

HEADQUARTERS
THIRD UNITED STATES ARMY
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AVIATION

Accident Prevention During Tactical Operations

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SECTION I

GENERAL

1. PURPOSE: To establish and maintain an aggressive Army Aviation Accident Prevention Program for tactical operations without reducing the effectiveness of Army aviation support.

2. SCOPE: This regulation applies to all Army aviation tactical operations and is an expansion of Third US Army Regulation 95-1 and Third US Army Regulation 95-4. Division commanders or Commanding General, US Army Aviation Center, may waive individual provisions of this regulation when required for successful tactical or training operations.

3. GENERAL:

a. Army aviation is designed to support Army forces in combat operations or field exercises. Safe and efficient support must be rendered from field type facilities under varying conditions. Pre-exercise plans must be made to counteract anticipated problems. Prior coordination must be made with personnel and units supporting or being supported by aviation units to insure safe and efficient operations. Prevention of aircraft accidents and associated loss of life and equipment contribute significantly to the accomplishment of the Army aviation mission.

b. Safety of aircraft operations and protection of personnel and equipment are paramount and can best be assured by emphasizing accident prevention. Units must implement an aggressive maneuver accident prevention program to minimize aviation losses of manpower and equipment. All aviation personnel will be thoroughly briefed on unit accident prevention programs, aviation safety procedures, probable accident producing conditions, and hazards before the exercise and on a continuing basis during the exercise. Pilots will be cautioned against attempting to overextend personal or equipment capabilities. Operational missions will be aborted when, in the pilot's judgment, any unsafe conditions exist or may be encountered.

4. SUPERVISION: Commanders will insure that all operations include a reliable accident prevention plan and that this program is aggressively executed. The desire for early accomplishment of the mission must not override the operating limitations of aircraft or capabilities of aviators. Commanders and supervisors are responsible for preventing accidents involving their personnel regardless of the location or the activity.

SECTION II

PREFLIGHT PLANNING

5. WEATHER: Before field exercises, all aviation personnel will receive a weather briefing covering the expected weather conditions to be encountered. This briefing should be given by qualified weather personnel, if available. If not, local assistance will be provided from this headquarters, ATTENTION: AJAGT-V, on request. Supervisory personnel must insure that:

a. Aviators receive a thorough weather briefing before each mission.

b. Necessary precautions are taken regarding expected weather conditions. Missions, regardless of importance, do not justify flights in weather below prescribed minimums. Precautions must include:

(1) Employment of wing spoilers, tie-downs, and chocks during high wind conditions.

(2) Appropriate use of carburetor heat, preflight clearing of collected ice, frost, and snow from aircraft, sheltering of aircraft, avoidance of inflight icing conditions, and other preventive measures used to reduce icing hazards.

(3) Avoidance of areas conducive to the formation of ground fog.

c. Density altitude is computed in accordance with TM 1-260 or appropriate flight handbook prior to all helicopter operations. When more than one landing site is to be used during an operation, the density altitude must be computed for each site.

6. PREFLIGHT BRIEFINGS: Aviators must receive a thorough preflight briefing on all aspects of each mission to include, but not limited to, safety, operations, and weather. Aircraft commanders and aviators must be afforded sufficient time to brief crews. Crew coordination is very critical in sling load operations and the need for crew briefing cannot be overemphasized.

7. AIR-TO-AIR ENGAGEMENTS: Army aircraft will not engage in simulated air-to-air combat actions.

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8. HAZARDS TO FLIGHT: Supervisors must develop and disseminate current information on all flight hazards and obstacles, especially wires. Operational debriefings will include report of hazards noted during the mission and an up-to-date operational map depicting all hazards must be readily accessible to all aviators. Coordination will be effected with signal units to insure that the installation and location of wires is reported. Approaches and departures in the vicinity of command posts must be carefully planned and executed after careful reconnaissance by pilots to determine local hazards.

9. NAP-OF-THE-EARTH FLYING: A thorough prior reconnaissance must be made of routes for nap-of-the-earth flying to determine hazards. Mission altitude will be high enough to prevent striking wires, trees, or other objects. Extreme caution must be exercised when prior reconnaissance is not possible. Aviators must be continually advised and cautioned to be aware of the numerous unmarked obstacles and hazards throughout the area. Aircraft will not be flown at low levels over poultry or livestock.

10. UTILIZATION OF NEW, INEXPERIENCED, OR ATTACHED AVIATORS: Many exercise participants will be new, inexperienced, or attached aviators and must be closely supervised to insure the assignment of missions within individual capabilities.

11. PROPER REST AND DIET FOR AVIATION PERSONNEL: Aviators must be provided with a diet capable of supporting their flying activities and sufficient time for necessary rest. Failure to satisfy these requirements increases the possibility of accidents as mental processes and physical reaction times are seriously impaired by lack of proper nutrition or rest. Field ration C provides a sufficiently nutritious diet for continued healthful functioning of the body and participation in flying activities. AR 95-17 will be followed as pertains to crew rest.

12. IMPACT OF PSYCHOLOGICAL FACTORS: Temporary duty in the field away from home station tends to intensify the impact and effects of domestic and other personal problems as well as other psychological factors. Such problems and the resulting distraction may adversely affect an aviator's performance. Commanders must obtain the assistance of the unit flight surgeon in identifying and handling of personnel so affected.

13. FUEL RESERVE: Current Army Regulations require a minimum fuel reserve for all flights and consideration for this required reserve should be given in all flight planning. Normal fuel consumption should be computed for each aircraft, properly recorded, and brought to the attention of aviators utilizing respective aircraft. Aircraft accidents resulting from fuel exhaustion are a definite reflection on the ability, judgment, and professional qualification of supervisory personnel and aviators concerned.

