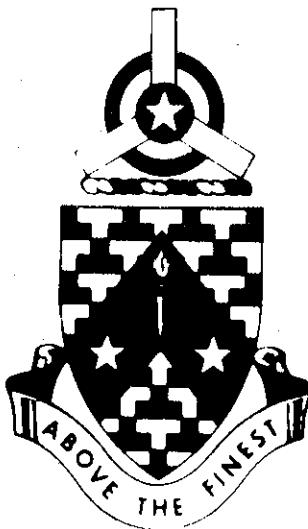


PROGRAMMED TEXT

AVIATION PHYSIOLOGY

(HUMAN ADJUSTMENTS TO EMOTIONAL SITUATIONS
AND THE NINE ESCAPE REACTIONS)

AM-51



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PROGRAMMED TEXT

PROGRAM TEXT**FILE NO:** AM-51

PROGRAM TITLE

Human Adjustments to Emotional
Situations and the Nine Escape
Reactions

POI SCOPE: The various human adjustments to emotional situations and nine escape reactions that are presently used to escape unpleasant situations.

INSTRUCTOR REFERENCES:

DA Pamphlet 95-3 Human Factors Pg 5-12
DA Pamphlet 95-7, Flight Surgeon Sense
"Psychotherapy Theory and Research" by Mowrer
"Psychology" by Munn

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PREFACE

Military pilots are in vital need of information to assist them in analyzing the emotional stress of common and serious problems. The pilot, while flying will encounter many problems, some of which are emotional. This program points out the obvious symptoms of emotions and principle causes of action in controlling them.

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 program you will be able to:

1. Identify the associated adjustments to emotional situations.
2. Identify each of the nine escape reactions.
3. Recognize the most obvious symptoms of emotion.
4. Identify the causes and effects of the increased activity of the adrenal glands.
5. Recognize the symptoms of gloom and depression.
6. Determine the two principle courses of action in controlling problems related to emotions.

FRAME 1

Attempting to derive pleasure from an unpleasant situation or task will make the task easier and more meaningful. A flight student may have a strong dislike for navigation. He finds that he must use navigation in order to complete his training so he substitutes a new attitude for his dislike.

A WOC dislikes or fears night flying but wants to become an army aviator; with this feeling he should

- a. stay away from night flying because his fear makes it dangerous.
- b. fly at night every chance he gets.
- C. realize that night flying is an important part of his training and accept the challenge.

ANSWERS: a. 1 b. 3 c. 2

FRAME 12

Identification is the act of associating oneself with some person or organization of high prestige in order to increase his own feeling of importance.

Identification is seen in the student who has an outstanding instructor and tends to associate with that instructor in a number of ways. This may take the manner of dress, stance and the same style of flying.

Identification escape reaction is a wholesome reaction and may be identified by

- a. recognizing someone.
- b. acting like someone.
- c. wanting to be someone else.

CONTINUE WITH FRAME 13 ON PAGE 4

ANSWER: c. Realize that night flying is an important part of his training and accept the challenge.

FRAME 2

Finding an adequate and suitable solution to an emotionally undesirable situation is always desirable. A flight student may be able to overcome a fear of landing an aircraft through practice. Emotionally undesirable situations can best be solved by adopting an adequate and suitable solution to the problem.

A helicopter student has a fear of hovering. This fear can be overcome by

- a. having the IP do it and observing how easy it is.
- b. discussing it with his classmates.
- c) get help and perfecting the hovering technique.

ANSWER: b. Acting like someone.

FRAME 13

Suppression is carrying out disagreeable instructions without becoming emotionally involved.

Suppression is demonstrated by an individual who does not let his emotions become involved even though his personal ideas conflict with the person giving the order or instructions and does not let it affect his job performance.

Suppression is which one of the following attitudes?

- a. Not showing up for an unpleasant detail.
- b.** Doing the best job possible even on an unpleasant detail.
- c. Taking an unpleasant detail and making the "worst of it."

ANSWER: c. Get help and perfecting the hovering technique.

FRAME 3

Students that find adequate and suitable solutions to their problems and derive pleasure from undesirable tasks will encounter no great problem in becoming army aviators.

1. Adequate and suitable solutions
2. Derive pleasure

Fill in blanks with correct adjustment.

a. 2 The morning was cold, the physical training was hard, but the helicopter pilot decided it was necessary and besides it made him feel better.

b. 1 A helicopter student was having trouble with autorotations so he requested that an IP help him with this problem. The IP helped him and the problem was minimized.

