

**United States Army Aviation Logistics School  
Fort Eustis, Virginia**

**APRIL 1994**



**THIS DOCUMENT HAS BEEN REVIEWED FOR OPSEC CONSIDERATIONS**

**STUDENT HANDOUT**

**TEST FLIGHT REQUIREMENTS**

**071-606-04**

**The proponent for this SH is USAALS**





INTRODUCTION

TERMINAL LEARNING OBJECTIVE:

At the completion of this lesson you will:

- ACTION:** Understand the maintenance test flight procedures, troubleshooting references and procedures, special procedures, and charts.
- CONDITIONS:** Given an AH-64A requiring a maintenance test flight or maintenance operational check.
- STANDARDS:** Correctly determine the personnel qualifications and requirements necessary to perform a maintenance test flight and/or maintenance operational check. Correctly determine if a maintenance test flight is required, and if so, what type. Correctly determine if a maintenance operational check is required.

**SAFETY REQUIREMENTS:** In addition to the specific safety requirements of this lesson plan, aviation shop and flight line safety standards established in the applicable manuals will be reinforced.

**WARNING**

A maintenance test flight is an exceptionally demanding operation and requires a thorough flight readiness inspection (PRE-FLIGHT). The flight readiness inspection is prescribed in TM 55-1520-238-10 operators manual and must be completed prior to each maintenance test flight. Emergency procedures are found in the applicable -10 or checklist (-CL) and are not duplicated in TM 55-1520-238-MTF. Prior to each maintenance test flight, the pilot will contact maintenance/quality control personnel to determine the maintenance that has been performed. TM 55-1520-238-MTF should be used only by qualified maintenance test flight pilots as required in AR 95-1.



# ***MTF REQUIREMENTS***

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## **Maintenance Test Flight Requirements**

01-93-173

NOTES

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- A. Standardized maintenance test flight procedures (TC- 1-210, TC 1-214)



## **COMMANDER'S RESPONSIBILITIES TC 1-210**

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- **Manager of Aircrew Training Program for MP/ME standardization**
- **Designate MP/ME's (in writing)**
- **FAC 2 aviators (MP's) are recommended to be battle-rostered, but it is not mandatory**
- **MP's should be classified FAC 2 by the commander**

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NOTES

1. TC 1-210 commander's guide.
  - a. Commander's Responsibilities:
    - 1) Manager of Aircrew Training Program for MP/ME standardization. (paragraph 1-1.a)
    - 2) Designate MP/ME's (in writing) to perform maintenance test flights in the aircraft in which they are qualified and current. (paragraph 1-1.e)
    - 3) FAC 2 aviators (MP's) are recommended to be battle-rostered, but it is not mandatory. (paragraph 1-4.b)
    - 4) MP's should be classified FAC 2 by the Commander. (paragraph 2-3.b)



## **READINESS LEVELS**

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- **RL 2. If an MP performs test pilot tasks only, an ME will conduct the advancement evaluation to progress from RL 2 status**
- **RL 1**
  - a. **MP's or ME's must pass an MTP evaluation before being designated RL - 1**
  - b. **All MTF tasks listed in the ATM are mandatory mission tasks for MP's and ME's**
  - c. **MP's and ME's performing maintenance duties in alternate or additional aircraft must meet annual MTF task iteration or evaluation requirements, per the appropriate ATM**

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NOTES

- 5) Readiness levels:
- a) RL 2: (paragraph 2-5.a.(7)) If an MP performs test pilot tasks only, an ME will conduct the advancement evaluation to progress from RL-2 status.
  - b) RL 1: (paragraph 2-5.a.(8))
    - (1) MP's or ME's must pass a MTP evaluation before being designated RL-1.
    - (2) All MTF tasks listed in the ATM are mandatory mission tasks for MP's and ME's.
    - (3) MP's and ME's performing maintenance duties in alternate or additional aircraft must meet annual MTF task iteration or evaluation requirements, per the appropriate ATM.



## ***MTP QUALIFICATION***

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- **Aircraft Qualified**
- **Maintenance Manager/Maintenance Test Pilot Course**
- **In lieu of the above, you can qualify by equivalency evaluation conducted by DOES, USAALS; with the following prerequisites:**
  - a. **Commander submits appropriate request through chain of command to Assistant Commandant USAALS ATTN: ATSQ-LES-M, Fort Eustis, VA 23604-5451**
  - b. **Evaluation includes written examination covering maintenance manager phase, general maintenance test pilot skills, and a flight evaluation**

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NOTES

- b. Maintenance test pilot qualification: (paragraph 3-5.h)
  - 1) Aircraft qualified (AR 95-1).
  - 2) Maintenance Manager/Maintenance Test Pilot Course.
  - 3) In lieu of the above, you can qualify by equivalency evaluation conducted by DOES, USAALS, with the following prerequisites:
    - a) Commander submits appropriate request through chain of command to Assistant Commandant, USAALS, ATTN: ATSQ-LES-M, Fort Eustis, Va. 23604-5451.
    - b) Evaluation includes written examinations covering maintenance manager's phase, general maintenance test pilot skills, specific aircraft technical skills, and a flight eval conducted as per chapter 8 of the appropriate ATM.



## ***MTFE QUALIFICATION***

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- **Be currently designated MP in writing by the Unit Commander**
- **One year experience as MP in the aircraft for which ME designation is sought**
- **Received training in the methods and fundamentals of instruction from an IP, SP, or DOES designated ME**
- **Complete an initial ME evaluation administered by DOES or a DOES designated ME**

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NOTES

- c. Maintenance test flight evaluator qualification: (paragraph 3-5.i)
  - 1) Be a currently designated MP in writing by the Unit Commander.
  - 2) One year experience as MP in aircraft for which ME designation is sought (AR 95-1).
  - 3) Received training in methods and fundamentals of instruction from an IP, SP, or DOES designated ME.
  - 4) Complete an initial ME evaluation administered by DOES or a DOES designated ME in accordance with chapter 8 of the appropriate ATM.



