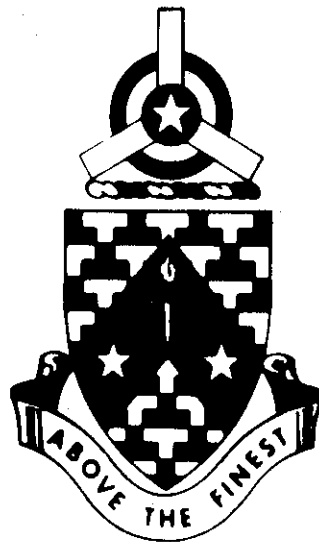


PROGRAMED TEXT

AIRCRAFT ACCIDENT
PREVENTION PROGRAM

AM 80

76-82 span 16



JANUARY 1969

UNITED STATES ARMY
PRIMARY HELICOPTER SCHOOL
FORT WOLTERS, TEXAS

PROGRAMED TEXT

PROGRAM TEXT

FILE NO:

AM 80

PROGRAM TITLE

AIRCRAFT ACCIDENT
PREVENTION PROGRAM

POI SCOPE: Discuss the two main causes of aircraft accidents and the individuals responsible for aircraft accident prevention.

INSTRUCTOR REFERENCES:

AR 95-5

PREPARED BY:

CW2 J. Rodwick
Flt Subj Br

CPT J. B. Johnson
TFPL

DATE:

March 1968

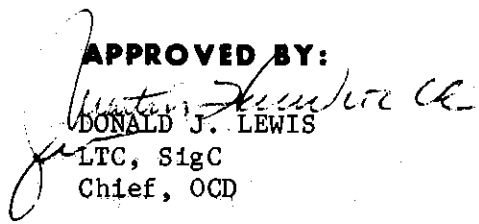
REVISED BY:

MAJ R. L. Burdick
Primary II Airmanship Br
Academics Department

DATE:

January 1969

APPROVED BY:


DONALD J. LEWIS
LTC, SigC
Chief, OCD

DATE:

January 1969

TABLE OF CONTENTS

PROGRAMED TEXT

FILE NO: AM 80

PROGRAM TITLE:

AIRCRAFT ACCIDENT PREVENTION PROGRAM

CONTENTS	PAGE NUMBER
1. PREFACE _____	iii
2. PERFORMANCE OBJECTIVES _____	iv
3. PROGRAM _____	1
a. _____	
b. _____	
c. _____	
d. _____	
e. _____	
4. SELF EVALUATION EXERCISE _____	13
5. ANSWERS TO SELF EVALUATION EXERCISE _____	16
6. ITEMS TO BE ISSUED WITH PROGRAM _____	
7. _____	
8. _____	
9. _____	
10. _____	

PREFACE

The objective of the ARMY AIRCRAFT ACCIDENT PREVENTION PROGRAM is the conservation of personnel and material resources.

Any aircraft accident involves a breakdown in the man-machine relationship. The purpose of accident prevention is to eliminate possible cause factors before they contribute to an aircraft accident.

Start with frame 1 and work each frame in succession. Each frame will usually ask you a question. The correct answer is printed on the top of the next frame. If you were incorrect, turn back and restudy the information before continuing on to the next frame. When you have finished the text, complete the self evaluation exercise. Now begin by studying the performance objectives on page iv.

PERFORMANCE OBJECTIVES

Upon completion of this programed text you will be able to:

1. List the two main causes of aircraft accidents.
2. List the specific individuals responsible for Army aircraft accident prevention.

FRAME 1

HUMAN ERROR is the greatest single cause factor of all aircraft accidents. The following are examples of human error.

LACK OF KNOWLEDGE

LACK OF SKILL

LACK OF SELF-DISCIPLINE



A solo student was instructed to maintain an altitude of 500 feet or higher during his flight to the stagefield. His death was the result of a powerline strike. This accident was probably due to a lack of self-discipline

TURN TO PAGE 3 FOR FRAME 2.

CENTER SAFETY
UNITED STATES ARMY PRIMARY HELICOPTER CENTER
FORT WOLTERS, TEXAS

AKPWO-PS

SUBJECT: Operational Hazard Report

TO: Director, Center Safety
US Army Primary Helicopter Center
ATTN: Flight Safety Officer

1. Date hazard observed or occurred: 13 Mar 68
2. Time: about 1130 hrs
3. Location (Stagefield, etc.): South IP at Downing
4. Type of hazard (Flight or Ground): Flight
5. Description of hazard: _____

Dual rated ship climbed up from lower altitude; entered traffic in
front of me. To maintain proper separation I made a 360° turn and
re-entered traffic.