ANSWER: b. Doing the best job possible even on an unpleasant detail.

FRAME 14

Reaction formation is an escape reaction used by an individual to prevent his unconscious fears or desires from being expressed by adopting an attitude that is exactly the opposite.

Reaction formation is demonstrated by the student who expresses and pretends to have no fear whatsoever of flying, but in actuality he has formed a defense for his unconscious fears of the helicopter and flying.

A student may be using reaction formation when he

- a. indicates to his classmates how great flying is.
- b. explains his fears to his IP.
- c. takes unnecessary chances with his flying.

ANSWER: a. 2 b. 1

FRAME 4

Now that you know the two emotional adjustments discussed previously, you can go on to the study of escape reactions. The nine reactions that will be discussed in this program are used to run away from unpleasant situations. These reactions are considered normal unless the individual uses them to excess.

If a student physically separates himself from the source of an undesirable emotion, he is guilty of migration. Another good example of migration is the student who misuses sick call in order to avoid a particular flight or flight instructor.

Migration is when a student separates himself from the problem. A student is using this escape reaction when he

- a. is set back to another class.
- b. writes home.
- c. resigns.

ANSWER: a. Indicates to his classmates how great flying is.

FRAME 15

Now let's see how well you learned the last three escape reactions.

1. Identification
2. Suppression
3. Reaction Formation

a. 1 is the act of associating oneself with some person or organization of high prestige in order to increase his own feeling of importance.

b. 3 is the adoption of an attitude that is the exact opposite of an individual's unconscious desires.

c. 2 is carrying out disagreeable instructions without becoming emotionally involved.

ANSWER: c. resigns

FRAME 5

Rationalization is the act of giving a socially acceptable excuse to justify ones behavior. It is a fact that all men desire acceptance by their fellow man. Justification of a failure by rationalization or distorted facts enables an individual to convince himself and others that he has not failed, when in fact he has. A marginal student tells himself the reason for his poor grades is his fear of flying.

The student above is looking for an easy way out in order not to embarrass his family, (it is known fact that many marginal students could become Army aviators by really applying themselves) so he reasons that if he can convince the flight surgeon that he is afraid to fly he can justify poor grades and possible failure.

Which is the best example of rationalization? The student tells himself:

- a. "The reason I am overweight is because I eat too much."
- b. "My poor flying is due to my academic load."
- c. "The reason I am so nervous this morning is because of my standardization ride today."

ANSWERS: a. 1
b. 3
c. 2

FRAME 16

The symptoms of emotions are "butterflies" in the stomach, pounding heart, sweaty palms, dry mouth and throat. These are the most obvious emotional reactions. They are reflex responses over which the individual has no voluntary control and are characteristics of the violent emotions of fear, anger, and less extreme emotions, such as worry.

The symptoms of emotions explained above would most probably appear in which of the following situations?

- a. A young pilot waiting to go on his first mission in Vietnam learns that the LZ will most probably be well covered by VC.
- b. Upon their approach to the LZ, the pilot sees many flashes from the ground.
- c. After 6 months of constant flying in Vietnam you are told that your R&R has been cancelled due to a new policy of the CO.
- d. All of the above

ANSWER: b. "My poor flying is due to my academic load."

FRAME 6

Projection is the process of shifting the blame for a personal deficiency on someone else or to an inanimate object. Projection can be seen in the student who attributes his poor performance to the fact that he has a poor instructor. "A real screamer...Who won't give me a chance to fly" or he may shift the blame to something inanimate, such as poor weather.

A student is using projection when he tells himself that the reason he failed his standardization ride was because

- a. "I didn't study my maneuvers well enough."
- b. "The check pilot gave me just the marks I deserved."
- c. "The aircraft I was flying was in really sad shape."

ANSWER: d. All of the above

FRAME 17

A less obvious reflex response is the increased activity by the adrenal glands.

The overall effect of increased adrenalin in the blood stream is to make possible more violent and prolonged activity. The angry or frightened person can hit harder, lift heavier weights, run faster and react to helicopter controls more violently. Skillful behavior is not made more effective by strong emotional reactions. Fear is likely to produce poor coordination and reduce skill. For this reason, strong emotion is more likely to reduce safety than to increase it. In situations of this type the aviator must be more cautious.

Pilot Cool, while flying a mission, encountered ground fire. Other aircraft in the flight continued straight ahead. He was frightened but continued in formation. He had a feeling he was reacting faster and the controls seemed easier to move. This is likely to result in

- a. better coordination.
- b. poor coordination.
- c. slowing down of adrenal glands.