# DA FORM 5051-R

01-93-179

MAINTENANCE TEST FLIGHT PERSONNEL TRAINING RECORD											
For use of this form, see FM 1-544 and TC 1-210; the proponent agency is TRADOC											
1. NAME AND RANK <b>WILLIAMS, CARLTON P. CW4</b>				2. DATE OF BIRTH <b>22 SEP 47</b>		3. AMOC II COMPL <b>UH-1 11 DEC 75</b>		4. FAC LEVEL <b>2</b>			
5. AIRCRAFT ASSIGNMENT											
5a. PRIMARY <b>UH-1</b>			5b. ADDITIONAL <b>OH-58C</b>			6a. PRIMARY <b>17 AUG 91</b>			6b. ADDITIONAL <b>8 SEP 91</b>		
7. UNIT/ORGANIZATION <b>C Co 8TH AVN REGT</b>				8. TOE/TDA POSITION <b>ACFT MAINT TECH</b>				9. PERIOD COVERED <b>1 OCT 91 - 30 SEP 92</b>			
10. PRIMARY AIRCRAFT TASK RECORD						11. ADDITIONAL AIRCRAFT TASK RECORD					
10a. TASKS-GENERAL TEST FLIGHT	10b. FREQUENCY REQUIRED	10c. DATE AND NUMBER OF ITERATIONS				11a. TASKS-GENERAL TEST FLIGHT	11b. FREQUENCY REQUIRED	11c. DATE AND NUMBER OF ITERATIONS			
		4	10	12	10		4	4	6	5	
		FEB	MAR	JUN	SEP		FEB	MAR	AUG	NOV	
TF 5003	4	1	1	2		TF 4400	4	1	2	1	
TF 5006	4	1	1	2		TF 4405	4	1	1	1	
TF 5009	4	1	1	2		TF 4410	4	1	2	1	
TF 5012	4	1	1	1	1	TF 4415	4	1	2	1	
TF 5015	4	1	1	1	1	TF 4420	4	1	2	1	
TF 5018	4	1	1	1	1	TF 4425	4	1	1	1	1
TF 5021	4	1	1	1	1	TF 4430	4	1	1	1	1
TF 5024	4	1	1	1	1	TF 4431	4	1	1	1	1
TF 5027	4	1	1	1	1	TF 4432	4	1	1	1	1
TF 5030	4	1	1	1	1	TF 4433	4	1	1	1	1
TF 5033	4	1	1	1	1	TF 4434	4	1	1	1	1
TF 5036	4	1	1	1	1	TF 4436	4	1	1	1	1
TF 5039	4	1	1	1	1	TF 4440	4	1	1	1	1
TF 5042	4	1	1	1	1	TF 4445	4	1	1	1	1
TF 5045	4	1	1	1	1	TF 4450	4	1	1	1	1
TF 5048	4	1	1	1	1	TF 4455	4	1	1	1	1
TF 5051	4	1	1	1	1	TF 4470	4	1	1	1	1
TF 5054	4	1	1	1	1	TF 4472	4	1	1	1	1
TF 5057	4	1	1	1	1	TF 4475	4	1	1	1	1
TF 5060	4	1	1	1	1	TF 4480	4	1	1	1	1
TF 5063	4	1	1	1	1	TF 4485	4	1	1	1	1
TF 5066	4	1	1	1	1	TF 4487	4	1	1	1	1
TF 5069	4	1	1	1	1	TF 4490	4	1	1	1	1
TF 5072	4	1	1	1	1	TF 4492	4	1	1	1	1
TF 5075	4	1	1	1	1	TF 4494	4	1	1	1	1
						TF 4495	4	1	1	1	1

DA FORM 5051-R, JUN 86

EDITION OF JUN 84 IS OBSOLETE

NOTES

- d. MTF Personnel Training Record (DA Form 5051-R): (paragraph 3-21, page 3-40)
  - 1) Used as a management tool to record MP training.
  - 2) Used at the option of local Commander.
  - 3) Maintained in the aviator's IATF.
  - 4) Not an inspectable item during DOES visits.



## ***MP/ME FLIGHT EVALUATION***

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- **Completed during APART**
- **Completed in each aircraft type in which MP duties are performed**
- **Unsatisfactory evaluation will be processed IAW AR 95-3**

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NOTES

- e. MP/ME flight evaluation: (paragraph 3-12.a.(2)(c))
  - 1) Completed during APART in order to remain on orders.
  - 2) Completed in each aircraft type in which MP duties are performed.
  - 3) Unsatisfactory evaluation will be processed in accordance with AR 95-3.



## ***NO - NOTICE EVALUATION***

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- **Purpose is to measure the effectiveness of the crew member training**
- **May consist of a flight evaluation, an oral examination, a written examination, or any combination of the three**

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NOTES

- f. No-Notice Evaluation: (paragraph 3-14)
  - 1) Purpose is to measure the effectiveness of crew member training.
  - 2) May consist of a flight evaluation, an oral examination, a written examination, or any combination of the three.



## **TC 1 - 214 ATM MISSION TRAINING FOR MP's**

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- **All MTF tasks listed in the ATM are mandatory mission tasks for MP's and ME's**
- **No MTF task can be deleted by the commander**
- **MP's should be limited to duties in a maximum of 2 aircraft**

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NOTES

2. TC 1-214 Aircrew Training Manual.
  - a. Mission Training for MP's (RL-2 to RL-1): (paragraph 4-3)
    - 1) All MTF tasks listed in the ATM are mandatory mission tasks for MP's and ME's.
    - 2) No MTF task can be deleted by the Commander.
    - 3) MP's should be limited to duties in a maximum of 2 aircraft.



