

**Army Regulation 95-1**

**Aviation**

# **Flight Regulations**

**Headquarters  
Department of the Army  
Washington, DC  
31 October 2008**

**UNCLASSIFIED**

# ***SUMMARY of CHANGE***

AR 95-1

Flight Regulations

This major revision, dated 31 October 2008--

- o Incorporates Office of the General Counsel's interpretation of Section 203, Title 18, United States Code, and Section 205, Title 18, United States Code, prohibiting officers, when in the employment of a government contractor, from serving as crewmember while on terminal leave (para 2-3e).
- o Aligns domicile to duty requirements with DOD and other Services allowing domicile to duty transportation on Army aircraft under certain conditions (para 3-6b).
- o Incorporates previous Extended Range Fuel System safety messages: CDRAMCOM 051340Z Jan 00, HQDA 122047Z Sep 03, and CDRAMCOM 241724Z Jun 04, but leaves Safety of Flight messages AH-64-98-01 and UH-60-98-01 in effect (para 3-14a).
- o Establishes December 2010 as the cut off date for the use of non-crashworthy non-ballistically tolerant Extended Range Fuel System (para 3-14e).
- o Clarifies the requirement that "simulator only" trainers and evaluators must be evaluated annually by trainers or evaluators who are current in the respective aircraft type (para 4-5d).
- o Establishes a requirement for commands with simulators to develop and implement standardization programs covering instructor/operator responsibilities, qualifications, knowledge, training, and proficiency (para 4-11).
- o Rewrites pilot requirements to clarify category requirements and where commanders may fly aircraft they are not qualified in and allows them to approve their battalion and brigade standardization instructor pilots to do the same (para 4-21).
- o Adds the requirement for the Aviation Resource Management Survey, and for aviation standardization officers to meet annually to discuss results of the survey (paras 4-36 and 4-37).
- o Adds the requirement to develop or adopt an Aviation Resource Management Survey checklist (para 4-38).
- o Recognizes rapid fielding of modern equipment and allows the Program Executive Office--Aviation, in coordination with the Aviation Engineering Directorate to substitute advanced replacement equipment for the items listed within table 5-2 under certain conditions (para 5-2g(3)).

## Aviation


### Flight Regulations

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By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.  
*General, United States Army*  
*Chief of Staff*

Official:

  
JOYCE E. MORROW  
*Administrative Assistant to the*  
*Secretary of the Army*

**History.** This publication is a major revision.

**Summary.** This regulation covers aircraft operations, crew requirements, and flight rules. It also covers Army aviation general provisions, training, standardization, and management of aviation resources.

**Applicability.** This regulation applies to all Active Army, Army National Guard/Army National Guard of the United States, and U.S. Army Reserve, unless otherwise stated. During mobilization, the

proponent may modify chapters and policies contained in this regulation.

**Proponent and exception authority.**

The proponent of this regulation is the Deputy Chief of Staff, G–3/5/7. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

**Army management control process.**

This regulation contains management control provisions and identifies key management controls that must be evaluated.

**Supplementation.** Supplementation of

this regulation and establishment of command and local forms are prohibited without prior approval from the Deputy Chief of Staff, G–3/5/7, (DAMO–AV).

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Commanding General, U.S. Army Aviation Warfighting Center (ATZQ–ESL), Fort Rucker, AL 36362–5211.

**Distribution.** This publication is available in electronic media only and is intended for command levels A, B, C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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## Glossary



## Chapter 1 General

### 1-1. Purpose

This regulation establishes procedures, policy, and responsibilities for—

- a. Crewmember training and standardization.
- b. Aircrew Training Program (ATP).
- c. Flight violations.
- d. Command, control, operation, and use of Department of the Army (DA) aircraft.
- e. Department of the Army Aviation Standardization Program.
- f. Incorporation of previously issued messages and policy memos that impact this regulation. Messages that have not been incorporated or validated in this document shall be updated and reissued by the appropriate agency if still deemed valid.
- g. Safety of flight (SOF) messages and Aviation Safety Action Messages (ASAM).
- h. Aircraft weight and balance.
- i. Aviation life support equipment (ALSE).
- j. Nonstandard aircraft.
- k. Department of the Army Flying Hour Program (FHP).

### 1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

### 1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

### 1-4. Responsibilities

- a. The Secretary of the Army (SA), or authorized representative (unless otherwise stated in this regulation), will reserve all authority and final approval for Army aviation, and will be responsible for operational support airlift (OSA) management.
- b. The Assistant Secretary of Defense (Public Affairs) will approve requests to engage in public demonstrations.
- c. The Assistant Secretary of the Army (Financial Management and Comptroller) (ASA(FM&C)) will prepare and publish Army Cost Comparison Rates and Army Aircraft Reimbursement Rates annually and provide cost analysis support to OSA management and other agencies on request.
- d. The Chief of Staff of the Army (CSA) or Vice Chief of Staff of the Army (VCSA) will approve Armywide grounding of a majority or an entire mission, type, design, and series (MTDS) fleet of aircraft. This authority is clearly defined in chapter 6.
- e. The Administrative Assistant to the Secretary of the Army, will provide policy guidance on the use of Operation Support Airlift (OSA) aircraft.
- f. The Director of Management, on behalf of the Director of the Army Staff, with the concurrence of the Administrative Assistant, on behalf of the Secretary of the Army, will provide management oversight and policy guidance for the use and scheduling of Army executive jets.
- g. The Deputy Chief of Staff, G-3/5/7 (DCS, G-3/5/7) will have staff responsibility for Army aviation, to include—
  - (1) Selected waiver authority limited to those items referenced in paragraph 1-7.
  - (2) Aviation operations and management (chaps 2 and 3).
  - (3) Operational support airlift including—
    - a) Establishing objective wartime requirements for OSA.
    - b) Reviewing, annually, the continuing need for OSA aircraft inventory.
    - c) Determining future OSA aircraft stationing and structure.
    - d) Reporting Army OSA flying hour program execution during the quarterly Program Performance and Budget Execution Review and overseeing centralized scheduling for Army OSA (with the exception of executive jet scheduling). (All OSA procedures are covered in chap 3.)
  - (4) Headquarters, DA (HQDA) level staff responsibility for aviation training and flight procedures (chaps 4 and 5).
  - (5) The exercise of final approval authority for deviations from the standard Army aircraft baseline configuration (chap 6).
  - (6) Aviation life support (chap 8).
  - (7) Nonstandard aircraft (chap 9).
  - (8) The Army flying hour program (chap 10).
- h. The Deputy Chief of Staff, G-4 (DCS, G-4) will—

- (1) Have staff responsibility for SOF and ASAMs (chap 6).
- (2) Have staff responsibility for weight and balance (chap 7).
- (3) Develop policies and identify responsibilities for the Army Equipment Safety and Maintenance Notification System (AESMNS).
- (4) Serve as the Army Staff proponent for the Army Safety and Maintenance Notification system.
- (5) Establish responsibility for developing an effective tracking and reporting system or method for appropriate feedback of safety and maintenance issues on fielded systems from the user to the combat and materiel developer (MATDEV) and the U.S. Army Combat Readiness Center (USACRC).
- (6) Coordinate, as applicable with appropriate HQDA staff elements, all safety and maintenance messages.
- (7) Provide information on impacts to fleet readiness percentages by Army Command (ACOM), Army Service Component Command (ASCC), Direct Reporting Unit (DRU), or the National Guard Bureau (NGB) (data obtained from the Logistics Support Activity (LOGSA) or Weapon System Program Manager (PM)).
- (8) Establish responsibility for an internal tracking system for all safety and maintenance messages that record ACOM, ASCC, DRU, or NGB compliance.
- (9) Arbitrate conflicts during message generation through message issue, and provide clear guidance.
  - i.* The Commanding General, U.S. Army Aviation Warfighting Center (USAAWC) will serve as—
    - (1) The agency for submitting changes to selected AR 95 series Army regulations.
    - (2) The DA preparing agency for aviation training and standardization literature.
    - (3) The proponent agency for the U.S. Army Aviation Standardization Program (chap 4).
  - j.* The Commander, Aviation and Missile Command (AMCOM) will—
    - (1) Report SOF/ASAM conditions for issuance of SOF and ASAMs (chap 6 and AR 750–6).
    - (2) Be the technical proponent for all U.S. Army aviation weight and balance (chap 7).
    - (3) Designate Program Executive Office (PEO) Aviation to serve as the overall configuration control manager of standard Army aircraft (chap 6).
  - k.* The Surgeon General will coordinate health hazard assessment and other medical and nonmedical aspects relating to the Aviation Life Support System (ALSS) (chap 8).
  - l.* The Chief, National Guard Bureau (CNGB) will—
    - (1) Support missions and establish procedures for the OSA.
    - (2) Retransmit SOF and ASAM messages (chap 6).
    - (3) Exercise responsibility for the standardization of National Guard Aviation and supplement this regulation in accordance with the supplementation requirements above to cover those areas peculiar to National Guard Aviation.
  - m.* The Commanding General, U.S. Army Materiel Command (CG, AMC) will—
    - (1) Supervise the direction of overall command activities involving aviation weight and balance (chap 7).
    - (2) Serve as the DA point of contact for all aviation life support equipment management (chap 8).
    - (3) Designate PEO Aviation to serve as the platform configuration control manager of the aircraft under the control of their project managers (PM) (chap 6).
  - n.* The Commanding General, U.S. Army Training and Doctrine Command (TRADOC), in coordination with other HQDA agencies will—
    - (1) Develop and recommend the doctrine, concepts, material requirements, and organization of Army aviation elements.
    - (2) Develop training, standardization, and evaluation literature for aircrew training programs (chap 4).
    - (3) Oversee the overall training of aviation weight and balance (chap 7).
    - (4) Oversee the doctrine, training, and material needs for the aviation life support system (ALSS) (chap 8).
  - o.* The Commander, Operational Support Airlift Agency (OSAA) will schedule Army requirements for OSA support.
  - p.* The Commander, Army Test and Evaluation Command (ATEC) will—
    - (1) Serve as the DA point of contact for Engineering/Experimental Test Pilot (XP) issues.
    - (2) Assist the Commander of USAAWC with the development of XP training and standardization.
  - q.* The Commander, U.S. Special Operations Command will serve as the proponent responsible for the development of training and operational requirements for special purpose insertion and extraction operations such as FRIES/Fast Rope, SPIES, and STABO with the US Army Special Operations Command acting as the executive agent for these operations. Qualification and sustainment training will be in accordance with their publications for ground forces and aviation operations will be per specific aircraft Aircrew Training Manuals (ATM).
  - r.* The Commanders of ACOMs, ASCCs, and DRUs will—
    - (1) Maintain individual flight records (chap 2).
    - (2) Oversee OSA (chap 3).
    - (3) Monitor the Army aviation standardization program (chap 4).
    - (4) Oversee SOF/ASAMs (chap 6).

- (5) Implement ALSS policies and procedures (chap 8).
- (6) Be responsible for their nonstandard aircraft (chap 9).
- (7) Manage and report their FHP (chap 10).

#### **1-5. Internal control review checklist**

*a.* The regulation that prescribes policy, standards, responsibilities, and accountability for establishing and maintaining effective management controls is AR 11-2. It also provides guidelines for the execution of the Army Management Control Program.

*b.* Appendix B is the applicable Management Control Evaluation Checklist. Managers will use the checklist as daily guidance and will formally complete the checklist as scheduled by the HQDA functional proponents in the annually updated management control plan. The checklist will be used following the guidance in AR 11-2. Specifically, it will—

- (1) Test whether prescribed controls are in place, operational, and effective. Analytical techniques, such as statistical sampling, should be used when appropriate to conserve resources.
- (2) Identify areas where additions or reductions to existing controls are needed.
- (3) Select corrective actions when deficiencies have been found that can be corrected locally.
- (4) Refer deficiencies that cannot be corrected locally to higher command levels for assistance in correcting.
- (5) Provide support for the commander's annual statement on how adequate internal controls are within the organization.

#### **1-6. Deviations**

*a.* Individuals may deviate from provisions of this regulation during emergencies.

*b.* Individuals who deviate from the provisions of this regulation, Federal Aviation Administration (FAA), or host country regulations must report details of the incident directly to their unit commander. The incident must be reported within 24 hours after it occurs.

*c.* Violations of Title 14 Code of Federal Regulations (CFR), International Civil Aviation Organization (ICAO), host country, and military aviation regulations will be treated per paragraph 2-13.

#### **1-7. Waivers and delegation of authority**

*a.* Authority to grant waivers is stated in specific paragraphs of this regulation. Authority granted in this regulation to ACOM, ASCC, DRU, and the NGB Commander may be further delegated by that Commander, except when expressly prohibited. All other Commanders may not further delegate waiver authority unless authorized in the specific paragraph.

*b.* When waiver authority is not specified in specific paragraphs, waivers may be granted to provisions in chapters 2, 3, 4, 5, 8, 9, and 10 only by the DCS, G-3/5/7 (DAMO-AV), 400 Army Pentagon, Washington, DC 20310-0400; and to provisions in chapters 6 and 7 only by the DCS, G-4 (DALO-ORS-A), 500 Army Pentagon, Washington, DC 20310-0500.

## **Chapter 2 Aviation Management**

### **2-1. Personnel authorized to fly Army aircraft**

*a.* The following personnel may fly Army aircraft:

- (1) Army aviators who—
  - (a)* Are members of the active and reserve components (RC).
  - (b)* Are part of the rated inventory and in aviation service (per AR 600-105) and have complied with qualification, training, evaluation, and currency requirements of this regulation (chap 4), for the aircraft to be flown or, are performing pilot duties in accordance with paragraphs 2-4 or 4-21(c)(4).
- (2) Civilian employees of government agencies and government contractors who have satisfied all of the following:
  - (a)* Appropriate certifications or ratings.
  - (b)* Written authorization from the appropriate ACOM, ASCC, DRU, or NGB commander or his delegated approval authority; the Commanding General, USAAWC for units assigned to USAAWC, or Chief, NGB for National Guard (NG) units.
  - (c)* Complied with qualification training, evaluation, and currency requirements of this regulation, (chap 4), and/or the provisions of AR 95-20 (contractor personnel), the contract and/or statement of work for the aircraft to be flown.
- (3) Aviators in other U.S. Services who—
  - (a)* Are in aviation service.

(b) Have complied with qualification, training, evaluation, and currency requirements of their service or of this regulation (chap 4), for the aircraft to be flown or, are performing pilot duties in accordance with paragraph 4-21(c)(4).

(c) Have written authorization from their service and the ACOM, ASCC, DRU, or NGB commander.

(4) Aviators of foreign services who—

(a) Have completed the course of instruction prescribed by their service and have been awarded an aeronautical designation of aviator.

(b) Complied with qualification training, evaluation, and currency requirements of their service or of this regulation (chap 4), for the aircraft to be flown or, are performing pilot duties in accordance with paragraph 4-21(c)(4).

(c) Have written authorization, including a disclaimer absolving the US Government from liability (unless a disclaimer is included under the provisions of an approved exchange program) from their government. The appropriate host ACOM, ASCC, DRU, or NGB must provide written authorization that will include, as a minimum, the purpose and duration of the authorization. If authorized to fly, they will be restricted from performing pilot-in-command duties unless serving in approved exchange officer positions established specifically for flying purposes.

(5) Personnel listed in (1) through (4) above who are not qualified or current to operate the aircraft to be flown when receiving training or performing limited cockpit duties per paragraph 2-4 or pilot duties per paragraph 4-21(c)(4) must be directly supervised by an instructor pilot (IP), a standardization instructor pilot (SP), or Instrument Flight Examiner (IE) who is qualified and current in the aircraft being flown and is at one set of flight controls.

(6) Individuals receiving aviator instruction authorized by the DCS, G-3/5/7 (DAMO-AV). These people may operate Army aircraft when training under an approved program of instruction (POI) or aircrew training program (ATP) with instructors designated by the Directorate of Evaluation and Standardization (DES).

(7) Flight surgeons or aeromedical physician assistants in aviation service when in an aircraft not requiring more than one pilot as a minimum crew. In addition an IP must be at one set of flight controls.

b. All Army aviators who are in aviation service per AR 600-105 must meet the annual physical requirements of AR 40-501 regardless of assignment.

c. Procedures for award of aeronautical designations are stated in AR 600-105 and AR 600-106.

## **2-2. Personnel authorized to start, run up, and taxi Army aircraft**

a. The following personnel are authorized to start, run up, and taxi aircraft:

(1) Personnel listed in paragraph 2-1a (1) through (6).

(2) Other personnel who meet the requirements of paragraph 3-20.

b. Personnel listed in a (2) above are prohibited from starting, running-up, or taxiing helicopters.

c. Contractor personnel operating per AR 95-20 are authorized to start and run up aircraft under the provisions of the contract using procedures in accordance with the operator's manual.

d. The chain of command must approve all aviation operations. Aviation operations are defined as any operation with intent to start the main aircraft engines. Contractor aviation operations will be approved per AR 95-20.

## **2-3. Crewmembers prohibited from performing aircrew duty**

The following crewmembers are prohibited from performing aircrew duties:

a. Commissioned officers (other than warrant officers) in non-operational aviation positions, except per paragraph 2-4 of this regulation and AR 570-4 or per paragraph 4-21(c)(4).

b. All crewmembers while attending non-flying courses of instruction of more than 90 days.

c. Those disqualified, temporarily suspended, or whose aviation service is administratively terminated (AR 600-105 or AR 600-106).

d. Military aviators in an authorized leave status when employed by a contractor to serve as a crewmember.

e. Officers of other government agencies while on terminal leave from that agency and employed by a contractor to serve as a crewmember.

## **2-4. Aviators restricted to limited cockpit duty**

a. Aviators ranked colonel (0-6) in non-operational aviation positions and general officers who hold a U.S. military aeronautical designation may perform cockpit duties on a limited basis provided requirements specified in AR 570-4 are met. Officers performing such duties will—

(1) Maintain a current flight physical per AR 40-501.

(2) Fly with an IP qualified and current in that aircraft at one set of flight controls.

(3) Submit an annual request to the appropriate ACOM, ASCC, DRU commander, head of Joint or Defense activity, Director of the Army Staff, head of the Army Staff agency, or Chief, National Guard Bureau as appropriate for approval. Information copies of the approved request will be sent to the DCS, G-1 (DAPE-PRP), 300 Army Pentagon, Washington DC 20310-0300, and the DCS, G-3/5/7 (DAMO-AV), 400 Army Pentagon, Washington, DC 20310-0400, and Human Resources Command (AHRC-OPA-V), Alexandria VA 22332.

b. Other ATP, synthetic flight training system (SFTS), and Annual Proficiency and Readiness Test (APART) requirements do not apply to officers performing duties per this paragraph.

## 2-5. Aircrew and maintenance checklists

- a. The publications and forms required by DA Pam 738-751 will be in each aircraft.
- b. Operator and crewmember checklists will be used for preflight through before leaving aircraft checks. While airborne, when time does not permit use of the checklist or when its use would cause a safety hazard, required checks may be accomplished from memory.
- c. Checklists will be used while making maintenance operational checks, maintenance test flights, and preventive maintenance inspections.
- d. Only DA approved operator's manuals and checklists will be used, except as specified in paragraph 9-5.

## 2-6. Logging flying time

An entry will be made on DA Form 2408-12 (Army Aviator's Flight Record) for each flight in aircraft and flight simulators by all crewmembers indicating duties performed, mission, and flight condition.

a. *Aircrew Duty.* Use the following symbols to record flight time in aircraft and flight simulators when qualified per chapter 4, section II and for flights in the aircraft when designated on the mission brief sheet to perform the duties specified by the symbol. Crew members instructing or evaluating without access to the flight controls will use the symbol for the duty being performed.

- (1) Rated crewmembers.
  - (a) *PI-pilot.*
  - (b) *CP-copilot.* When briefed, this symbol may be used by more than one aviator performing copilot duties.
  - (c) *PC-pilot in command.* The symbols MP, ME, XP, UT, IE, IP, or SP may also be used to designate the pilot in command. If any of these additional symbols are mixed or duplicated on the same aircraft, the mission brief sheet must clearly indicate which aviator is the pilot in command. PC may only be logged by one aviator at the controls.
  - (d) *MP-maintenance test pilot.* This symbol may be used by both aviators, if qualified, on functional test flights when authorized by the mission brief sheet.
  - (e) *XP-experimental test pilot.* This symbol may be used by both aviators on experimental test flights when assigned to a designated testing organization or activity and authorized by the mission brief sheet.
  - (f) *UT-unit trainer.*
  - (g) *IE-instrument examiner.* When briefed, this symbol may be used by more than one aviator performing IE duties.
  - (h) *IP-instructor pilot.* When briefed, this symbol may be used by more than one aviator performing IP duties.
  - (i) *ME-maintenance test pilot evaluator.* This symbol may be used by both MEs on functional test flights when authorized by the mission brief sheet.
  - (j) *SP-standardization instructor pilot.* When briefed, this symbol may be used by more than one aviator performing SP duties.

(2) Nonrated crewmembers use the following symbols to record flight time when qualified and designated on the mission brief sheet to perform the duties specified by the symbol.

- (a) CE-crew chief, aircraft mechanic and noncrewmembers designated by the commander and in the unit's ATP.
- (b) MO-flight medic, aeromedical physician assistant, flight surgeon or other medical personnel.
- (c) FE-flight engineer.
- (d) UT-unit trainer.
- (e) FI-nonrated crewmember instructor.
- (f) SI-nonrated crewmember standardization instructor.

(3) Non-crewmembers use the duty symbol "OR" to record flight time when qualified and designated on the mission brief sheet to perform duties as aircraft maintenance personnel not performing other qualified aircrew duties, technical observer, firefighter, aerial photographer, door gunners, crewmember training course students, crash rescue specialists and other crew duties not meeting the requirements of rated or nonrated duty and as approved on the mission brief sheet.

b. *Mission.*

- (1) A-acceptance test flight.
- (2) C-combat mission directly against the enemy within a designated combat zone.
- (3) F-maintenance test flight.
- (4) S-service missions, other than A, C, F, T, or X.
- (5) T-training flight for individual qualification, refresher, mission, or continuation.
- (6) X-experimental test flight.
- (7) D-imminent danger. Applies when Imminent Danger Special Pay is authorized per Department of Defense (DOD) Pay Manual, chapter 10.

*c. Flight condition.* Each crewmember will use only one of the following symbols to identify the condition or mode of flight for any time period.

- (1) D-day. Between the hours of official sunrise and sunset.
- (2) H-hood/simulated IMC. Vision of the person flying the aircraft is artificially limited from viewing the horizon or earth surface. Aircraft attitude must be controlled using aircraft instruments. An observer is required for all hooded flights.
- (3) N-night. Between the hours of official sunset and sunrise.
- (4) NG-night goggles. Night vision goggles used during night to include use of head up display (HUD).
- (5) NS-night systems. Night vision system installed on aircraft used during night; also logged when two or more devices are used simultaneously.
- (6) W-weather. Actual weather conditions that do not permit visual contact with the natural horizon or the earth's surface. Aircraft attitude must be determined and controlled using aircraft instruments.
- (7) DS-AH-64 only-when night vision system installed on the aircraft is used during the day. Back seat must be equipped with black out curtains.

## **2-7. Computation of flying time**

Flying time starts when an airplane begins to move forward on the takeoff roll or when a helicopter lifts off the ground. Flying time ends when the aircraft has landed and the engines are stopped or the flying crew changes.

## **2-8. Individual flight records**

*a.* Each crewmember will hand carry between assignments and must present his or her individual flight records folder (IFRF) and individual aircrew training folder (IATF) to the new unit to which assigned/attached for ATP purposes within 14 calendar days after reporting for duty or placement on flying status orders per AR 600-106.

*b.* The flying experience and qualification data for each rated crewmember and flight surgeon in aviation service and each nonrated crewmember (AR 600-105 and AR 600-106) will be documented in the DA Form 3513, Individual Flight Records Folder (IFRF), United States Army and Individual Aircrew Training Folder (IATF) in accordance with FM 3-04.300 and TC 1-210. DA Form 759 (Individual Flight Record and Flight Certificate-Army); DA Form 759-1 (Individual Flight Record and Flight Certificate-Army, Aircraft Closeout Summary); DA Form 759-2 (Individual Flight Record and Flight Certificate-Army, Flying Hour Work Sheet); and DA Form 759-3 (Individual Flight Record and Flight Certificate-Army, Flight Record and Flight Pay Work Sheet) are used to develop data for the permanent record. DA Form 7120-R (Commanders Task List), DA Form 7120-1-R (Crew Member Task Performance and Evaluation Requirements), DA Form 7120-2-R (Crew Member Task Performance and Evaluation Requirements Continuation Sheet), DA Form 7120-3-R (Crew Member Task Performance and Evaluation Requirements Remarks and Certification), DA Form 7122-R (Crew Member Training Record), DA Form 4507-R (Crew Member Grade Slip), DA Form 4507-1-R (Maneuver/Procedure Grade Slip), DA Form 4507-2-R (Maneuver/Procedure Grade Slip Continuation Comment Slip) are used to indicate training and qualification data on crewmembers.

*c.* Commanders will maintain, close out and distribute required individual flight records and individual aircrew training records for persons assigned or attached to their organization in accordance with FM 3-04.300 and TC 1-210. These records will be prepared and kept on file for—

- (1) Aviators and Flight Surgeons in operational aviation positions.
- (2) Aviators in non-operational aviation positions and those restricted or prohibited by statute from flying Army aircraft. These records will be kept by an aviation entity in an inactive file either with operational aviator files or with military personnel records as specified by the ACOM, ASCC, DRU, or NGB commanders.
- (3) Other personnel on flight status and authorized to log flight time per AR 600-106 and this regulation.
- (4) Persons attending initial entry flight training.

*d.* Upon separation or transfer to the IRR the transition center will extract the latest DA Form 759, Individual Flight Record and Flight Certificate, from the IFRF and forward it to the OMPF Custodian. A copy of the latest DA Form 759 and the remainder of the IFRF along with the IATF will be given to the Soldier.

*e.* Contractors will maintain records in accordance with AR 95-20 and the statement of work or contract.

## **2-9. Use of airports, heliports, and other landing areas**

*a.* Aviators may operate Army aircraft at airports and heliports classified as military, Federal Government or public use in DOD/US Government flight information publications (FLIP). Private, closed or otherwise restricted airports and heliports will be used only with prior permission of appropriate authorities and if the facility is suitable for operations.

*b.* Commanders may authorize the use of temporary landing areas (other than airports or heliports) off military reservations and Government leased training areas. They must obtain approval of the landowner or the approving authority and comply with the landing area requirements of the state or host country. Commanders will consult with the appropriate Department of the Army Representative (DAR) or host nation aviation agency (AR 95-2).

*c.* The installation or field training exercise commander will set policies on the use of aircraft landing sites on military reservations and field training areas.

- d. Aviators may select landing and takeoff areas when on lifesaving missions or when further flight is inadvisable.
- e. Aviators should be aware that they may be charged for the use of private facilities on public airports. The pilot in command should report unexpected airport fees to the chain of command.

## **2-10. Local flying rules**

- a. Installation and/or garrison commanders having Army aircraft assigned, attached, or tenant to his or her installation will prepare and publish local flying rules in coordination with the senior aviation mission commander on the installation. Rules will include the use of tactical training and maintenance test flight areas, arrival and departure routes, and airspace restrictions as appropriate to help control air operations.
- b. Traffic pattern altitudes at Army airfields for airplanes should be set at 1,500 feet above ground level. Helicopter traffic pattern altitudes should be at least 700 feet above ground level.
- c. Installation and/or garrison commanders may set different altitudes based on noise abatement, fly-neighborly policies, or other safety considerations. These will be displayed in flight operations and provided to the U.S. Army Aeronautical Services Agency (USAASA) for publication in the DOD/US Government flight information publications (FLIP).

## **2-11. Special use airspace**

- a. AR 95-2 sets Army policy and procedures for handling special use airspace (SUA) matters.
- b. Operations in SUA will be conducted per instructions in CFRs, DOD/US Government FLIP, host nation procedures, per Letters of Procedures, Letters of Agreements, FAA Certificates of Authorization, and local Air Traffic Control measures.

## **2-12. Aircraft lighting requirements**

- a. Army aircraft shall be illuminated to at least the minimum standards required by the country in which the flight operation occurs.
- b. Anticollision lights will be on when aircraft engines are operating except when conditions may cause vertigo or other hazards to safety.
- c. Position lights will be on bright between official sunset and sunrise.
- d. Commanders may authorize exemptions to lighting requirements in threat environments or for night vision device flights when operating per AR 95-2. Exemption must be clearly defined and authorized by the unit commander in standard operating procedures or mission orders.