6. Recommendations: _____
Simulated forced landing near Downing prohibited.

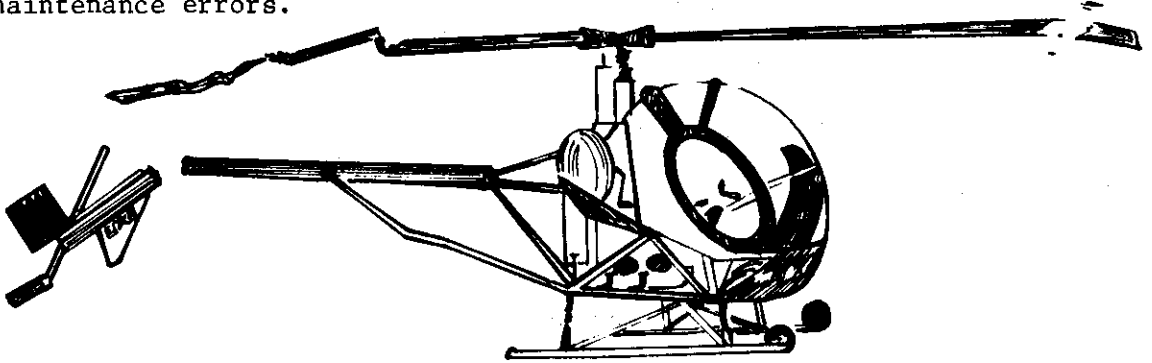
Name, Grade, Title

TURN TO PAGE 4 FOR FRAME 7

ANSWER: Lack of self-discipline

FRAME 2

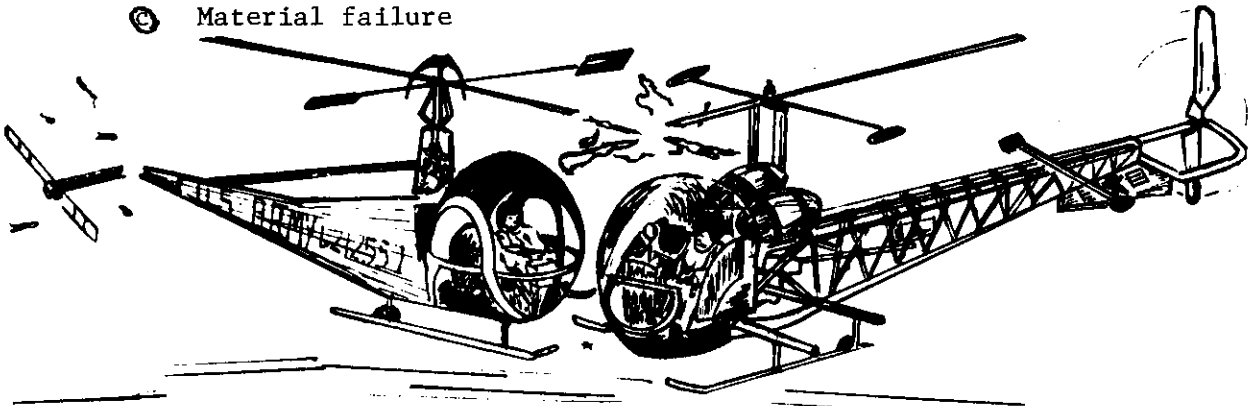
Material failure is the second greatest cause factor of aircraft accidents. In many cases it may be difficult to separate material failure from maintenance errors.



A TH-55A student pilot experienced a power loss in a hovering left turn. The helicopter landed hard. The main rotor flexed down, shearing the tail boom. The Metallurgical Analysis Report stated metal fatigue was the cause.

This accident was caused by:

- a. Human error
- b. Maintenance error
- Ⓒ Material failure



A student pulled pitch in an OH-13 and the helicopter turned violently to the right, striking a hovering OH-23. Major damage was sustained by both. Investigation showed that the tail rotor on the OH-13 had been installed backward.

This accident was caused by:

- Ⓐ Maintenance error
- b. Material failure

TURN TO PAGE 5 FOR FRAME 3

ANSWER: Safety Officer

FRAME 7

It is the Safety Officer's responsibility to prepare and maintain a pre-accident plan. The pre-accident plan goes into effect when word is received of an aircraft accident.