## ***CONTINUATION TRAINING FOR MP's***

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- **MP's - Four iterations of each MTF task must be performed annually**
- **ME's - Two iterations from each flight crew station must be performed annually**
- **Each MTF task listed is mandatory for an MTF standardization evaluation**
- **Personnel required to perform MTF duties in an additional or alternate aircraft will perform four iterations of the required tasks in each additional or alternate aircraft**

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NOTES

- b. Continuation Training for MP's RL-1 Status): (paragraph 5-1.c.(3))
- 1) MP's - Four iterations of each MTF task must be performed annually. (The four iterations are tracked by using 5051-R (tracking sheet), or signing a statement at the end of annual period that all task and iterations were completed.)
  - 2) ME's - Two iterations from each flight crew station must be performed annually.
  - 3) Each MTF mission task listed is mandatory for an MTF standardization evaluation.
  - 4) Personnel required to perform MTF duties in an additional or alternate aircraft will perform four iterations of the required tasks in each additional or alternate aircraft.



## ***EVALUATION SEQUENCE***

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- **Introduction**
- **Oral Examination**
- **Flight Evaluation**
- **Debriefing**

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NOTES

- A. Evaluation Sequence: (paragraph 8-3)
  - 1. Introduction.
  - 2. Oral examination.
    - a. Regulations and publications.
    - b. Operating limitations and restrictions.
    - c. Aircraft emergency procedures and malfunctions.
    - d. Aeromedical factors.
    - e. Aerodynamics.
    - f. Attack helicopter tactical mission operations.
    - g. AH-64 mission avionics operation and deployment.
    - h. AH-64 weapon system operation and deployment.
    - i. Night mission operation and deployment.
    - j. Maintenance test flight troubleshooting and system operations.
  - 3. Flight Evaluation.
    - a. Briefing.
    - b. Preflight inspection and engine start, hover, and run-up procedures.
    - c. Flight tasks.
    - d. Engine shutdown and after landing tasks.
  - 4. Debriefing.



## ***TM 1-1500-328-23***

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- **General:**
  - a. **Policies are established as the basic mandatory requirements**
  - b. **Specific maintenance accomplished IAW Army Regulations, Technical Bulletins/Manuals, and others, as necessary**
  - c. **If conflicts occur, specific TM's take precedence over this publication**

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NOTES

A. Aeronautical Equipment Maintenance Management Policies and Procedures.  
(TM 1-1500-328-23)

1. General

- a. Policies are established as the basic mandatory requirements for aeronautical equipment procedures.
- b. Specific maintenance accomplished in accordance with Army Regulations, Technical Bulletins/Manuals, and others, as necessary.
- c. If conflicts occur, specific aircraft maintenance TM's take precedence over TM 1-1500-328-23.



## ***MAINTENANCE TEST FLIGHT***

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**Required when safe operation  
and/or proper functioning  
cannot be determined by an MOC**

- **General**
- **Limited**

01-93-185

NOTES

2. Maintenance test flights requirements.
  - a. Required when safe operation and/or proper functioning cannot be determined by and MOC.
  - b. Two categories of maintenance test flights.
    - 1) General
    - 2) Limited



## ***GENERAL TEST FLIGHT***

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### **AIRWORTHINESS OF ENTIRE AIRCRAFT**

- 1. Completion of phase**
- 2. Removal from intermediate storage**
- 3. Overhaul/modernization after major reassembly**
- 4. Acceptance to army inventory (ARPRO)**
- 5. Return from bailment, loan or lease**
- 6. As determined necessary**

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NOTES

- c. General Test Flights: A detailed test flight intended to evaluate the airworthiness of the entire aircraft and prove all systems/components are functioning properly as prescribed in applicable aircraft maintenance manuals. A general test flight is mandatory under the following conditions. (paragraph 3-2.a)
- 1) After a Periodic/Phase Maintenance inspection has been performed.
  - 2) After an aircraft has been removed from ''intermediate'' storage.
  - 3) After aircraft overhaul/modernization or after major disassembly and reassembly of the aircraft.
  - 4) When accepting new aircraft into the Army inventory. The senior government representative (military or civilian) assigned to the factory is responsible for acceptance and airworthiness of the aircraft and will ensure that all forms and records are complete and accurate IAW DA Pamphlet 738-751.
  - 5) Acceptance of an aircraft into the Army inventory after a period of bailment, loan or lease.
  - 6) When it is determined by the Unit Commander or Maintenance Officer that a general test flight is necessary to assure airworthiness of the aircraft.



## **LIMITED TEST FLT**

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### **MANDATORY WHEN:**

- 1. Prop, prop blade, or prop gov replaced, removed, reinstalled, and when high rpm settings, or blade angle have been reset or adjusted**
- 2. Helicopter main or T/R assy or any adjustable component/item of system removed, replaced, or reinstalled, or adjusted**
- 3. Helicopter powertrain components removed, reinstalled, replaced**
- 4. When adjustable flight control surfaces primary actuators, electronic sensors, flt control linkage or cables removed, replaced, reinstalled, or adjusted**

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NOTES

- d. Limited Test Flights: A limited test flight is intended to evaluate the functioning of a specific item/component or system. (paragraph 3-2.b)
- 1) A limited test flight is required when it is necessary to prove proper functioning of a specific item/component of a system. When limited test flights are accomplished, use only the applicable portions of Maintenance Test Flight Manual.
  - 2) A limited test flight is mandatory when directed by the applicable aircraft maintenance manual/MWO TB or directive, and/or under the following conditions:
    - a) When a propeller, propeller blade, or propeller governor, has been replaced, removed and reinstalled, and when high revolutions per minute (RPM) settings or blade angle have been reset or adjusted.
    - b) When helicopter main or tail rotor assembly (assemblies), or any **adjustable** component/item of these systems have been replaced, removed and reinstalled or adjusted.
    - c) When helicopter powertrain components have been replaced, removed and reinstalled, e.g., transmission, gearbox, etc.
    - d) When **adjustable** and/or moveable flight control surfaces, primary flight control actuators, electronic sensors, flight control linkage or cables have been replaced, removed and reinstalled or adjusted.