ANSWER: c. "The aircraft I was flying was in really sad shape."

FRAME 7

At this point, you understand three of the nine escape reactions. You know:

1. Projection
2. Migration
3. Rationalization

Fill in the blanks with the correct escape reaction.

- a. 2 The physical separation of the man and the problem.
- b. 1 Shifting the blame for your own personal deficiency.
- c. 3 Giving a socially acceptable excuse to justify ones behavior.

ANSWER: b. poor coordination.

FRAME 18

The extreme of fear is panic; of anger is rage. (The distinguishing characteristic of either panic or rage is that it is uncontrollable.) Unvoluntary muscle action can be controlled even when a person is quite angry or frightened. If properly trained and disciplined, most aviators manage to do the things required of them in an effective manner while under emotional strain. By voluntary effort and direction of attention he can meet the emergency with appropriate action. This is not possible; however, if the aviator fails to control his emotions and they become extreme. The aviator's self confidence and morale level would also have a direct bearing on his ability to control his actions.

A door blew off of Pilot Cool's helicopter while in flight causing the aircraft to vibrate. One of his crew members had failed to secure the door properly. Cool should

- a. reprimand crew member immediately.
- b. abort the mission and land.
- c. direct attention to the control of aircraft.

ANSWERS: a. 2
b. 1
c. 3

FRAME 8

Day dreaming is the imaginary representation of the individuals' desires. You will find that day dreaming will certainly be evident in the student briefing room of any flight section. As the instructor calls the student for a flight, the student will jump to his feet as if in a daze.

The best example of day dreaming is

- a. student becomes preoccupied with the actions of the other students.
- b. fails to understand the instructors questions
- c. becomes preoccupied with his thoughts about his poor flying.

ANSWER: c. direct attention to the control of the aircraft.

FRAME 19

Gloom and Depression

A state of reduced energy, apathy and disinterest is produced by the emotion gloom. In contrast to fear and anger (which are likely to begin suddenly and frequently and to cease soon after the stimulus is gone), gloom is a more prolonged emotional state. It often cannot be traced to any specific stimulus.

Because gloom and depression reduce alertness and responsiveness, it is obvious that they can make any hazardous activity even more dangerous. Recurrent periods of depression should always be called to the attention of the flight surgeon.

When off duty, Cool lay on his bunk and talked to no one. When on duty, he showed no interest in his work. Cool's CO should

- a. straighten him out - reprimand.
- b. let Cool handle his own problem.
- c. send him to the flight surgeon.

ANSWER: c. becomes preoccupied with his thoughts about his poor flying.

FRAME 9

If an individual makes up for a weakness in one area by excelling in another, he has used compensation. If an individual attempts to divert attention from his weak points to his strong points, he is also guilty of compensation.

From this, you learn that compensation is either excelling in one area to make up for a weakness in another or diverting attention from a weak point to a strong point.

A WOC had perfected the technique of hovering. Some of his other maneuvers were very poor but he still practiced hovering. This student was using the escape reaction compensation to

- a. feed personal ego.
- b. learn to fly better.
- c. fool the IP.

ANSWER: c. send him to the flight surgeon.

FRAME 20

There are two principle courses of action in controlling serious disruptions of behavior. The first is to give the kind of training that will prevent the emergency, or will provide well-established patterns and behavior to meet the emergencies that do occur. A second approach to emergencies and the controled emotions is by establishing good morale conditions. The person who has confidence in himself, his co-workers, and the equipment he uses finds that he can face many emergencies without panic.

Captain Wrench assumed command of the maintenance platoon and reviewed the performance records. The records indicated there were more accidents and incidents than normal in aircraft assigned to this platoon. Further study indicated personnel were not trained properly and the morale was very low. Captain Wrench should

- a. train personnel.
- b. give passes when possible.
- c. develop a spirit of team work.
- d. All of the above

ANSWER: a. feed personal ego.

FRAME 10

Conversion is a defense mechanism by which psychological conflicts are converted into physical symptoms of illness. Probably the most common form of conversion among aviators is airsickness. Conversion generally occurs when the individual has been under a great deal of strain, e.g., standardization ride. In its more serious form, conversion may render one or more of the senses inoperative.

Conversion escape reaction is reflected by the

- a. student who is constantly on sick call.
- b. student on a standardization ride who becomes nauseated.
- c. student who fails his standardization ride.

