

**(Aircraft) CASE STUDY**

**TITLE:**

**FOCUS SKILL:**

**Decision Making**

**SOURCE:**

**TERMINAL OBJECTIVE:**

Upon completion of this case study the audience will understand the importance of Decision Making in aircraft operations.

**ENABLING OBJECTIVES:** 1.

2.

## **DESCRIPTION:**

### **INTRODUCTORY TEACHING POINTS:**

#### **What is decision making?**

Effective decision making refers to the ability to choose a course of action using logical and sound judgment based on the available information. This includes:

- Assessing the problem
- Verifying information
- Identifying solutions
- Anticipating consequences of decisions
- Informing others of decision and rationale
- Evaluating decisions

#### **Factors Which Promote Good Decision Making:**

- Teamwork
- Extra time to make a decision
- Alert crew members
- Decision strategies and experience

#### **A Decision Making Strategy from Troubleshooting:**

- Identify all the symptoms
- Make a hypothesis as to the possible cause
- Test your hypothesis
- Apply appropriate remedies

#### **Barriers to Good decision Making:**

##### **Barriers:**

##### **How to Overcome:**

Time

Use SOPs and select the best decision using available information.

Inaccurate or  
ambiguous info

Cross-check information.

Pressure to perform

Evaluate the rationale for making a decision.

Rank Difference

Use assertive behaviors.

**Remember:**

- Good decisions optimize risk management and minimize errors, while poor decisions can increase them.
- Each decision affects your future options.
- Poor judgment or decision making is a leading cause of failure to complete missions and of mishaps.

**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 or the focus questions.
2. Allow time to read and discuss the case study 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 DM to Repair the Errors?
3. What Undesired Aircraft State was achieved and how did the crew use DM 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 DM to Repair the Errors?
3. What Undesired Aircraft State was achieved and how did the crew use DM to Recover?
4. What could have been done to avoid this situation?

# 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

## DECISION MAKING

- The ability to choose a course of action using logical and sound judgment based on the available information

# Effective DM includes

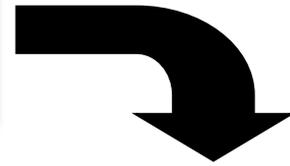
- Assessing the problem
- Verifying information
- Identifying solutions
- Anticipating consequences of decisions
- Informing others of decision and rationale
- Evaluating decisions

# Factors which promote good Decision Making

- Teamwork
- Extra time to make decision
- Alert crew members
- Decision strategies and experience

# 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 DM 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

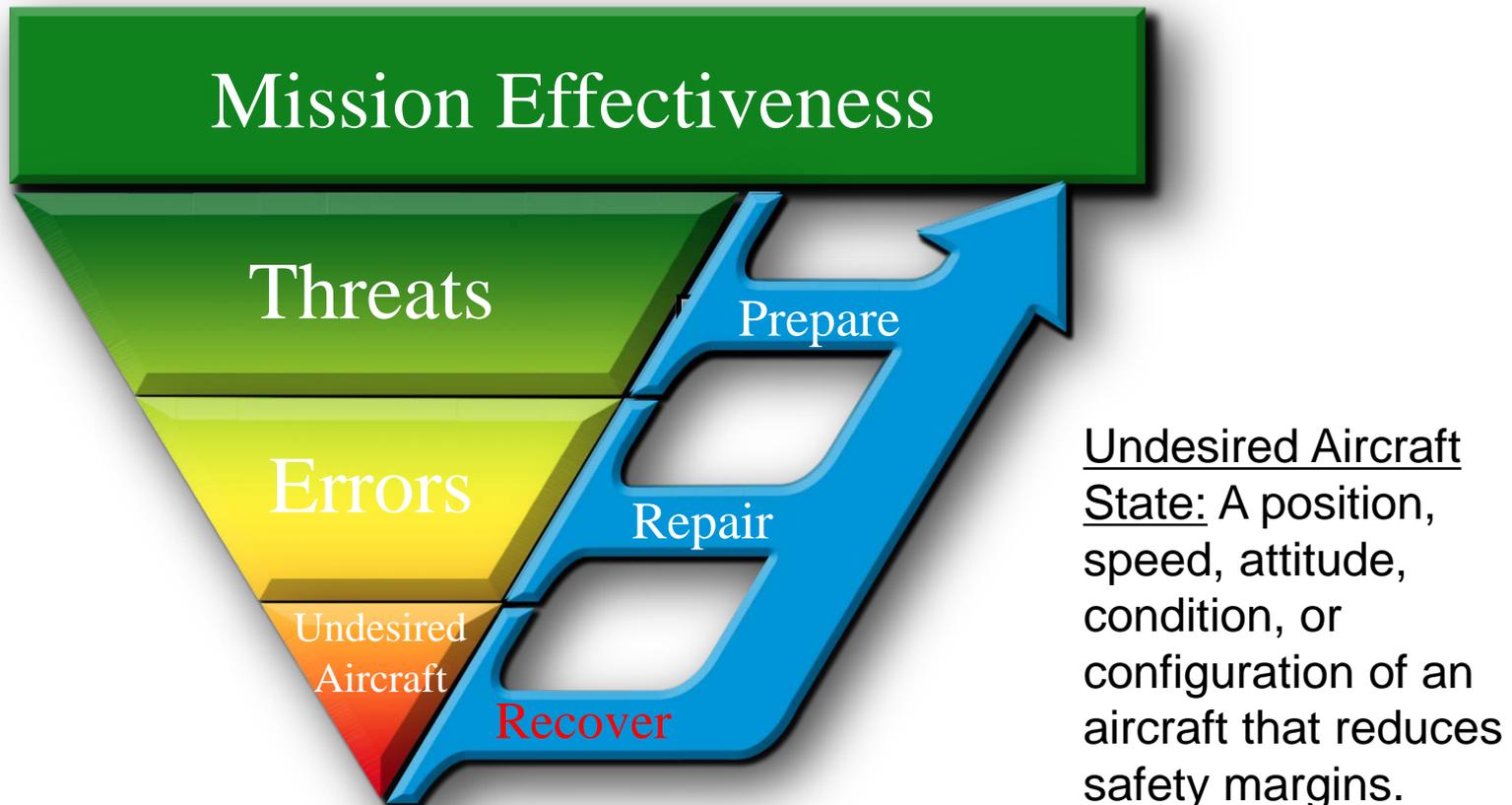
- What ERRORS came “from” the crew and how did they use DM to Repair the Errors?

↓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

- Good decisions optimize risk management and minimize errors, while poor decisions can increase them
- Each decision affects your future options
- Poor judgment or decision making is a leading cause of failure to complete missions and of mishaps

Questions?