## **2-13. Flight violations**

Policies and procedures for reporting and investigating alleged flight rules violations follow:

- a. *Violations.* Any violation of FAA, International Civil Aviation Organization (ICAO), host country, and/or any other pertinent aviation regulation will be reported. Any person witnessing or involved in a flight violation involving civil or military aircraft will report it as soon as possible.
  - (1) Violations by military aircraft should be reported to one of the following:
    - (a) The commander of the unit, activity, or installation if known, to which the aircraft belongs.
    - (b) The DAR of the FAA service area in which the alleged violation took place. (See AR 95-2 for addresses.)
    - (c) The Commander, U.S. Army Aeronautical Services Agency (USAASA), Fort Belvoir, Virginia 22060-5582.
    - (d) The U.S. Army Aeronautical Services Detachment, Europe, if the incident took place in its area of responsibility. (See AR 95-2 for address.)
  - (2) Violations by civil aircraft should be reported to one of the following:
    - (a) The Flight Standards District Office for the FAA region in which the alleged violation took place.
    - (b) The Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591 or their 24-Hour Safety Hotline (800) 255-1111.
    - (c) The DAR of the FAA service area in which the alleged violation took place. (See AR 95-2 for addresses.)
    - (d) The Commander, USAASA, Fort Belvoir, Virginia 22060-5582.
    - (e) The U.S. Army Aeronautical Services Detachment, Europe, if the incident took place in its area of responsibility. (See AR 95-2 for address.)
- b. *Information reported.* To report an alleged violation, use a letter or memorandum format. DA Form 2696 (Operational Hazard Report) is not normally used to report flight violations. When reporting an alleged violation, provide as much information as possible. This should include—
  - (1) Type and make of aircraft.
  - (2) Tail number.
  - (3) Name of pilot in command (see para 2-13d).
  - (4) Unit assigned, if military.
  - (5) Location where aircraft is based.

- (6) Description of alleged violation, to include—
  - (a) Specific reference to regulations violated.
  - (b) What happened.
  - (c) Time and date the alleged violation occurred.
  - (d) Where the alleged violation occurred.
- (7) Name and phone number of the individual reporting the alleged violation.
- (8) Names, addresses, and phone numbers of additional witnesses, if any.
- (9) Other pertinent information.

*c. Investigation.*

(1) Reports of alleged violations received from the FAA, ICAO, or a host country will be investigated under the provisions of AR 15–6.

(2) Commanders receiving a report of violations from sources other than those listed in paragraph 2–13c(1) will first determine if it involves personnel or aircraft under their command and initiate an investigation under AR 15–6, if necessary.

(3) If warranted by available evidence, commanders may convene a flight evaluation board (AR 600–105) instead of conducting a separate investigation.

(4) Based on the outcome of the investigation, commanders may take appropriate administrative, judicial, or non-judicial action.

(5) Results of investigations conducted per AR 15–6 or AR 600–105, will be reported through channels to the Commander, USAASA, Fort Belvoir, VA 22060–5582. The report will include the findings of the investigation, the corrective action taken or proposed, any conclusions derived, the nature of disciplinary action taken (if any), and any other pertinent information. This report must reach USAASA within 60 days of the commander receiving notification of the alleged violation, unless—

(a) The immediate commander cannot complete the investigation or the administrative or disciplinary action within this time. In this case, an interim report will be forwarded detailing the reasons for the delay.

(b) A flight evaluation board is convened. USAASA should be notified when the board is convened and of the expected completion date.

(6) Under no circumstance will a report of investigation prepared under the provisions of this regulation be released outside of the DOD except in accordance with the Freedom of Information Act (FOIA) and the Privacy Act, as implemented by AR 25–55 and AR 340–21. All requests for information under the FOIA or Privacy Act will be referred to the installation or unit FOIA/Operations Security coordinator for processing according to AR 25–55 or AR 340–21.

*d. Restricted information.* Names of crewmembers of military aircraft involved in actual or alleged violations will be treated as restricted information and not be released to the public or any agency outside the DOD except by proper authority. Any person receiving requests for names of crewmembers of Army aircraft should direct such inquiries to the Commander, USAASA.

## **2–14. Mission approval process**

Commanders in the grade of lieutenant colonel (O–5) and above will develop and publish policies and procedures for the mission approval process for those units under their command. When the chain of command lacks a commander in the grade of lieutenant colonel (O–5), the ACOM, ASCC, DRU, or NGB commander may adjust this requirement. Adjustment authorities granted throughout this paragraph will not be delegated below the General Officer level. Approval authorities and procedures established for tactical and combat operations may differ from those utilized for garrison operations. Commanders will establish a training and certification program to ensure standardization and understanding of the mission approval and risk management process for personnel defined in sub paragraph *a* below.

*a. Definitions.*

(1) *Initial mission approval authority.* Commanders or their designated representatives (operations officer, S–3, and so forth) determine the mission feasibility and either accept or reject the mission for the command.

(2) *Briefing officer.* Commander or their designated representative that interacts with the mission crew or Air Mission Commander to identify, assess, and mitigate risk for the specific mission. Commanders will select briefing officers based on their experience, maturity, judgment, and ability to effectively mitigate risk to the aircrew and designate them by name and in writing. Mission Briefers are authorized to brief regardless of risk level. Briefing officer must be a qualified and current pilot in command in the mission profile as determined and designated by the commander.

(3) *Final mission approval authority.* Are members of the chain of command who are responsible for accepting risk and approving all aviation operations (ground and air) within their unit. They approve missions for a specific risk level. Final mission approval authorities may only approve those missions whose assessed risk level is commensurate with their command level. Commanders in the grade of lieutenant colonel (O–5) and above will select final mission approval authorities from the chain of command and designate them in writing along with the level of risk (low,

moderate, high, extremely high) mission they are authorized to approve. At a minimum, company commanders and below are the final mission approval authority for low-risk missions, battalion commanders and above for moderate-risk missions, brigade commanders and above for high-risk missions, and the first general officer in the chain of command for extremely high-risk missions. Approval authorities are based upon levels of command authority and not rank. For units lacking these positions, ACOM, ASCC, DRU, or NGB commanders may adjust them within these guidelines. During bona-fide absences, battalion and brigade commanders may authorize their field grade XO or S-3 to accept the risk and approve the operation on their behalf provided they are properly trained and notify the commander as soon as possible.

(4) *Risk Assessment Worksheets (RAW)*. Commanders will develop local briefing checklists and RAWs for use in assessing aircrew mission planning and risk. RAW will be constructed using the concepts outlined in FM 5-13. The commander will combine guidance from higher commanders with personal knowledge of the unit and experience to assign levels of risk to particular parameters. Risk levels are used to elevate items of interest to successive levels of command for visibility and acceptance.

(5) *DA Form 5484 (Mission Schedule/Brief)*. Instructions for completing DA Form 5484 are located at appendix C. Copies of the DA Form 5484 will be retained in unit files with the corresponding RAW for at least 30 days.

*b. Mission approval process.* The mission approval process for aviation operations is completed in three steps that must be completed prior to mission execution.

(1) *Step one: initial mission approval.* The initial mission approval authority approves the mission in accordance with the commander's policies and procedures by considering some of the following factors: alignment with the unit's mission essential task list, aircraft required and availability, availability of required special mission equipment, trained air crew availability, other training and mission impacts, tactical and threat considerations, and so on. This step is not a detailed hazard and risk analysis for specific flight operations but rather an assessment of the unit's capability to accomplish the mission. Initial approval may occur at different levels of command depending on how the mission is generated. For example, a mission generated at the brigade level might be accepted by the battalion operations officer while a platoon training mission might be accepted by the company commander.

(2) *Step two: mission planning and briefing.* This step involves detailed planning, risk assessment and risk mitigation by the aircrew and review by the briefing officer. Briefing officers are authorized to brief missions regardless of the level of mitigated risk. Self-briefing is not authorized unless approved by the first officer in the grade of lieutenant colonel or above in the chain of command. Interaction between crew and briefer is paramount to identify, assess, and mitigate risk for the specific flight or mission. Briefing officers are responsible for ensuring key mission elements are evaluated, briefed and understood by the mission pilot in command or Air Mission Commander. Mission briefing officers will, at a minimum, review and assess the following key areas in the mission planning process:

(a) The flight is in support of an operational unit mission and has been approved by step one.

(b) The crew understands the mission and possesses situational awareness of all tactical, technical and administrative mission details.

(c) Assigned flight crews have been allocated adequate pre-mission planning time and the mission is adequately planned to include performance planning, notices to airmen (NOTAMs), and coordination with supported units.

(d) Assigned flight crews are qualified and current for the mission in accordance with this regulation and the commander's flight crew qualification and selection program per paragraph 4-18, to include ALSE with current inspections, air crew reading file currency, and crew experience appropriate for the mission.

(e) Forecast weather conditions for the mission, including departure, enroute and arrival weather, meet the requirements of this regulation and local directives.

(f) Flight crews meet unit crew endurance requirements.

(g) Procedures in the commander's risk management program are completed and mitigated to the lowest level possible.

(h) Required special mission equipment is operational.

(3) *Step 3: final mission approval.* Based on the resulting mitigated risk, the appropriate final approval authority reviews the mission validity, planning, risk mitigation and authorizes the flight/operation in accordance with the commander's policy. The final approval authority indicates authorization for flight by initialing the DA Form 5484 with the briefing officer and pilot in command/Air Mission Commander. Briefing officers and final approval authorities may give oral approval if necessary. If a crewmember changes or a mission parameter changes which increases the resultant risk, the mission pilot in command or Air Mission Commander will be re-briefed and reapproved as required.

## **2-15. Noise abatement**

*a.* Noise-abatement policies will be disseminated by the Commander, USAASA. Installations will develop and publish local noise abatement programs that minimize aircraft noise footprint on and near the installation and within the local flying area and establish good public relations programs to educate and inform the public.

*b.* Aviators will participate in noise-abatement and fly neighborly programs to minimize annoyance to persons on the ground when missions and safety are not adversely affected.

*c.* Noise Sensitive Areas. Unless required by the mission, all Army aircraft will maintain a minimum of 2000 feet

above the surface of the following: National Parks, Monuments, Recreation Areas and Scenic River ways administered by the National Parks Service, National Wildlife Refuges, Big Game Refuges or Wildlife Ranges administered by the U.S. Fish and Wildlife Service, and Wilderness and Primitive areas administered by the U.S. Forest Service.

*d.* Army aviation activities which normally operate in or adjacent to those areas listed in *c* above may enter into local agreements with the controlling agency to modify procedures required for mission accomplishment.

## **Chapter 3 Operations and Safety**

### **Section I Use of Army Aircraft**

#### **3-1. Use of Army Aircraft—General**

Army aircraft will be used for authorized purposes only. Army owned, operated, or controlled aircraft will only be used to transport Army personnel, Government property and other official Government passengers, or other passengers and cargo as authorized by statute and DOD or Army directives, regulations, or policies. Specifically, use of Army aircraft must comply with paragraphs 3-2, 3-3, 3-4, or 3-5 of this chapter and must not otherwise be prohibited by paragraph 3-6. In addition, air travel must be the most economical mode of transportation consistent with the accomplishment of the military mission, and the particular aircraft to be utilized must be the least costly one available that is capable of satisfying the transportation requirement. Travel by military aircraft that is mission essential, regardless of cost or availability of commercial service, will require complete documentation signed by the senior passenger. This authority cannot be delegated. The classes of missions Army aircraft may be authorized to perform are—

- a.* Required use.
- b.* Operational use.
- c.* Special mission use.
- d.* Other official use.

#### **3-2. Required Use**

Required use includes those missions with a designated Required Use Traveler per DOD Directive (DODD) 4500.56 and Army Directive 2007-01 where the use of military aircraft is required due to continuous requirement for secure communications, security, or for responsive transportation to satisfy exceptional scheduling requirements. Within the DA, the SA and the CSA are required to use military aircraft travel (MILAIR) for all air travel when in a duty status. Additionally, the SA has designated all active four-star generals as required users for official travel.

#### **3-3. Operational use**

Operational use includes those missions required to accomplish the Army's mission and to maintain the combat readiness of aviation and ground units. Operational use missions include, but are not limited to—

- a.* Actual or simulated tactical and combat operations.
- b.* Aircrew training.
- c.* Intelligence.
- d.* Counter-narcotics activities.
- e.* Search and rescue.
- f.* Transportation of prisoners.
- g.* Use of defense attaché controlled aircraft.
- h.* Research and development.
- i.* Maintenance flights.
- j.* Flight tests.
- k.* Repositioning or reassignment of aircraft.
- l.* Transport of troops/equipment.
- m.* Special use (Humanitarian, Disaster Relief, and Deployments).
- n.* Aeromedical evacuation by aeromedical units.

(1) Aeromedical evacuation is applicable to eligible personnel described in DOD 4515.13, Chapter 5.

(2) Army aircraft may be used to transport U.S. Armed Forces patients (DOD 4515.13-R, Chapter 5) when deemed necessary by competent medical authority. Aircraft, fixed wing and rotary wing aircraft not equipped to handle litters or patients requiring special medical attention en route will only transport ambulatory patients who require no en route medical treatment, except in an emergency situation.

(3) Civilian personnel and those personnel not covered in paragraphs 3-3*n*(1) and (2) may be provided aeromedical

transportation to the nearest medical facility where immediate treatment is available. This will be done only when there is an emergency involving immediate threat to life, limb, or sight, and when suitable commercial services (air taxi, charter air ambulance, and aeromedical evacuation configured commercial air) are not available, feasible, or are inadequate. Installation/senior mission commanders in coordination with, Aviation Brigade or separate Army aeromedical evacuation unit commanders will develop written policies that establish specific procedures for notification, mission acceptance, and launch authority.

*o.* Aeronautical research and space and science applications

*p.* Exercising command/supervision authority at adjacent and local installations.

### **3–4. Special Mission Use**

Unless specified, the ACOM, ASCC, DRU, or the NGB Commander owning the aircraft must approve of missions authorized in this paragraph. They may delegate approval authority no lower than the first General Officer in the chain of command. Army aircraft may also be used for the following purposes:

*a. Public Affairs.* Army aircraft may be used for Public Affairs missions and Public Affairs travel in accordance with DOD 4515.13–R, Chapter 3, DODI 5410.19 and AR 360–1. These publications will be consulted before these missions are approved. Approval of an aerial request by the Office of the Chief of Public Affairs does not authorize the flight nor constitute acceptance of the mission. These missions are still subject to paragraph 2–14 and must serve an aviation purpose. Public Affairs missions include, but are not limited to—

(1) Performances by DOD demonstration teams.

(2) Flyovers.

(3) Tactical demonstrations.

(4) Aerial reviews.

(5) Static displays not on a military installation.

(6) Aerial activities defined as- all other aerial demonstrations not listed in (1) through (5) above designed to portray performance techniques by a single aircraft or group of aircraft or personnel. Such demonstrations include but are not limited to, air to air refueling, helicopter flight techniques, maximum performance takeoff, performance record demonstrations, mass parachute jumps, air delivery of equipment, assault aircraft demonstrations, tactical helicopter troop landings, air rescue demonstrations and aircraft rappelling, fast rope or STABO demonstrations.

(7) Continental United States. Units assigned an aerial demonstration mission will comply with Part 91 CFR 14. If parachuting is involved, Part 105 will also apply. Aerial demonstrations off a military installation will not be conducted until coordinated with the appropriate DAR. The DARs are listed in AR 95–2, table 6–1.

(8) Overseas. Units assigned an aerial demonstration mission will comply with published ACOM, ASCC, DRU, and host nation regulations.

*b. Orientation flight.* Army aircraft may be used for orientation flights in accordance with DOD 4515.13–R, Chapters 4 and 10. Members of Congress and their staffs may be provided orientation flights only with the approval of the Office of the Congressional Legislative Liaison, Support Operations Division. State and local officials may participate in Orientation flights in direct support of Homeland Defense missions.

*c. Evacuation or aeromedical evacuation by nonaeromedical units.* Aeromedical evacuation only with the requirements listed in 3–3 n above met and the commander determines it necessary for a CASEVAC.

*d. Other emergency situations.* The ACOM, ASCC, DRU, or NGB will notify HQDA, G–3/5/7 (DAMO–AV), 400 Army Pentagon, Washington, DC 20310–0400, when decisions are made to use Army aircraft for emergency situations and full details provided as soon as possible. When danger to public health or safety prevents prior approval, Army aircraft may transport civilian personnel in the following situations:

(1) Personnel engaged in search and rescue.

(2) When severely injured or seriously ill patients in CONUS require immediate lifesaving aeromedical evacuation. This applies in major fires, earthquakes, flood, industrial or transportation accidents, epidemics, or similar natural or man-caused catastrophes.

(3) Volunteers with special search and rescue equipment who volunteer to help and have no other means of transportation. Their services must be requested by the Aerospace Rescue and Recovery Service (ARRS).

*e. Security assistance missions.* Chiefs of Military Assistance and Advisory Groups (MAAG) and Defense Attaches (DATT) may approve missions for transportation of all personnel under their control. They may do this for their aircraft only in accordance with DOD 4515.13–R and Army Directive 2007–01.

*f. Other.* Army aircraft may also be used for—

(1) Travel per Army Directive 2007–01 to events such as memorial services, retirements, graduations, public ceremonies, field demonstrations, patient visitation, or parades for military personnel who are participating or representing the Army or DOD in an official capacity only. Military Air Transportation requests will not be approved for the sole purpose of attending such activities in a personal capacity.

(2) Transportation for other authorized activities such as sponsored athletic teams and bands and other welfare, morale, recreation, and chaplains programs in accordance with DOD 4515.13–R.

- (3) Support of sport parachute clubs set up by installation commander under AR 215-1.
- (4) Military spouse orientation flight programs under the following conditions:
  - (a) Flights are to satisfy specific retention or motivation objectives and will be conducted in the safest and most efficient manner possible.
  - (b) Flights will be accommodated within the command flying hour program.
  - (c) Flights will be conducted in the local area only.
  - (d) Flights will not be conducted above 10,000 feet pressure altitude except in pressurized aircraft.
  - (e) Flight crewmember seats (with access to flight controls) will not be occupied by passengers.
  - (f) Passenger restrictions in paragraph 3-8 will apply.
  - (g) Accompanied spouse travel will be in accordance with DOD 4515.13-R and applicable Secretary of the Army guidance.
  - (h) An ACOM, ASCC, DRU, or NGB commander desiring to establish a spouse orientation program will submit a copy of the proposed plan to HQDA, G-3/5/7 (DAMO-AV), 400 Army Pentagon, Washington, DC 20310-0400 for approval. When approved, the plan will be published in the ACOM, ASCC, DRU, or NGB supplement to this regulation.
  - (i) When ACOMs, ASCCs, DRUs, or NGB have approved plans they have approval authority for subordinate unit requests for orientation flights.
- (5) Aircraft support of community relations and public information will comply with AR 360-5 and DOD 4515.13-R.
- (6) Transportation of members of Congress and accompanying staff members (when approved by OCLL) in accordance with DOD 4515.13-R.
- (7) All requests for transportation not provided for above, and requests for waiver to the provisions of this paragraph will be forwarded to HQDA, G-3/5/7 (DAMO-AV), 400 Army Pentagon, Washington, DC 20310-0400.

### **3-5. Other official travel**

Administrative travel, also called "other official travel," includes travel to give speeches; attend conferences, meetings or training courses; make routine site visits; and other similar uses. Justification for the use of fixed-wing MILAIR for administrative travel usually requires showing that MILAIR is essential versus commercial air. Justification for the use of rotary-wing aircraft for administrative travel usually involves showing that MILAIR is essential versus ground transportation, unless commercial air transportation is also available between the general departure and destination locations. All travel will comply with Army Directive 2007-01.

### **3-6. Prohibited missions**

- a. Army aircraft will not be used to conduct flights for personal use. They will not be used for transportation of personnel or equipment to any place or event in an unofficial capacity.
- b. Army aircraft will not be used for domicile (place of residence) to duty, or duty to domicile, transportation unless authorized under 31 USC 1344, or 10 USC 18505, or as approved by the SA.
- c. Requests for exceptions to travel policies will be forwarded through HQDA, G-3/5/7 (DAMO-AV), 400 Army Pentagon, Washington, DC 20310-0400, through the Headquarters, Department of the Army Executive Travel Office (JDSO-ZT), 2531 Crystal Drive, Arlington, Virginia 22202-3905, to the Administrative Assistant to the Secretary of the Army, 105 Army Pentagon, Washington, DC 20310-0105.
- d. Use of Army aircraft exclusively to obtain or renew an FAA rating is prohibited.

### **3-7. Passenger policy**

- a. Service personnel are authorized to fly as passengers in Army aircraft while on duty and when authorized by their commander. Verbal authority is permitted. "Service personnel" are defined as—
  - (1) Active duty members of the Army, Navy, Air Force, Marine Corps, and Coast Guard.
  - (2) Active status member of Reserve Component as defined in DOD 4515.13-R.
  - (3) DOD civilians when on official business.
  - (4) Employees of other U.S. Government agencies and technical advisors to DOD component authorities when traveling on official business for DOD.
- b. Army personnel traveling on OSA flights on PCS orders, TDY, Emergency Leave, Space Available, or official business are authorized to wear appropriate civilian clothing. Personnel must ensure that their dress and personal appearance are appropriate for the occasion and reflect positively on the Army.
- c. Personnel will not make an aerial flight if determined medically unfit by competent medical authority, or if they are handicapped and not physically capable of caring for themselves while enplaning, deplaning, or while in flight in accordance with DOD 4515.13-R.
- d. Personnel specified as eligible passengers in DOD 4515.13-R, are authorized as passengers in Army aircraft.

Authorized travelers (other than spouse and family member travel) must have travel orders or transportation authorization published by the installation travel authority. Spouse and family member travel must have travel or transportation authorization published by HQDA (DACS-DMC-A) or the authority specified in DOD 4515.13-R or Army Directive 2007-01 and meet the requirements established therein. The orders must specify if travel is reimbursable or non-reimbursable. Travel for other Executive Departments or Government agencies, or for the judicial or legislative branches of the Federal Government have unique requirements defined in DOD 4515.13-R that must be met. Coordinate these requirements with the Office of the Congressional Legislative Liaison, Support Operations Division.

*e.* Dependents authorized travel under this or other paragraphs are defined in DOD 4515.13-R.

*f.* Aircraft will not deviate from mission flight plans to accommodate space available passengers.

*g.* Policies for transportation of foreign personnel and approval authorities are specified in DOD 4515.13-R.

*h.* Contractor employees when performing duties specified in their contract or statement of work and on an official Contractor Identification Memorandum or Letter of Authorization in accordance with Army Directive 2007-01 or DOD 4515.13-R are authorized passengers.

*i.* Questions or requests for waiver concerning passenger eligibility as outlined in this paragraph will be submitted to HQDA, DACS-DMC-A, 202 Army Pentagon, Washington, DC 20310-0202.

### **3-8. Passenger restrictions**

*a.* Passengers are restricted from the following types of flights:

(1) Maintenance, engineering, functional or experimental test flights.

(2) Aerobatics flights.

(3) Aerial demonstrations (only mission essential personnel authorized) as defined by DODI 5410.13 and AR 360-1.

(4) Flight crew emergency procedures training.

(5) Night Vision Device (NVD) qualification or refresher training in accordance with the appropriate ATM.

(6) Aeronautical record attempts.

(7) Aircraft acceptance flights.

*b.* Personnel on the aircraft during the above operations will be limited to the minimum essential and those making evaluations or performing required maintenance checks. Army aircraft will be used for authorized purposes only.

## **Section II**

### **Operational Support Airlift**

#### **3-9. Operational support airlift missions**

Operational support airlift (OSA) missions are movement of high-priority passengers and cargo with time, place, or mission-sensitive requirements. DODD 4500.43 provides OSA policy guidance, definitions, procedures, and responsibilities. DOD 4515.13-R provides transportation eligibility policy and procedures for military aircraft and Army Directive 2007-01 provides Secretary Of The Army policy for travel by department of the army officials.

#### **3-10. Operational support airlift management responsibilities**

*a.* The Secretary of the Army is responsible for—

(1) Establishing clear accountability for aircraft management at a senior management level.

(2) Developing and implementing policies that specify validating requirements and procedures for scheduling assets in support of Army OSA requirements.

*b.* The Director of Management, on behalf of the Director, with the concurrence of the Administrative Assistant, on behalf of the Secretary of the Army, will provide management oversight and policy guidance for the use and scheduling of Army executive jets.

*c.* The Assistant Secretary of the Army (ASA) Financial Management (FM), in coordination with the DCS, G-4, will prepare and publish an annual cost per flying hour message that includes DOD and non-DOD costs per flying hour rates by aircraft mission, type, design, and series for all Army aircraft. The ASA(FM) will also publish annually the gross hourly salary for military and civilians to be used for cost effectiveness analysis.

*d.* The Deputy Chief of Staff, G-3/5/7 has management responsibility for the following areas:

(1) Establish objective wartime requirements for Army OSA aircraft.

(2) Review, annually, the continuing need for aircraft appropriated based solely on wartime readiness requirements and for reasons other than wartime requirements as well as the cost-effectiveness of aircraft operations. When not fully justified, the Army will release aircraft determined to be excess.

(3) Review, analyze, and evaluate Army OSA/non-OSA utilization data to determine future aircraft stationing and changes to the aviation structure.

(4) Report Army OSA flying hour program execution during the quarterly Program Performance/Budget Execution Review.

*e.* Unified, specified, and ACOM, ASCC, DRU, or NGB commander will—

(1) Ensure that procedures are developed within each subordinate unit to allow for the Operational Support Airlift Agency (OSAA) to capture all OSA travel requirements.

(2) Designate helicopter scheduling authorities for the purpose of scheduling Army helicopter assets to support OSA mission requirements.

(3) Establish internal control procedures to ensure subordinate units comply with OSA program requirements.

*f.* Operational relationships are established in consonance with the Administrative Assistant to the Secretary, DAS, and DCS, G-3/5/7.

*g.* The Commander, OSAA, under the direction of the DARNG, is the lead agent for developing, implementing, and executing the Army OSA program as the OSA FOA Commander in accordance with General Order 95-11.

*h.* ACOM, ASCC, DRU commanders of owning/attached units, National Guard Adjutant Generals and U.S. Army Reserve General Officer Commands (GOCOMs) will—

(1) Be responsible for the proper validation of all OSA requests generated from subordinate units, tenant activities, and designated agencies. Validator duties may be delegated to an individual within the chain of command. Validator duties and mandatory training will be conducted in accordance with the OSA Remote User's Guide.

(2) Develop internal control procedures to ensure compliance with appropriate DOD directives, this regulation and the OSA Remote User's Guide.

(3) Ensure accurate record keeping and timely submission of OSA requests.

(4) Ensure designated officials, CONUS airplane flight units and rotary wing OSA support units are networked to OSA automated remote users' system.

(5) Ensure Fixed Wing OSA CONUS flight requests are submitted to OSAA using JOSAC operating procedures.

(6) Ensure flight activities submit post mission reports for all missions flown.

(7) Provide notification to requesters of travel support, nonsupport, or schedule deviations.

(8) Brief users on procedures for initiation, cancellation, or modification of airlift requests.

(9) Designate a centralized point of contact for receiving space available travel requests, and maintain space available roster.

(10) Assign appropriate Priority, Urgency, Justification, and Category (PUJC) codes for each OSA request in accordance with DOD 4500.43. The OSA validators will retain specific justifications for PUJC codes assigned for each airlift request for two years subject to periodic review by appropriate agencies.

(11) Personally review and approve all senior federal travelers (all general officer and civilian equivalent) travel requests. Validation for senior federal travel may not be delegated below the grade of Major General.

*i.* Commander OSAA, will—

(1) Serve as scheduling authority for Army Fixed Wing OCONUS and operational use missions.

(2) Serve as reviewing authority for all Army Fixed Wing OSA requests.

(3) Provide a semiannual report of the use of Operational Support Airlift by DA Presidential appointees through the Administrative Assistant for review prior to submission to the Secretary of the Army.

(4) Conduct cost analysis computations of OSA military cost versus commercial cost on each OSA mission request submitted to OSAA/JOSAC.

(5) Maintain current listing of designated Army OSA validators.

(6) Provide all designated OSA validators with access codes, user identification, and program manuals for OSACOM remote users' system.

(7) Retain all requests for aircraft support and post-mission data for a period not less than two years after completion of the fiscal year.

*j.* Aviation units performing OSA mission support will conform to the reporting requirements contained in the OSA Remote User's Guide and this regulation

(1) The aviation unit commander will appoint an airlift coordinator. The airlift coordinator will perform duties in accordance with the OSA Remote User's Guide.

(2) All training flights will be reported in LFRs in accordance with OSA Remote User's Guide.

(3) Training missions may be scheduled by the aviation unit. Aviation units are strictly prohibited from scheduling training missions for the purpose of carrying passengers and or cargo.

(4) Will retain all post-mission data, including non-OSA missions, for a period of not less than two years after completion of the fiscal year.

### **3-11. Operational support airlift Justification**

Within the policy guidance prescribed by DODD 4500.43 and this regulation, scheduling authorities schedule the use of aircraft for OSA missions based on the following criteria:

*a.* Cost analysis procedures are based on the OSA scheduling system. Commercial cost comparisons for fixed wing and rotary wing OSA are accomplished by incorporating cost elements specified in DOD directives and regulations.

b. For airlift requests meeting the criteria prescribed above, each OSA flight request will be assigned an appropriate PUJC code by the OSA validator that is established in the OSA Remote User's Guide and DODD 4500.43.