ANSWER: d. All of the above

FRAME 21

Hazards should not be denied or belittled nor should they be over emphasized. Whenever they are emphasized, methods of meeting them should be taught. There is evidence that along with confidence in ones own skills, a realistic appraisal in advance of the risks of various courses of action will help in the event an emergency does occur.

The pilot was told he would be sent on a mission with Major Hardtacks and Captain Steele. He was told he would be evacuating wounded troops under enemy fire. He should have been told

- a. what to expect and how to perform best.
- b. not to worry; he would make it.
- c. to follow Major Hardtacks and Captain Steele.

ANSWER: b. student on a standardization ride becomes nauseated.

FRAME 11

Well, let's see how well you did in remembering the last three escape reactions.

1. Day dreaming
2. Conversion
3. Compensation

- a. 1 is the imaginary representation of the individual desires.
- b. 3 is excelling in one area to make up for a weakness in another or diverting attention from a weak point to a strong point.
- c. 2 is converting psychological conflicts into physical symptoms.

STOP. RETURN TO PAGE 2 FOR FRAME 12.

ANSWER: a. what to expect and how to perform best.

FRAME 22

There is no reason to suppose that the Army aviator is any less subject to conflicts and frustrating situations than the rest of the population. When individuals show gloom and depression and overact during emergencies they should be referred to the flight surgeon. However, awareness of such reactions is advantageous to everyone since it enables him to recognize such symptoms in himself as well as in others.

For the last week pilot Cool had talked very little and on the last mission he overacted to two minor situations. Cool should be

- a. talked to firmly.
- b. sent to chaplain.
- c. referred to the flight surgeon.

ANSWER: c. Referred to the flight surgeon.

SELF EVALUATION EXERCISE

1. Which of the following is not an emotional adjustment to an undesirable situation?
 - a. Finding an adequate or suitable solution
 - b. Excessive use of alcohol
 - c. Attempting to derive pleasure from an unpleasant situation
2. A person who physically removes himself from the source of an undesirable emotion is using an escape reaction called
 - a. migration.
 - b. rationalization,
 - c. projection.
 - d. introjection.
3. A person who uses socially acceptable excuses to explain and justify ones behavior is using an escape reaction called
 - a. migration.
 - b. projection.
 - c. conversion.
 - d. rationalization.
4. Shifting the blame for a personal deficiency is known as
 - a. compensation.
 - b. conversion.
 - c. rationalization.
 - d. projection.
5. Representation of the individuals desires through the imagination is
 - a. projection.
 - b. day dreaming.
 - c. introjection.
 - d. fixation.
6. Excelling in one area to make up for weakness in another area is
 - a. compensation.
 - b. conversion.
 - c. reaction formation.
 - d. projection.

7. Psychological conflicts resulting in physical symptoms defines

- introduction.
- conversion.
- reaction formation.
- projection.

8. The act of associating oneself with a person of prestige in order to increase your own feeling of importance is

- identification.
- projection.
- day dreaming.
- reaction formation.

9. The individual adopts the opposite attitude to his unconscious desires, forming a defense against fears and conflicts seeing things in his unconscious mind. This is called

- conversion.
- reaction formation.
- migration.
- procrastination.

10. Carrying out disagreeable tasks without emotional involvement is called

- day dreaming.
- reaction formation.
- suppression.
- identification.

11. A helicopter pilot feels butterflies in his stomach. This could be caused by:

- engine failure during flight.
- bright lights.
- engine overheating.
- All of the above

12. Increased activity of the adrenal glands may be caused by:

- flying too high.
- being frightened.
- eating too much.
- All of the above

13. Fear and anger may cause an aviator to:

- a. make sound decisions.
- b. over react to the situation.
- c. operate normally.
- d. All of the above

14. Disruptive behavior caused by fear and anger can be minimized by:

- a. training.
- b. maintaining high morale.
- c. developing self confidence.
- d. All of the above

15. The best treatment for a young aviator that is gloomy and depressed is to:

- a. have a talk with him.
- b. ignore him.
- c. send him to the flight surgeon.
- d. All of the above

KEY TO SELF EVALUATION EXERCISE
FOR

Human adjustments to Emotional Situations and Nine Escape Reactions Used by
Flight Students at Fort Wolters

1. b
2. a
3. d
4. d
5. b
6. a
7. b
8. a
9. b
10. c
11. d
12. b
13. b
14. d
15. c