## **LIMITED TEST FLT (CON'T)**

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### **MANDATORY WHEN:**

- 5. Fixed flight control surface of fixed wing**
- 6. Engine realigned, replaced, removed and reinstalled, or has been rigged because of component replacement, removal, reinstallation, or adjustment**
- 7. Major subassy of an engine, section or turbine blades removed, replaced or reinstalled**
- 8. Installed equip-autopilot, SCAS and other equipt which can affect flight characteristics removed, replaced, reinstalled, or adjusted**
- 9. Major modification**
- 10. MOC fails to simulate**
- 11. Determined by Commander/maintenance officer**

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NOTES

- e) When a fixed flight control surface on fixed wing aircraft has been replaced, removed and reinstalled or adjusted.
- f) When an engine has been realigned, replaced, removed and reinstalled or has been rigged because a component has been replaced, removed and reinstalled or adjusted.
- g) When a major sub-assembly of an engine, such as: cylinder assembly, carburetor, fuel control, complete section of a turbine engine or turbine blades have been replaced or removed and reinstalled on a single engine aircraft or on both engines for a multi-engine aircraft. Maintenance Test Flights are recommended, but not mandatory when engine sub-assemblies are disturbed/changed on one engine of a multi-engine aircraft and an MOC throughout the engine power range has been performed satisfactorily.
- h) When any installed electronic flight control equipment, i.e., autopilot components, Stability Control Augmentation Systems (SCAS), and other equipment, which can affect flight characteristics or performance, has been replaced, removed and reinstalled or adjusted.
- i) When a major repair or modification has been performed on the basic structure of the aircraft, and as required by MWO/TB.
- j) When a maintenance operational check (MOC) fails to simulate, insofar as possible, conditions under which the system is to operate, as required by applicable aircraft maintenance manuals.
- k) When it is determined by the Unit Commander or Maintenance Officer that a limited test flight is necessary to assure airworthiness of the aircraft.



## **MAINTENANCE FUNCTIONS NOT REQ T/F**

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- 1. Serviceable, non adjustable, fixed flight control or component thereof removed, disconnected and same flight control reinstalled, same aircraft, requiring no rigging or adjustments by appropriate manual**
- 2. Reinstallation of any non-adjustable flight control, item/component, or hardware within the flight control system (Drive shafting, etc.)**
- 3. Bolts only removed, reinstalled or replaced in flight control linkage requiring no adjustment**

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NOTES

- e. Maintenance functions not requiring a MTF: (paragraph 3-2.c)
- 1) When a serviceable, **non-adjustable**, fixed flight control, or component thereof, has been removed or disconnected and the same flight control/component reinstalled in the same location, on the same aircraft, requiring no rigging or adjustments by the applicable aircraft maintenance manual.
  - 2) The reinstallation of any **non-adjustable** flight control item(s)/ component(s) and aircraft hardware within the flight control systems or replacement/reinstallation of driveshafts and/or hanger bearings, however, this would require a thorough technical inspection and MOC before the aircraft is released for flight.
  - 3) When bolts **only** have been removed, reinstalled or replaced in the flight control linkage, requiring no adjustment (all aircraft).
  - 4) A "set-screw" adjustment of high (take-off) RPM setting on a single engine of a multi-engine fixed wing aircraft is made, however, a static propeller run-up to the point of prop governor "catch" and a high speed taxi check to the point of takeoff is mandatory.

**CAUTION**

Anytime an aircraft system, or component thereof, has been disturbed for any reason, not covered above, and there is **any doubt** as to the air worthiness of the aircraft, a test flight **will be** conducted.

NOTE

Removal and replacement of inspection plates, covers, fairings, etc., for the purpose of gaining access to an area in order to accomplish inspections does not constitute the need to conduct a test flight. However, a technical inspection and MOC, if required, will be completed.



## ***MINIMUM CREW***

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- **Minimum flight crew prescribed in the applicable aircraft operator's manual. Non essential cargo and passengers are prohibited on maintenance test flight.**
- **The minimum crew required to fly the helicopter is a pilot and a copilot. A technical observer may be authorized to occupy the CPG station during test flights on a case by case basis at the discretion of the commander.**

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NOTES

3. Minimum flight crew prescribed in the applicable aircraft operators manual. Non essential cargo and passengers are prohibited on maintenance test flights.
  - a. The minimum crew to fly the AH-64 is a pilot and a copilot. A technical observer may be authorized to occupy the CPG station during test flights on a case by case basis at the discretion of the commander.