### **3-12. Operational support airlift procedures**

a. The OSA validators will publicize transportation requests and aircraft scheduling procedures within their areas of responsibility. Procedures will include requirements for units or individuals to request OSA in advance and to accept variations in departure or arrival times and will be reviewed by the authorizing official. Urgent operational demands will be considered when determining if a spread is possible in departure and arrival times. Validators will establish the PUJC codes for all OSA requests in accordance with the OSA Remote User's Guide and DOD 4500-43. Rank or grade alone is not sufficient to justify support of airlift requests or placement in any particular PUJC.

b. Army personnel will submit requirements for official travel to the authorizing official within their chain of command.

c. Authorizing official will state requirements for official government travel and forward all approved requests to OSA validators a minimum of four duty days prior to the date of intended travel and in sufficient detail to allow the validator to assign the airlift requests with the appropriate PUJC. Signature of the senior traveling passenger is required and can not be delegated. In addition, senior federal travelers (all general officer and civilian equivalent) will have their travel requests reviewed and approved no lower than the grade of Major General.

d. Operational support airlift validators will ensure that requests are received from a proper authorizing official with appropriate signature of the senior passenger. They will submit approved requests for Army fixed wing OSA within CONUS and OCONUS to OSAA. Rotary wing OSA requests within the National Capital Region (NCR) will be submitted through OSAA to the Military District of Washington Air Operations Group for approval and scheduling.

e. The Joint Air Logistics Information System (JALIS) automated remote user's system will be used to submit OSA requests. Requests will be submitted to OSAA within the time frames outlined below.

(1) Flight requests will normally be submitted to OSAA not later than four duty days prior to the departure or as soon as an OSA mission requirement is identified. Priority "1" requests may be submitted telephonically and confirmed by message.

(2) Team or group travel request (as defined in DOD 4515.13-R) for fifteen or more individuals for Army OSA flights will be submitted not later than 30 days prior to departure date. This does not include requests for SAM support. A team consisting of fourteen or less individuals traveling as a group, or part of a group, may be submitted not later than four duty days in advance of the date of desired travel or as soon as the requirement is identified.

f. Cancellations or changes to CONUS OSA flights will be transmitted to JOSAC in accordance with OSA Remote User's Guide.

g. Passenger reporting time for OSA flights is not later than 30 minutes prior to scheduled departure time.

h. Approved requests for Non-NCR Army helicopter OSA will be submitted to the validator and forwarded to the helicopter scheduling authority in accordance with local procedures. Installations will forward annual helicopter OSA utilization data to ACOM, ASCC or DRUs for consolidation and forwarding to OSACOM. Because of the extensive costs associated with rotary wing operations, their use for OSA should be closely monitored and approved only when other modes of travel will not fulfill requirements.

i. Validators will not submit requests for fixed wing back up support for approved helicopter requests.

### **3-13. Operational support airlift data collection and use**

a. Army OSA/Non-OSA fixed wing utilization data will be collected by OSAA for the purpose of—

(1) Justifying use of Government aircraft in lieu of commercially available aircraft or the use of one Government aircraft in lieu of another.

(2) Recovering the costs of operating Government aircraft when appropriate.

(3) Determining the cost-effectiveness of various aspects of aircraft programs.

(4) Analysis of trends in inventory and seat utilization for each mission, type, design, and series OSA aircraft, by priority of travel, to include opportune airlift.

(5) Comparing OSA/non-OSA flying hours actually flown to those budgeted in the annual flying hour program will be accomplished by the automated post mission reports and flight hours entered in the Corporate Management System (CMS) compiled by OSAA.

(6) Summarizing the number of OSA/non-OSA missions flown.

(7) Summarizing passenger requests and total passengers moved by priority.

b. Operational Support Airlift Agency will retain all requests for aircraft support and post mission data for a period of not less than two years after completion of the fiscal year. The OSA validator will retain a copy of all requests for OSA support for a period of not less than two years after completion of the fiscal year. The aviation unit will retain all post mission data, including reports on all training flights, for a period of not less than two years after completion of the fiscal year.

## **Section III Safety**

### **3-14. Extended Range Fuel Systems**

*a.* Army policy for the use of external non-crashworthy, non-ballistically tolerant fueled Extended Range Fuel Systems (ERFS) on AH-64, EH-60 and UH-60 aircraft is stated in Safety of Flight messages AH-64-98-01 and UH-60-98-01 and remains in effect. The use of these systems remains restricted to long range missions where the mission cannot be accomplished using en route refueling facilities and training to support such missions.

*b.* Aircraft modified with Crashworthy External Fuel Systems (CEFS) or internal crashworthy ERFS will be operated in accordance with the applicable Airworthiness Releases, Interim Statements of Airworthiness Qualification, aircraft operator's manuals, applicable supplemental operator's manuals and aircraft specific ATMs and are not subject to the additional restrictions of Safety of Flight messages AH-64-98-01 and UH-60-98-01.

*c.* Flight with any external ERFS is restricted to those aircraft with the capability to provide fuel quantity and fuel flow indications on each individual external tank.

*d.* Army policy for the use of the external non-crashworthy, non-ballistically tolerant fueled ERFS during combat operations follows:

(1) Restricted to ferry flights where the probability of encountering hostile forces during the intended mission is minimal. Approval procedures will be incorporated into the unit's ERFS SOP. Blanket approvals are prohibited and will be approved on a mission by mission basis.

(2) The Theater Army Commander is designated as the decision authority for approval of missions that require the long range capability of external non-crashworthy, non-ballistically tolerant fueled ERFS. Blanket approvals are prohibited and will be approved on a mission by mission basis.

*e.* Use of the external non-crashworthy, non-ballistically tolerant fueled ERFS will not be permitted after December 2010 without approval from HQDA, G-3/5/7 (DAMO-AV).

### **3-15. Safety functions, mishap reports, investigations, and release of information**

*a.* Procedures for investigating and reporting aircraft mishaps are prescribed in AR 385-10.

*b.* Policy and procedures for reporting casualties and notifying next of kin of personnel involved in aircraft accidents are prescribed in AR 600-8-1.

*c.* Requests about aircraft mishap reports will be answered per AR 385-10.

*d.* Requests for information under the Freedom of Information Act will be processed per AR 25-55.

*e.* In all instances of an Aviation Class A accident, the first general officer in the chain of command is required to accept the out brief from the accident investigation team.

*f.* Commanders will implement the aviation accident prevention program per AR 385-10.

### **3-16. Composite Risk management**

*a.* Commanders will integrate composite risk management into aviation mission planning and execution at every level. Guidance on composite risk management is contained in TC 1-210, FM 5-0, FM 5-19, and AR 385-10.

*b.* Commanders or comparable authority for organizations lacking a military commander will develop local checklists and risk assessment worksheets (RAW) for briefing officers to use in assessing aircrew mission planning and risk in accordance with paragraph 2-14 above. The RAW will be filed with the mission briefing sheet per FM 3-04.300.

### **3-17. Crew endurance**

*a.* Commanders will design a crew endurance program tailored to their unit mission and include it in their standing operating procedures. DA Pam 385-95 and the Leaders Guide to Crew Endurance, available at <https://crc.army.mil/Guidance/cat.asp?iCat=634&iChannel=15&nChannel=Guidance>.

*b.* Crew endurance is an integral part of the overall risk management program. It is used to control risks due to sleep deprivation or fatigue and to prescribe thresholds to trigger command decisions whether to accept those risks.

*c.* Commanders should consider the advice of the flight surgeon and aviation safety officer in designing their programs.

### **3-18. DA Form 2696**

DA Form 2696 will be used to notify commanders and safety councils of anything affecting the safety of Army aircraft or related personnel and equipment. The commander will have reported hazards investigated immediately and will correct unsafe conditions. (See AR 385-10 for instructions on completing DA Form 2696.)

## **Section IV Aircraft Maintenance**

### **3-19. Maintenance test flights and functional ground and flight checks**

*a.* Maintenance test flights (MTF) will be conducted per TM 1-1500-328-23 for Army aircraft having AMCOM approved MTF manuals. Army aircraft lacking an AMCOM approved MTF manual will have functional ground and/or flight checks/maintenance flights conducted to conform to the airworthiness authority's approved procedures.

*b.* Army and contract maintenance pilots performing maintenance test flights for Army aircraft having AMCOM approved MTF manuals must be qualified and current per paragraphs 4-27 or 4-28. Army and contract pilots performing functional ground and/or flight checks/maintenance flights conducted per the airworthiness authority's approved procedures must be qualified and current per paragraph 4-27(e).

*c.* MTFs or functional ground and/or flight checks/maintenance flights for Army aircraft under bailment to contractors will be conducted per paragraph 3-19(a) above unless changed by the terms of the contract.

### **3-20. Maintenance operational check**

*a.* Authorized personnel will perform maintenance operational checks per TM 1-500-328-23, DA PAM 738-751, and/or applicable aircraft technical manual, master service manual, and so forth.

*b.* Personnel who are authorized to start, run up, and taxi airplanes for the purpose of maintenance operational checks and are not qualified per paragraph 2-1a(1), (2), (3), (4), (5), or (6) will—

(1) Undergo appropriate normal and emergency procedures training conducted by a maintenance trained airplane IP/SP/ME in the specific mission, type, design, and series aircraft.

(2) Be evaluated semiannually by a maintenance trained airplane IP/SP/ME on all functions he or she is required to perform.

(3) Have written authorization from the commander. This authorization must specify the operations and checks permitted and be posted in the maintenance office.

*c.* Personnel who are not qualified per paragraph 2-1a(1), (2), (3), (4), (5) or (6) are prohibited from starting, running up, or taxiing helicopters.

*d.* Commanders may authorize nonrated personnel to start, operate, and stop aircraft auxiliary power units (APUs). These persons will—

(1) Undergo appropriate normal and emergency procedures training conducted by an IP, SP, ME, FI or SI in the specific mission, type, design, and series aircraft.

(2) Be evaluated annually by an IP, SP, ME, FI or SI on all functions he or she is required to perform.

(3) Have written authorization from the commander. This authorization must specify the operations and checks permitted.

*e.* Contractor personnel performing maintenance operational checks and/or operating aircraft APU's will utilize requirements listed in AR 95-20 or GFR approved Contractor Ground and Flight Operating Procedures utilizing this paragraph as service guidance.

*f.* Commanders may authorize, in writing, Maintenance Test Pilots to perform single pilot ground run-ups at flat pitch to full rotor RPM in two pilot aircraft with an additional crewmember occupying the other crew station for completion of maintenance operational checks when there is no intent to fly the aircraft.

## **Section V Army Aircraft Performance Records**

### **3-21. Requests for performance records**

The policy for handling requests from the Services for authority to establish performance records by military aircraft is prescribed in DODI 5410.19 and AR 360-1. It authorizes periodic official demonstrations of military aircraft for the purpose of establishing new performance such as speed and endurance records.

### **3-22. Purpose of performance records**

The following policies apply to the use of Army aircraft for the purpose of performance records.

*a.* Only Service aircraft will become eligible to establish new performance records. These aircraft will be eligible 6 months after the first aircraft is delivered to an operational unit.

*b.* Service requests to engage in public demonstrations to establish performance records and release information on new performance records will be submitted to the Office of the Assistant Secretary of Defense (Public Affairs) (OASD(PA)), for approval or disapproval, after coordination—

(1) By OASD(PA) within DOD.

(2) With other appropriate departments of the Government.

(3) With the National Aeronautic Association.

c. Requests in paragraph *b* above will be accompanied with a description of the specific aircraft, full justification of the purpose of the record attempt, flight plans, and information supporting the attempt.

d. Requests by ACOM, ASCC, DRU, or NGB for authority to establish performance records by military aircraft will be submitted to HQDA (DAMO-AV), WASH DC 20310-0400, at least 60 days prior to any proposed record attempt.

## **Chapter 4 Training**

### **Section I Training Program and Literature**

#### **4-1. General**

The aircrew training program (ATP) will be in accordance with TC 1-210 and the appropriate aircraft ATM.

#### **4-2. Aircrew training program waivers and extensions**

a. Unit waivers and/or extensions to aircraft ATP requirements may be granted by these authorities to units under their authority—

(1) *Commanders of ACOMs, ASCCs and DRUs.* This authority will not be delegated below the first general officer in the unit or individuals chain of command.

(2) *Chief, National Guard Bureau.* This authority will not be delegated below the National Guard Bureau Aviation and Safety Division (NGB-AVS).

(3) *Commanders O-6 and above and the State Army Aviation Officer (SAAO).* This authority will be delegated only during an operational deployment. After redeployment these leaders will establish a start training date and may grant unit ATP extensions for up to 180 days from that date.

b. Individual waivers to primary aircraft ATP requirements may be granted by the first commander, colonel (O-6) or above, in the individual's chain of command or the SAAO for National Guard aviators.

c. Waivers and/or extensions will state the specific requirement that is waived and/or extended and for what period.

d. Any crewmembers affected by a waiver or extension that has not completed all components of the annual proficiency and readiness test (APART) (written examination and hands on performance tests) within the preceding 24 months will be designated RL-3 pending completion of the missing component. This is not waivable.

e. Aviator requirement in paragraph 4-21(d) to have successfully completed an APART instrument evaluation within the preceding 12 months before flying into forecast IMC is not waivable.

#### **4-3. Publications**

Aircraft operator's manuals and checklists are the primary references governing the operation of a specific aircraft. Aircrew training manuals, field manuals, technical manuals, and training circulars will be used as required. When differences exist between other publications and this regulation, this regulation has precedence. DA Forms 2028 (Recommended Changes to Publications and Blank Forms), recommending changes to these publications, will be submitted through the aviation unit commander to the proponent of the manuals.

#### **4-4. Aircrew information reading files**

Aviation units will establish and maintain aircrew training and information reading files per FM 3-04.300 and TC 1-210. Assigned aircrew personnel will read and remain familiar with these files.

#### **4-5. Aircrew training program**

a. The ATP standardizes training and evaluation to ensure combat readiness.

b. The ATP outlined in the ATM is mandatory for all military aviators assigned to operational aviation positions and all other crewmembers specified in ATMs. ATP requirements include hours, tasks, and iterations identified in the appropriate ATMs; SFTS requirements; readiness level (RL) progression; APART.

c. Army aviators assigned or attached to another Service will meet the requirements of that Service. Department of the Army Civilian (DAC) crewmembers will be trained and evaluated as specified in writing by the commander as necessary to meet the requirements of the job description.

d. Department of the Army Civilian and contractor instructor pilot and instrument flight examiner personnel serving in flight simulator only positions will be trained and evaluated as necessary to meet the requirements of the job description or statement of work. They will—

(1) Be qualified as instructor pilots in accordance with 4-24, below in the aircraft related to the flight simulator in which they provide flight instruction or evaluations.

(2) Be qualified as instrument flight examiners in accordance with 4-25, below in the category of aircraft related to the flight simulator in which they provide instrument instruction and evaluations.

(3) Be evaluated annually by an SP or IE as appropriate, who is current in the aircraft related to the flight simulator in which they primarily provide flight and or instrument instruction or evaluations.

(4) Instruction or evaluations received from individuals not qualified per (1) through (3) above will not be used to satisfy ATP requirements.

e. The commander may excuse an aviator scheduled for separation or retirement from active duty from all ATP requirements. The aviator may be excused beginning no sooner than 6 months before scheduled retirement or separation date. This does not apply to those who have initiated action to join a RC aviation unit or Aviators that have applied to work for the Army as an aviation contractor or DAC. Aviators who are excused from ATP requirements are prohibited from performing crewmember duties.

#### **4-6. Aircraft qualification training**

##### *a. Qualification training.*

(1) Formal training at other DA designated training bases may be conducted upon receipt of approval by HQDA DCS, G-3/5/7 (DAMO-AV). ARNG specific requests will be routed through NGB (NGB-AVS-O) to (DAMO-AV).

(2) Unless otherwise approved by DAMO-AV, local transition training will not be conducted when a formal DA qualification course or an appropriate USAAWC approved POI exists. Exceptions may be granted on an as required basis by DAMO-AV. Local qualification training in OH-58A/C, and UH-1 helicopters is authorized provided that the unit has qualified IP/SPs current and designated by DES to conduct touchdown emergency procedure maneuvers and training is conducted using USAAWC approved training materials. Local Qualification training in H-6 helicopters will be managed by the 160th SOAR (A) with oversight from DES and DOTD.

(3) To ensure standardization throughout Army aviation, flight training will be conducted using the training and evaluation requirements prescribed in the appropriate ATM. Flight Training Guides (FTGs) are authorized at USAAWC and other DA designated training bases to describe unique tasks, conditions, standards, policies, procedures and syllabus information that are not in the ATM.

(4) Training an aviator in an aircraft category other than that in which he or she is qualified to fly is permitted only in a formal school course (ATRRS Course Catalog). An Army aviator qualified in an aircraft category by another U.S. Service is authorized local qualification training in that category. Local qualifications will be conducted under the auspices of an official course utilizing a DA approved POI.

(5) Aviator and instructor pilot qualification training in nonstandard aircraft will be conducted per chapter 9.

(6) Those aviators who successfully complete qualification training conducted by the active Army, ARNG, USAR, or other U.S. military service will be awarded an additional military occupational specialty (MOS) or additional skill identifier (ASI) (AR 611-1).

(7) A statement of completed aircraft or aircraft system (NVG, ESSS, and so forth) qualification training will be entered in the remarks section of DA Form 759.

*b. Additional helicopter qualifications.* Active Army, Army National Guard, and U.S. Army Reserve Component aviators will not receive multiple advanced helicopter qualification courses. Aviators requesting additional advanced helicopter qualification courses will submit a waiver request through their chain of command (LTC/05 level), through the Aviation Branch of Human Resources Command, to the Office of the DCS, G-3/5/7, DAMO-AV, 400 Army Pentagon, Washington, DC 20310-0400. Individuals will not be enrolled in the Army Training Requirements and Resources System until the waiver is approved. Waiver requests will contain the following information:

(1) Requesting aviators name and rank.

(2) Social security number.

(3) Unit.

(4) Current advanced aircraft qualification.

(5) Justification for multiple advanced helicopter qualifications.

##### *c. Exceptions to paragraph 4-6b.*

(1) Aviators involved in new equipment fielding.

(2) Aviators who are qualified in aircraft scheduled for divestiture by the Office of the Deputy Chief of Staff, G-8 and who are required to train on a replacement advanced aircraft.

(3) Aviators selected for battalion or brigade command but not qualified in at least one of the gaining command's helicopters.

(4) Aviators selected for the experimental test pilot program.

(5) Aviators assigned to the U.S. Army Special Operations Command (USASOC).

#### **4-7. Annual proficiency and readiness test**

a. The annual proficiency and readiness test (APART) will be conducted per TC 1-210 and appropriate ATM. The

APART is given to each RL 1 and DAC crewmember within the APART period. For DAC crewmembers, individual components of the APART may be accomplished in any calendar quarter designated by the commander.

b. The APART results will be recorded in accordance with FM 3.04-300 and TC 1-210.

#### **4-8. Emergency procedures training**

Training in emergency procedures will be conducted per ATMs. Training will be in dual controlled aircraft. A qualified IP or SP who is current in that mission, type, design, and series will be at one set of the controls.

a. *Airplanes.*

(1) Engine failure/malfunction training in multi-engine airplanes may only be conducted under the following conditions:

(a) Complete engine stoppage/shutdown (propeller or turbine stopped) will be in visual flight rules (VFR) conditions at least 4,000 feet above ground level (AGL), and limited to not more than one engine at any one time.

(b) Simulated engine shutdown on climbout after takeoff may be accomplished if indicated airspeed is at or above the prescribed velocity of safe single engine (VSSE) operation for that airplane. Exceptions are granted for those aircraft which are specifically authorized V1 engine cuts.

(c) The useable length of the runway used for landing must be at least 4000 feet long.

(2) Touch-and-go landings may be performed under the following conditions:

(a) Aircraft must have two sets of controls.

(b) An instructor pilot or standardization instructor pilot must be at one set of controls.

(c) Runway used must meet accelerate and stop distance requirements plus 2,000 feet.

(d) Training involving touch-and-go landings will be done according to the appropriate ATM.

b. *Helicopters- Single Engine.*

(1) Hydraulics-off, autorotations (except from a hover), and antitorque touchdown emergency procedures training will be conducted only during aviator and instructor pilot qualification and transition training per formal POI at Department of the Army designated training bases. Touchdown emergency procedures are also authorized for—

(a) Instructor pilots and standardization instructor pilots designated by the commander to conduct touchdown emergency procedures at Department of the Army designated training bases.

(b) Directorate of Evaluation and Standardization (DES) IPs and SPs.

(c) Local qualification training in OH-58A/C and UH-1 helicopters with DES designated IP.

(d) Experimental test pilots while conducting authorized flight testing or training.

(2) Unannounced touchdown autorotations will not be made except for IP and SP training or evaluations.

(3) Touch down emergency procedures specified above must be conducted in commander designated training locations free from obstructions. There must be air-to ground communications and crash and fire rescue equipment available. Night training areas will be designated.

(4) Autorotations with power recoveries and terminations with power will be conducted per the ATM.

c. *Helicopters - Multi Engine.*

(1) In multi-engine helicopters touchdown autorotations and antitorque touchdown emergency procedure training is prohibited. Autorotations with power recoveries and terminations with power will be conducted per the ATM.

(2) Training emergency procedures conducted to the ground, must be conducted in training locations designated by the commander.

#### **4-9. Hands-on performance test**

Each crewmember must successfully complete periodic hands-on performance tests by an IP, SP, IE, ME, FI, or SI per the appropriate ATM/ATP. Hands-on tests are—

a. *Standardization flight evaluation.* This flight consists of visual flight maneuvers and/or procedures conducted in each primary, additional (only if a different mission, type, design then the primary) and alternate aircraft a crewmember is assigned to operate. The evaluation is conducted to determine the examinee's ability to perform assigned flight duties. The evaluation will—

(1) Consist of the flight evaluation described in the appropriate ATM.

(2) Be conducted by a designated IP, SP, FI, or SI once each year.

b. *Instrument flight evaluation.* An instrument flight evaluation will determine examinee's ability to perform assigned flight duties under IMC.

(1) The evaluation will be conducted—

(a) Per TC 1-210 and the appropriate ATM.

(b) Annually, in an aircraft equipped with dual controls, by an IE qualified and current in aircraft category or in a compatible simulator by an IE qualified in the aircraft category. Simultaneous evaluations of two aviators may be conducted if both perform the tasks and procedures required by the ATM.

(c) Annually in the examinee's primary and alternate aircraft if dual rated and required to fly both categories.

(2) The commander may authorize use of a compatible flight simulator if circumstances preclude safe, affordable, or timely evaluation in the aircraft.

(3) Unusual attitudes, simulated engine shutdown or engine failures, and autorotations will not be initiated while under IMC. An IE, IP, or SP qualified and current in the aircraft being flown must be at one set of the flight controls when performing these maneuvers. If the IE is not also an IP or SP, the IE must be evaluated and authorized by the commander to perform these maneuvers. Airplane IEs who are not airplane IPs may only perform simulated engine failures and unusual attitude recoveries in cruise flight conditions (simulated engine failures may not be performed on an instrument approach or in the traffic pattern). In addition, airplane IEs who are not airplane IPs may not perform single-engine go-arounds, single-engine landings, or touch-and-go landings.

*c. Proficiency flight evaluation.* This evaluation is administered to any rated or nonrated crewmember in any aircraft or compatible flight simulator he or she is required to operate. No-notice proficiency evaluations may be written examinations, oral evaluations, aircraft flight evaluations, or compatible flight simulator evaluations. The proficiency flight evaluation will be conducted—

- (1) At the discretion of the commander.
- (2) At the direction of HQDA.
- (3) By an IP, SP, IE, ME, FI, or SI per the appropriate ATM/ATP.
- (4) To determine an individual's proficiency and/or currency.
- (5) To determine which phase of training is appropriate for entry into or continuing in the ATP (including RL progression evaluations).

*d. Post-mishap flight evaluation.* This flight evaluation is administered to an aviator or nonrated crewmember to determine their ability to perform required duties following an aircraft mishap. Aviators or nonrated crewmembers performing crew duties involved in a Class A or B mishap will be suspended from flight duties until successful completion of a flight evaluation. The evaluation will be conducted in the same mission, type, design, and series aircraft in which the mishap occurred. Aviators or nonrated crewmembers performing crew duties involved in a Class C mishap may be suspended from flight duties and required to successfully complete a flight evaluation at the discretion of the commander. An IP, SP, ME, FI, or SI will conduct the evaluation as per a proficiency flight evaluation in accordance with the appropriate ATM. (See AR 40- 501 for medical release requirements prior to flight.)

*e. Medical flight evaluation.* This flight evaluation measures an aviator's or nonrated crewmember's ability to perform required duties after incurring a medical disability. The evaluation will be administered on the recommendation of the flight surgeon. The evaluation of flight duties will be conducted by an IP, IE, SP, FI, or SI as per a proficiency flight evaluation in accordance with the appropriate ATM.

*f. Maintenance test pilot evaluator and maintenance test pilot evaluation.* This evaluation encompasses maintenance test flight maneuvers and is conducted in each aircraft the aviator is required to test fly. The evaluation will be conducted—

- (1) To establish MP or ME qualification per the appropriate ATM.
- (2) By a designated ME (or commander designated maintenance IP/SP in Fixed Wing) qualified and current in the aircraft flown.
- (3) During the APART in the primary aircraft and during each training year in alternate and additional aircraft.

#### **4-10. Failure to meet the Aircrew Training Program requirements**

*a.* When ATP requirements other than the pilot in command requirements for certain company commanders and warrant officer positions are not met, the commander will investigate. This investigation will take no longer than 30 days from the date of notification. After investigation, the commander will—

- (1) Take one of the following actions:
  - (a) Authorize the crewmember up to 30-day extension to complete the requirements. The 30-day extension will start after the commander completes his investigation. Commanders are not authorized to grant themselves an extension.
  - (b) Request a waiver of requirements per paragraph 4-2.
  - (c) Recommend or convene a flying evaluation board per AR 600-105 for the officer crewmember.
- (2) Restrict aviators from performing pilot in command duties in the aircraft (primary, additional or alternate) and if applicable, briefing officer duties, until the missed ATP requirements are met.
- (3) Enter restrictions imposed and extensions granted in the Individual Aircrew Training Folder (IATF).
- (4) Enter extensions and waivers granted to the crewmember on DA Form 759.

*b.* For primary aircraft, if additional time or waiver is not granted, or if requirements are not met within the authorized period, the commander will—

- (1) For a military aviator, impose a nonmedical suspension per AR 600-105 and either—
  - (a) Request a waiver of ATP requirements from the appropriate authority per paragraph 4-2 of this regulation. Or,
  - (b) Recommend or convene a flying evaluation board per AR 600-105 for the officer crewmember.
- (2) Terminate flying status order, for a nonrated crewmember, per AR 600-106.
- (3) Process per the appropriate Federal Civil Service regulations, for a DAC crewmember.

- (4) Enter suspensions imposed and/or waivers granted in the IATF.
- (5) Enter suspensions imposed and/or waivers granted to the crewmember on DA Form 759.
- c. When the pilot in command ATP requirements for specific company commander and warrant officer positions are not met, the commander will impose a nonmedical suspension per AR 600–105 and investigate. This investigation will take no longer than 30 days from the date of notification. After investigation, the commander will take one of the following actions—
  - (1) Request a 30 day extension from the first colonel (0–6) in the chain of command. If approved, the approval will be reported to the first general officer in the chain of command.
  - (2) If an extension is not granted or the requirement is not met at the end of the extension, the commander will either—
    - (a) Place the officer before a Flying Evaluation Board in accordance with AR 600–105. Or,
    - (b) Request a waiver from this requirement from HQDA, G–3/5/7 (DAMO–AV), 400 Army Pentagon, 3A474, Washington, DC, 20310.
    - (c) Remove the officer from the position.
  - d. Additionally, a crewmember who fails a hands-on performance test will be restricted from performing the flying duty (para 2–6) for which evaluated. The restriction will apply to all aircraft with similar operating and handling characteristics as listed in the appropriate ATM. Restrictions will be listed in the IATF on DA Form 7122 and will remain in effect until successful completion of a reevaluation.
    - (1) When the failure is in the crewmember’s primary aircraft, the commander—
      - (a) Must reclassify the individual to the appropriate RL.
      - (b) Must authorize additional training if necessary.
    - (c) Reevaluate aviators or impose a temporary suspension from flying duties. If suspension is imposed, flying evaluation board provisions of AR 600–105 apply.
      - (d) Reevaluate, provide additional training to, or remove nonrated crewmembers from flight status per AR 600–106.
    - (2) When the failure is in a crewmember’s additional or alternate aircraft, the commander must—
      - (a) Reclassify the individual to the appropriate RL.
      - (b) Authorize additional training if necessary.
      - (c) Reevaluate or restrict the crewmember from performing flight duties in that aircraft.
  - e. Results from Flying Evaluation Boards will be provided to Deputy Chief of Staff, G–3/5/7 (DAMO–AV), 400 Army Pentagon, Washington, DC 20310–0400.

