relationship to the focus questions. Highlight key points on board or other medium as discussion develops.

DESCRIPTIVE SYNOPSIS:

1. (Synopsis with annotations)
2. Possible Synopsis Additions.
 - a.
 - b.
 - c.
3. List of focus and support CRM skills.
 - a. **Decision Making:** The ability to choose a course of action using logical and sound judgment based on the available information.
 - b. **Assertiveness:** The willingness to actively participate, state, and maintain a position until convinced by the facts that other options are better.
 - c. **Mission Analysis:** The ability to develop short-term, long-term, and contingency plans and to coordinate, allocate, and monitor crew and aircraft resources.
 - d. **Communication:** The ability to clearly and accurately send and receive information, instructions, or commands; and provide useful feedback.
 - e. **Leadership:** The ability to direct and coordinate the activities of crew members

and to encourage the crew to work together as a team.

- f. **Adaptability/Flexibility:** The ability to alter a course of action based on new information, maintain constructive behavior under pressure, and adapt to internal and external environmental changes.
- g. **Situational Awareness:** The degree of accuracy by which one's perception of the current environment mirrors reality.

FOCUS QUESTIONS AND ANSWERS

1. What THREATS came "at" the crew and what Strategies were used to Prepare for Threats and initially deal with them?
2. What ERRORS came "from" the crew and how did they use SA to Repair the Errors?
3. What Undesired Aircraft State was achieved and how did the crew use SA to Recover?
4. What could have been done to avoid this situation?

SUMMARY TEACHING POINTS:

- 1.
- 2.
- 3.

(Aircraft) CASE STUDY

TITLE:

SOURCE:

SYNOPSIS:

FOCUS QUESTIONS:

1. What THREATS came “at” the crew and what Strategies were used to Prepare for Threats and initially deal with them?
2. What ERRORS came “from” the crew and how did they use SA to Repair the Errors?
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Case Study Title

CRM CASE STUDY

Name

- Personal Info
- Etc.

Question Policy

Overview

- Objectives
- Critical Skills Review
- Case Study Focus Skill
- Synopsis
- Focus Questions

Objectives

- Terminal Objective
- Enabling Objective

Crew Resource Management

- Allows crew to interact effectively while performing mission tasks
- A program to effect behavior modifications in order to prevent human factor and crew preventable errors
- To improve mission effectiveness through increased awareness of associated behavioral skills

CRM Critical Skills Review

- Decision Making (DM)
- Assertiveness (AS)
- Mission Analysis (MA)
- Communication (CM)
- Leadership (LD)
- Adaptability/Flexibility (AF)
- Situational Awareness (SA)

Case Study Focus Skill

SITUATIONAL AWARENESS

- The degree of accuracy by which one's perception of the current environment mirrors reality

S/A requires that we know

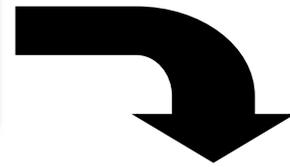
- Who is responsible for specific activities
- What is happening
- When events are supposed to occur
- Where the aircraft is in three-dimensional space

Factors that reduce S/A

- Insufficient communication
- Fatigue/Stress
- Task overload/underload
- Group mindset
- “Press on regardless” philosophy
- Degraded operating conditions

Synopsis

MISSION EFFECTIVENESS



Safe
Operations

Threats

Prepare

Strategies

Errors

Repair

Resist /
Resolve

CRM/TEM

Undesired
Aircraft
State

Recover

Incident/Accident

CRM 7 Critical Skills

Decision Making

Assertiveness

Mission Analysis

Communication

Leadership

Adaptability / Flexibility

Situational Awareness

Identify:

- Threats
- Strategies
- Errors
- Resist/Resolve

Focus Questions

1. What THREATS came “at” the crew and what Strategies were used to Prepare for Threats and initially deal with them?
2. What ERRORS came “from” the crew and how did they use SA to Repair the Errors?
3. What Undesired Aircraft State was achieved and how did the crew Recover?
4. What could have been done to avoid this situation?

Focus Question #1

- What THREATS came “at” the crew and what Strategies were used to Prepare for Threats and initially deal with them?