The PRE-ACCIDENT PLAN must include:

1. Notification of necessary personnel
2. Crash rescue operations
3. Orderly conduct of investigation

The top priority of a pre-accident plan would be

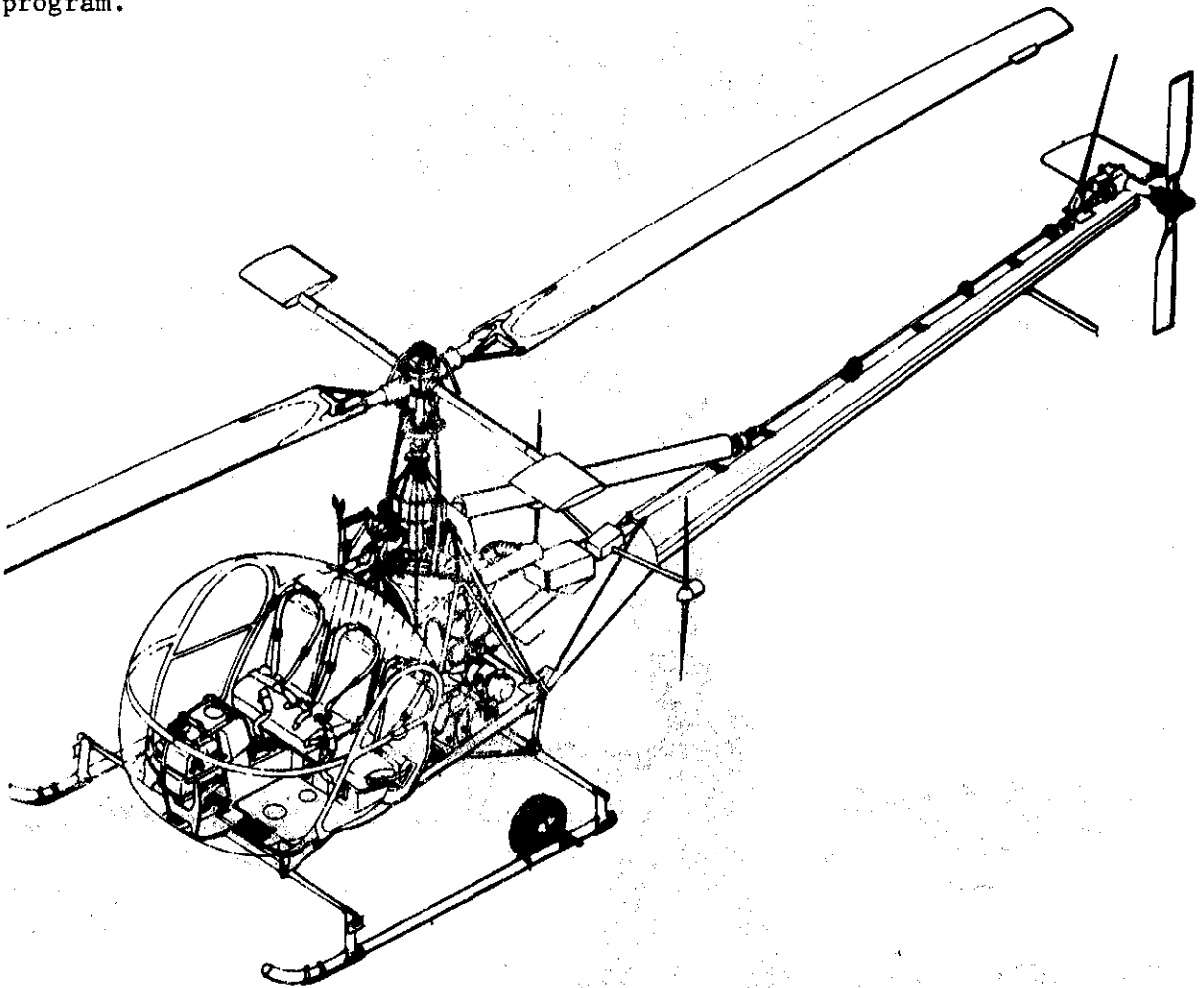
- a. interviewing of witnesses.
- b. guarding the wreckage.
- ☒ c. rescue of personnel.
- d. reducing property damage.

ANSWERS: c. Material Failure
a. Maintenance error

FRAME 3

Each unit has a maintenance officer. He is responsible for developing an effective preventive maintenance program.

The maintenance officer must provide an adequate training program for all maintenance personnel. He must insure a thorough aircraft inspection program.