**4–11. Synthetic flight training system requirements**

- a. Active and RC rotary-wing aviators must use the compatible SFTS for their primary aircraft.
- b. Annual training requirements are outlined in the appropriate ATM.
- c. Synthetic flight training system requirements may be prorated per the TC 1–210 and applicable ATM.
- d. For aviators whose primary aircraft does not have a compatible simulator, annual SFTS requirements will be determined by the commander. A maximum of 6 hours semiannually may be credited toward an aviator’s aircraft flying hour minimums in a non-compatible SFTS device. Helicopter SFTS simulators are listed in table 4–1 and DES, in coordination with OSACOM and the USARC, will publish and maintain a current list of compatible and non-compatible fixed-wing simulators that meet fixed wing requirements.
- e. For Army Aviation Simulators, ACOMs, ASCC, DRUs, and NGB having aviation simulator management authority and senior aviation commanders within their geographical area, working in coordination with IMCOM where applicable will—
  - (1) Establish instructor/operator (I/O) responsibilities, competencies and requirements in order to support the aviation mission of the units designated to utilize the facilities.
  - (2) Develop policies and procedures to ensure I/Os have the training, skills, knowledge and experience to provide effective aviation training.
  - (3) Develop and implement a viable standardization/quality assurance program within their command to ensure I/O proficiency.

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**Table 4–1**  
**Aircraft and compatibility synthetic flight training systems**

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**Designation:** UH–1 Instrument flight trainer, SFTS device 2B24  
**Compatible Aircraft:** UH–1

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**Designation:** UH–60 Operational Flight Trainer, SFTS device 2B38  
**Compatible Aircraft:** UH–60A/L

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**Table 4-1**  
**Aircraft and compatibility synthetic flight training systems—Continued**

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**Designation:** UH-60 Transportable Black Hawk Operations Simulator (T-BOS)

**Compatible Aircraft:** UH-60L/M, HH-60

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**Designation:** MH-60K Combat mission simulator, SFTS Device 2B46

**Compatible Aircraft:** MH-60K

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**Designation:** CH-47 Operational flight trainer, SFTS device 2B31

**Compatible Aircraft:** CH-47D

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**Designation:** CH-47 Transportable Flight Proficiency System (T-FPS)

**Compatible Aircraft:** CH-47F

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**Designation:** MH-47E Combat mission simulator, SFTS Device 2B47

**Compatible Aircraft:** MH-47E

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**Designation:** AH-64 Combat mission simulator, SFTS Device 2B40

**Compatible Aircraft:** AH-64

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**Designation:** AH-64 Cockpit weapon emergency procedures trainer

**Compatible Aircraft:** AH-64

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**Designation:** AH-64D Longbow Crew Trainer SFTS Device 2B64

**Compatible Aircraft:** AH-64D

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**Designation:** A/MH-6M Combat mission simulator, LASAR Light attack/assault reconfigurable

**Compatible Aircraft:** A/MH-6M

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**Designation:** Aviation Combined Arms Tactical Trainer (AVCATT)

**Compatible Aircraft:** None, Commanders may authorize a maximum of 6 hours semiannually to be credited toward rotary wing aviator's aircraft flying hour minimums but not compatible simulator minimums.

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#### **4-12. Civilian flight time for Reserve Component aviators**

Flight time or tasks flown in a civilian capacity may be credited toward the ATM requirements of RC crewmembers at the commander's discretion and will be documented in the IATF.

- a. Tasks performed in Army aircraft by civilians will be credited toward applicable ATM requirements.
- b. Commanders may give credit for tasks performed in civilian aircraft if the aircraft and tasks are similar in all respects to the ATM task requirements.
- c. Flight time acquired in Army aircraft by RC crewmembers while employed by the Government, or flight time acquired in civilian aircraft will not be used as the following:
  - (1) Training instead of unit training assemblies.
  - (2) Additional flight training periods (AFTP).
  - (3) Entitlement to aviation career incentive pay, total operational flying duty credit, or retirement points.

#### **4-13. Aeromedical training**

Flight crewmembers will receive aeromedical and low pressure/high altitude training per TC 1-210 and FM 3-04.301.

#### **4-14. Deck-landing operations training**

Deck landing operations, including qualification, currency, procedures and requirements, will be completed as outlined in FM 3-04.564 and the current MOU with the Navy.

#### **4-15. Aircraft survivability equipment and electronic warfare training**

- a. An aircraft survivability equipment (ASE)/electronic warfare (EW) training program will be established in tactical units to train flight crewmembers on the operation and effectiveness of ASE against electronic threats. The training will be administered and evaluated per the appropriate ATM, TC 1-210.
- b. A unit without assigned ASE and Army Special Operations Aviation Units may utilize alternate ASE training programs and devices approved by its ACOM, ASCC, DRU, or NGB headquarters.
- c. Units will establish and maintain accounts with the Army Reprogramming Analysis Team -Software Engineering (ARAT-SE) to receive and process classified ASE mission data per AR 525-15. Accounts are required to download Mission Data Sets and Operational Flight Programs for ASE.

#### **4-16. Currency**

a. If 60 days have elapsed since the last flight as pilot or pilot in command in the aircraft mission, type, design, and series (or series, group, per the applicable ATM) to be flown, the aviator will be administered a proficiency flight evaluation in the aircraft per the ATM.

b. Night vision device/ systems currency will be per TC 1-210 and appropriate ATM. NVD/NVS proficiency flight evaluations for the purpose of establishing currency will be conducted in the aircraft.

c. If 90 days have elapsed since the last flight as a nonrated crewmember in the aircraft mission, type, design and series (or series, group, per the applicable ATM) to be flown, the crewmember will receive a proficiency flight evaluation in the aircraft per the appropriate ATM.

#### **4-17. Similar aircraft**

Aircraft with similar operating and handling characteristics will be determined by the applicable aircraft ATM. Currency requirements in any one series aircraft will satisfy the currency requirement for all aircraft with similar operating and handling characteristics (series/group) as determined in the applicable ATM. Separate currency is required for all other aircraft.

### **Section II**

#### **Flight Crew Members**

#### **4-18. Flight crews**

Unit commanders must establish, in writing, formal flight crew qualification and selection programs. Programs will contain qualification and selection criteria and evaluation requirements. Instructor pilots and safety officers will aid commanders in the selection process. Flight crewmembers will be designated in writing, by the commander, specifying the duties and flight crew stations that they are authorized to occupy per TC 1-210.

#### **4-19. Pilot in command**

The pilot in command (PC) will be—

a. The individual responsible for and having final authority for operating, servicing, and securing the aircraft he or she pilots.

b. Selected per paragraph 4-18 for each flight or series of flights.

c. Qualified, current, and designated RL1 in the aircraft mission, type, design, and series.

d. Listed in the flight plan or unit operations log.

e. Responsible for crew and passenger briefings.

f. At a crew station with access to the flight controls.

g. UTs, IPs, SPs, MEs, or IEs, when evaluating or instructing from a cockpit station with access to the flight controls of the aircraft. In single pilot aircraft with an IE evaluating or instructing from a cockpit station with access to the flight controls that does not meet the requirements of paragraph *c* above, a current and qualified PC will be at the other set of controls.

h. Approved per the mission approval process before each mission. UTs, IPs, SPs, MEs, or IEs, when performing duties from other than the pilot or copilot station will participate in the mission approval process.

#### **4-20. Air mission commander**

When two or more aircraft are operating as one flight, the unit commander will designate one of the rated crewmembers of the flight as an air mission commander to be in command of all aircraft in the flight. The designation of air mission commander is an assignment of command responsibility and is not an aircrew duty assignment. AMCs will be chosen based upon recent aviation experience, maturity, judgment, their abilities for mission situational awareness, the understanding of the commander's intent and not necessarily upon rank/grade. Air mission commanders will participate in the mission approval process along with each pilot in command of each aircraft and may receive the final mission approval for all crews in the flight.

#### **4-21. Pilot**

a. The pilot (PI), when designated, will be—

(1) At a crew station with access to the flight controls.

(2) Qualified and current in the aircraft mission, type, design, and series.

(3) Briefed by the PC.

(4) Listed on the flight plan or unit operations log.

b. Flight trainees undergoing training and personnel performing limited cockpit duties per paragraph 2-4 may perform pilot duties when an IP is at one set of controls. The IP must be qualified and current in the mission, type, design, and series aircraft being flown.

c. When the operators manual or mission requires two pilots as minimum crew, two pilots qualified and current in

the mission, type, design, and series aircraft to be flown are required. When an IP qualified in the mission, type, design, and series aircraft being flown is at one set of controls, the following additional personnel meet this requirement:

- (1) Persons undergoing authorized training.
- (2) Personnel performing limited cockpit duties per paragraph 2–4.
- (3) Aviation unit commanders in the grade of O5 or above and their corresponding aviation standardization officer in the grade of Chief Warrant Officer 4 (CW4) or above with all of the following conditions met:
  - (a) Flight is for demonstrating or determining the capabilities and/or combat effectiveness of the aircraft.
  - (b) Commander and his or her standardization officer must be assigned to that documented position.
  - (c) Aircraft and crew must be under his or her command or responsibility for standardization.
  - (d) If simulated emergency procedures will be conducted, the flight will be designated high risk.
  - (e) Must be qualified in the category of aircraft to be flown.
  - (f) Must be current per paragraph 4–21(d) below for flights in forecast IMC.
  - (g) Flights in a designated combat or imminent danger zone must be approved per 4–21c(4) below.
- (4) Personnel approved by an ACOM, ASCC, DRU, or NGB commander or the Commander, USAAWC for flights at USAAWC, in writing, when the following conditions have been met:
  - (a) Flight is for demonstrating or determining the capabilities and/or combat effectiveness of the aircraft.
  - (b) NVD or NOE flight must be specifically authorized.
  - (c) Flight will be in VMC.
  - (d) Specific simulated emergency procedures to be conducted will be briefed and approved.
  - (e) Flight is approved by the commander of the ACOM, ASCC, DRU or NGB providing the aircraft or the Commander, U.S. Army Aviation Warfighting Center for flights at USAAWC. If any of the above conditions cannot be complied with, a waiver may be requested per paragraph 1–7.
- (5) Authority granted in paragraph 4–21c(4) will not be further delegated below the two-star level.
  - d. Two aviators that meet the requirements of para 4–9 b above and current in the aircraft category being flown, are required for flights in forecast IMC. Flight trainees meet this requirement when undergoing instrument training and an IP or IE is at one set of controls. Officers performing limited cockpit duty per paragraph 2–4 do not meet this requirement unless they have undergone an instrument flight evaluation per paragraph 4–9b in the aircraft category being flown within the 12-month period prior to the flight or are undergoing instrument training.

#### **4–22. Copilot**

The copilot (CP), will assist in the performance of tasks as directed by the PC and is an aviator who—

- a. Is at a crew station with access to the flight controls but is not qualified or current in the aircraft being flown.
- b. Is at a crew station without access to the flight controls and performing crewmember duties required for the mission.
- c. Is performing copilot duties at other than a flight crew station and is undergoing training or evaluation conducted by an IP, SP, IE, UT, or ME.

#### **4–23. Unit trainer**

The unit commander may appoint unit trainers (UTs) to conduct specialized training to assist in unit training programs. Rated UTs are prohibited from conducting emergency procedures training in aircraft. Unit trainers are also prohibited from evaluating ATM individual, crew and maintenance tasks. Commanders may authorize rated UTs to conduct duties from any crew station. They may also authorize UTs to validate successful completion of required training; for example, border and corridor qualifications, local area orientation, and other locally directed requirements. When performing UT duties, the UT must be qualified per the appropriate ATM and current in the aircraft being flown.

#### **4–24. Instructor pilot**

- a. The instructor pilot (IP) will train and evaluate aviators, non-rated crewmembers, and other personnel in designated aircraft per the ATM.
- b. To become qualified as an IP for helicopters or airplanes, an aviator must be qualified as a Pilot in Command and must successfully complete one of the following:
  - (1) Helicopters.
    - (a) A course of instruction for IPs at an authorized Aviation Proponent School in the mission, type and design aircraft in which IP duties are to be performed.
    - (b) An IP equivalency evaluation administered by a standardization instructor pilot (SP) selected by DES, in the mission, type, and design aircraft in which IP duties are to be performed. Commanders will coordinate with DES (ATZQ–ES) Fort Rucker, prior to submitting request for equivalency evaluation to DAMO–AV, for approval.
    - (c) Additional IP qualifications within series group (per the appropriate ATM) may be accomplished locally.
    - (d) In the absence of a course of instruction for IPs at an authorized Aviation Proponent School for the aircraft,

ACOM, ASCC, DRU, or NGB commander may approve an additional IP qualification to be conducted locally for helicopter IPs who are qualified per paragraph (a) or (b) above.

(2) Airplanes.

(a) A course of instruction for IPs at an authorized Aviation Proponent School in the aircraft category in which IP duties are to be performed.

(b) An IP equivalency evaluation administered by an SP selected by DES in the aircraft category in which IP duties are to be performed. Commanders will coordinate with DES (ATZQ-ES) Fort Rucker, prior to submitting a request for equivalency evaluation to DAMO-AV, for approval.

(c) In the absence of a course of instruction for IPs at an authorized Aviation Proponent School for the aircraft, an additional IP qualification may be conducted locally for airplane IPs who are already qualified per paragraphs 4-24(a) or (b) above.

#### **4-25. Instrument examiner**

a. The instrument examiner (IE) will conduct instrument training and instrument flight evaluations per the ATM.

b. To become qualified as an IE, an aviator must—

(1) Be an IP in either aircraft category.

(2) Successfully complete a course of instruction for IEs at an authorized Aviation Proponent School, or.

(3) Successfully complete an IE equivalency evaluation administered by an IE selected by DES. The examinee must be an IP in the aircraft category in which evaluation is conducted. Commanders will coordinate with DES prior to submitting a request for equivalency evaluation to DAMO-AV for approval.

c. Be designated in writing by the commander for each category aircraft performing IE duty.

d. Simulator only IE's not current in the aircraft category must be evaluated annually in the simulation device by an IE who is current in the aircraft represented by the simulator.

#### **4-26. Standardization instructor pilot**

a. The standardization instructor pilot (SP) will evaluate IPs and SPs during all APART and PFEs other than aircraft and NVD currency. They may train and evaluate all rated and non-rated crewmember as well as other personnel in the designated aircraft per the ATM. SPs have technical supervision of the unit aviation standardization program as specified by the unit commander. He or she advises the commander at all levels of aviation standardization within the command.

b. Qualified IPs will be designated in writing as SPs by unit commanders and be qualified and current in at least one of the aircraft assigned to the unit. Commanders may authorize SPs to instruct and evaluate from pilot, copilot, and/or nonflight crew station.

c. Commanders with multiple aircraft types under their command can designate qualified IPs to serve as the unit standardization instructor pilot having technical supervision of the unit aviation standardization program as specified by the commander, without regard for aircraft qualification or currency.

#### **4-27. Maintenance test pilot/functional check pilot**

The Maintenance Test Pilot (MP) or functional check pilot performs flights and ground checks to evaluate the airworthiness of the aircraft per procedures published in the appropriate ATM, MTF manual, master service manual or other directed document.

a. Aircraft with test flight procedures published in the appropriate MTF manual will be test flown by qualified MP/MEs only.

b. To become qualified as a helicopter MP, aviators must successfully complete one of the following:

(1) Aviation Maintenance Leader/Aviation Maintenance Manager/Maintenance Test Pilot Course (AML/AMM/MTPC).

(2) An equivalency evaluation administered by a maintenance test pilot evaluator (ME) selected by DES. Commanders will coordinate with DES (ATZQ-ES) Fort Rucker, prior to submitting a request for equivalency evaluation to DAMO-AV for approval. Individual must show successful completion of the Aviation Maintenance Leader/Aviation Maintenance Manager Course prior to conduct of the equivalency evaluation.

(3) Waivers may be granted on a case-by-case basis through the appropriate ACOM, ASCC, DRU, or NGB aviation office to the DCS, G-3/5/7 (DAMO-AV).

c. Maintenance test pilots must be qualified in the aircraft to be flown and meet the standardization requirements of the appropriate ATM. Maintenance test pilots will comply with procedures in TM 1-1500-328-23 and the appropriate aircraft maintenance test flight (MTF) manual.

d. Helicopter contractor maintenance test pilots required to be an MP will be qualified by either method above but are not required to attend the Aviation Maintenance Leader/Aviation Maintenance Manager Course.

e. Pilots performing functional ground and flight checks/maintenance flights conducted per the airworthiness authority's approved procedures are not required to be graduates of any Aviation Maintenance Leader/Aviation Maintenance Manager/Maintenance Test Pilot Course; however, they must meet the task iteration and initial/annual evaluation

requirements of the appropriate ATM or other HQDA approved guidance. Unless otherwise directed by HQDA, unit Commanders will train these pilots locally. Contractors performing this function will be qualified per the contract.

#### **4-28. Maintenance test pilot evaluator**

The maintenance test pilot evaluator (ME) will train and evaluate MPs and other MEs in designated aircraft per the appropriate ATM. To become qualified as a ME for helicopters a MP must meet the following requirements:

- a.* At least 50 hours of MP time in the aircraft for which ME duties are sought.
- b.* Training and evaluation in methods and fundamentals of instruction from an IP, SP, or DES designated ME.
- c.* An initial evaluation, as described in the appropriate ATM, administered by a DES ME or DES designated ME or completion of a USAAWC designated course of instruction.
- d.* Successful completion of the USAAWC ME course or the initial ME evaluation will be documented in accordance with TC 1-210 and FM 3.04-300.

#### **4-29. Experimental test pilot**

The experimental test pilots (XP) are graduates of the U.S. Naval Test Pilot School or other accredited test pilot schools and are designated by the commander to perform experimental and engineering flight tests.

#### **4-30. Crew Chief**

The Crew Chief is a nonrated crewmember (NCM) that is required to perform duties aboard an aircraft that are essential to its operation and/or specific flight mission. They will be—

- a.* In an assigned crewmember flight position by MTOE/TDA per AR 600-106, or a non-crewmember performing crewmember duties per AR 600-106, or as required by the contract.
- b.* Selected per paragraph 4-18 for each flight and/or series of flights.
- c.* MOS qualified.
- d.* Trained to perform crewmember duties per the Commander's Guide (TC 1-210) and the appropriate ATM.
- e.* Listed on the flight briefing and flight plan or unit operations log.

#### **4-31. Flight engineer**

The flight engineer (FE) is a nonrated crewmember NCM that is required to perform duties on the aircraft that are essential to its operation and/or specific flight mission. They will be—

- a.* In an assigned crewmember flight position by MTOE/TDA per AR 600-106, or a non-crewmember performing crewmember duties per AR 600-106, or required by the contract.
- b.* Selected per paragraph 4-18 for each flight and/or series of flights.
- c.* MOS qualified.
- d.* Trained to perform crewmember duties per the Commander's Guide (TC 1-210) and the appropriate ATM.
- e.* Listed on the flight briefing and flight plan or unit operations log.

#### **4-32. Flight medic**

The flight medic (MO) is a nonrated crewmember (NCM) that is required to perform duties aboard an aircraft that are essential to its operation and/or specific flight mission. They will be—

- a.* In an assigned crewmember flight position by MTOE/TDA per AR 600-106, or a non-crewmember performing crewmember duties per AR 600-106, or required by the contract.
- b.* Selected per paragraph 4-18 for each flight and/or series of flights.
- c.* MOS qualified.
- d.* Trained to perform crewmember duties per the Commander's Guide (TC 1-210) and the appropriate ATM.
- e.* Listed on the flight briefing and flight plan or unit operations log.

#### **4-33. Nonrated crewmember instructor**

The Nonrated crewmember instructor (FI) is a NCM that trains and evaluates nonrated crewmembers in their designated aircraft system or aircraft mission per the appropriate ATM. To become qualified as an FI the crewmember must be qualified in accordance with 4-30 through 4-32, above, and complete one of the following:

- a.* Successfully complete a course of instruction for FIs at an authorized Aviation Proponent School. Or,
- b.* An FI equivalency evaluation administered by an SI selected by DES in the type aircraft in which the FI duties are to be performed. Commanders will coordinate with DES for an equivalency evaluation. An equivalency evaluation only applies to MOSs with an authorized Aviation Proponent School.
- c.* If an authorized Aviation Proponent School does not exist or is not available for a specific aircraft or MOS, commanders may select a highly experienced nonrated crewmember to perform FI duties. The selected individual will be trained and evaluated by an IP, SP, or an SI per the appropriate ATM and TC 1-210.

#### **4-34. Nonrated crewmember standardization instructor**

The nonrated crewmember standardization instructor (SI) is a NCM that trains and evaluates any nonrated crewmembers, nonrated crewmember instructors (FI), and nonrated crewmember standardization instructors (SI) and they assist the unit SP with supervision and maintenance of the unit aircrew training program. To be designated by the commander as an SI, the FI must—

- a.* Successfully complete a course of instruction for SIs at an authorized Aviation Proponent School. Or,
- b.* An SI equivalency evaluation administered by an SI selected by DES in the type aircraft in which the SI duties are to be performed. Commanders will coordinate with DES for an equivalency evaluation.
- c.* If an authorized Aviation Proponent School does not exist or is not available for a specific aircraft or MOS, commanders may select a highly experienced nonrated crewmember to perform SI duties. The selected individual will be trained and evaluated by an IP, SP, or an SI per the appropriate ATM and TC 1-210.

### **Section III Standardization**

#### **4-35. Aviation standardization program**

*a.* The aviation standardization program is designed to ensure a high degree of efficiency and safety in accomplishing the combat mission of the aviation force. This is achieved by command supervision, employment of standard aviation tasks, use of standard publications and maintenance of a disciplined aircrew force by administration of frequent tests and flight evaluations.

*b.* Commanders will—

- (1) Appoint a standardization officer.
- (2) Ensure that Army aircraft are operated according to standard procedures in ATMs and operator's manual.
- (3) Designate evaluators, instructors, examiners and trainers in support of the ATP.
- (4) Ensure that required training, tests, and flight evaluations are completed.
- (5) Review, approve and implement standardization policies and procedures of the standardization programs.

#### **4-36. Aviation Resource Management Surveys**

*a.* The Aviation Resource Management Surveys (ARMS) program is designed to assist the commander in assessing the readiness and resource management of all assigned aviation units. The ARMS evaluates the management of unit aviation programs, provides staff assistance, and identifies internal and systemic issues for resolution and not to assign personal or collective blame. The focus of the ARMS includes all aviation components of the Combat Aviation Brigades and as a minimum will be conducted on battalion sized aviation units. Separate aviation companies, detachments or aviation units that are geographically separated from their parent organization may be surveyed at the discretion of the commander.

*b.* ARMS teams will be composed of subject matter experts (SMEs) selected based upon their years of experience, judgment, demonstrated knowledge of the subject area and discretion. They may be drawn from active, reserve component, Department of the Army civilian ranks or contractors. ACOM, ASCC, DRU, or NGB may Field their own teams or designate another agency to conduct the ARMS for them. ARMS teams will be augmented by SME from subordinate units to ensure an effective survey.

*c.* ACOM, ASCC, DRU, or NGB Aviation standardization committees or their designated ARMS agency will maintain an ARMS Guide that outlines all applicable functional areas to be surveyed. As a minimum the areas to be surveyed will include: flight operations, standardization, tactical operations, ASE-EW, night vision devices, logistics, maintenance, safety and command support programs, petroleum operations, aviation life support equipment, aviation medicine, training, air field and air traffic services at non-IMA airfields and heliports.

*d.* An ARMS will be conducted for all active and reserve component units every 24 to 36 months and should be coordinated with DES for assessment of standardization and proficiency of crewmembers through flight evaluations. Units may be surveyed more frequently based on location, mission or as an integral part of the Commander's validation of unit pre-deployment readiness or as directed by HQDA, the branch chief or the ACOM, ASCC, DRU, or NGB.

*e.* The ARMS findings are confidential communications between the ARMS team and commanders that are critical to ensure an open, candid exchange of information. They will be provided to the surveyed units upon completion and an executive summary of the survey results will be forwarded to the unit through command channels. Results will be made available upon request for HQDA and the aviation branch chief. Only overall ARMS findings and trends will be presented during the Aviation Senior Leaders Conference. Specific unit results will not be released without specific approval of HQDA, G-3/5/7 (DAMO-AV).

#### **4-37. U.S. Army Aviation Senior Leaders Conference**

*a.* Army aviation senior leaders meet annually to review issues affecting the capability of commanders to perform missions with aviation assets.

b. The conference chairman is the Commander, USAAWC. Membership consists of aviation unit commanders (O6 and above), their senior warrant officer, command sergeants major, ACOM, ASCC, DRU, or NGB aviation officers, and other persons designated by the chairman.

c. Direction and control.

(1) Senior leaders will meet in formal session at least annually at the call of the chairman. Approved conference minutes will be forwarded to members for further distribution to subordinate aviation units.

(2) Standardization officers will meet in formal session at least annually at the call of the chairman to discuss standardization issues elevated by the ACOM, ASCC, DRU, or NGB standardization meetings for presentation at the conference. Approved conference minutes will be forwarded to members for further distribution to subordinate aviation units.

(3) Funds for travel, per diem, and overtime, if needed, will be provided by the member's parent organization.

d. Correspondence. Issues to be presented at the annual conference will be addressed to: Commander, U.S. Army Aviation Warfighting Center (ATZQ-TD), Fort Rucker, AL 36362-5214 (ATZQ-TD@rucker.army.mil). Other standardization and training issues requiring resolution throughout the year should be sent to Commander, U.S. Army Aviation Warfighting Center (ATZQ-ES), Fort Rucker, AL 36362-5214 as problems arise.

#### **4-38. Army Command, Army Service Component Command, Direct Reporting Unit, and National Guard Bureau Army aviation standardization committees**

a. Commanders monitor the implementation of the U.S. Army Aviation Standardization Program. They provide the command with a continuing assessment of the program.

b. Standardization committees will be organized to—

(1) Recommend and review directives, provide guidance, and respond to specific inquiries and requests.

(2) Coordinate requests for support from subordinate aviation units.

(3) Prepare and review recommended changes to aviation standardization literature and forward to proponents.

(4) Develop Aviation Resource Management Survey guides for command approval.

(5) Write and publish supplements to this regulation.

(6) Meet at the call of the chairman.

(7) Funds for travel, per diem, and overtime, if required, will be provided by the member's parent organization.

c. Members will be designated in writing by the commander as follows:

(1) A chairman and secretary.

(2) Commander of subordinate aviation units.

(3) An aviation safety officer, aviation maintenance officer, flight surgeon, aircraft SP, helicopter SP, IE, ME, TACOPS officer, master gunner, SI, and air traffic services (ATS) representative.

d. Standardization and training issues that require action by USAAWC or presentation at the Aviation Senior Leaders Conference will be addressed to Commander, U.S. Army Aviation Warfighting Center (ATZQ-ES), Fort Rucker, AL 36362-5214. Issues that require action by HQDA will be sent to the Deputy Chief of Staff, G-3/5/7 (DAMO-AV), 400 Army Pentagon, Washington, DC 20310-0400.

#### **4-39. Installation, theater or combat aviation brigade standardization committees**

Installations or theaters with more than one combat aviation brigade will designate a commander as the committee chairman and staff the committee equitably from across the brigades. When an installation or theater has one combat aviation brigade, this requirement can be met by that unit.

a. Standardization committees will be organized to—

(1) Supervise and coordinate the command implementation of the U.S. Army Aviation Standardization Program.

(2) Monitor the proficiency of all assigned or attached aviators in operational aviation positions and other crewmembers specified in ATMs.

(3) Coordinate requests for aviation standardization support from assigned or attached aviation units.

(4) Prepare and review recommended changes to aviation standardization literature and forward to proponents.

(5) Monitor ARMS trends.

(6) Prepare installation, theater or local aviation regulations and policies as required.

(7) Forward issues to the ACOM, ASCC, DRU, or NGB standardization committee for resolution.

(8) Meet at the call of the chairman.

(9) Funds for travel, per diem, and overtime, if required, will be provided by the member's parent organization.

b. Composition. Members will be designated in writing by the commander as follows:

(1) A chairman and secretary.

(2) Commanders or chiefs of all aviation units or activities assigned or attached to the installation.

(3) An aviation safety officer, aviation maintenance officer, flight surgeon, aircraft SP, IE, ME, TACOPS officer, master gunner, SI and ATS representative.

#### **4–40. U.S. Army Aviation Warfighting Center**

The Aviation Branch is the proponent agency for the U.S. Army Aviation Standardization Program. In addition to the responsibilities listed in paragraph 1–4*i*, the USAAWC will—

*a.* Act as reviewing agency for Army aviation training, standardization, and technical publications to ensure that they are standardized, accurate, and do not duplicate each other per AR 34–4 Army Standardization Policy. This is accomplished by the Director of Evaluation and Standardization (DES),(ATZQ–ESL), Fort Rucker, through continuous review and coordination with users and proponents and by developing normal and emergency procedures for aircraft operator’s manuals.