## **TEST FLIGHT WEATHER REQUIREMENTS**

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- VFR
- S - VFR
- Night Test Flight
- VFR, IFR to VFR - on - Top

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NOTES

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## ***VFR WEATHER REQUIREMENTS***

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- **Control zone**
- **Controlled airspace**
- **Uncontrolled airspace**

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NOTES

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## ***TEST FLIGHTS DURING S-VFR***

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**Can be done at the discretion  
of the Commander**

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NOTES

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## ***NIGHT TEST FLIGHTS***

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- **Need permission from Commander on a case-by-case basis**
- **Aircraft must have equipment needed for night flight**

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## ***VFR, IFR TO VFR-ON-TOP***

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- **Equipment needed for IFR flight must be operational**
- **Failure or malfunction of component/system to be checked will not affect IFR operation**
- **MTF will begin under VFR conditions**

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NOTES

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## ***MTF CHECK SHEETS***

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- Will be used for all MTF's
- Must be forms in MTF or phase manual  
local reproduction is authorized
- Will be attached to -13 at completion of  
MTF

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NOTES

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4. Maintenance test flight accomplishment. (paragraph 3-3)
  - a. Maintenance test flight sheets will be used on all maintenance test flights.
  - b. All faults noted on remarks sheet will be transcribed to 2408-13.



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TM 55-1520-238-MTF

# MAINTENANCE TEST FLIGHT CHECK SHEET (3 OF 3)

REMARKS:

SIGNATURE:

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FIGURE 5-10. Maintenance Test Flight Checksheet  
(Sheet 3 of 3)  
5-15/(5-16 blank)

NOTES

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5. Maintenance test flight check sheets: (paragraph 3-4)



## ENTERING REQUIREMENTS FOR TEST FLIGHT ON 2408-13-1

1. AIRCRAFT SERIAL NUMBER <i>84-24262</i>			2. MODEL <i>AH-64 A</i>			3. DATE			4. PAGE <i>1</i>		
PART I - FAULT INFORMATION						PART II - CORRECTING INFORMATION					
—	STATUS	SYS	DATE	NO.	TIME	PID	DATE	TIME	HRS		
	<i>A</i>		<i>1 Aug 93</i>		<i>1400</i>		ROUNDS	ACTION CODE	WUC		
FAULT/REMARKS						ACTION					
<i>MTF Required for Reinstallation of # 1 Engine <span style="float: right;"><i>R. Doba</i></span></i>						_____					
						_____					
						_____					
A/C HRS		WHEN DISC		HOW REF		MAL EFF		WUC		CMH	
<i>190.0</i>										OMH	
W.O.			REQ			OTHER			TI		
									MAN-HOURS		

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NOTES

6. Recording maintenance test flights: (paragraph 3-5)

a. Entering requirements for test flight on 2408-13-1

Part I - fault information.

- 1) Enter a Red Dash "X" symbol in the first open STATUS block.
- 2) Enter appropriate letter in SYS (system) block.
- 3) Enter the current date in the DATE block.
- 4) Enter the current time in the TIME block.
- 5) Enter a remark indicating the MTF requirement in the FAULT/REMARK block.
- 6) Enter the current aircraft hours in the A/C HRS block.



# COMPLETING 2408-13-1 AFTER FAULTS

## COMPLETING 2408-13-1 AFTER MTF AND FAULTS WERE DISCOVERED

1. AIRCRAFT SERIAL NUMBER <i>2424202</i>		2. MODEL <i>AH-64 A</i>		3. DATE		4. PAGE <i>1</i>	
<b>PART I - FAULT INFORMATION</b>				<b>PART II - CORRECTING INFORMATION</b>			
STATUS	SYS	DATE	NO.	TIME	PID	DATE	TIME
	<i>A</i>	<i>1 AUG 93</i>		<i>1400</i>		ROUNDS	HRS
FAULT/REMARKS <i>MTF Required for Reinstallation of #1 Engine</i>				ACTION			
A/C HRS <i>1190</i>				WHEN DISC	HOW REC	MAL EFF	WUC
W.O.				REQ	OTHER	CMH	DMH
X STATUS				SYS	DATE	NO.	TIME
				<i>A</i>	<i>1 AUG 93</i>		<i>1530</i>
FAULT/REMARKS <i>Test Flight Chops Eng 1 Caution Warning Light Illuminated</i>				ACTION			
A/C HRS <i>1191.0</i>				WHEN DISC	HOW REC	MAL EFF	WUC
W.O.				REQ	OTHER	CMH	DMH
STATUS				SYS	DATE	NO.	TIME
FAULT/REMARKS				ACTION			
A/C HRS				WHEN DISC	HOW REC	MAL EFF	WUC
W.O.				REQ	OTHER	CMH	DMH

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DA FORM 2408-13-1, OCT 91

AIRCRAFT INSPECTION AND MAINTENANCE RECORD  
For use of this form, see DA FORM 738-751 the proponent agency is DCS/LOG

NOTES

- b. Completing 2408-13-1 after MTF and faults were discovered
  - 1) Make no entries for MTF entry in Part I - Fault Information. In Part II - Correcting Information Section, a statement in the action block of "Test flown - not released for flight" is not required. Move to the next open fault/remarks block in Part I - Fault Information.
  - 2) Part I - fault information
    - a) Enter the appropriate status symbol in the first open STATUS block.
    - b) Enter appropriate letter in SYS (system) block.
    - c) Enter the current date in the DATE block.
    - d) Enter the current time in the TIME block.
    - e) Enter "Test flight", followed by the fault/remark which was discovered during the MTF and sign in the FAULT/REMARK block.
    - f) Enter the current aircraft hours in the A/C HRS block.



## COMPLETING 2408-13-1 AFTER RELEASE

### COMPLETING 2408-13-1 AFTER THE MTF AND AIRCRAFT IS DETERMINED TO BE SUITABLE FOR RELEASE

<b>R</b>	STATUS	SYS	DATE	NO.	TIME	PID	DATE	TIME	HRS	
	A	A	1 Aug 93		1400		1 Aug 93	1530	1191.5	
FAULT/REMARKS							ROUNDS			
MTF Required for Reinstallation of # 1 Engine <span style="float: right;">R. Doba</span>							ACTION CODE		WUC	
							ACTION			
A/C HRS			WHEN DISC		HOW REC		MAL EFF		WUC	
190.0										
W.O.			REQ		OTHER		CMH		DMH	
							TI		MAN-HOURS	

01-93-245

NOTES

- c. Completing 2408-13-1 after the MTF and aircraft is determined to be suitable for release

Part II - correcting information.

