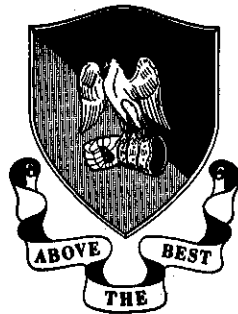


STUDENT HANDOUT

AERIAL OBSERVATION

FILE No. D-5-562-2 6-562-2
 22-562-2 69-562-2



JANUARY 1968

UNITED STATES ARMY AVIATION SCHOOL
FORT RUCKER, ALABAMA/FORT STEWART, GEORGIA

DEPARTMENT OF TACTICS
UNITED STATES ARMY AVIATION SCHOOL
FORT RUCKER, ALABAMA/FORT STEWART, GEORGIA

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PERFORMANCE OBJECTIVES

AERIAL OBSERVATION

1. KNOWLEDGES:

- a. Without the use of notes or reference material and without error the student will be able to:
- (1) List the two methods used to conduct aerial observation.
 - (2) List the three categories of aerial observation and give a typical mission example for each category.
 - (3) Write the primary indication of enemy activity detected by the side looking airborne radar and by the infra-red system.
 - (4) Write the proper techniques for flying visual observation missions over jungle, mountains and delta areas.
 - (5) Write the procedures for avoiding small arms fire in VN.
 - (6) Write the procedures for gaining surprise when flying a visual observation mission.
- b. When given a list of six detection devices the student will without error be able to select and underline the three indirect observation capabilities of the OV-1 Mohawk.
- c. When given a list of preflight considerations for aerial observation missions the student will without error be able to rearrange them into the proper sequence.

2. SKILLS: None.

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ADVANCE SHEET

AERIAL OBSERVATION

1. **PURPOSE:** This instruction is designed to give the student a knowledge of aerial observation to include definition, the role of Army aviation in aerial observation, units and equipment, mission planning, and aviator-observer team duties and techniques.
2. **STUDY ASSIGNMENT:**
 - a. Study Advance Sheet.
 - b. Read Chap 2-4, FM 1-80.
 - c. Read Chap 9, FM 30-20.
3. **SPECIAL INSTRUCTIONS:** Bring Advance Sheets to class.

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STUDENT OUTLINE

AERIAL OBSERVATION

1. Aerial observation methods.

a. Direct - Visual search.

b. Indirect.

electronic sensor

(1) Side looking airborne radar - movement.

(2) Infrared - heat.

(3) Photographic.

(4) Other.

sniper

2. Aerial observation missions include -

- a. Aerial surveillance - looking for ~~not specific~~ ^{general} targets normally in large area.

*synthetic and continuous
obj. by air of area or large section*

- b. Aerial reconnaissance - looking for a specific target.

(1) Area search - looking for specific target in small area normally a one time mission.

(2) Specific search - looking for a specific target at a known location.

(3) Route reconnaissance - ground, air and water routes.

c. Special observation missions.

(1) Column control. *control ground maneuvers
or convey.*

(2) CBR survey. *recording the effects
less exposure time
less concentration*

(3) Camouflage inspections. *sk. the camouflage
of your troops*

(4) Contact reconnaissance. *reestablishing contact with lost troops*

(5) Topographic survey. *mapping*

3. Observation aircraft and equipment.

a. Aircraft with direct observation capability - LOH, H-13, H-23, O-1, - all aircraft can be used for direct observation.

b. OV-1 (Mohawk) series. *3 pieces of each*

(1) OV-1A - (visual search).

(2) OV-1B (Star). *radar - for movement of 3 mph or 5 kph. it must have the mass of a jeep, or 16 sampan 90 KM range.*

(3) OV-1C (IR). *infrared no way to detect, ground data like, direct overfly, heat differential (weather and foliage).*

4. Observation units.

a. Direct observation units.

b. Indirect observation units.

5. Briefings.

a. Types. *general + pre-flight*

b. Format. *What
When
Where
How*

6. Pre-flight planning.

a. Map and photo selection.

b. Terrain evaluation.

c. Flight planning.

*There is always a verbal debriefing
after a mission or recon.
The Debriefing is to insure all
information is extracted from the pilot*

four step planning program.

1. maps + photo selection
2. terrain evaluation
- ③ flight planning
- ④ crew coordination

d. Crew coordination.

7. Observation consideration in VN.

a. Terrain environment.

b. Nature of targets.

c. Identification.

d. Air Defense environment.

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PERFORMANCE CHECK

AERIAL OBSERVATION

1. What are the two aerial observation methods?
 - a. *direct - sight*
 - b. *indirect - sensors*

2. What are the three categories of aerial observation missions?
 - a. *area surveillance*
 - b. *reconnaissance*
 - c. *special*

3. List a mission example for each category.
 - a.
 - b.
 - c.

4. An observation mission flown daily over a particular province or sector would be a surveillance mission.
5. An observation mission flown to detect a Viet Cong unit or specific activity would be a reconnaissance mission.
6. The method of observation you will use when flying the observation helicopter or O-1 Bird Dog will be visual.
7. From the following list, select and underline the indirect observation capabilities of the OV-1 Mohawk.
- Radio direction finding.
 - Radar.
 - Photographic.
 - Sound ranging.
 - Infra red.
 - Flash ranging.
8. What is the principal indication of enemy activity detected by the side looking airborne radar (SLAR)? 3 MPH JEEP'S MOTOR
by infrared? heat signature.
9. What is the primary reason for using a "Guide to Aviation Briefings"?
10. What is the purpose of a debriefing?
to get all information of
11. Which of the following is the correct sequence for preflight considerations for an aerial observation mission?
- Flight planning, terrain evaluation, crew coordination, map and photo selection.
 - Map and photo selection, terrain evaluation, flight planning, crew coordination.
 - Map and photo selection, flight planning, terrain evaluation, crew coordination.
 - Flight planning, map and photo selection, terrain evaluation, crew coordination.

12. What is the best technique to use when visually observing over a dense forest canopy? low + slow

13. When observing in the mountains you should approach the target by flying reverse slope if possible.

14. Some visual observation missions are flown at 1500 feet or higher to avoid small over forest in Vietnam.

15. What is the best method for surprising the Viet Cong on a visual observation mission? fly low or on other side of the ridges