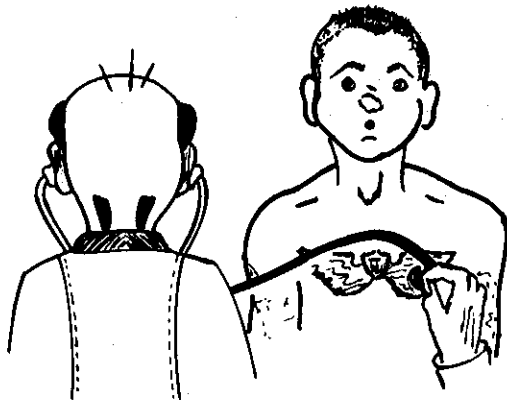


You have found several cotter pins missing from the rotor head of your assigned aircraft. You have found this unsafe condition several times during the past week. You would report this condition to the maintenance officer

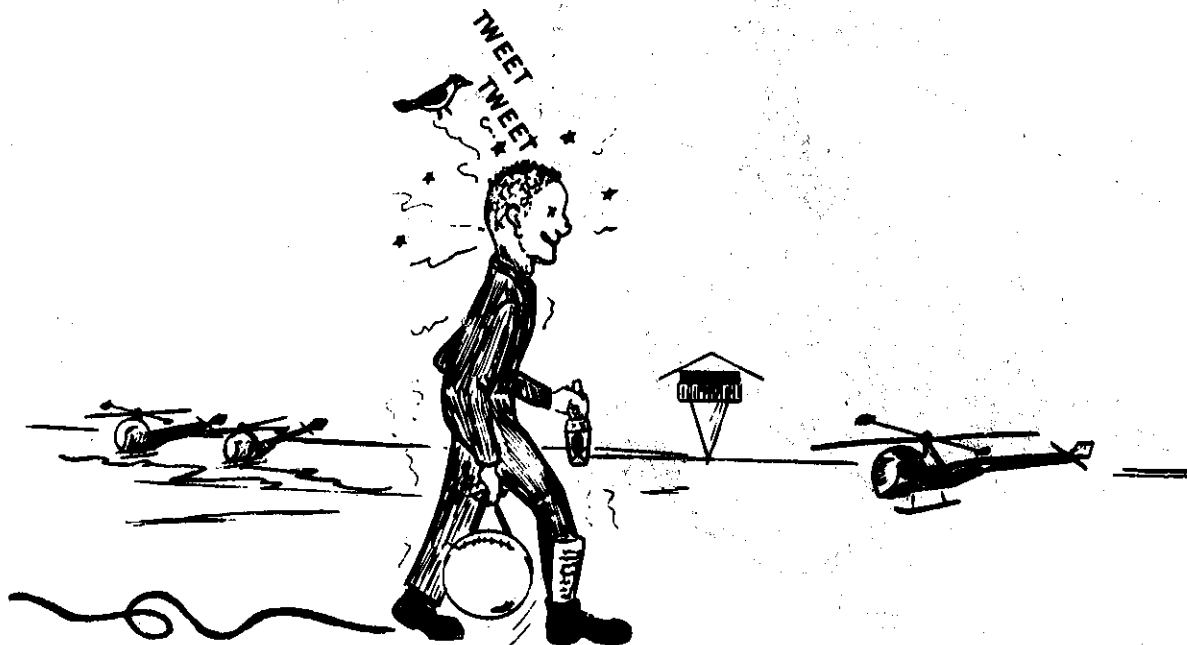
ANSWER: c. rescue of personnel

FRAME 8

If an aviator is involved in an aircraft accident, he must be examined by the Flight Surgeon prior to returning to flight duty.



The Flight Surgeon is responsible for the mental and physical well-being of aviation personnel. Anytime you do not feel well, see the Flight Surgeon.



You become ill while on a 20-day leave and are treated by your family physician. When you report for duty, you are still taking medication he prescribed for you. Before flying you should see the flight surgeon.

ANSWER: Maintenance Officer

FRAME 4

The operations officer insures that operations, training policies, and flight procedures are tailored to meet the mission requirement.

His duties include planning, scheduling, and assigning aircraft and crews. He will assign aviators to aircraft that have been approved for flight by the maintenance officer.



Upon reporting for duty to a new unit, you will receive a standardization ride by the unit standardization pilot.

The operations officer responsible for insuring you receive a standardization ride and the proper notation is entered on your flight records.