*b.* Act as approval authority for all aviation Programs of Instruction (POI), Initial Key Personnel Training (IKPT), and New Equipment Training (NET), and associated training materials to include lesson plans and media. Submit to the Aviation Branch proponent, the Director of Training and Doctrine, (ATZQ–TD), Fort Rucker, Alabama 36362, ATZQ–TD@rucker.army.mil.

*c.* In coordination with ACOM, ASCC, DRU or NGB ARMS teams, conduct ARMS for aviation training. Frequency for the conduct of these programs is 24–36 months. This includes flight evaluations conducted by DES, to assess standardization and proficiency of crewmembers throughout the Army as directed by the Branch Chief or HQDA.

*d.* Advise the Branch Chief and ACOM, ASCC, DRU, or NGB of the status of aviation flight standardization activities. DES will also provide information about implementing aviation standardization policies and procedures Army-wide.

*e.* Develop and recommend changes to general policy guidance for the U.S. Army Aviation Standardization Program.

## **Chapter 5 Flight Procedures and Rules**

### **5–1. General**

*a.* Army personnel engaged in the operation of Army aircraft shall comply with applicable—

- (1) Federal aviation regulations, laws, and rules.
- (2) International Civil Aviation Organization (ICAO) regulations.
- (3) Host country regulations, laws, and rules.
- (4) Military regulations.
- (5) Non-aviation federal and state laws applicable to Army aviation operations.
- (6) DOD flight information publications (FLIP).
- (7) Aircraft operator’s manuals and checklists and applicable airworthiness releases.

*b.* DOD FLIP does not provide procedure charts for all airfields that have instrument approach procedures. Required procedure charts may be added to the DOD FLIP by direct contact with the U.S. Army Aeronautical Service Agency (USAASA), 9325 Gunston Road, Suite N319, Fort Belvoir, VA 22060–5582, or the U.S. Army Aeronautical Services Detachment–Europe (USAASD–E). Use of commercial or host country products must be approved by either USAASA or USAASD–E as a supplement to DOD FLIP, per AR 95–2.

*c.* Smoking or open flames are prohibited in, or within 50 feet of, Army aircraft.

*d.* Procedures for packaging, handling, and air transportation of dangerous materials are described in AR 95–27 and FM 38–701. Aircrews assigned to move dangerous materials in Army aircraft will comply with the requirements listed in these publications.

*e.* Aircraft must be bonded or grounded during fueling, de-fueling, arming, de-arming, oxygen servicing, and loading or unloading of flammable or explosive cargo. Aircraft will be grounded for maintenance in accordance with TM 1–1500–204–23–1, chapter 3; FM 3–04.500, and the applicable aircraft-specific maintenance publication(s).

*f.* Single pilot operations in instrument meteorological conditions (IMC) are prohibited.

*g.* When published minimums require conversion between runway visual range (RVR) and miles or metric equivalent, the conversion table in DOD/US Government FLIP will be used. RVR is the controlling visibility factor when published and reported for a runway.

*h.* IFR GPS Equipment & Navigational Databases- are considered supplemental navigation equipment. GPS is authorized for IFR flight if—

(1) IFR GPS is authorized in the applicable sovereign airspace- the PIC will check prior to use by consulting the DOD FLIP Area Planning (AP).

(2) The installed GPS equipment is certified for IFR operation during the applicable portion of the flight (en route, terminal and instrument approach use) in accordance with the applicable Supplemental Type Certificate (STC),

Airworthiness Releases, Interim Statements of Airworthiness Qualification, aircraft operator's manual, and/or applicable supplemental operator's manuals.

(3) The aircraft has installed and operational NAVAID receiver(s) that can receive available ground-based NAVAID signals for the route of flight, destination and any required alternate airport. If no ground based NAVAIDs are available, the commander must determine the appropriateness of the flight.

(4) During IFR flight with equipment that permits the use of Precise Positioning Service (PPS), the GPS will be operated in the PPS mode.

(5) Current DOD/US Government FLIP products will be carried and accessible at all times when using IFR databases.

(6) IFR RNAV/GPS departure, arrival, en route and terminal procedures will only be flown using waypoints retrieved from an approved non-corruptible database. Manual entry or update of the navigation database other than storing "user defined data" is not authorized (except for approved EMER GPS procedures). Use of commercial IFR databases (for example, Jeppesen) in Army aircraft is only authorized in the United States and US territories. Use of commercial databases elsewhere in the world is restricted to en route navigation or to US military facilities overseas unless approved by USAASA/USAASD-E.

## 5-2. Preflight

Before beginning a flight, the aircrew will acquaint themselves with mission, procedures, and rules.

*a. Planning.* The aviator will evaluate aircraft performance, departure, en route and approach data, notices to airmen (NOTAM) (including GPS, DAFIF, TFR and local NOTAMS, host country requirements, Theater requirements (for example, ACO, ATO, SPINS, and so forth)) for the route to be flown, and appropriate DOD/US Government FLIP per paragraph 5-1b.

*b. Fuel requirements.* At takeoff, aircraft must have enough fuel to reach the destination and alternate airport (if required) and have a planned fuel reserve of—

(1) Rotary-wing.

(a) VFR - 20 minutes at cruise.

(b) IFR - 30 minutes at cruise.

(2) Fixed-wing.

(a) VFR (day) - 30 minutes at cruise.

(b) VFR (night) - 45 minutes at cruise.

(c) IFR - 45 minutes at cruise.

*c. Flight weather planning.* Pilots will obtain departure, en route, destination, and alternate (if used) weather information before takeoff. The following weather requirements apply:

(1) *Flight into icing conditions.* Aircraft will not be flown into known or forecast severe icing conditions. If a flight is to be made into known or forecast moderate icing conditions, the aircraft must be equipped with adequate operational deicing or anti-icing equipment.

(2) *Flight into turbulence.* Aircraft will not be intentionally flown into known or forecast extreme turbulence or into known severe turbulence. Aircraft will not be intentionally flown into forecast severe turbulence unless ACOM, ASCC, DRU, or NGB commander has established clearance procedures and—

(a) Weather information is based on area forecasts.

(b) Flights will be made in areas where encountering severe turbulence is unlikely.

(c) Flights are for essential training or essential missions only.

(d) Flights are considered extremely high risk.

(e) Flights are terminated or depart turbulence if severe turbulence is encountered.

(3) Flight into thunderstorms. Aircraft will not be intentionally flown into thunderstorms.

(4) *VFR flight.* Destination weather must be forecast to be equal to or greater than VFR minimums at estimated time of arrival (ETA) through 1 hour after ETA. When there are intermittent weather conditions, predominant weather will apply. Aviators may file flight plans to a destination within Class B, C, D, and E surface area airspace when weather conditions are forecast to be equal to or greater than known SVFR minima for that airspace at ETA through 1 hour after ETA. Helicopter SVFR minima is 1/2 mile visibility and clear of cloud unless a higher minimum is required at the airfield. For airspace class, forecast en route weather must permit flight with separation from clouds and flight visibility equal to or greater than minimums stated in table 5-1.

(5) *Instrument flight rules (IFR) flight.* Destination weather must be forecast to be equal to or greater than the published weather planning minimum for the approach procedure to be flown at ETA through 1 hour after ETA. When there are intermittent weather conditions, predominant weather will apply. If inoperative components for an approach exist, adjust the weather planning minimums as indicated by the DOD/US Government FLIP. Aviators flying helicopters may reduce destination and alternate Category A visibility minimums by 50 percent, but not less than 1/4 mile or metric equivalent. Reduction of visibility for approaches labeled "copter only" is not authorized and this reduction is

applied after all other corrections. Category II approach procedures may not be used in destination or alternate weather planning.

(6) *Area forecast.* If there is no weather reporting service, the aviator may use the area forecast.

(7) *Weather briefing.* Local commanders will establish policies specifying when DD Form 175–1 (Flight Weather Briefing) is required to be filed with DD Form 175 (Military Flight Plan) and the minimum entries required on parts I through V of locally briefed DD 175–1 forms. Weather information will be obtained from a U.S. Military weather facility. If U.S. Military weather service support is not available, consult DOD/US Government FLIP for guidance. Request for exceptions should be submitted through command channels to the commander USAASA. For all IFR flights and/or VFR cross country flights, the weather forecast will be void 1 hour and 30 minutes from the time the forecast is received provided the aircraft has not departed. Weather forecast may be extended after coordination with a weather facility. The crew should update weather briefing information on stopover flights.

*d. Flight plan.* Aircraft will not be flown unless a flight plan (military or civil) has been filed or an operation's log completed. The pilot in command is responsible for the flight plan and has flight plan approval authority. When FAA Form 7233–1 (Flight Plan), DD Form 1801 (DOD International Flight Plan), or DD Form 175 are used, they will be filed per DOD/US Government FLIP. FAA Form 7233–1 can be obtained from the FAA forms Web site at: <http://forms.faa.gov>. Local commanders will establish policies specifying the flight plan or operations log to be used.

(1) All Army aircraft that are instrumented for IFR flight and are flown by an instrument rated pilot will operate on IFR flight plans except when—

(a) Flight is primarily for VFR training.

(b) Time will not permit mission completion under IFR.

(c) Mission can only be accomplished under VFR.

(d) Excessive air traffic control (ATC) departure, en route, or terminal area delays are encountered.

(e) Hazardous weather conditions must be avoided.

(f) Aircraft is being flown single pilot.

(2) Stopover flight: If the original manifest does not list passenger or crew changes at stopover points, changes will be filed with military installation base operations, FAA flight service, or other competent authority.

(3) After departing a nonmilitary airfield, the PC will advise flight service station (FSS) or other competent authority of the departure time.

(4) Locally produced operations logs may be used for local flights.

(5) A crew and passenger manifest is required for all flights. For tactical or tactical training flights the passenger manifest will be prepared and retained by the supported unit.

*e. Alternate airfield planning.* An alternate airfield is required when filing IFR to a destination under any of the following conditions:

(1) Radar is required to execute the approach procedure to be flown.

(2) The instrument approach navigational aids to be used are unmonitored.

(3) The predominant weather at the destination is forecast at ETA through 1 hour after ETA to be less than—

(a) Ceiling 400 feet above the weather planning minimum required for the approach to be flown.

(b) Visibility 1 mile (or metric equivalent) greater than the planning minimum required for the approach to be flown.

(4) An alternate is not required if descent from en route minimum altitude for IFR operation, approach, and landing can be made in VFR conditions.

*f. Alternate airfield selection.*

(1) An airfield may be selected as an alternate when the worst weather condition for that airfield is forecast for ETA through 1 hour after ETA to be equal to or greater than—

(a) Ceiling 400 feet above the weather planning minimum required for the approach to be flown and visibility 1 mile (or metric equivalent) greater than the weather planning minimum required for the approach to be flown; or

(b) VFR minimums and descent from en route minimum altitude for IFR operation, approach, and landing can be made in VFR conditions.

(2) An airfield will not be selected as an alternate except per f(1)(b) above—

(a) If the approach procedure to be used at the alternate is shown not authorized (NA) in FLIP.

(b) If radar is required for the approach procedure to be used at the alternate.

(c) If the instrument approach navigational aids to be used is unmonitored.

(d) If a Class B, C, D, or E surface area airspace does not exist or is not in effect at the airport to be used.

(e) If the global positioning system (GPS) is required for the approach.

*g. Minimum equipment required for flight.* The minimum equipment required for flight is shown in table 5–2. Items listed in table 5–2 under the appropriate condition are considered the minimum for flight under that condition. Exceptions:

(1) Fixed wing aircraft that have a FWPMO/DES approved Required Equipment List (REL) or Minimum Equipment List (MEL) and/or the Configuration Deviation List (CDL) will operate in accordance with those approved documents. These documents will also be used to determine the flight status of the aircraft.

(2) Rotary wing aircraft with a REL or MEL published in the AMCOM approved aircraft Operator's manual will operate in accordance with that list.

(3) Recognizing rapid fielding of modern equipment, PEO Aviation, in coordination with the Aviation Engineering Directorate may substitute advanced replacement equipment for the items listed within table 5-2 provided they clearly annotate the item replaced and under what conditions it is required within the AMCOM approved aircraft operator's manual or by supplemental type certificate (STC) flight manual supplement when required.

(4) In addition to the above, minimum equipment and training requirements for category II instrument landing system (ILS) approaches are shown in table 5-3.

*h.* Weight and balance. The PC will ensure—

(1) The accuracy of computations on the DD Form 365-4 (Weight and Balance Clearance Form F-Transport/Tactical).

(2) That a completed DD Form 365-4 is aboard the aircraft to verify that the weight and center-of-gravity will remain within allowable limits for the entire flight. Several DD Forms 365-4 completed for other loadings also may be used to satisfy this requirement. In this case, the actual loading being verified must clearly be within the extremes of the loading shown on the DD Forms 365-4 used for verification.

*i.* Prior to IFR GPS flight—

(1) Pilots will check GPS NOTAMs/RAIM via the DINS Web site, an FAA FSS, or other approved NOTAM source. For GPS operations in civil European airspace, predictive RAIM may also be obtained from the Eurocontrol Augur Web site at <http://augur.ecacnav.com/augur/app/home>. If using DAFIF as a database, DAFIF notices (W series) for the route of flight will be checked via the DINS Web site. If using a commercial database, the vendor's NOTAMs will be checked prior to flight.

(2) Pilots will ensure all required navigation performance (RNP) levels can be met when operating in designated RNP airspace. When a designated RNP level cannot be achieved, the pilot will revise the route or delay operation until the appropriate RNP level can be ensured.

(3) IFR GPS flight will not be conducted with an expired navigational database.

(4) The appropriate suffix for GPS/RNAV equipment will be entered on the flight plan. When operating in the US National Airspace System (NAS), IFR GPS may be used as a substitute to ADF and/or DME receivers subject to the terms and restrictions in the FAA Aeronautical Information Manual (AIM). When operating outside the US, consult DOD FLIP/host nation for authorized substitutions.

### **5-3. Departure procedures**

*a.* All aviators will comply with published nonstandard IFR takeoff minimums and departure procedures in flight information publications.

*b.* The aviator flying the aircraft on takeoff who has logged 50 hours or more of actual weather time as pilot-in command has no Army takeoff minimums. Instrument time flown in a simulator does not apply.

*c.* The aviator flying the aircraft on takeoff that does not meet *b* above, has the following minimums:

(1) Airplanes-ceiling 200 feet and either visibility 1/2 mile, runway visual range (RVR) 2,400 or metric equivalent.

(2) Helicopters-ceiling 100 feet and either visibility 1/4 mile, RVR 1200 feet or metric equivalent.

(3) RVR may be used when takeoff is made from the runway for which RVR is reported.

*d.* Special VFR flights within and departures from Class B, C, D, and E airspace are authorized provided the weather requirements of CFR Title 14, Part 91 or applicable host country flight regulations are met and an appropriate ATC clearance is obtained. Army helicopter SVFR minima is one-half mile visibility and clear of cloud unless higher minimum is required at the airfield.

*e.* IFR GPS Departure Procedures:

(1) RNAV/GPS Departure Procedures (DP) must have terminal RAIM availability prior to departure.

(2) The CDI sensitivity will be set to + or - 1nm sensitivity or as published. Cross check of published paper DPs to the database retrieved procedure is required.

(3) FAA NACO copter only departure procedures will be flown at 70KTS or as published.

**Table 5-1  
Army VFR weather minimums**

Airspace Class	Flight Visibility Statue Miles	Distance from Cloud
A	N/A	N/A
B	3	Clear of Cloud
C&D	3	500 ft below 1,000 ft above 2,000 ft horizontal
E Less than 10,000 MSL	3	500 ft below 1,000 ft above 2,000 ft horizontal
E at or above 10,000 MSL	5	1,000 ft below 1,000 ft above 1 SM horizontal
<b>G (Rotary Wing)—1,200 ft or less above surface (regardless of MSL)</b>		
Day	1/2	Clear of Cloud
Night	1	Clear of Cloud
<b>G (Rotary Wing)—more than 1,200 ft above surface but less than 10,000 ft MSL</b>		
Day	1	500 ft below 1,000 ft above 2,000 ft horizontal
Night	3	500 ft below 1,000 ft above 2,000 ft horizontal
<b>G (Rotary Wing)—more than 1,200 ft above surface at or above 10,000 ft MSL</b>		
Day & Night	5	1,000 ft below 1,000 ft above 1 SM horizontal
<b>G (Fixed Wing)—less than 10,000 ft MSL</b>		
Day & Night	3	500 ft below 1,000 ft above 2,000 ft horizontal
<b>G (Fixed Wing)—at or above 10,000 ft MSL</b>		
Day & Night	5	1,000 ft below 1,000 ft above 1 SM horizontal

**Table 5-2  
Required equipment**

Required Equipment <sup>1</sup>	Day	Night <sup>2</sup>	IMC <sup>2</sup>	NVD <sup>2</sup>
1. Heading Indicator		X	X	X
2. Attitude Indicator <sup>4</sup>		X <sup>7</sup>	X	X
3. Turn & Slip Indicator			X <sup>4</sup>	
4. Airspeed Indicator	X	X	X	X
5. Pressure Altimeter	X	X	X	X
6. Vertical Speed Indicator <sup>4</sup>		X	X	X
7. Magnetic Compass <sup>4</sup>	X	X	X	X
8. Fuel Quantity Indicator System	X	X	X	X
9. Clock /Watch W/Seconds indicator	X	X	X	X
10. Free Air Temp	X	X	X	X
11. Pitot Heater			X	

**Table 5-2  
Required equipment—Continued**

12. Radar Altimeter(s)		X <sup>5</sup>		X <sup>4</sup>
13. AFCS/DASE/FMC	X <sup>9</sup>	X <sup>5,9</sup>	X <sup>6,9</sup>	X <sup>9</sup>
14. Vertical Gyros and Indicators			X <sup>6</sup>	
15. FCC <sup>4</sup> AHARS/INS/HARS	X	X	X	X
16. AH64A Doppler <sup>4</sup>		X	X	X
17. Standby Flight Instruments <sup>4</sup>		X	X	X
18. Commo Equipment	X	X	X	X
19. Nav Equipment			X <sup>8</sup>	
20. Transponder with Mode C or S	X <sup>10</sup>	X <sup>10</sup>	X	X <sup>10</sup>
21. Anticollision Lighting system	X	X	X	X
22. Position/Instrument Light(s)		X		X
23. Landing/Search Light <sup>3</sup>		X		X
24. Flashlight		X		X

Notes:

<sup>1</sup> Equipment requirements designated in this table for flight in day, night, IMC, or NVD must be operational and is the minimum required by this regulation without any regard for mission requirements. Refer to applicable approved MEL/REL/CDL and/or applicable aircraft operator's manual for additional or alternative requirements.

<sup>2</sup> Items 1 through 6 must be operational at the flight station to be occupied by the pilot in command for fixed wing aircraft and operational at both pilot's stations in rotary wing aircraft where provisions exist. All vacuum and electrical sources for the flight instruments must be operational. Aircraft utilizing EFIS/PFDs to display the data required above must have back-up system(s) that display and/or feed the required data that will be operational prior to departure. Failure of one of the displays or data feed systems in flight must be evaluated to determine the impact on mission and further flight.

<sup>3</sup> NVD IR light must be installed and operational for all NVD flights except FLIR aircraft. Failure of the light in flight must be evaluated to determine impact on mission and further NVD flight.

<sup>4</sup> If installed, it must be operational. All EFIS equipped fixed wing aircraft must have an operational Standby Attitude indicator or Electronic Standby Instrument System (ESIS) in order to be dispatched for flight operations. An electronic turn indicator coupled with either an electronic or mechanical inclinometer on any display constitutes an operational Turn and Slip indicator. Rotary wing aircraft must have a magnetic compass or ESIS capable of displaying heading information.

<sup>5</sup> Applies only to CH-47 operation on water. A visible horizon and two or more highly visible stationary objects for cues on the waters surface must be present at the landing site.

<sup>6</sup> Both AFCS and all components of both vertical gyros shall be operational for CH-47D and UH-60A/L.

<sup>7</sup> Visible horizon may be substituted for attitude indicator for VFR flight.

<sup>8</sup> Navigation systems used for IFR operations must comply with FAA and/or host nation requirements. Operating instructions and limitations defined in applicable Operator's Manuals, Airworthiness Releases, or Supplemental Type Certificates should be used to determine compliance.

<sup>9</sup> Applies to AH-64A and AH-64D aircraft only

<sup>10</sup> Must be on during operations in the NAS but only one aircraft must meet this requirement when flying in formation.

**Table 5-3  
Aircraft equipment requirements for Category II Approaches**

Minimum Equipment	Remarks
Rain removal system	
Auto throttle system	Required for all jets if operations based on dual flight directors and for all aircraft using split axis coupling.
Single flight director with dual displays.	Single axis authorized if basic glide slope information is displayed on same instrument.
Above and single automatic approach coupler	Then split axis authorized.
OR	
Two independent flight director systems with Instrument failure warning <sub>1</sub> system and the following additional equipment:	
a radar altimeter or inner marker and an attitude gyros with calibrated pitch markings or Flight director pitch command or Computed pitch command	More modern equipment displaying the same information authorized
Aviator Evaluation Requirements <sup>2 &amp; 3</sup>	
To be considered current for Cat II approaches, crewmembers at the controls will be evaluated by a qualified and current Cat II instrument flight examiner on their ability to perform the maneuvers listed below at least annually for the specific aircraft being flown.	
Low Approach System	Maneuvers
1. Dual flight director	Two ILS approaches to 100 feet; one a landing will be accomplished and from the other a missed approach.
2. Flight director and approach coupler	Two ILS approaches to 100 feet; one using flight director and one using auto, coupling from one a landing will be accomplished and from the other a missed approach.

Notes:

<sup>1</sup> Flight crew must have assigned crew duties and procedures to provide immediate detection of essential instrument and equipment failures.

<sup>2</sup> Either an aircraft or an approach visual simulator may be used. When accomplished in an aircraft, a hood will be used to simulate the weather. When accomplished in an approved visual simulator, the system must simulate the appropriate category of weather, ceiling and visibility, and be equipped with an appropriate lighting system that depicts the approach and runway lights.

<sup>3</sup> Copilots will demonstrate their ability to perform assigned copilot functions.

**5-4. En route procedures**

a. Instrument meteorological conditions (IMC). During IMC flight, all instruments and communication equipment in the cockpit will be kept in the “on” position and immediately available for use.

b. Over-the-top flights. Aircraft will not be flown above a cloud or fog layer under VFR for more than 30 minutes unless—

(1) The aircraft is equipped for IMC flight per table 5-2 and not restricted from IMC flight.

(2) All instrument flight rules and requirements can be met for the remaining flight.

c. Communications.

(1) IFR. Reports and radio phraseology will conform to DOD/US Government FLIP.

(2) VFR. Aviators will monitor appropriate frequencies and make position reports as required.

d. Holding.

(1) An aviator may request ATC clearance to hold at any time if fuel and alternate requirements can be met.

(2) Holding will be in accordance with DOD/US Government FLIP.

e. Over flying national security areas. Aviators shall avoid overflight of national security areas below 2,000 feet above ground level (AGL). Exceptions will be per instructions in DOD/US Government FLIP.

**5-5. Arrival procedures**

a. Approach.

(1) Acceptance of charted visual approach clearance is not mandatory.

(2) When an instrument approach is necessary, only approved DOD/U.S. Government procedures will be flown. U.S. Army crews will not file or plan to use a non-DOD/US. Government instrument approach that has not been validated and approved (terminal instrument procedures (TERPS) review) by the Commander, USAASA or USAASD-E. The Secretary of Defense has established limited waiver authority to this requirement for urgent, short notice humanitarian, contingency, medical evacuation, special access, and urgent State Department missions. The first O-8 flag officer in the chain of command with responsibility for mission risk assessment approval may waive the

TERPS review for use of non-U.S. Government procedures for these missions case by case. When waived, the National Military Command Center, and Commander, USAASA/USAASD-E must be notified immediately. Units requesting approval for use of non-U.S. Government instrument approach procedures will submit an immediate telephonic/e-mail request to USAASA/USAASD-E as soon as mission requirements are known.

(3) When published landing visibility minimums require conversion between RVR and miles or metric equivalent, the conversion table in DOD FLIP will be used. RVR is the controlling visibility factor when published and reported for a runway. RVR, however, will not be used with a circling approach.

(4) Dual VOR equipment requirements specified on approach charts do not apply to Army aircraft. Off-tuning from the approach aid to identify an approach fix is authorized. Dual VOR approach minimums apply.

(5) An approach may be initiated, regardless of ceiling and visibility.

(6) Category II ILS approaches in IMC are authorized only when all provisions of table 5-3 are met. Descent on category II ILS approaches is restricted to the highest decision height (DH) published for the procedure selected.

(7) Practice hooded approaches may be made to the decision height or minimum descent altitude when the aircraft has dual controls and a pilot is at one set of controls. In all other cases, hooded approaches may not be made lower than 500 feet AGL.

(8) Special VFR flights within Class B, C, D, and E airspace are authorized provided the weather requirements of 14 CFR, Part 91 or applicable host country flight regulations are met and an appropriate ATC clearance is obtained. Army helicopter SVFR minima is one-half mile visibility and clear of cloud unless higher minimum is required at the airfield.

*b. Missed approach.* The published missed approach procedure or other procedures as directed by ATC will be flown. Additional approaches may be flown provided fuel, including reserve, is adequate. An ATC clearance must be requested and approved before proceeding to another airfield. A change of flight plan will be made per DOD/US Government FLIP if time permits.

*c. Traffic patterns.*

(1) Large (above 12,500 lbs) and turbine powered airplanes will be flown at 1,500 feet above the surface of the airport unless deviation required to maintain proper cloud clearance. Exceptions will be as prescribed in DOD/US Government FLIP or as directed by ATC.

(2) Helicopter traffic patterns at Army heliports and airfields are normally flown at 700 feet AGL. At other airports, helicopters will avoid the flow of airplane traffic.

*d. Landing.* An aircraft will not be flown below the published MDA or an approach continued below the DH unless the following exist:

(1) The approach threshold of the runway, or the approach lights or other markings, identifiable with the approach end of the runway or landing area, must be clearly visible to the pilot.

(2) The aircraft must be in a position from which a safe approach to the runway or landing area can be made.

*e. Closing flight plans.* When the flight terminates, the PC will ensure the flight plan is closed as shown in DOD/US Government FLIP.

*f. IFR GPS approach and missed approach procedures.*

(1) When using a Digital Aeronautical Flight Information File (DAFIF) database:

(a) Terminal procedures authorized to be flown are RNAV/GPS procedures and GPS overlay approaches if the title contains "or GPS" and the procedure has a Final Approach Fix (FAF) and the procedure can be retrieved from the database. The underlying NAVAIDS on overlay approaches should be tuned and monitored during the approach.

(b) DAFIF will not be used in Flight Management Systems (FMS) to drive/sequence other conventional NAVAID terminal procedures, for example, NDB, VOR, TACAN.

(2) When using terminal RNAV/GPS procedures from a database, the same approach must be reviewed and displayed to the crew from the current DOD/US Government FLIP procedure. The crew will compare the database retrieved procedure loaded in the GPS to the published procedure to ensure accuracy of the loaded approach. If differences are detected, the published product, supplemented by NOTAMs, will take precedence over the database procedure.

(3) Pilots will verify the GPS system begins to sequence when entering the terminal area and that the approach is armed (or system equivalent) prior to the Initial Approach Fix (IAF) and that course sensitivity on the CDI changes appropriately.

(4) If a RAIM failure/status annunciation occurs or the GPS does not sequence to the "active approach" mode (or system equivalent), the pilot will request an alternate procedure or if already passed the Final Approach Waypoint (FAWP), the pilot will climb to the missed approach altitude and execute the missed approach.

(5) GPS Approach Minimums:

(a) Approach minimums listed in the GLS (or LPV), and LNAV-VNAV, categories will only be flown if the aircraft is appropriately equipped.

(b) Use of barometric Vertical Navigation (baro-VNAV) decision altitude (DA) is not authorized with a remote altimeter setting. If local altimeter setting is not available, the MDA becomes the published LNAV MDA. Published

DOD/US Government FLIP minimum cold temperature restrictions apply. Circling from RNAV/GPS approaches may be accomplished if circling minimums are published.

(6) Upon missed approach, pilots will ensure the missed approach function has been appropriately activated on the GPS.

(7) FAA NACO copter only missed approach procedures will be flown at 70 KTS or as published to ensure obstacle protection.

### **5-6. Emergency recovery procedures**

Emergency recovery procedures will be developed as a contingency plan for IIMC. Recovery procedures will be developed using approved DOD/U.S. Government instrument approaches in the area of operations and should be coordinated with the servicing ATC. In locations without an approved DOD/U.S. Government approach or commercially developed approach, an emergency GPS recovery procedure will be developed per the ATM. If used as part of an emergency recovery procedure, non-DOD/U.S. Government instrument approaches will be submitted for terminal instrument procedures review and approval through HQ, USAASA or USAASD-E. Pending approval, these approaches will only be used in VMC or during an actual emergency. The first O-6 in the chain of command with mission-risk approval authority must approve the emergency recovery procedure containing a non-approved instrument approach. This authority will not be further delegated. The risk associated with the recovery procedure will be mitigated through the mission approval process and further defined in unit SOP. Once DOD approved instrument approach procedures are available, other approach procedures are no longer valid and will only be used in VMC. Planned use of non-DOD/U.S. Government instrument procedures for flight in IMC requires approval per paragraph 5-5. Manual entry of waypoint data is permissible when using emergency GPS procedures. Flight in IIMC which violates FAA, host country, or ICAO regulations will be considered deviations per paragraph 1-6 and will be treated per paragraph 2-13.