14. UTILIZATION OF HELICOPTER CRASH RESCUE AND FIRE FIGHTING UNITS: Emergency type aircraft will be located in areas of known high density air activity and will move in the proximity of large air operations to reduce reaction time to the minimum.

SECTION III

SELECTION AND MARKING OF AIRFIELDS/HELIPORTS

15. RECONNAISSANCE: A ground reconnaissance should be conducted before landing an aircraft in strange fields. This can be accomplished by using ground advance party or pathfinders before arrival of the aircraft. When time does not permit ground reconnaissance in airfield site selection, an aerial high and low reconnaissance must be made and, after landing, a thorough ground reconnaissance conducted to determine the condition of the area.

a. Approaches to airstrips should be clear of obstacles at both ends and should be a minimum of 1,000 feet in length for O-1 and U-10 type aircraft and 1,500 feet for U-6 and CV-2 type aircraft. Aircraft runways and taxiways will be kept as smooth as possible. Appropriate aircraft operators handbooks will be consulted to determine actual length of airfield. Consideration must include gross weight, density altitude, prevailing wind, and field surface conditions.

b. Heliports will have cleared approaches and exits with sufficient area cleared to permit hovering maneuvers and to provide parking areas. Routes for hovering of helicopters from helipads to parking and/or refueling points will be marked and kept clear of all obstacles or other aircraft. Ground guides will be employed to guide taxiing helicopters. Helicopters will not take off, hover, or approach over other aircraft.

16. MARKING OF AIRFIELDS/HELIPORTS: Airfields and helipads must be properly marked, to include a wind direction indicator.

a. Use of painted steel or aluminum planking is desirable for marking airstrip limits and to indicate wind direction on fixed wing airfields; however, cloth panels may be used if securely anchored.

b. Painted strips of pierced steel or aluminum planking are suitable for marking helicopter landing areas. At no time will cloth panels be used for marking helicopter landing areas nor will helicopters operate in vicinity of cloth panels.

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17. NIGHT OPERATIONS: Proper selection and marking of airfields for night operations is particularly critical and the following guidelines will be adhered to:

- a. The field must be of sufficient size to permit safe landing, ground maneuver, and parking.
- b. Slopes should be avoided whenever possible.
- c. The landing area should be grass covered or treated to prevent dust.
- d. Proper lighting, to include emergency lighting, must be provided to avoid dangers inherent to night operations.
- e. Parking areas must be located away from landing areas with ground guidance and control established.

SECTION IV

AIRFIELD OPERATIONS, MAINTENANCE, AND REFUELING

18. GROUND AND AIR CONTROL: Local regulations for ground and air control will be established for all regularly used airfields and helipads.

a. Ground control will be established on all operational airfields and heliports. Control operations will announce density altitude and instruct pilots to check and set directional gyroscopes when providing take-off and landing instructions.

b. Crash rescue vehicles will be on alert status at all times when serving operational airfields.

19. GROUND HANDLING OF AIRCRAFT: Ground control and guidance of aircraft must be accomplished efficiently and safely. Taxiing fixed and/or rotary wing aircraft on unimproved airfields will be directed by walking guides. Aviation personnel involved in ground handling must be well trained in all aspects of this function and must be adept at ground guidance hand signals and procedures. Nonaviation personnel who are regularly located in the vicinity of helipads and facilities not manned by aviation personnel should be trained to act as ground guides. Crew personnel should be dismounted when necessary to function as ground guides where other personnel are not available. Ground handling in close quarters, such as movement into camouflaged parking or maintenance areas, will be accomplished only when sufficient personnel are available to adequately observe for necessary aircraft structure clearance in maneuvering.

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20. SAFETY HAZARDS: Dust and mud are hazards to safe aircraft operation. Maximum effort should be taken to minimize these hazards at airfields and helipads.

21. AIRCRAFT MAINTENANCE: Maintenance problems due to field and climatic conditions must be anticipated. Maintenance personnel will conform to the appropriate technical manuals as they relate to the climatic conditions involved. Due to adverse maintenance conditions, aviators must conduct extremely thorough preflight inspections to insure airworthiness of aircraft. Particular attention must be given to removal of accumulated snow, ice, frost, and the removal of spoilers, chocks, and tie-downs. Inspection of aircraft members affected by field operations such as tires, landing gear, etc., should be accomplished more frequently than required by the appropriate technical manuals.

22. AIRCRAFT REFUELING: To promote refueling safety and to eliminate engine failures as a result of contaminated fuel, the following refueling procedures will be adhered to:

a. Refueling will be accomplished in strict accordance with FM 1-100 and TM 10-1107.

b. Fire extinguishers will be readily available to personnel engaged in refueling aircraft.

c. Procedures outlined in Section V, TM 10-1107, will apply when a dispensing tanker trucker is not used.

d. Aircraft should be refueled to operating capacity after the end of each flight operation to prevent condensation in fuel tanks.

e. Preflight sampling and checks for fuel contamination will be accomplished as described in Section IV, TM 10-1107.

f. Fuel sampling will be in accordance with Third US Army Regulation 700-5.

23. FIRE PREVENTION:

a. POL storage should be located in remote areas, clear of aircraft approach and departure routes.

b. Crash rescue should be readily available.

c. Extra caution will be employed to prevent costly fires when tent stoves are used to warm maintenance and personnel tents.

d. Smoking will not be permitted within 50 feet of aircraft or fuel supplies.

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e. Aviation personnel utilizing aircraft must use caution to see that all equipment is stowed properly to prevent interference with controls. (AJAGT-V)

FOR THE COMMANDER:

OFFICIAL:

CHARLES W. DAVIS
Colonel, GS
Acting Chief of Staff


PAUL S. LINDBERG
Colonel, AGC
Assistant Adjutant General

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