ANSWER: Flight Surgeon

FRAME 9

Match the individual responsibility:

- c 1. Operations Officer
- b 2. Safety Officer
- d 3. Flight Surgeon
- a 4. Commanding Officer
- e 5. Maintenance Officer

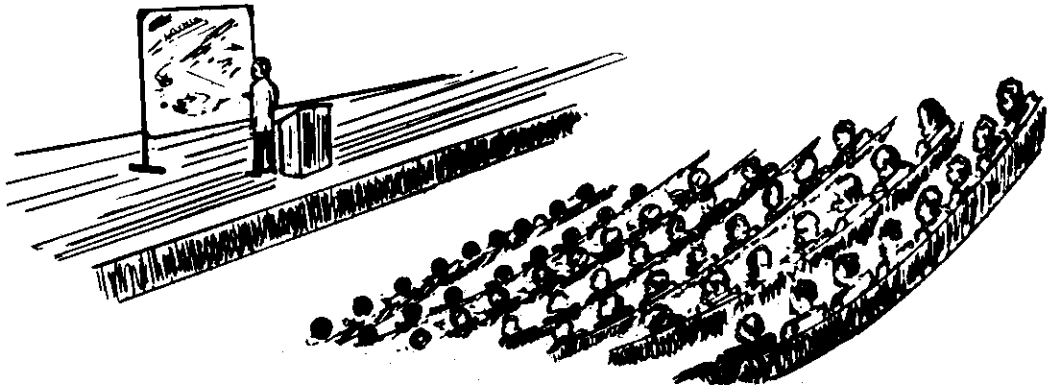
- a. Overall responsibility of the unit accident prevention.
- b. Responsible for establishment and controlling unit safety program.
- c. Responsible for operations, procedures, and training policies to fulfill mission requirements.
- d. Responsible for the physical and mental conditions of individual aviators.
- e. Responsibility for preventive maintenance program to insure safe flying aircraft.

ANSWER: Operations Officer

FRAME 5

Accident prevention is the overall responsibility of the commanding officer. He does not have time to personally plan and carry out a full time accident prevention program. He will appoint an aviation safety officer, who is directly responsible to the commander, for aircraft accident prevention.

The aviation safety officer, as the direct representative of the commander, conducts monthly safety meetings to keep the unit "safety conscious" and current on local safety hazards.



The _____ has overall responsibility of the unit aircraft accident prevention program.

- ☒ a. Commanding Officer
- b. Safety Officer

ANSWERS: c 1. d 3. e 5.
 b 2. a 4.

FRAME 10

The mess hall serves well balanced, wholesome meals to provide your body with all the vitamins and minerals needed to function correctly.

The statement can be made that "Everyone connected with aviation is responsible for flight safety."

Although responsibility is shared by many, the success or failure of any flight safety program depends on you .



CONTINUE TO PAGE 12 AND THE SELF EVALUATION
EXERCISE

ANSWER: a. Commanding Officer

FRAME 6

Use the OPERATIONAL HAZARD REPORT. See page 3 as a source of information on real and potential hazards. It may be submitted by anyone aware of a hazardous situation, either on the ground or in flight.

This report may be submitted without being signed and will be used for gathering data. It is not to be used as a reprimand or a violation.

You would submit an Operational Hazard Report to the

safety officer

ANSWER ON PAGE 4

STOP - RETURN TO PAGE 2

ANSWER: You, the aviator



TEXT COMPLETED

SELF EVALUATION EXERCISE

The two main causes of aircraft accidents are:

1. material and maintenance problems
2. pilot error
3. Timely and adequate aircraft inspections are the responsibility of the maintenance officer.
4. Operations, procedures, and training policies to fulfill mission requirements are the responsibility of the operations officer.
5. The aviation Safety Officer is concerned with
 - a. setting up a pre-accident plan.
 - b. investigating aircraft accidents.
 - c. preventing aircraft accidents.
 - ☒ d. all of the above.
6. In pre-accident planning, top priority must be given to
 - a. guarding the wreckage.
 - b. reducing property damage.
 - ☒ c. rescue of personnel.
 - d. interviewing witnesses.
7. When an aviator is involved in an aircraft accident, he should first be
 - ☒ a. examined by a Flight Surgeon.
 - b. investigated.
 - c. given a dual ride.
 - d. suspended.
8. In Army Aviation, accident prevention is the responsibility of
 - a. the commander.
 - ☒ b. everyone connected with flying.
 - c. the operations officer.
 - d. the safety officer.

9. The success or failure of any aircraft accident prevention program depends primarily on the

- a. flight safety officer.
- b. maintenance control officer.
- c. control tower operator.
- ☒ d. aviator.

10. The purpose of the Operational Hazard Report is

- a. the same as a flight violation.
- ☒ b. used for gathering information on safety hazards.
- c. to be submitted by the commander only.
- d. to reprimand an aviator.

INTENTIONALLY LEFT BLANK

LA 8081

KEY TO SELF EVALUATION EXERCISE

1. Human Error
2. Material Failure
3. Maintenance Officer
4. Operations Officer
5. d
6. c
7. a
8. b
9. d
10. b

INFORMATION FILE