## **Chapter 6 Safety of use**

### **Section I Safety of Flight Message and Aviation Safety Action Message**

#### **6-1. General**

*a.* Safety of Flight (SOF) messages are electronically transmitted high priority notifications where a moderate to high initial risk determination (safety condition) has been made per AR 385-10 or an Army approved risk matrix. These high priority messages require an immediate action prior to the next operation.

*b.* Aviation Safety Action (ASA) messages are electrically transmitted messages, which convey aviation maintenance, technical or general aviation interest information where a low to moderate risk safety condition has been determined per AR 385-10 or an Army approved risk matrix. ASA messages are of a lower priority than SOF messages. These messages will not require immediate action and provide to the full extent possible, mitigation of any operational impacts.

*c.* For specific information on SOFs, Aviation Safety Action Message (ASAMs), SOF funding and the safety message process, see AR 750-6.

#### **6-2. Authority**

The CSA or VCSA are the high-risk acceptance authorities for all fielded systems within the Army and can accept the risk associated with a materiel defect that causes the Army-wide grounding or deadlining (NMC) of an entire Mission Design Series (MDS) equipment fleet or a majority of a fleet. This also applies to a portion of a fleet that if grounded or NMC will have negative impacts on mission requirements as determined prior to message release by the Army G-3/5/7 or his/her designated representative.

#### **6-3. Exceptions to provisions of safety message**

*a.* The CSA or VCSA may approve the return to operation for an entire MDS equipment fleet or a majority of a fleet when the actions specified in a safety message will not reduce the risk level below a high-level.

ACOM, ASCC, DRU, NGB Commander (grade MG or higher) may authorize temporary exception from Safety and Maintenance message requirements. Exceptions may only occur when combat operations or matter of life or death in civil disasters or other emergencies are so urgent that they override the consequences of continued operation.

ACOM, ASCC, DRU, NGB or the IMCOM Commander (grade MG or higher) may request exceptions (other than temporary for emergency situations as outlined above) from Safety or Maintenance message requirements from the USAMC MSC with sufficient justification.

The Commander of the applicable MSC is the approving authority for exceptions to Safety and Maintenance message provisions except, Safety messages that result in fleet wide or a majority of a fleet grounding or NMC.

## **Section II**

### **The Army Aviation Combat Assessment Program**

#### **6-4. Objective**

Damage and loss data is used by Army and Joint Agencies for development and procurement decisions. The Survivability Information Analysis Center (SURVIAC) maintains this data for DOD. This chapter standardizes the collection of combat damage data for manned and unmanned Army Aviation platforms.

#### **6-5. U.S. Army Aviation Warfighting Center responsibilities**

*a.* The USAAWC will maintain the capability to analyze and archive this data. Damage to Army Aviation platforms caused by weapons and weapons effects will be evaluated by USAAWC and archived at SURVIAC, Defense Technical Information Center.

*b.* Unit Commanders will ensure damage to aircraft from weapons or weapons effects that is incurred during missions is recorded and submitted in accordance with this chapter.

#### **6-6. Procedures**

*a.* The Aviation Intermediate Maintenance (AVIM) organization will record aircraft damage and required repairs. Photographs of exterior and interior damage and any effected components should be taken prior to repair or removal of components. Estimation of the cost of repairs and the man hours to complete the labor is not required.

*b.* Unit Tactical Operations Officers or designated personnel will determine the weapon system that caused the damage and submit all weapon assessment data and repair information to Tactics Division, USAAWC via Secure Internet Protocol Router Network (SIPRNET). Detailed procedures for threat determination, required format and security procedures may be found on the USAAWC SIPRNET site / Aircraft Shoot-Down assessment Team link at <http://www.usaawc.army.smil.mil/asdat>.

#### **6-7. Management**

*a.* The CG AMCOM will designate PEO Aviation to serve as the overall configuration control manager of the Army fleet of standard Army aircraft. In coordination with the USAAWC and the HQDA, G-3/5/7, subordinate Program Managers (PM) of PEO Aviation will establish a base line configuration for each standard Army aircraft and recommend approval for any deviation from the base line. Approval of deviations from the standard configuration will be made by the HQDA, G-3/5/7 (DAMO-AV). Deviations must meet a recognized Army operational requirement.

*b.* Each PM will serve as the individual configuration control manager of the platform under their control. These individual PMs will work with commands desiring deviations from the approved standard base line and—

- (1) Determine if an approved deviation already exists that would fit the need.
- (2) Determine the cost and impact of such deviations and package the recommendation for consideration, after coordinating with the applicable agencies.
- (3) For deviations that do not meet a previously approved Army requirement, PEO Aviation will coordinate the request with the USAAWC, AMCOM and HQDA, G-3/5/7 for final approval.
- (4) For deviations that meet a previously approved Army requirement, PEO Aviation will coordinate the request with HQDA, G-3/5/7 for final approval.

*c.* Army Command, ASCC, DRU and the NGB commanders will maintain their aircraft to the Army standard baseline configuration. Commanders wishing a deviation to the baseline will coordinate with the aircraft PM for technical assistance and forwarding of the request for approval by HQDA, G-3/5/7, Attn: DAMO-AV.

## **Chapter 7**

### **Weight and Balance**

#### **7-1. Weight and balance general**

This chapter provides a weight and balance control system for operation of Army aircraft.

- a.* The CG, AMC supervises the direction of overall command activities involving aviation weight and balance.
- b.* The CG, TRADOC will monitor the overall training of aviation weight and balance. The CG, TRADOC will—
  - (1) Train operational unit weight and balance technicians in the following procedures:
    - (a)* Weighing aircraft.
    - (b)* Computing weight and balance.
    - (c)* Maintaining weight and balance records for Army aircraft.

- (2) Train Army aviators and flight engineers in computing weight and balance.
- (3) Train personnel to provide weight and balance services at support maintenance facilities.

*c.* The CG, AMCOM, is the technical proponent for all U.S. Army aviation weight and balance. The CG, AMCOM, will—

- (1) Establish aviation weight and balance requirements and procedures in coordination with other Army agencies.
- (2) Assist HQDA and AMC in the development of aviation weight and balance policy.
- (3) Prepare and make technical data available on weight and balance.
- (4) Procure and deliver weight and balance data for Army aircraft.
- (5) Make engineering services available to assist service activities in solving weight and balance problems.

*d.* Commanders of installations and units that operate, maintain, repair, or modify Army aircraft will—

- (1) Ensure effective application of these policies and procedures.
- (2) Develop command directives to implement these policies and procedures.
- (3) Appoint in writing, weight and balance technicians.

*e.* Pilots-in-command responsibilities for weight and balance are described in chapter 5, paragraph 5–2*h*.

## **7–2. Weight and balance technicians**

*a.* To qualify as a weight and balance technician, an individual must satisfactorily complete the 15 series career management field (CMF) Basic Non-Commissioned Officer Course (BNCOC), Aviation Maintenance Manager Course or comparable weight and balance course approved by TRADOC.

*b.* If a weight and balance technician trained in accordance with paragraph *a* above is not available in the unit, commanders may delegate the task.

*c.* Weight and balance technicians will—

(1) Prepare and maintain up-to-date and accurate individual aircraft weight and balance files as described in paragraph 7–4 for all aircraft under their jurisdiction.

(2) Perform required review of individual aircraft weight and balance files as described in paragraph 7–6 for all aircraft under their jurisdiction.

(3) Comply with weight and balance provisions of applicable modification work orders or technical manuals pertaining to aircraft modifications.

(4) Provide training and assistance in the use of weight and balance data and load adjuster devices, when applicable.

(5) Assure aircraft under their jurisdiction are weighed per paragraph 7–7.

## **7–3. Aircraft weight and balance classifications**

Army aircraft weight and balance classifications are stated in the appropriate operator's manual and are defined as follows:

*a.* Class 1 aircraft are those whose weight or center-of-gravity limits can sometimes be exceeded by loading arrangements normally used in tactical operations. Therefore, limited loading control is needed.

*b.* Class 2 aircraft are those whose weight or center-of-gravity limits can readily be exceeded by loading arrangements normally used in tactical operations or those aircraft designed primarily for transporting troops and other passengers. Therefore, a high degree of loading control is needed. Also, all aircraft whose weight and balance class is not stated in the operator's manual will be considered Class 2.

## **7–4. Aircraft weight and balance file**

*a.* This file will contain all of the aircraft's weight and balance data. The aircraft designation and serial number will be noted on the file folder. Each aircraft will have its own file that will usually be retained in the Quality Control Office when an aircraft will be operated in close proximity to its home station or similar single location. When operating away from home station, the weight and balance file may be placed aboard the aircraft for transient purposes only. The file may be removed from the Quality Control Office at the discretion of the local commander provided the following conditions are met:

(1) The file is located so that it is readily available for update in the event of removal or addition of aircraft equipment or other actions.

(2) Duplicate copies of all DD Forms 365–4 in the file are carried aboard the aircraft.

(3) Local procedures are established to assure that duplicate DD Forms 365–4 carried aboard the aircraft are updated and remain valid.

*b.* The file will include the following forms and charts, which will be completed and retained in accordance with instructions of TM 55–1500–342–23.

(1) DD Form 365 (Record of Weight and Balance Personnel).

(2) DD Form 365–1 (Chart A–Basic Weight Checklist Record).

(3) DD Form 365–2 (Form B–Aircraft Weighing Record).

(4) DD Form 365–3 (Chart C–Basic Weight and Balance Record).

(5) Chart E (Loading Data and Special Weighing Instructions). The original Chart E placed in the weight and balance file by the aircraft manufacturer will be retained in the file until a revised Chart E is presented in the aircraft maintenance manual. Following publication of the Chart E in the maintenance manual, the Chart E in the aircraft file will no longer be required and will be destroyed locally.

(6) DD Form 365-4. Sufficient completed DD Forms 365-4 will be in the file, enabling the pilot to determine proper aircraft loading for any normal anticipated unit mission and verify that the weight and center-of-gravity will remain within allowable limits for the entire flight.

c. Electronic computer data sheets may be used instead of any of the DD Form 365 series when information is identical to that required on the DD 365-series. Any computer data sheets which meet this requirement may be used. The Army standard automated system (Automated Weight and Balance System, AWBS Version 9.2 or later) fulfills these requirements. The system program may be obtained from Commander, USARDECOM (AMSRD-AMR-AE-A), Bldg 4488, Redstone Arsenal, AL 35898-5000 for nonstandard Army aircraft, the commercial equivalents of basic weight checklists, loading data, and weighting instructions may be substituted for DD Forms 365-1 and Chart E. All of the above forms are available through normal publications supply channels.

### **7-5. Removal, addition, or relocation of aircraft equipment**

When aircraft equipment that is part of aircraft basic weight is added to, removed from, or relocated within the aircraft because of maintenance or specific mission requirements, flight in this changed configuration will not be accomplished unless the weight and balance change is documented by one of the following methods:

a. Treating the additions, removals, or relocations as a permanent change by making entries on the DD Form 365-3 and establishing a new basic weight and moment. Also, if the change in basic weight or moment is beyond the limits stated in TM 55-1500-342-23, prepare new DD Form 365-4 that reflect the new basic weight and moment to replace those in the weight and balance file.

b. If the changes are of a temporary nature, make entries in accordance with DA PAM 738-751 (TAMMS-A) for a period not to exceed 90 days.

### **7-6. Reviewing weight and balance file**

a. All DD Forms 365-4 in the aircraft weight and balance file and all duplicate DD Forms 365-4 in the aircraft will be checked for accuracy in accordance with the criteria established in TM 55-1500-342-23 at least every 90 days. New forms must be prepared if changes are required. If no changes are required, the DD Forms 365-4 will be re-dated and initialed in the date block to certify their currency.

b. In addition, all weight and balance records will, as a minimum, be reviewed every 12 months. The last day of the month is the final day for completing the review. For example, if the previous review was completed on 8 April, the next review must be completed by 30 April of the following year. This review must include a weight and balance inventory of the aircraft and the following statement entered on the DD Form 365-3: "Calculated weight and moment per inventory completed at." The date and adjusted basic weight and moment will accompany this entry.

### **7-7. Aircraft weighing**

a. Each aircraft will be weighed when—

- (1) Overhaul or major airframe repairs are accomplished.
- (2) Modifications of 1 percent or greater of the aircraft's basic weight are applied.
- (3) Any modifications or component replacements (including painting) have been made for which the weight and center-of-gravity cannot be accurately computed.
- (4) Weight and center-of-gravity data records are suspected to be in error.
- (5) The period since the previous weighing reaches 36 months for a Class 1 aircraft and 24 months for a Class 2 aircraft. The date due reweigh window shall follow TM 1-1500-328-23 requirements for a reoccurring special inspection.

b. The weight records supplied with a new aircraft may be used instead of an initial weighing.

c. If these weighing requirements are not met, the aircraft status will change to red "x" until they are met.

d. Any maintenance facility providing weighing service will ensure that all aircraft weighing equipment under its jurisdiction is tested and certified for accuracy according to specified technical manuals and at the intervals required.

e. Ninety-Day Weighing Deferment- The unit commander may request a 90-day deferment from weighing aircraft when operating in a combat theater. Send commander's deferment request with copy of aircraft's Weight and Balance file to CDR, USARDECOM (AMSRD-AMR-AE-A), BLDG 4488, Redstone Arsenal, AL 35898-5000 (email: aeromechanics@amrdec.army.mil).

## Chapter 8 Aviation Life Support

### Section I Aviation Life Support System

#### 8-1. Aviation Life Support System general

This chapter establishes responsibilities, policies, and procedures governing the U.S. Army Aviation Life Support System (ALSS).

*a.* The CG, AMC, Project Manager, Aviation Life Support Equipment (ALSE), is the DA focal point for all aviation life support equipment life cycle management.

*b.* The CG, TRADOC, is responsible for doctrine, training, and materiel needs for the ALSS.

*c.* The Surgeon General will coordinate health hazard assessment for research, development, testing, and evaluation of medical materiel and related items; medical design criteria; and other medical aspects of nonmedical ALSE items.

*d.* The ACOM, ASCC, DRU or NGB commander will—

(1) Implement ALSS policies and procedures.

(2) Ensure proper training, budgeting, and availability of ALSE.

(3) Provide trained personnel for ALSE maintenance and inspection.

*e.* Commanders at all levels will provide proper ALSE and related training commensurate with the mission and operational environment. Specific equipment requirements are delineated in section II. Specific personnel and training requirements are delineated in section III. ALSE maintenance requirements are delineated in section IV.

*f.* Aviation officers will have overall staff supervision of ALSS activities and coordination with staff sections and commanders on matters pertaining to ALSE and training.

*g.* Flight surgeons and aeromedical advisors are responsible for—

(1) Physiological training of aircrew personnel.

(2) Medical aspects of survival training of aircrew personnel.

(3) Monitoring the fitting and use of ALSE by aircrew personnel.

*h.* Aviation Safety Officers (ASO) will monitor all aviation activities for commands to ensure the proper use of protective clothing and ALSE. Lack or misuse of protective clothing and ALSE constitute grounds for an operational hazard report (OHR). Operational hazard reports will be submitted on DA Form 2696 under AR 385-10.

*i.* Aviation Life Support Officers (ALSO) will be appointed on orders to assist, advise, and represent commanders in all matters pertaining to the ALSS. ALSOs will—

(1) Review, analyze, and develop procedures to ensure the planning, budgeting, and maintenance of an ALSS.

(2) Ensure training of aircrew personnel in the proper operation, use, and operator maintenance of survival equipment and the techniques of survival.

(3) Supervise the life support section and ensure that qualified personnel are available for conducting life support and survival training and maintenance of organizational level ALSE.

(4) Keep a current file of regulations, procedures, and technical manuals pertaining to inspection, maintenance, and use of assigned life support equipment.

(5) Ensure units have adequate information and training before using new equipment or system changes.

(6) Ensure units encourage life support suggestions and OHRs.

(7) Ensure materiel deficiency reports are submitted on life support equipment failing to operate as designed.

(8) Participate as an ALSE member on the unit aviation safety council.

(9) Assist higher headquarters in standardizing the ALSS program.

*j.* Aviation life support equipment technicians and specialists will be appointed to assist, advise, and represent the ALSO in all matters pertaining to ALSE. Specifically, ALSE technicians and specialists will—

(1) Establish a library of ALSE publications and ensure that the unit's pinpoint distribution account is updated to include ALSE publications and necessary forms.

(2) Ensure that all ALSE is maintained in a high state of readiness through inspecting, cleaning, fitting, testing, adjusting, and repairing.

(3) Maintain files on inspection, maintenance, expiration dates, and supply pertaining to ALSE.

(4) Participate as enlisted representatives at aviation safety meetings and conferences.

(5) Participate in local ALSE steering council meetings.

(6) Inspect all controlled drugs used in survival kits and vests.

*k.* Pilots-in-command will ensure that ALSE commensurate with the mission and the operational environment is available on the aircraft and that aircrewmembers and passengers are briefed on its location and use.

## **8-2. System description**

*a.* The ALSS consists of components, techniques, and training required ensuring aircrews and their passenger's survival.

*b.* The ALSS is composed of three subsystems as follows:

(1) The environmental life support and protective subsystem such as oxygen equipment, aircrew support facilities, flight and specialized clothing, and miscellaneous personal accessories and equipment.

(2) The escape and descent life support subsystem components are provided to ensure safe and reliable escape and descent from disabled aircraft.

(3) Survival recovery life support subsystem aids survival, escape, evasion, and recovery of downed aircrews and their passengers in any global environment.

## **Section II**

### **Aviation Life Support Equipment**

#### **8-3. Aviation life support equipment general**

Aviation life support equipment (ALSE) will be used per unit standing operating procedures and this section.

#### **8-4. Authorization for aviation life support equipment**

Requirements and authorization for ALSE are identified in this regulation and in—

*a.* AR 71-32.

*b.* Common table of allowances (CTAs) 8-100, 50-900, 50-909, and 50-970.

*c.* Supply Bulletins (SBs) 8-75 and 700-20.

*d.* Applicable modified tables of organization and equipment (MTOEs) and tables of distribution and allowances (TDAs).

#### **8-5. Flight data recorders**

*a.* Cockpit Voice Recorders (CVRs), Flight Data Recorders (FDRs), and Digital Source Collectors (DSCs) that are installed on aircraft should be operational for all flights. However, a nonoperational CVR, FDR, or DSC should not result in mission cancellation. Information collected by these devices may be classified or sensitive in nature and should be protected as such.

*b.* The commander will contact the US Army Combat Readiness Center to ascertain appropriate recovery actions whenever an Army Aircraft equipped with CVR/FDR/DSC to include weapons video systems is involved in a mishap or destroyed as a result of enemy action.

#### **8-6. Aircraft safety equipment**

Safety equipment, (for example, first aid kits, fire extinguishers, breakout knives, and fire axes) will be installed in Army aircraft per requirements of the appropriate operator manual. Medical supplies will be updated, deleted, and extended according to SB 8-75.

#### **8-7. Oxygen system**

See FM 3-04.301 for restrictions on use of oxygen. Approved oxygen systems will be used as follows:

*a. Unpressurized aircraft.* Oxygen will be used by aircraft crews and occupants for flights, as shown below:

(1) Aircraft crews.

(a) On flights above 10,000 feet pressure altitude for more than 1 hour.

(b) On flights above 12,000 feet pressure altitude for more than 30 minutes.

(2) Aircraft crews and all other occupants.

(a) On flights above 14,000 feet pressure altitude for any period of time.

(b) For flights above 18,000 feet pressure altitude, oxygen prebreathing will be accomplished by aircrewmembers.

Prebreathing may utilize either 100 percent gaseous aviator's oxygen from a high pressure source, or an onboard oxygen generating system (OBOGS) that supplies at least 90 percent oxygen. Prebreathing will be for not less than 30 minutes at ground level and will continue while en route to altitude. In those extraordinary cases where mission requirements dictate rapid ascent, commanders may authorize shorter prebreathing times on a case-by-case basis, with the realization that such practice increases the risk for developing altitude decompression illness. Return to NORMAL OXYGEN (pressure demand regulator, gaseous oxygen-equipped aircraft) is authorized on descent below 18,000 feet pressure altitude, provided continued flight will not exceed this altitude.

*b. Pressurized aircraft.*

(1) In flight, if the cabin altitude exceeds 10,000 foot pressure altitude the provisions of paragraph *a* above apply.

(2) As a minimum, a 10-minute emergency supply of oxygen will be available to all occupants when the aircraft is

above 14,000 feet pressure altitude. Additional emergency oxygen will be on board when factors such as terrain, weather, or fuel consumption prevent descent to 10,000 feet cabin pressure altitude, in the event of depressurization.

(3) Above 25,000 feet pressure altitude, oxygen masks will be connected and readily available. Above flight level (FL) 350 the pilot flying will wear and use oxygen if the other pilot must leave the flight deck for any period of time. Above FL 410, one pilot will wear and use oxygen for the entire time period spent above FL 410.

(4) If pressurization is lost in flight above 14,000 feet pressure altitude, descent will be made immediately to a cabin pressure altitude of 10,000 feet or below. Thereafter, the provisions of paragraph *a* above apply.

#### **8–8. Parachute requirements**

*a.* Crewmembers will wear parachutes on flights involving aerobatics.

*b.* Commanders will determine if occupants need to wear parachutes in all other cases and publish policies in unit standing operating procedures.

*c.* The provisions of 14 CFR, Part 105, apply to all Army flights (except emergencies) where parachute drops of persons or things are made from an Army aircraft.

*d.* If there is an accident involving the use of parachutes, reports must be submitted per AR 385–10 and TM 10–1670–201–23.

#### **8–9. Protective clothing and equipment**

*a.* Proper wearing of fire-resistant flight clothing includes collars up, pant legs un-bloused, sleeves rolled down and the use of fire resistant flying gloves.

*b.* Items of clothing for specific geographic areas as listed in the appropriate CTA are also authorized when required by climatic conditions and approved by the appropriate ACOM, ASCC, DRU, or NGB commander.

*c.* The following U.S. Army approved clothing and equipment will be worn by all crewmembers when performing crew duties:

(1) Leather boots and boots approved for aviation use in accordance with CTA 50–900.

(2) Flight helmet.

(3) Flight suit approved for aviation use in CTA 50–900 and/or AR 670–1.

(4) Flight gloves.

(5) Under layer clothing made of Cotton, wool, Nomex or materials approved for aviation use in CTA 50–900.

(6) Identification tags.

*d.* The ACOM, ASCC, DRU, NGB commander or the CG, USAAWC for flights at USAAWC, may waive the requirements in (1) through (4) above for crewmembers assigned to flights that require other uniforms.

*e.* All passengers will wear approved hearing protection devices and passengers on tactical helicopter flights will wear protective military headgear (combat vehicle crewman (CVC) approved ballistic helmet or flight helmet) as appropriate.

#### **8–10. Protective masks**

*a.* At least one pilot seated at the controls must wear a protective mask when fuzed items filled with toxic chemicals are carried in aircraft. Other crewmembers will have protective masks readily available.

*b.* When incapacitating or toxic chemicals with no arming or fuzing systems are carried in an aircraft, the pilots need not wear a mask. It will be readily available.

*c.* All personnel aboard will wear a protective mask when incapacitating or toxic chemicals are dispensed and until the chemical safety officer or other crewmember reports the aircraft is clear of the dispensed agent.

*d.* Personnel who are not essential to the mission will not be carried in an aircraft with incapacitating or toxic chemicals on board.

#### **8–11. Seat belts and restraints**

*a.* The pilot in command will ensure that—

(1) There are installed seats and seat belts for each person on the aircraft.

(2) Passengers can operate seat belts and, if installed, shoulder harness.

(3) Passengers are in seats and restrained by seat belts and, if installed, shoulder harness during takeoffs, landings, and turbulence.

(4) Patients on litters will be restrained by litter restraining straps during takeoffs, landings, and turbulence.

*b.* The crewmembers will wear a properly adjusted seat belt and shoulder harness when at the controls.

*c.* Other crewmembers will wear an approved restraining harness instead of seat belts when required by mission.

*d.* Parachutes, rappellings, and special purpose insertion and extraction operations (for example, SPIES, STABO and FRIES) can be performed without seats installed.

*e.* Additional exceptions to paragraph 8–11*a* above are authorized but must be considered higher risk to the passengers. These exceptions will be approved case by case using the following procedures:

(1) The commander of the troops riding without seats and/or seatbelts must do a thorough risk assessment and request an exception to the requirements in paragraph 8–11a for each mission from the ACOM, ASCC, DRU, or NGB commander or first four-star general in chain of command of the troops riding without seats and/or seatbelts.

(2) The ACOM, ASCC, DRU, or NGB commander or first four-star general in the chain of command of the troops riding without seats and/or seatbelts is the exception approval authority and must accept the additional risk to their personnel. This authority will not be delegated below the two-star level. Once this risk has been accepted the mission approval process is completed per paragraph 2–14.

(3) Exception authority is to be exercised case by case only. During combat operations the exception authority may authorize these operations for a specific period of time. Blanket exceptions are not authorized for training.

## **8–12. Survival equipment**

The commander will ensure that personnel are equipped with ALSE appropriate for the mission, topography, and climate in the area of operations.

a. Commanders O–6 or above will identify the minimum survival equipment each crewmember will wear for the mission, topography, and climate in the area of operations. The following items are the mandatory minimum required personal aviation life support equipment for rotary wing crewmembers: first aid kit, extraction device, approved survival knife, fire starter, and signaling device. For all other additional supplemental equipment, the commander, at his discretion, may choose from those items listed in EM 0250 or EM 0131.

b. Each helicopter crewmember will be equipped with a survival radio. For airplanes, a minimum of two survival radios will be carried at all times on board the aircraft. ELTs (Emergency Locator Transmitter) on Army aircraft should be operational prior to conducting flight operations.

c. Army aircraft will carry survival kits for all crewmembers for the mission, topography, and climate in the area of operations.

d. Commanders will provide the essential protective clothing and equipment required.

e. Ferry flight equipment will be per AMCOM ferry flight packet instructions. The command providing delivery aircrews must provide the proper ALSE.

f. Aircraft engaged in over-water flight will adhere to the following requirements:

(1) *Life preservers.* All personnel aboard Army single engine or multi-engine aircraft that do not have single engine flight capability that are flown beyond gliding distance of land, will wear life preservers. All other aircraft will have life preservers readily available. Water activated life preservers are prohibited.

(2) *Life rafts.* Life rafts sufficient for all persons on board (see TM 1–1500–204–23–1, table 11–4) are required on all Army aircraft during flights made in excess of 30 minutes flying time or 100 nautical miles from the nearest shoreline.

(3) *Shallow Water Egress Trainer (SWET), Modular Egress Training Simulator (METS) commonly referred to as “dunkers” and Emergency Breathing System (EBS).* Helicopter aircrews performing over water operations that are required to wear life preservers per (1) above or performing deck landing operations should be SWET or METS qualified and current and carry an approved EBS. Initial qualification will be entered on DA Form 759 and currency will be entered in the crewmember’s IATF. Currency is defined as 4 years for this training and this training should be completed at a USAAWC, U.S. Navy, U.S. Air Force or U.S. Coast Guard accredited or certified facility.

(4) *Anti-exposure suits.* Aviation unit commanders will develop a policy for the wear of appropriate anti-exposure suits based on environmental conditions when any portion of the flight is over water and ambient water temperature for any portion of the flight is 60 degrees Fahrenheit or below. This policy will be reflected in the risk assessment performed for the flight and will include as a minimum—

(a) Type and number of aircraft being flown.

(b) Altitudes to be flown.

(c) Availability of search and rescue.

(d) Types of anti-exposure suits available.

## **Section III**

### **Personnel and Training Requirements**

#### **8–13. Aviation life support equipment maintenance personnel**

Commanders having operational control of Army aircraft will provide personnel to perform required maintenance on ALSE. Commanders using personnel in a part-time capacity must adjust the number required to ensure that all required inspections and maintenance on ALSE is performed.

#### **8–14. Training of aviation life support equipment maintenance personnel**

a. Maintenance of ALSE will be performed only by trained, qualified personnel, either military or civilian.

b. ALSE maintenance personnel will be graduates of the U.S. Air Force C3AABR92230–000, U.S. Navy LSE C–602–2010, U.S. Army 860–ASIQ2, or other courses of instruction approved by the USAAWC.

*c.* Contract ALSE maintenance personnel maintaining commercial fixed wing survival equipment must comply with paragraph *a*; but are exempt from the school requirement in paragraph *b*.

### **8–15. Training for aircrews**

Prior to initial flight training and at least once annually, commanders will ensure that all aircrew personnel are adequately trained in the operation, use, and operator maintenance of ALSs.