Identify and PREPARE

Strategies to Prepare:

- CRM
- ORM
- TEM
- Clearly defined roles of aircrew members
- Complete briefing and effective communication
- NATOPS / System Knowledge

Focus Question #2

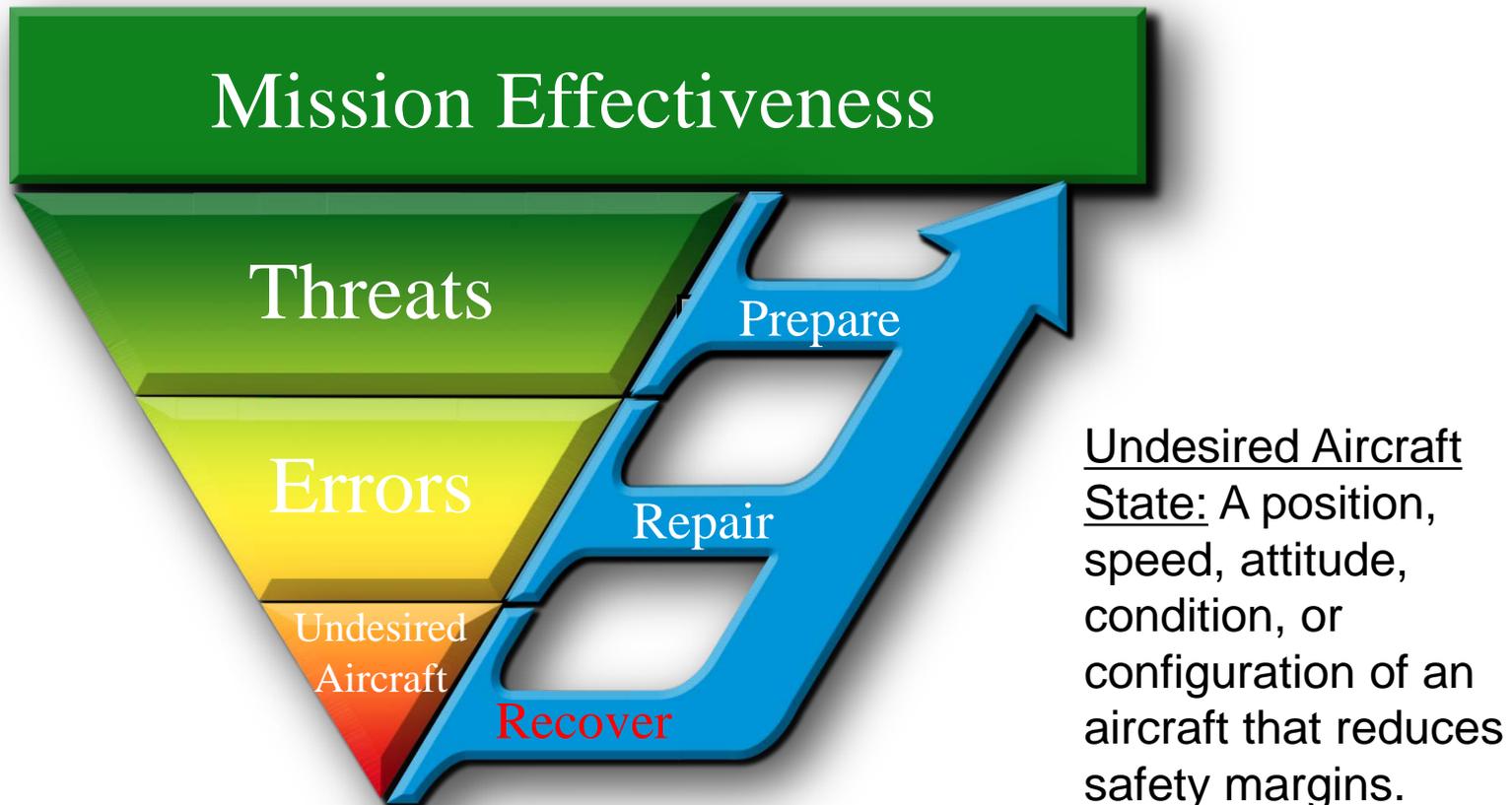
- What ERRORS came “from” the crew and how did they use SA to Repair the Errors?

↓Errors↓



Focus Question #3

- What Undesired Aircraft State was achieved and how did the crew Recover?



Identify and **RECOVER**

Focus Question #4

- What could have been done to avoid this situation?

Remember

- Situational awareness is a critical factor in our ability to respond effectively to a situation
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Questions?