- 1) Enter date MTF completed in the DATE block.
  - 2) Enter the current time in the TIME block.
  - 3) Enter the aircraft hours when corrective action was completed in the HRS block.
  - 4) Enter corrective action, sign, and place last name initial over status symbol in status block in PART I - FAULT INFORMATION.
  - 5) Enter, if required, correct status symbol in system status block on DA Form 2408-13.
  - 6) Time flown on test flight will be recorded on DA Forms 2408-12 and 2408-13, and will accumulate toward the next scheduled inspection.
- d. MTF's are not numbered. Operational flights will be numbered sequentially even if interrupted by a MTF.



## **MAINTENANCE OPERATIONAL CHECK**

---

**Check accomplished on the ground through engine run-up, taxiing, use of auxiliary power, or testing equipment, to simulate as closely as possible the conditions under which the system is to operate to assure continuous operation**

- **Required when a component of an aircraft had been repaired, replaced, removed and reinstalled, calibrated or adjusted.**

01-93-197

NOTES

071-606-04

- A. Maintenance operational checks. (para 3-6)



## ***PERFORMANCE OF MOC***

---

- **Qualified minimum crew at the flight controls  
IAW AR 95-1**
- **Start, operate and stop APU**
  - a. **Trained by an IP or MP on functions authorized**
  - b. **Have written authorization from the Commander**

01-93-200

NOTES

071-606-04

1. Maintenance operational check requirements. (paragraph 3-6)



## ***RECORDING MOC's***

---

- **If the MOC cannot be accomplished with or immediately after completion of maintenance**
- **Enter a RED dash "-" symbol in the first open Status block**
- **Enter appropriate letter in the SYS (System) block**
- **Enter the current date in the DATE block**
- **Enter the current time in the TIME block**
- **Enter a remark indicating the MOC requirement in FAULT/REMARK block**
- **Enter the current aircraft hours in the A/C HRS block**

01-93-202

NOTES

071-606-04

- B. Recording maintenance operational checks. (paragraph 3-8)



## **DA PAMPHLET 738-751 TAMMS - A**

---

- **Maintenance Pilot Responsibilities**
- **Status Symbols**
- **Change of Status Symbols**

01-93-203

NOTES

- A. The Army Maintenance Management System - Aviation (TAMMS-A). (DA Pamphlet 738-751)
  - 1. Maintenance pilot responsibilities.
    - a. Make timely and correct entries on forms and records.
    - b. Report deficiencies, faults, failures and problems in design, operation, maintenance, manufacture and overhaul; and recommend improvements.
    - c. Designation of representative of Commander must be in writing. (This refers to signing off Red "X" and Circle Red "X" entries after corrective action and/or downgrading to allow test flight after ground-run to duplicate fault.)
  - 2. Status symbols.
    - a. Red X. (paragraph 1-8.a.(1) and Table 1-1 (page 19))
    - b. Circle red X. (paragraph 1-8.a.(2))
    - c. Red horizontal dash "X". (paragraph 1-8.a.(3))
    - d. Red Diagonal "/". (paragraph 1-8.a.(4))
    - e. Initial. (paragraph 1-8.a.(5))
    - f. Circle Red N. (paragraph 1-8.a.(6))
    - g. Circle Red B. (paragraph 1-8.a.(7))
    - h. Circle Red C. (paragraph 1-8.a.(8))
  - 3. Change of status symbols.
    - a. A status symbol in a status block shows a person's OPINION as to the seriousness of the defect. No one may direct a person to change this symbol.
    - b. Status symbols entered will never be erased; even if entered in error.
    - c. Examples of changing symbols:



# CHANGING RED DASH OR RED DIAGONAL

## CHANGING RED DASH OR RED DIAGONAL

1. AIRCRAFT SERIAL NUMBER <i>84-23262</i>		2. MODEL <i>AH-64A</i>		3. DATE		4. PAGE <i>1</i>	
PART I - FAULT INFORMATION				PART II - CORRECTING INFORMATION			
STATUS	SYN	DATE	NO	TIME	PD	DATE	TIME
<input checked="" type="checkbox"/>	A	15 Aug 93		0900		15 Aug 93	0915
FAULTREMARKS: <i>PMS Insp due at 1100.9 Acte Insp</i>				ACTION: <i>Status Symbol Entered in Error. See Entry Below</i>			
AC HRS (096.8) WHEN DISC				HOW REC			
W.O.				OTHER			
AC HRS (096.8) WHEN DISC				HOW REC			
W.O.				OTHER			

## CHANGING RED X OR CIRCLE RED X

1. AIRCRAFT SERIAL NUMBER <i>84-23262</i>		2. MODEL <i>AH-64A</i>		3. DATE		4. PAGE <i>2</i>	
PART I - FAULT INFORMATION				PART II - CORRECTING INFORMATION			
STATUS	SYN	DATE	NO	TIME	PD	DATE	TIME
<input checked="" type="checkbox"/>	A	16 Aug 93		1000		16 Aug 93	1007
FAULTREMARKS: <i>Landing Light Insp</i>				ACTION: <i>Status Symbol Entered in Error. See Entry Below</i>			
AC HRS (096.8) WHEN DISC				HOW REC			
W.O.				OTHER			
AC HRS (096.8) WHEN DISC				HOW REC			
W.O.				OTHER			