## **Section IV**

### **Aviation life support equipment maintenance requirements**

#### **8–16. Maintenance requirements**

*a.* Commanders are required to establish and equip ALSE maintenance shops, staffed by qualified ALSE maintenance personnel on a full-time or part-time basis.

*b.* ALSE maintenance shops will be tailored to the needs of the aviation unit, activity, or facility based on the number of aircrewmembers serviced and the density and type of ALSE.

*c.* ALSE maintenance shops may be consolidated where the pooling of personnel and equipment of resident units, activities, or flight facilities would be advantageous.

*d.* Oxygen equipment maintenance shops will be established per TM 55–1660- 245–13.

#### **8–17. Inspection, maintenance, and repair**

*a.* Inspection, maintenance, and repair of ALSE will be accomplished by qualified ALSE maintenance personnel in accordance with either one or both of the following:

(1) The applicable TM, technical order (TO), or Naval Air (NAVAIR) publication for the item of equipment involved.

(2) The procedures prescribed by responsible AMC agencies and USAAWC.

*b.* Deficiencies found in ALSE should be reported expeditiously under the Army Equipment Improvement Report (EIR) and Quality Deficiency Report (QDR) Program. Instructions for completing these reports are in DA Pam 738–751.

#### **8–18. Storage and work areas**

Criteria for ALSE storage and work areas will ensure that—

*a.* ALSE maintenance shops provide adequate, clean, well-lighted work areas with proper storage, shelving, and security provisions.

*b.* Shop storage areas possess the following features for survival equipment:

(1) A well ventilated, cool, and dry area that provides protection from pilferage, fire, dust, insects, rodents, and direct sunlight. Recommended temperature for storage at approximately 75 degrees Fahrenheit.

(2) Adequate air space between the floor and the equipment.

*c.* Inspection and test areas for flotation equipment are smooth, non abrasive, and free of sharp projections, oil stains, and spills.

*d.* Storage and work area requirements are also stated in TM 55–1680–317–23 & P, chapter 3; TM 5–4220–202–14, chapter 2; TM 55–1660–245–13, chapter 2, and FM 3–04.508.

## **Chapter 9**

### **Nonstandard Aircraft**

#### **Section I**

#### **Acquisition and Use**

##### **9–1. Nonstandard aircraft acquisition and use, general**

This chapter details classification, acquisition, and use of nonstandard aircraft.

*a.* Aircraft classified as nonstandard by the Army are normally acquired from other services or federal agencies and generally are not listed in AR 700–138, or were previously standard but no longer adhere to established criteria. These aircraft are used to fill operational requirements instead of standard Army aircraft. Army standard aircraft reconfigured or altered for special use (for example, testing, special mission, and modification) are not normally classified as nonstandard aircraft within the context of this regulation.

*b.* Acquisition and use of nonstandard aircraft within the Army will occur when sufficient standard aircraft are not available to accomplish specific missions or operations. All other aircraft in the Army inventory, including aircraft obtained through the confiscated or excessed aircraft program, are nonstandard aircraft. Selected maintenance trainers,

prototype, test bed, and aircraft procured in such a low density that treating them as standard aircraft would present a burden to the system, may be accounted for as nonstandard aircraft.

## **9-2. Policy**

The following is DA policy concerning nonstandard aircraft:

*a.* Requests for nonstandard aircraft will normally be approved only against a DA approved aircraft authorization when standard Army aircraft are not available. Nonstandard aircraft will be replaced when standard Army aircraft become available. When requests for nonstandard aircraft are approved by DA, AMCOM will take the necessary acquisition action. Requests for nonstandard aircraft will be forwarded through the ACOM, ASCC, DRU, or NGB Commander to Commander, AMCOM (AMSAM-OPS), Redstone Arsenal, Huntsville, AL 35898 for processing to HQDA.

*b.* Requests for authorization to obtain nonstandard aircraft will be transmitted through channels to HQDA, DCS, G-4 (DALO-ORS-A), 500 Army Pentagon, Washington, DC, 20310-0460, and include—

- (1) Mission, type, design, and series of aircraft desired or type and requirements of missions to be fulfilled.
- (2) Terms of request; transfer or loan, non-reimbursable or reimbursable.
- (3) Budget program funds to be used for support of the aircraft and affirmation that funds will be made available in current and subsequent fiscal year funding programs.
- (4) Any modification requirements, including minimum required equipment listed in table 5-2.
- (5) Full justification based on essentiality of the aircraft to accomplish missions of the requesting command or activity.

*c.* All operating costs, less depot maintenance and procurement of spare parts associated with the acquisition of nonstandard aircraft, will be borne by the gaining command. The AMC, USAR, and ARNG are responsible for programming and budgeting for depot maintenance of nonstandard aircraft. Modification of nonstandard aircraft (in a non-developmental program) will normally be funded by the Army Procurement Appropriation (for acquisition of modification kits) and by the Active Army's depot maintenance program (for the installation of the kits.)

*d.* Requests for disposition instructions for nonstandard aircraft will be forwarded through command channels to DA. Serviceable and unserviceable economically repairable aircraft will be reassigned against other requirements or disposed of per AR 750-1 and TB 43-0002-3. Commands and activities relinquishing these aircraft will not normally be provided a replacement nonstandard aircraft. Aircraft considered uneconomically repairable will be reported to DA per TB 43-0002-3. Redistribution of nonstandard aircraft is not authorized unless approved by DA.

*e.* Commands and activities acquiring nonstandard aircraft will be required to provide support from their own operating funds. Repair parts that are available in the DOD supply system may be procured through normal Army supply channels or through cross-service agreements with other military Services. All other repair parts will be procured locally. All nonstandard aircraft maintenance requirements that are beyond the capability of the owning or supporting commands and activities will be accomplished by contract. (This paragraph is not applicable to aircraft maintained under the existing contractor logistics support contract administered by AMCOM.)

*f.* Commanders having nonstandard aircraft will be responsible for assuring continued aircraft airworthiness through scheduled maintenance programs that meet all DOD or, as required, FAA published standards. Aircraft obtained through the confiscated or excessed aircraft program will be maintained per FAA standards only. Commercial operator's manuals, service letters, and bulletins published by the aircraft manufacturer and FAA Airworthiness Directives Service bulletins will be ordered and maintained by the unit. When an Airworthiness Directive note is issued by the FAA that is required to be completed prior to further flight, a corresponding message per chapter 6 of this regulation will be released. Compliance with emergency Airworthiness Directive notes will be reported directly to Commander, AMCOM (AMSAM-OPS), Redstone Arsenal, Huntsville, AL 35898.

*g.* When upgrade modifications are made to a confiscated or excessed aircraft with a military equivalent, the modification will conform as closely as possible to its standard military counterpart provided an FAA type certificate or supplemental type certificate exists for that modification and AMCOM approval is obtained. Equivalent nonstandard aircraft may be included with their standard counterpart when a Product Improvement Program (PIP) is applied to the standard aircraft.

*h.* Expenditures in funds and man-hours for alterations or reconfiguration will be held to a minimum. Initial requests to alter or reconfigure nonstandard aircraft when first delivered will be compiled into a single package and submitted through command channels to AMCOM for approval; they will contain detailed justification including scope of work to be performed. Subsequent requests will be treated in the same manner. Alteration or reconfiguration of loaned nonstandard aircraft must be consistent with any requirements in the specific loan agreement regarding restoration of the aircraft to its original configuration.

*i.* All nonstandard aircraft will be reported on DA Form 1352 (Army Aircraft Inventory, Status and Flying Time) per AR 700-138. Maintenance forms authorized by DA Pam 738-751, will be used as prescribed in the published Logistical Support Plan. Other forms may be used for local management purposes as desired.

*j.* A DA flying hour program will not be published for nonstandard aircraft. Commanders will establish an annual

Fiscal Year Flying Hour Program based on requirements and capability to support such a program. Utilization criteria prescribed in AR 71–32 will be the basis for justifying retention of nonstandard aircraft.

k. When more than one command owns a type of nonstandard aircraft, HQDA, G–3/5/7 (DAMO–AV) will designate a proponent. The proponent will ensure compliance with the requirements outlined in this paragraph and ensure standardization of publications and training for the platform.

### **9–3. Logistical support**

AMCOM will retain responsibility and designate a central point of contact for logistical support guidance, SOF matters, and technical guidance, including configuration control and EIR. AMCOM has fiscal and operational responsibility for aircraft obtained through the confiscated or excessed aircraft program from transfer from the courts and General Services Administration (GSA) until delivery to the gaining unit. They will publish operating and maintenance guidance for these aircraft. The requirement for ACOM, ASCC, DRU, or NGB to furnish delivery crews does not apply to the initial delivery of confiscated or excessed aircraft.

## **Section II**

### **Training and Standardization**

#### **9–4. Waiver authority**

Nonstandard aircraft training and standardization requests for waivers will be forwarded through the appropriate ACOM, ASCC, DRU, or NGB to DAMO–AV, for approval on paragraphs 9–5 through 9–9.

#### **9–5. Technical publications**

a. Technical literature for specific nonstandard aircraft will be made available through normal publications channels to the units using the aircraft. Operator’s manuals, checklists, maintenance manuals and related publications for nonstandard aircraft will be obtained from existing factory stocks or from the military Service supplying the aircraft. The using unit will update these publications with changes from manufacturer or the military service supplying the aircraft.

b. Commands will also prepare new or revised technical literature for nonstandard aircraft not supported by official publications or when they wish to modify official publications. These publications will be coordinated with AMCOM where possible and submitted through the ACOM, ASCC, DRU, or NGB to HQDA, DCS G–3/5/7 (DAMO–AV), 400 Army Pentagon, Washington, DC 20310–0400, for approval.

#### **9–6. Training and standardization publications**

a. Training and aviation flight standardization literature for specific nonstandard aircraft will be made available through normal publications supply channels to the units using the aircraft. If possible, the training and aviation flight standardization program will apply to the operation of nonstandard aircraft. The policy in this paragraph applies except when established procedures cannot be followed because of extremely low aircraft density or short duration of aircraft use (less than six months).

b. Programs of Instruction (POI) and Flight Training Guide (FTG) will be submitted through the ACOM, ASCC, DRU, or NGB to USAAWC (ATZQ–TD (DOTD)), Fort Rucker, AL 36362–5211, RUCK.ATZQ–TD@conus.army.mil, for approval before they can be used. Aircrew Training Manuals (ATMs) will be submitted through the ACOM, ASCC, DRU, or NGB to USAAWC (ATZQ–ES (DES)), Fort Rucker, AL 36362–5211, for review, then submitted to HQDA, DCS G–3/5/7 (DAMO–AV), 400 Army Pentagon, Washington, DC 20310–0400, for approval.

#### **9–7. Qualification training**

The ACOM, ASCC, DRU, or NGB aviation standardization committee will develop nonstandard aircraft training in accordance with AR 350–1 Army Training. The Program of Instruction (POI) and Flight Training Guide (FTG) will be submitted through the ACOM, ASCC, DRU, or NGB to USAAWC (ATZQ–TD (DOTD)), Fort Rucker, AL 36362–5211 (email: RUCK.ATZQ–TD@conus.army.mil), for approval before training begins.

#### **9–8. Flight evaluations**

When IPs or SPs are not available to administer flight evaluations in nonstandard aircraft, the installation or area aviation standardization committee will request support. The ACOM, ASCC, DRU, or NGB aviation standardization committee, other installation area committees, or the Commander, USAAWC, may provide support. If support cannot be provided, the area commander, whose installation aviation standardization committee has jurisdiction, may authorize the flight evaluation to be made in an aircraft of similar design, operation, and flight characteristics. The commander may request a waiver of the evaluation requirements.

#### **9–9. Qualification requirements for instructor pilots**

a. The ACOM, ASCC, DRU, or NGB aviation standardization committee, in coordination with the Commander, USAAWC (ATZQ–ES), will help establish the content of IP training in nonstandard aircraft for which no IP training

program exists in the ATMs. The proposed Program of Instruction (POI) and Flight Training Guide (FTG) will be submitted through the ACOM, ASCC, DRU, or NGB to USAAWC (ATZQ–TD (DOTD)), Fort Rucker, AL 36362–5211 (email: RUCK.ATZQ–TD@conus.army.mil), for approval before training begins.

b. When an SP is not available to administer a flight evaluation in the aircraft in which an IP designation is sought, the evaluation may be conducted in another aircraft in the same category. The examinee must be qualified and current in the aircraft used for the evaluation.

## **Chapter 10**

### **The Army Flying Hour Program**

#### **10–1. The Army Flying Hour Program, general**

The Army Flying Hour Program (FHP) defines the resource requirements to operate standard aircraft in combat, combat support and support aviation units in the Army National Guard, United States Army Reserve and Active components. The Army FHP Manager, HQDA, G–3 Collective Training Division (DAMO–TRC) is the action officer for the Army FHP.

#### **10–2. Development of Flying Hour Program requirements**

DAMO–TRC uses flying hour requirements provided by the Training Resource Model (TRM) to build the program in the Flying Hour Management System (FHMS). Cost rate data provided by the office of the Deputy Assistant Secretary of the Army (Cost and Economics) (DASA–CE) are used to calculate the FHP costs.

a. *Operating Tempo (OPTEMPO) requirements.* OPTEMPO is an index that measures rotary wing aircraft operations in Modified Table of Organization and Equipment (MTOE) aviation units. Crew OPTEMPO (hours per crew per month) is the metric that HQDA uses to establish and measure aviation training levels.

(1) *Training strategy.* The Army programs MTOE unit rotary wing flying hour requirements according to a Combined Arms Training Strategy (CATS) derived average crew OPTEMPO. The OPTEMPO training strategy enables Active Army MTOE units to achieve and maintain a specified readiness level. The number of authorized pilots, categorized by Flight Activity Category (FAC) estimates, determines the specific requirements for each unit. Due to the mix of aircraft and pilots within each command, the training strategy OPTEMPO varies by the ACOM, ASCC, DRU, NGB, and component.

(2) *Simulator offsets.* Crew OPTEMPO training strategies include authorized synthetic flight training simulator (SFTS) offsets to live hour training requirements.

b. *Non-OPTEMPO rotary wing requirements.* Crew training and mission support operations determine the flying hour requirements for rotary wing operations in Table of Distribution and Allowance (TDA) units. The Army FHP Manager reviews rotary wing TDA execution and emerging operational requirements annually to determine future requirements.

c. *Flight School requirements.* The flying hours required to fully implement the student curriculum and programmed student loads determine the USAAWC requirements.

d. *Fixed wing requirements.* The life cycle contractor support (LCCS) contract hours established by AMCOM determine fixed wing flying hour program requirements. Table 10–1 specifies the annual fixed wing aircraft LCCS FHP.

e. *Aircraft cost factors.* DASA–CE develops aircraft costing data (cost factors) in support of the FHP. Cost factors for aircraft without Contractor Logistics Support (CLS) contracts include cost projections for petroleum, oils and lubricants (POL), consumable repair parts, and depot level repairable parts. Cost factors for aircraft with CLS contracts only include POL costs.

#### **10–3. Flying Hour Program Management**

a. *The Army FHP manager.* The Army FHP manager, DAMO–TRC centrally manages the Army FHP, and will issue specific management guidance to the ACOM, ASCC, DRU, and NGB FHP managers during the year of execution. The annual ACOM, ASCC, DRU, NGB FHP Management and Quarterly Execution Guidance memorandum issued by the Army FHP manager, and the OPTEMPO/FHP Management Instructions memorandum issued by the HQDA, G–3 augment this regulation.

b. *Funding migration/flying hour adjustments within the ACOM, ASCC, DRU, or NGB.* Flying hours are managed by budget activity (BA). During the year of execution, the ACOM, ASCC, DRU, or NGB FHP managers may adjust the OPTEMPO flying hour allocation and funding as needed between aircraft within Sub Activity Groups (SAG) in Activity Group (AG) 11, and may submit requests to adjust allocations between SAGs in AG11 to the Army FHP manager. Additionally, they may adjust the non-OPTEMPO flying hour allocation and funding within each Budget Activity (BA). The ACOM, ASCC, DRU, or NGB FHP managers must report any flying hour/funding realignments between Sub Activity Groups (SAG) to the Army FHP manager. No adjustments are permitted to the total fixed-wing

aircraft life cycle contractor support hours generated by the allocations specified Table 10–1. The annual OPTEMPO/FHP Management Instructions memorandum will contain additional guidance on flying hour adjustments.

*c. Unprogrammed unit/aircraft transfers between an ACOM, ASCC, or DRU.* When an unprogrammed transfer of aircraft occurs between an ACOM, ASCC, or DRU during the year of execution, the losing ACOM, ASCC, or DRU will transfer to the gaining command flight hours/funding equivalent to the number of full months the aircraft are lost to the command. The FHP manager of the losing command must notify the DAMO–TRC when a transfer occurs, identify the unit (UIC), and specify the number of hours and amount of funding transferred to the gaining command.

*d. Exception to migration policy.* The VCSA is the approval authority for FHP migrations outside the above policy. The VCSA may delegate approval authority to the HQDA G3. Requests for exception to this policy must include the source of the funds to be migrated, the impact of the migration on the approved training strategy, and how the migrated funds will be used. The ACOM, ASCC, or DRUs may submit requests for exception to policy to HQDA (DAMO–TRC). The Commander, AMCOM, must approve increases to the total fixed-wing aircraft life cycle contractor support hours.

*e. Monthly execution projections.* In accordance with the OPTEMPO/FHP Management Instructions, the ACOM, ASCC, DRU, or NGB FHP managers will submit monthly execution projections to DAMO–TRC no later than 10 October annually. The TRADOC projection must include and identify reimbursable flying hours. Unless the Army FHP manager has authorized a deviation due to an approved migration requests or other action that reduces the total number of hours allocated to the ACOM, ASCC, DRU, or NGB FHP, the execution strategy must project the execution of the total ACOM, ASCC, DRU or NGB FHP.

*f. Monthly execution reporting.* DAMO–TRC compiles monthly execution data reported through the Logistics Support Agency (LOGSA). The monthly execution data feeds the Monthly Army Performance Review (MAPR). The ACOM, ASCC, DRU, or NGB FHP managers are responsible for ensuring the accuracy of monthly execution feeder data reported to LOGSA and notifying the Army FHP manager if there is a discrepancy in the data reported to LOGSA.

*g. Quarterly execution reporting.* All Army aviation units, including those not funded in the Active Army FHP, must submit quarterly execution reports to DAMO–TRC. DAMO–TRC compiles the Army’s quarterly execution into a composite multi-component report for the U.S. Army Combat Readiness Center. Annually, DAMO–TRC will provide each ACOM, ASCC, DRU, or NGB FHP manager the required format for the quarterly report.

*h. Quarterly execution report.* The FHP first quarter begins on 16 September, and ends on 15 December; the second quarter begins on 16 December and ends 15 March; the third quarter begins on 16 March and ends 15 June; and the fourth quarter begins 16 June and ends 15 September. The ACOM, ASCC, DRU, and NGB FHP managers report quarterly execution hours aligned by Management Decision Evaluation Package (MDEP), Army Management Structure (AMS) code, and aircraft no later than the 10th day of January, April, July and October. The report will identify day, night unaided, hood, weather, night vision goggle and night system execution that sum to the total execution for the quarter. Hours flown in a synthetic flight training simulator (SFTS) are not included in the execution report. Utilize DA Form 7648 (Quarterly Aircraft Programming and Utilization Flying Hour Report) to submit this report.

(1) *Counter Narcotics.* FORSCOM, INSCOM and the ARNG specify hours executed in support of the DOD counter drug program. The ACOM, ASCC, DRU and NGB FHP managers will align counter narcotic execution with the VCNA MDEP.

(2) *Deployments.* The ACOM, ASCC, DRU and NGB FHP managers identify hours executed during DA directed deployments (for example, OIF) under the Special Mission (SPECMSN) column on the report spreadsheet. Even though these hours may not have been programmed or funded in the OPTEMPO FHP, DAMO–TRC must capture total flying hour execution. FHP managers will align CONOPS execution with the applicable MDEP, AMS code, and aircraft on the report spreadsheet.

(3) *Reimbursable Execution.* FHP managers identify reimbursable hours by aircraft type, model, series (TMS) and AMS on the report spreadsheet.

(4) *Aircraft and Pilot Counts.* FHP Managers annotate the number of aircraft and pilots by TMS currently assigned to those units with authorized aircraft.

*i. Comparison of monthly/quarterly execution.* The ACOM, ASCC, DRU and NGB FHP managers will ensure the quarterly execution report data matches the monthly execution data reported to LOGSA. Execution deviations between the two data sets should not exceed 5 percent. DAMO–TRC will notify the ACOM, ASCC, DRU or NGB FHP managers when quarterly execution reports deviate from the monthly execution data in TRMIS by more than 5 percent.

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**Table 10-1**  
**Fixed Wing Aircraft LCCS Annual Flying Hour Program**

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ACFT	HOURS
C-12	600
EO-5 ARL	800 to 1,300 (Depending on Mission and Location)
RC-12	600
C-20	900
C-23	420
C-26	720
C-37	1000 this is an estimate based on previous use not a limit
UC-35	800
JCA	600

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## **Appendix A References**

### **Section I Required Publications**

#### **AR 11-2**

Management Control (Cited in para 1-5.)

#### **AR 15-6**

Procedures for Investigating Officers and Boards of Officers (Cited in para 2-13.)

#### **AR 25-11**

Record Communications and the Privacy Communications System (Cited in paras 6-2, 6-4, 6-10.)

#### **AR 25-30**

The Army Publishing Program (Cited in paras 6-2*b*, and 6-10*b*.)

#### **AR 25-55**

The Department of the Army Freedom of Information Act Program (Cited in para 2-13 and 3-15.)

#### **AR 34-4**

Army Standardization Policy (Cited in para 4-40.)

#### **AR 40-501**

Standards of Medical Fitness (Cited in paras 2-4*a*, and 4-9*d*.)

#### **AR 70-62**

Airworthiness Qualification of Aircraft Systems (Cited in para 6-4*a*.)

#### **AR 71-32**

Force Development and Documentation-Consolidated Policies (Cited in para 8-4*a* and 9-2*j*.)

#### **AR 95-2**

Airspace, Airfields/Heliports, Flight Activities, Air Traffic Control, and Navigation Aids (Cited in paras 2-9, 2-11, 2-12, 2-13, and 5-1.)

#### **AR 95-20**

Contractor's Flight and Ground Operations (Cited in para 2-2*c*.)

#### **AR 140-1**

Mission, Organization, and Training (Cited in para 4-13.)

#### **AR 335-15**

Management Information Control System (Cited in para 2-13.)

#### **AR 340-21**

The Army Privacy Program (Cited in para 2-13.)

#### **AR 385-10**

The Army Safety Program (Cited in para 3-16 and 8-8.)

#### **AR 570-4**

Manpower Management (Cited in para 2-3 and 2-4.)

#### **AR 600-105**

Aviation Service of Rated Army Officers (Cited in paras 2-1, 2-3, 2-8, 2-13, 4-10 and 4-32.)

#### **AR 600-106**

Flying Status for Nonrated Army Aviation Personnel (Cited in paras 2-1, 2-3, 2-8, 4-10, and 4-32.)

**AR 611-1**

Military Occupational Classification and Structure (Cited in para 4-6.)

**AR 700-138**

Army Logistics Readiness and Sustainability (Cited in paras 9-1, 9-2, and 10-5.)

**AR 750-1**

Army Materiel Maintenance Policy (Cited in para 9-2*d*.)

**AR 750-6**

Army Equipment Safety and Maintenance Notification System (Cited in para 6-1.)

**CTA 8-100**

Army Medical Department Expendable/Durable Items (Cited in para 8-4*b*.)

**CTA 50-900**

Clothing and Individual Equipment (Cited in para 8-4*b*.)

**CTA 50-909**

Field and Garrison Furnishings and Equipment (Cited in para 8-4*b*.)

**CTA 50-970**

Expendable/Durable Items (Cited in para 8-4*b*.)

**DA Pam 25-40**

Army Publishing: Action Officers Guide (Cited in para 6-2 and 6-10.)

**DA Pam 351-4**

U.S. Army Formal Schools Catalog (Cited in para 4-6*a*.)

**DA Pam 738-751**

Functional Users Manual for the Army Maintenance Management System-Aviation (TAMMS-A) (Cited in paras 2-5, 8-17, and 9-2.)

**14 CFR 91**

General Operating and Flight Rules (Cited in para 5-2.)

**14 CFR 105**

Parachute Jumping (Cited in para 8-8.)

**FM 3-04.300**

Flight Operations Procedures (Cited in paras 2-8*b*, 3-16*c*.)

**FM 3-04.301**

Aeromedical Training for Flight Personnel (Cited in para 8-7.)

**FM 3-04.303**

Air Traffic Services Facility Operations, Training, Maintenance, and Standardization (Cited in para 2-11*c*.)

**FM 3-04.508**

Maintaining Aviation Life Support (Cited in para 8-18.)

**FM 38-701**

Packing of Materiel for Packing (Cited in para 5-1*d*.)

**SB 8-75**

Series Army Medical Department Supply Information (Cited in para 8-4*c* and 8-6.)

**SB 700-20**

Army Adopted/Other Items Selected for Authorization/List of Reportable Items (Cited in para 8-4*c*.)

**TB 43-0002-3**

Maintenance Expenditure Limits for Army Aircraft (Cited in para 9-2*d*.)

**TM 1-1500-204-23-1**

Aviation Unit Maintenance (AVUM) and Aviation Intermediate Maintenance (AVIM) Manual for General Aircraft Maintenance Practices (Cited in paras 5-1*e*, and 8-12.)

**TM 5-4220-202-14**

Maintenance Instructions with Parts Breakdown: USAF flotation Equipment (Cited in para 8-18.)

**TM 10-1670-201-23**

Organization and Direct Support Maintenance Manual for General Maintenance of Parachutes and Other Airdrop Equipment (Cited in para 8-8.)

**TM 38-250**

Preparing Hazardous Materials for Military Air Shipment (Cited in para 5-1.)

**TM 55-1500-342-23**

Army Aviation Maintenance Engineering Manual Weight and Balance (Cited in paras 7-4*b*, 7-5, and 7-6*a*.)

**TM 55-1660-245-13**

Maintenance Instructions: Oxygen Equipment, F34601-76-D-1782 (Cited in paras 8-16, 8-18.)

**Section II****Related Publications**

A related publication is a source of additional information. The user does not have to read it to understand this regulation.

**AR 10-25**

United States Army Logistics Integration Agency (USALIA)

**AR 95-27**

Operational Procedures for Aircraft Carrying Hazardous Materials

**AR 600-8-1**

Army Casualty Program

**Army Directive 2007-01**

Secretary Of The Army policy for travel by Department of the Army officials

**DODD 4515.12**

Department of Defense Support for Travel of Members and Employees of the Congress

**DOD 4515.13-R**

Air Transportation Eligibility

**DODI 5410.19**

Public Affairs Community Relations Policy Implementation

**EM 0131**

Clothing and Individual Equipment

**EM 0250**

IETM for Air Warrior (Available at <https://www.logsa.army.mil/etms>.)

**TC 1-210**

Aircrew Training Program Guide to Individual and Crew Standardization (Cited in paras 3-16, 4-1, 4-4, 4-7, 4-9, 4-11, 4-13, 4-15, 4-16, and 4-32.)

**Section III****Prescribed Forms**

The following forms are available on the APD Web site ([www.apd.army.mil](http://www.apd.army.mil)) unless otherwise stated. DD forms are available from the Office of the Secretary of Defense Website ([www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm](http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm)).

**DA Form 759**

Individual Flight Record and Flight Certificate-Army (Prescribed in para 2-8.)

**DA Form 759-1**

Individual Flight Record and Certificate-Army, Aircraft Closeout Summary (Prescribed in para 2-8.)

**DA Form 759-2**

Individual Flight Record and Certificate-Army Flying Hour Work Sheet

**DA Form 759-3**

Individual Flight Record and Certificate-Army Flight Record and Flight Pay Work Sheet

**DA Form 3513**

Individual Flight Records Folder, United States Army (Prescribed in para 2-8.)

**DA Form 5484**

Mission Schedule/Brief (Prescribed in para 2-14.)

**DA Form 7648**

Quarterly Aircraft Programming and Utilization Flying Hour Report (Prescribed in para 10-3.)

**DD Form 175**

Military Flight Plan (Prescribed in para 5-2.)

**DD Form 175-1**

Flight Weather Briefing (Prescribed in para 5-2.)

**DD Form 1801**

DOD International Flight Plan (Prescribed in para 5-2.)

**Section IV**

**Referenced Forms**

DA Forms are available on the Army Publishing Directorate Web site ([www.apd.army.mil](http://www.apd.army.mil)); DD Forms are available from the OSD Web site (<http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm>). Federal Aviation Administration forms can be obtained from local Department of the Regional Representatives (See AR 95-2, table 6-1.)