01-93-246

## ERROR FOUND IN THE SYSTEM STATUS BLOCK

1. AIRCRAFT SERIAL NUMBER <i>84-23262</i>		2. MODEL <i>AH-64A</i>		3. DATE		4. PAGE <i>3</i>	
PART I - FAULT INFORMATION				PART II - CORRECTING INFORMATION			
STATUS	SYN	DATE	NO	TIME	PD	DATE	TIME
<input checked="" type="checkbox"/>	A	17 Aug 93		1915		16 Aug 93	1100
FAULTREMARKS: <i>Self Failed - Hellfire Weapon System Restricted from Use</i>				ACTION: <i>Status Symbol Entered in Error. See Entry Below</i>			
AC HRS (096.8) WHEN DISC				HOW REC			
W.O.				OTHER			
AC HRS (096.8) WHEN DISC				HOW REC			
W.O.				OTHER			

## NOTES

071-606-04

- 1) Changing red dash or red diagonal. (paragraph 1-8.c.(1)(a))
- 2) Changing Red X or Circle Red X. (paragraph 1-8.c.(1)(b))
- 3) Error found in the SYSTEM STATUS block. (paragraph 1-8.c.(1)(c))



# UPGRADING/ DOWN - GRADING STATUS SYMBOLS

01-93-247

## UPGRADING STATUS SYMBOLS

1. AIRCRAFT SERIAL NUMBER <i>84-24262</i>		2. MODEL <i>AH-64A</i>		3. DATE		4. PAGE <i>4</i>					
PART I - FAULT INFORMATION						PART II - CORRECTING INFORMATION					
<input checked="" type="checkbox"/>	STATUS <i>A</i>	SYS <i>A</i>	DATE <i>19 Aug 93</i>	NO. <i>0800</i>	TIME <i>0800</i>	PID	DATE <i>19 Aug 93</i>	TIME <i>0900</i>	HRS <i>1096.5</i>		
FAULT/REMARKS <i>T/R Gearbox output Quill seeping J. Drum</i>						ACTIONS <i>Status Symbol Changed N. Nobb</i>					
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	CMH	OMH	FMH	DMH		
W.O.		REQ	OTHER			TI	PI		MAN-HOURS		
<input checked="" type="checkbox"/>	STATUS <i>A</i>	SYS <i>A</i>	DATE <i>19 Aug 93</i>	NO. <i>0900</i>	TIME <i>0900</i>	PID	DATE	TIME	HRS		
FAULT/REMARKS <i>T/R Gearbox output Quill seeping N. Nobb</i>						ACTIONS					
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	CMH	OMH	FMH	DMH		
W.O.		REQ	OTHER			TI	PI		MAN-HOURS		

## DOWNGRADING STATUS SYMBOLS

1. AIRCRAFT SERIAL NUMBER <i>84-24262</i>		2. MODEL <i>AH-64A</i>		3. DATE		4. PAGE <i>5</i>					
PART I - FAULT INFORMATION						PART II - CORRECTING INFORMATION					
<input checked="" type="checkbox"/>	STATUS <i>A</i>	SYS <i>A</i>	DATE <i>20 Aug 93</i>	NO. <i>0845</i>	TIME <i>0845</i>	PID	DATE <i>20 Aug 93</i>	TIME <i>1300</i>	HRS <i>1096.5</i>		
FAULT/REMARKS <i>Fuel low FWD Caution warning Light failed to illuminate at 200 lbs indicating. P. Pilot</i>						ACTIONS <i>Status Symbol changed to RED 1, See entry below C. Commander</i>					
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	CMH	OMH	FMH	DMH		
W.O.		REQ	OTHER			TI	PI		MAN-HOURS		
<input checked="" type="checkbox"/>	STATUS <i>A</i>	SYS <i>A</i>	DATE <i>20 Aug 93</i>	NO. <i>1300</i>	TIME <i>1300</i>	PID	DATE	TIME	HRS		
FAULT/REMARKS <i>Fuel Low FWD caution warning light failed to illuminate at 200 lbs indicating C. Commander</i>						ACTIONS					
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	CMH	OMH	FMH	DMH		
W.O. <i>E101-43</i>		REQ	OTHER			TI	PI		MAN-HOURS		

NOTES

071-606-04

- d. Upgrading status symbols. (paragraph 1-8.c.(1)(d))
- e. Downgrading status symbols. (paragraph(1-8.c.1)e)



# CLEARING STATUS SYMBOLS

1. AIRCRAFT SERIAL NUMBER <i>84-24262</i>		2. MODEL <i>AH-64 A</i>		3. DATE		4. PAGE <i>6</i>	
<b>PART I - FAULT INFORMATION</b>				<b>PART II - CORRECTING INFORMATION</b>			
<input checked="" type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>21 Aug 93</i>	NO. <i>1100</i>	TIME <i>1100</i>	PID	DATE <i>21 Aug 93</i>	TIME <i>1036.5</i>
FAULTREMARKS <i>Chips NOSE GRBX 1 caution warning Light Illuminated in Flight P. Pilot</i>				ACTIONS <i>Removed Cleaned and Reinstalled #1 NGB Chip detector. Trip Inep. O.K. M. Pilot</i>			
A/C HRS <i>1096.5</i>				WHEN DISC	HOW REC	MAL EFF	WUC
W.O.				REQ	OTHER	TIPIID	FMH DMH TI MAN-HOURS

01-93-248

## NOTES

4. Clearing status symbols.
  - a. When a Red X or Circled Red X condition is corrected, the completed action must be inspected by the Commander or designated representative.
  - b. The mechanic enters. (paragraph 1-9.a.(1))
  - c. Corrective action. (paragraph 1-9.a.(2))
  - d. When a designated representative or authorized technical inspector does any part of the work that requires inspecting, ANOTHER designated representative or inspector will clear the action as described above.
  - e. SOF messages, TBs, MWOs, and other one time inspection messages. (paragraph 1-9.c)