**DA Form 11-2-R**

Management Control Evaluation Certificate Statement

**DA Form 1352**

Army Aircraft Inventory, Status, and Flying Time

**DA Form 2028**

Recommended Changes to Publications and Blank Forms

**DA Form 2408-12**

Army Aviator's Flight Record

**DA Form 2696**

Operational Hazard Report

**DA Form 4507-R**

Crew Member Grade Slip

**DA Form 4507-1-R**

Maneuver/Procedure Grade Slip

**DA Form 4507-2-R**

Continuation Comment Slip

**DA Form 7120-R**

Commander's Task List

**DA Form 7120-1-R**

Crew Member Task Performance and Evaluation Requirements

**DA Form 7120-2-R**

Crew Member Task Performance and Evaluation Requirements Continuation Sheet

**DA Form 7120-3-R**

Crew Member Task Performance and Evaluation Requirements Remarks and Certification

**DA Form 7122-R**

Crew Member Training Record

**DD Form 365**

Record of Weight and Balance Personnel

**DD Form 365-1**

Chart A-Basic Weight Checklist Record

**DD Form 365-2**

Form B-Aircraft Weighing Record

**DD Form 365-3**

Chart C-Basic Weight and Balance Record

**DD Form 365-4**

Weight and Balance Clearance Form F-Transport/Tactical

**FAA Form 7233-1**

Flight Plan

**FAA Form 8020-11**

Incident Report

**RCS CSGLD-1860(R1)**

Inventory readiness report

**RCS CSGPO-463**

Format for quarterly projective report

**RCS CSGPO-464**

Standard format for flying hour requirements

**RCS CSGPO-465**

Execution Report

**Appendix B  
Management Control Evaluation Checklist**

**B-1. Function**

The function covered by this checklist is the administration of the management control process.

## **B-2. Purpose**

The purpose of this checklist is to assist assessable unit managers and Management Control Administrators (MCAs) in evaluating the key management controls outlined below. It is not intended to cover all controls.

## **B-3. Instructions**

Answers must be based on the actual testing of key management controls (for example, document analysis, direct observation, sampling, simulation, other). Answers that indicate deficiencies must be explained and corrective action indicated in supporting documentation. These key management controls must be evaluated at least once every five years. Certification that this evaluation has been conducted must be accomplished on DA Form 11-2-R (Management Control Evaluation Certification Statement).

## **B-4. Test questions**

(HQDA only)

- a. Are standardized aviation safety, standardization, and utilization regulations and procedures published by a DA proponent?
- b. Is safety-of-flight information prepared and sent to the field in a timely manner? (User)
- c. Are airports, heliports, and landing areas approved for flight operations?
- d. Are local flying rules in agreement with Federal, DOD, and DA policies?
- e. Are applicable safety regulations and special-use airspace operation guidance followed?
- f. Are violations of safety and special-use airspace guidance reported and investigated by appropriate personnel per Federal, DOD, and DA guidance?
- g. Are the policies, procedures and transportation eligibility requirements for Operational Support Airlift established in DOD 4500.43 and DODD 4515.13R being followed?
- h. Are the procedures for Operational Support Airlift prescribed in AR 95-1 and the Operational Support Airlift Command "OSA Guide" being adhered to?
- i. Are aircrew training programs carried out per applicable Army guidance to include flying hours and synthetic flight training?
- j. Are personnel who do not meet proficiency requirements restricted from flight duty?
- k. Is nonstandard aircraft acquisition, training, standardization, and use conducted according to appropriate Federal, DOD, Army, and local guidance?
- l. Is aviation life support equipment available and maintained in accordance with applicable guidance?
- m. Are additional flight training periods managed in accordance with applicable policies and regulations? (Reserve Component only)

## **B-5. Supersession**

This checklist replaces the checklist for administration of the management control process published in AR 95-1, dated 3 February 2006.

## **B-6. Comments.**

Help to make this a better tool for evaluation management controls. Submit comments to HQDA, DCS, G-3/5/7 (DAMO-AV), 400 Army Pentagon, Washington, DC 20310-0400.

## **Appendix C** **Instructions for Completing DA Form 5484**

### **C-1. Mission schedule/brief**

The briefer is responsible for ensuring that all key mission elements noted on the Mission Schedule/Brief have been briefed per paragraph 2-14, and documenting completion of the briefing on the Mission Schedule/Brief. Mission briefings may be in the form of an air mission commander's brief, a detailed operations order, or locally developed briefing formats as long as all the minimum mandatory items are covered. The mission brief may be accomplished by telephonic or other means provided all key elements are addressed and recorded by both parties to the brief Front side.

- a. *Front side.*
  - (1) Item 1: Date.
  - (2) Item 2: AC number-Enter aircraft tail number.
  - (3) Item 3: PC-Enter the name of the pilot in command, seat designation, and if appropriate designation as air mission commander.
  - (4) Item 4: PI-Enter the name of the pilot and seat designation.
  - (5) Item 5: Crew members-Enter the names of nonrated crewmembers.

(6) Item 6: FC—Enter authorized flight condition codes for the mission as described in paragraph 2–6 of this regulation.

(7) Item 7: Mission—Enter the assigned mission number and/or title (that is, 3–02–01/air assault, maintenance test flight, contact APART, and so forth).

(8) Item 8: ETD/ETE—Enter estimated time of departure and estimated time en route.

(9) Item 9: PC—Pilot-in-command's initials. (Initials are the PC's acknowledgment that he has been briefed by the qualified briefing officer on key elements of the mission).

(10) Item 10: Initials of a qualified briefing officer. (Initials of the briefing officer along with the AMC or PC, indicates that step two of the briefing process has been completed per paragraph 2–14b(2).

(11) Item 11: RAV—Risk assessment value, calculated risk level for mission based on unit risk management program.

(12) Item 12: MS—Mission status, to be completed by the PC at the end of the mission using the following codes:

(a) MC—Mission completed as briefed.

(b) NC—Mission not completed as briefed, see remarks on the back of the schedule.

(c) CX—Canceled.

(13) Remarks—For local use as desired, continue on back if required.

*b. Back side.* The back side of the mission schedule will be used to document necessary mission status remarks. Example: 9 Nov 93, Msn 03–09–04, mission canceled by S–3, 1/20 Arty, initials M.S.

## **C–2. Configuration of briefing**

The Mission Schedule/Brief will be used to document the completion of required briefings. As a minimum it will be maintained on file for the time period specified in this regulation.

## **C–3. Use**

The Mission Schedule/Brief is provided for the commander's use. Unit developed forms may be used as long as all mandatory items are covered.

## **C–4. Regulations, standard operating procedures, and policies**

Information contained on the Mission Schedule/Brief does not relieve aircrewmembers from the requirement to know and adhere to applicable regulations, SOPs, and policies.

## **C–5. Command relationships**

Supporting and supported unit commanders will coordinate and designate command relationships to execute mission briefings when aircrews are separated from their parent unit. Note: Mandatory for all flights.

# **Appendix D**

## **Risk Assessment Worksheets**

Use of the Risk Assessment Worksheet (RAW) is required during the mission approval process and is used by the commander to identify elements of a mission that could or should be mitigated or must be elevated to the next higher level of command for their visibility and acceptance. Commanders will develop RAWs that meet their specific unit's requirements using the guidelines below and in FM 5–19. Risk Assessment Worksheets do not internalize the entire risk management process but provide a systematic and tangible representation of the risk. However, do not allow the tools to become the overriding concern of the risk management process.

### **D–1. Development**

No matrix can include all of the hazards of every mission, nor does a single matrix apply to all units. Army aviation strives for standardization but risk assessment is unique to every command and every mission set.

*a.* Commanders must determine the content and associated risk levels on their RAW based upon their knowledge of the unit's METL, assigned personnel, equipment and balance this against their personal experience, guidance from their commander and the Army's standard risk assessment matrix (see table D–1). Simply adding the numbers up and finding the right level of command to accept the risk based upon paragraph 2–14 is not risk management.

*b.* Commanders must consider a number of basic principles when they develop their RAW:

(1) The Army standard risk assessment matrix includes four levels of risk: low, moderate, high, and extremely high along with the severity and probability an event will occur. Paragraph 2–14 establishes minimum risk acceptance levels that are used as tools to elevate certain factors to certain levels of command for visibility of these factors and the decision to accept or require mitigation and/or reduction.

(2) Each element of the RAW represents a specific hazard which in the assessment process is translated into a risk. Use caution because one element of the RAW may be assessed at a higher value then diluted or overlooked if the

overall mission assessment is a lower value. Also, accident data shows that a number of critical elements called crew-error accelerator profiles such as when illumination is less than 23 percent and 30 degrees, visibility is obscured, total flight time of the crew is less than 500 or more than 2,500 hours, or the aircrew duty day is longer than 12 hours with 4 hours of flight time. Independently these factors on the RAW may indicate one level of risk but because of the combined affect of these crew-error accelerator profiles, they should be added together to elevate overall risk to a higher level or appropriately mitigated.

(3) As they develop their RAW, commanders should review the unit METL and consider the factors that affect their units ability to conduct those METL tasks. Then they can decide which of these factors they personally want to initiate risk reduction and/or acceptance and which they feel should be approved above or below them. The battalion or brigade commander may retain risk reduction or acceptance for certain accelerator factors by simply making these items cause the overall risk to become moderate or high; for example, if the battalion commander wants visibility on every urgent MEDEVAC he has the RAW indicate these missions as moderate. However, if he feels the field grade company commander should be able to approve these in the case of life or limb he grants a mitigator that only the field grade commander can apply that allows him to reduce the risk to low if he contacts the battalion commander as soon as possible.

(4) Finally, all factors placed on the RAW must be judged against the Army standard risk assessment gauge to ensure the commanders specified level of risk matches a given probability and severity using the standard risk assessment matrix (See Figure D-1). For example, if the battalion commander has designated all urgent MEDEVAC as moderate to retain oversight of these missions at his level but moves to a new area where the severity becomes critical and likely to happen, he must adjust his RAW to reflect a high level of risk and elevate approval to the brigade commander or determine a way to mitigate this risk back to moderate.

## D-2. Final mission approval

The commander's signature on the RAW indicates that the three step mission approval process of paragraph 2-14 is complete and the flight is authorized. Verbal approval will be annotated. Additionally, during bona-fide absences of the battalion or higher commander, this commander may authorize his or her field grade XO or S-3 to provide final mission approval as long as they meet the training requirements of para 2-14 and notify the commander ASAP.

Table D-1 Standard Risk Assessment Matrix					
Severity	Probability of Occurrence				
	Frequent	Likely	Occasional	Seldom	Unlikely
Catastrophic	E	E	H	H	M
Critical	E	H	H	M	L
Marginal	H	M	M	L	L
Negligible	M	L	L	L	L

E = Extremely High, H = High, M = Moderate, L = Low

## **Glossary**

### **Section I Abbreviations**

#### **A**

acceptance test flight

#### **AAF**

Army Air Field

#### **ACOM**

Army Command

#### **AD**

active duty

#### **ADF**

automatic direction finder

#### **AE**

aeromedical evacuation

#### **AIM**

Aeronautical Information Manual

#### **AFCS**

Automatic Flight Control System

#### **AFMS**

Auxiliary Fuel Management System

#### **AFTP**

Additional Flight Training Period

#### **AGL**

above ground level

#### **AH**

attack helicopter

#### **AHRS**

Attitude and Heading Reference System

#### **ALSE**

aviation life support equipment

#### **ALSO**

aviation life support officer

#### **ALSS**

aviation life support system

#### **AMC**

Army Materiel Command

#### **AMOC**

Aviation Maintenance Officer Course

#### **AMCOM**

Aviation and Missile Command

**APART**

Annual Proficiency and Readiness Test

**APU**

auxiliary power unit

**AR**

army regulation

**ARMS**

Aviation Resource Management Survey

**ARNG**

Army National Guard

**ARRS**

Aerospace Rescue and Recovery Service

**ASA(FM)**

Assistant Secretary of the Army (Financial Management)

**ASAM**

Aviation Safety Action Message

**ASCC**

Army Service Component Command

**ASE**

aircraft survivability equipment

**ASI**

additional skill identifier

**ASO**

aviation safety officer

**ATO**

Air Tasking Order

**ATC**

air traffic control

**ATM**

aircrew training manual

**ATTC**

Aviation Technical Test Center

**ATP**

Aircrew Training Program

**AVCATT**

Aviation Combined Arms Tactical Trainer

**AVG ACFT**

average number of aircraft

**BA**

budget activity

**BNOC**

basic non-commissioned officer course

**C**

combat mission

**CAAS**

Common Avionics Architecture System

**CAASS**

Centralized Army Aviation Support System

**CB**

chemical biological

**CDL**

Configuration Deviation List

**CE**

crew chief

**CEFS**

Crashworthy External Fuel System

**CFR**

Code of Federal Regulations

**CG**

commanding general

**CH**

transport helicopter

**CNGB**

Chief, National Guard Bureau

**CONUS**

Continental United States

**CP**

Copilot

**CSA**

Chief of Staff of the Army

**CTA**

common table of allowances

**CVR**

Cockpit Voice Recorder

**D**

day (for flight condition)

**DA**

Department of the Army

**DAC**

Department of the Army Civilian

**DAFIF**

Digital Aeronautical Flight Information File

**DAR**

Department of the Army Representative

**DAS**

Director of the Army Staff

**DATT**

Defense Attaches

**DCS, G-3/5/7**

Deputy Chief of Staff, G-3/5/7

**DCS, G-4**

Deputy Chief of Staff, G-4

**DES**

Directorate of Evaluation and Standardization

**DH**

decision height

**DME**

distance measuring equipment

**DOD**

Department of Defense

**DOTD**

Directorate of Training and Doctrine

**DRU**

Direct Reporting Unit

**DS**

Day Vision System

**EBS**

Emergency Breathing System

**EIR**

Equipment Improvement Report

**ELT**

emergency locator transmitter

**ERFS**

Extended Range Fuel System (non-crashworthy)

**ESSS**

External Stores Support System

**ETA**

estimated time of arrival

**EUSA**

Eighth U.S. Army

**EWS**

Electronic Warfare System

**F**

maintenance test flight

**FAA**

Federal Aviation Administration

**FAC**

flight activity category

**FAF**

Final Approach Fix

**FAWP**

Final Approach WayPoint

**FDR**

flight data recorder

**FE**

flight engineer

**FHP**

flying hour program

**FI**

nonrated crewmember instructor

**FLIP**

Flight Information Publication

**FORSCOM**

Forces Command

**FRIES**

First rope insertion/extraction system

**FSS**

Flight Service Station

**FTG**

flight training guide

**FW**

fixed wing

**FY**

fiscal year

**GPS**

Global Positioning System

**GSA**

Government Services Administration

**H**

hood

**HARS**

Heading and Attitude Reference System

**HEED**

Helicopter emergency egress device

**HQDA**

Headquarters, Department of the Army

**HRC**

Human Resources Command

**IAF**

Initial Approach Fix

**IATF**

Individual Aircrew Training Folder

**ICAO**

International Civil Aviation Organization

**IE**

instrument flight examiner

**IFR**

instrument flight rules

**IFRF**

individual flight records folder

**IKPT**

Initial Key Personnel Training

**ILS**

Instrument landing system

**IMA**

individual mobilization asset

**IMC**

instrument meteorological conditions

**IMCOM**

Installation Management Command

**INSCOM**

Intelligence and Security Command

**IOC**

initial operating capability

**IP**

instructor pilot

**IRR**

individual ready reserve

**JOSAC**

Joint Operational Support Airlift Command

**LCCS**

life cycle contractor support

**MAAG**

Military Assistance and Advisory Group

**MAC**

Military Airlift Command

**MATDEV**

materiel developer

**MAST**

military assistance to safety and traffic

**MDA**

minimum descent altitude

**MDS**

Mission design series

**ME**

maintenance test flight evaluator

**MEA**

minimum en route altitude

**MEL**

Minimum Equipment List

**METS**

Modular Egress Training Simulator

**MM/MTPC**

Maintenance Manager/Maintenance Test Pilot Course

**MO**

flight surgeon or medical personnel

**MOA**

memorandum of agreement

**MOC**

maintenance operation check

**MOCA**

minimum obstruction clearance altitude

**MOPP**

mission-oriented protective posture

**MOS**

military occupational specialty

**MP**

maintenance test pilot

**MPA**

military pay and allowance

**MSL**

mean sea level

**MTF**

maintenance test flight

**MTOE**

modified table of organizational equipment

**MTDS**

mission, type, design, and series

**MWO**

modification work order

**N**

Night

**NACO**

National Aeronautical Charting Office (FAA)

**NAS**

Naval Air Station, National Airspace System

**NAVAID**

Navigational Aid

**NAVAIR**

Naval Air

**NBC**

nuclear, biological, and chemical

**NCM**

Non-rated crewmember

**NDB**

Non-Directional Beacon

**NET**

New Equipment Training

**NG**

night goggles

**NGB**

National Guard Bureau

**NOE**

nap-of-the-earth

**NOS**

national oceanographic survey

**NOTAM**

notices to airmen

**NR**

not required

**NS**

night systems

**NVD**

night vision devices

**NVG**

night vision goggles

**NVS**

night vision system

**OASD**

Office of the Assistant Secretary of Defense

**OBOGS**

onboard oxygen generating system

**OCONUS**

outside continental United States

**OCSA**

Office of Chief of Staff, U.S. Army

**ODCS, G-3**

Office of the Deputy Chief of Staff, G-3,5/7

**ODCS, G-4**

Office of the Deputy Chief of Staff, G-4

**OH**

observation helicopter

**OHR**

Operational Hazard Report

**OMB**

Office of Management and Budget

**OR**

operational ready

**OSA**

operational support airlift

**OSAD**

Office of the Assistant Secretary of Defense

**OSAC**

Operational Support Airlift Command

**OSD**

Office of the Secretary of Defense

**PC**

pilot in command

**PI**

pilot

**PIP**

product improvement program

**POI**

program of instruction

**POL**

petroleum oils and lubricants

**POM**

program objective memorandum

**POMCUS**

pre-positioned material configured to unit sets

**PUJC**

priority urgency justification category

**QDR**

quality deficiency report

**RAIM**

Receiver Autonomous Integrity Monitoring

**RAW**

risk assessment worksheets

**RC**

Reserve Component

**RCM**

rated crewmember

**REL**

Required Equipment List

**RL**

readiness level

**RNP**

Required Navigation Performance (ICAO)

**RSSK**

ridged seat survival kit

**RVR**

runway visual range

**RW**

rotary wing

**S**

service missions

**SB**

supply bulletin

**SAM**

Special Air Mission

**SFTS**

synthetic flight training system

**SI**

non-rated crewmember standardization instructor

**SIPRNET**

Secure Internet Protocol Router Network

**SM**

statute miles

**SME**

Subject Matter Expert

**SOF**

Safety of Flight

**SP**

standardization instructor pilot

**SPIES**

special purpose insertion extraction system

**SPINS**

Special Instruction

**SUA**

special use airspace

**SURVIAC**

Survivability Information Analysis Center

**SVFR**

special visual flight rules

**SWET**

Shallow Water Egress Trainer

**T**

training

**TACAN**

tactical air navigation

**TAMMS**

The Army Maintenance Management System

**TB**

technical bulletin

**T-BOS**

Transportable Blackhawk Operations Simulator

**TDA**

table of distribution and allowances

**TERPS**

terminal instrument procedures

**TM**

technical manual

**TO**

technical order

**TO&E**

table of organization and equipment

**TR**

terrain

**TRADOC**

U.S. Army Training and Doctrine Command

**UH**

utility helicopter

**USAAWC**

U.S. Army Aviation Center of Excellence

**USAALS**

U.S. Army Aviation Logistics School

**USAASD**

U.S. Army Aeronautical Services Detachment

**USAASD-E**

U.S. Army Aeronautical Services Detachment Europe

**USAASA**

U.S. Army Aeronautical Services Agency

**USACEAC**

U.S. Army Cost and Economic Analysis Center

**USACRC**

U.S. Army Combat Readiness Center

**USAF**

United States Air Force

**USAR**

U.S. Army Reserve

**USARC**

U.S. Army Reserve Command

**USARPAC**

U.S. Army Pacific

**USARSO**

U.S. Army South

**USAASA**

U.S. Army Aeronautical Services Agency

**USASOC**

U.S. Army Special Operations Command

**USC**

united states code

**USMC**

United States Marine Corps

**USN**

United States Navy

**UT**

unit trainer

**VCSA**

Vice Chief of Staff of the Army

**VFR**

visual flight rules

**VMC**

visual meteorological condition

**VOR**

very high frequency omni range

**VSSE**

velocity of safe single engine

**W**

weather

**WAC**

world aeronautical chart

**WO**

warrant officer

**X**

experimental test flight

**XP**

experimental test pilot

**Section II****Terms****Acceptance flight**

A flight made to accept a contractor-produced aircraft, or one on which a contractor or Army depot has performed maintenance or contract modification before return to the operational inventory. It can also be a flight made by the receiving unit upon transfer of aircraft between components and/or units.

**Active Duty Guard/Reserve (AGR)**

Guard members and Reservists on full-time active duty for periods of 180 days or more to provide full-time support to the Reserve Components.

**Aerobatic flight**

Intentional maneuvers involving an abrupt change in an aircraft's altitude, and abnormal attitude, or abnormal acceleration not needed for normal flight. This does not include a maneuver that conforms to the aircraft flight manual such as combat maneuvering or a tactical or training maneuver when part of an approved training exercise.

**Aircrew Duty**

Any duty related to the operation of an aircraft and defined by the duty symbols of paragraph 2–6(a) of this regulation.

**Aircrew training manual (ATM)**

A publication that contains Army training requirements for Army flight crewmembers and programs for qualification, refresher, mission, and continuation training in support of the aircrew training program.

**Aircrew training program (ATP)**

Army aviation aircrew standardized training and evaluation program.

**Airplane**

An engine-driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wings.

**Air traffic incident report**

Report on incidents that adversely affect the FAA air traffic service facilities in providing safe, orderly, and expeditious movement of air traffic. Usually prepared by FAA on FAA Form 8020–11.

**Alleged violations**

Those infractions of applicable FAA, (ICAO), and host country flight regulations that create an unsafe condition or result in an incident or accident.

**Armed Forces**

The Army, Navy, Air Force, Marine Corps, and Coast Guard, including their regular and Reserve Components and members serving without component status.

**Army aviation disaster, search, and rescue unit**

A temporarily organized unit employed during an emergency. The unit equips, supplies, safeguards, maintains, and operates Army aircraft during a disaster, an air search, or rescue.

**Army aviation standardization**

The use of uniform established procedures and techniques to attain a high level of readiness and professionalism in the operation and employment of Army aircraft. This is achieved through standardized publications and training literature, a disciplined instructor pilot force, written tests, flight checks, and command supervision. Standardization includes aviator cockpit performance, aircrew teamwork, tactics, maintenance, and safety.

**Army aviator**

An aeronautical designation awarded to members of the U.S. Army by the Secretary of the Army or designated officers.

**Aviation officer**

An Army or DA civilian aviator who commands an aviation unit or is a member of a commander's staff and advises or supervises Army aviation functions.

**CASEVAC**

Casualty evacuation. This can apply to injured soldiers or civilians, and is used to denote the emergency evacuation of injured personnel from a war zone. CASEVAC aircraft are not equipped with specific life saving equipment or specially trained medical personnel. Their primary purpose is to ferry personnel from the battlefield to the nearest appropriate medical facility available as quickly as possible. They are allowed to be armed and the pilots and crews will assume much more risk to their aircraft and crew in order to evacuate wounded personnel.

**Category (of aircraft)**

Aircraft designated as either airplane or helicopter synonymous with type.

**Category II operations**

With respect to the operation of aircraft, means a straight-in ILS approach to the runway of an airport under a Category II ILS instrument approach procedure issued by the administrator or other appropriate authority.

**Civil aircraft**

Aircraft other than public aircraft.

**Chain of command**

Personnel in documented leadership positions with responsibility for the health and welfare of assigned personnel, control and accountability of Army equipment and for mission accomplishment. When used for Final Mission Approval Authority, it includes such positions as platoon leaders, commanders, directors, supervisors, etc that meet the definition.

**Code of Federal Regulations**

14 CFR 91 contains Federal Air Regulations Part 91.

**Command/staff aviation officer**

A special staff aviator designated by the commander to provide advice or manage aviation assets, aviation standardization, and aviation safety.

**Crewmember**

The term includes all aviators (rated crewmembers), non-rated crewmembers, and others who perform aircrew duties.

**Cross-country flight**

A flight extending beyond the local flying area or within the local flying area which is planned to terminate at a place other than the place of origin.

**DA civilian pilot (DAC aviator)**

A civil service employee who holds appropriate qualifications and who must comply with this regulation and other DA aviation-related regulations.

**Dunker**

A simulation device used to train aircrews, which can be abruptly lowered into the water in a controlled environment, to replicate an aircraft ditching emergency. These devices provide the capability of easy cockpit or cabin re-configured that replicates various army aircraft. Also referred to as a shallow water egress trainer or modular egress trainer.

**Emergency Breathing System**

Device such as a helicopter emergency egress device used to supply oxygen to a person after ditching.

**Flight crew station**

A station in aircraft at which flight crewmember occupies to perform their flight duty; for example, pilot stations specified in operator's manuals.

**Flight surgeon**

Medical officer who has graduated from an approved military course in aviation medicine. References to flight surgeons include aeromedical physician's assistant.

**Helicopter**

A rotorcraft that, for its horizontal motion, depends principally on its engine-driven rotors.

**Installation**

For Army Aviation Standardization Program purposes, the term includes Active Component forts, posts, camps, or stations with Army aircraft resident; Army National Guard (ARNG) is individual States; Army Reserve Commands. For other than standardization purposes, includes Reserve Component facilities.

**Large aircraft**

Aircraft of more than 12,500 pounds, maximum certificated takeoff weight.

**Maintenance operational check (MOC)**

Systems check made on the ground through engine runup and taxiing. Checks made using auxiliary power or testing equipment to simulate, in so far as possible, actual conditions under which the system is to operate. These checks are made to ensure that aircraft systems or components disturbed during an inspection or maintenance have been repaired or adjusted satisfactorily.

**Modular Egress Training Simulator**

A simulation device used to train aircrews, which can be abruptly lowered into the water in a controlled environment,

to replicate an aircraft ditching emergency. These devices provide the capability of easy cockpit or cabin re-configured that replicates various army aircraft. Also referred to as a Dunker or Shallow Water Egress Trainer.

### **National Airspace System (NAS)**

All of the airspace above the surface of the earth over the United States and its possessions.

### **Non-rated crewmember**

Crewmembers who are not rated aviators and are placed on orders by the commander as authorized to perform aircrew duties IAW AR 600–106. Non-rated non-crewmembers become non-rated crewmembers when they are selected by the commander and integrated into the Aircrew Training Program.

### **Nonstandard aircraft**

Army aircraft not classified Standard or aircraft obtained from other DOD activities or commercial sources.

### **Operational flying**

Flying performed by rated personnel primarily for mission support or training, while serving in assignments in which basic flying skills normally are kept current while performing assigned duties. All flying by rated members of the RC not on extended active duty is operational flying.

### **OPTEMPO**

Hours flown per crew per month in MTOE rotary wing aircraft assigned in FORSCOM, USAREUR, USARPAC, EUSA, USARSO, ARNG, and USAR.

### **Parachute**

A device used or intended to be used to retard the fall of a body or object through the air.

### **Passenger**

A passenger is any occupant on the aircraft not performing an aircrew duty and logging flying time in accordance with paragraph 2–6. Passengers on Army aircraft must be authorized in accordance with chapter 3. Passenger names should not be entered on the DA Form 2408–12.

### **Person**

An individual, firm, partnership, corporation, company, association, joint-stock association, or governmental entity. It includes a trustee, receiver, assignee, or similar representative of any of them.

### **Public aircraft**

Aircraft used only in the service of a government or a political subdivision (FAA). It does not include any government-owned aircraft engaged in carrying persons or property for commercial purposes.

### **Qualified for aviation service**

A volunteer aviation status requisite to entitlement for operational flying.

### **Rated Crew member**

Aviators described in this regulation and AR 600–105.

### **Shallow Water Egress Trainer**

A simulation device used to train aircrews, which can be abruptly lowered into the water in a controlled environment, to replicate an aircraft ditching emergency. These devices provide the capability of easy cockpit or cabin re-configured that replicates various army aircraft. Also referred to as a dunker or modular egress training simulator.

### **STABO**

Helicopter extraction system (derived from the first letter of the surnames of the five individuals who invented the helicopter extraction system)

### **Standardization instructor pilot (SP)**

A qualified instructor pilot designated by the commander, in writing, to perform standardization duties.

### **Synthetic Flight Training Systems**

A group of high-fidelity instrument and visual flight simulators capable of providing basic, advanced, and tactical training in either manual or automated modes.

**Tactical environment (actual)**

An active theater or area of combat operations.

**Tactical environment (simulated)**

An operational area established for training and in which combat operations are simulated.

**Training mission**

Missions flown for flight qualification or refresher training. ATP requirements, and authorized training exercises.

**Unit Trainer**

A crewmember designated to instruct in areas of special training to assist in unit training programs and achieve established training goals.

**Weather forecaster**

Any person approved by the USAF or Navy Air Weather Services or by the National Weather Service to forecast aviation weather for flight planning.

**Section III****Special Abbreviations and Terms**

This section contains no entries.

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