# AIRCRAFT EVACUATION

1. AIRCRAFT SERIAL NUMBER <i>84-24262</i>		2. MODEL <i>AH-64A</i>		3. DATE		4. PAGE <i>7</i>		
PART I - FAULT INFORMATION				PART II - CORRECTING INFORMATION				
<input checked="" type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>22 Aug 93</i>	NO. <i>1010</i>	TIME <i>1010</i>	PID	DATE <i>22 Aug 93</i>	TIME <i>1215</i>	HRS <i>1097.0</i>
FAULT/REMARKS <i>Flt 1 Yaw SCAS channel failed in Flight and would not Re-engage. P. Pilot</i>				ROUNDS				ACTION CODE <i>Status Symbol changed to Circle Red X. See Entry Below</i>
				ACTION <i>M. Pilot</i>				
A/C HRS <i>1097.0</i>				WHEN DISC	HOW REC	MAL EFF	WUC	CMH
W.O.				REQ	OTHER	TI		MAN-HOURS
<input checked="" type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>22 Aug 93</i>	NO. <i>1215</i>	TIME <i>1215</i>	PID	DATE <i>22 Aug 93</i>	TIME <i>1400</i>	HRS <i>1098.0</i>
FAULT/REMARKS <i>Aircraft for one-time Evacuation Mission from Field site to Unit Hanger. M. Pilot</i>				ROUNDS				ACTION CODE <i>One Time Evacuation Mission Completed Status Symbol changed back to a Red X. See entry below</i>
				ACTION <i>M. Pilot</i>				
A/C HRS <i>1097.0</i>				WHEN DISC	HOW REC	MAL EFF	WUC	CMH
W.O.				REQ	OTHER	TI		MAN-HOURS
<input checked="" type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>22 Aug 93</i>	NO. <i>1730</i>	TIME <i>1730</i>	PID	DATE	TIME	HRS
FAULT/REMARKS <i>YAW SCAS channel Failed in Flight and would not Re-engage. M. Pilot</i>				ROUNDS				ACTION CODE <i>WUC</i>
				ACTION				
A/C HRS <i>1098.0</i>				WHEN DISC	HOW REC	MAL EFF	WUC	CMH
W.O.				REQ	OTHER	TI		MAN-HOURS

DA FORM 2408-13-1, OCT 91

AIRCRAFT INSPECTION AND MAINTENANCE RECORD  
For use of this form, see DA FORM 2408-13-1, the proponent agency is USCS/CS

01-93-249

## NOTES

5. Evacuation or test flight of aircraft of red x status.
  - a. If an aircraft must be evacuated and a one-time flight or test flight is possible with an acceptable degree of risk, the Commander or Designated Representative for this specific purpose may authorize a one time evacuation flight.
  - b. For an aircraft evacuation. (paragraph 1-10.a.(1) and (2))



# MAINTENANCE TEST FLIGHT - RECURRING

1. AIRCRAFT SERIAL NUMBER <i>84-24202</i>		2. MODEL <i>AH-64 A</i>		3. DATE		4. PAGE <i>8</i>				
<b>PART I - FAULT INFORMATION</b>				<b>PART II - CORRECTING INFORMATION</b>						
<input checked="" type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>23 Aug 93</i>	NO. <i>0845</i>	TIME <i>0845</i>	PID	DATE <i>23 Aug 93</i>	TIME <i>1100</i>	HRS		
FAULT/REMARKS <i>FLT 1 YAW SCAS channel Failed in Flight and would not Re-engage P. Pilot</i>					ROUNDS			ACTION CODE	WUC	
					ACTION <i>Status Symbol changed to RED - See entry below M. Pilot</i>					
					PID	HOURS	PID	HOURS	PID	HOURS
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	OMH	OMH	FMH	DMH	
W.O.		REQ	OTHER			TI	PI MAN-HOURS			
<input type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>23 Aug 93</i>	NO.	TIME <i>1100</i>	PID	DATE	TIME	HRS		
FAULT/REMARKS <i>Acft Cleared for MTF to verify YAW SCAS Channel failed in Flight and would not Re-engage M. Pilot</i>					ROUNDS			ACTION CODE	WUC	
					ACTION					
					PID	HOURS	PID	HOURS	PID	HOURS
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	OMH	OMH	FMH	DMH	
W.O.		REQ	OTHER			TI	PI MAN-HOURS			

01-93-250

NOTES

- c. For allowing a maintenance test flight.
  - 1) If an in-flight deficiency does not recur in ground tests, the status symbol may be downgraded to allow test flight. (paragraph 1-11.a.(1) and (2))
  - 2) If the condition does not recur during test flight. (paragraph 1-11.b.(1), (2), and (3))
  - 3) If test flight confirms fault/deficiency. (paragraph 1-11.c)
- 6. Forms and publications required. (page 14, paragraph 1-15)
  - a. Located in aircraft during operation.
    - 1) Operator's checklist (-CL).
    - 2) Operator's Manual (-10) including changes and related SOF/TB's (including ISAQ's).
    - 3) Current DD Form 365-4.
    - 4) Equipment aircraft logbook assembly consisting of the following items:
      - a) Logbook binder with DA Form 2408-31 aircraft identification card.
      - b) The following DA Forms:
        - (1) 2408, coversheet.
        - (2) 2408-4-3, weapons sighting data.
        - (3) 2408-12, army aviator's flight record.
        - (4) 2408-13, aircraft status information record.
        - (5) 2408-13-1, aircraft inspection and maintenance record.
        - (6) 2408-13-2, related maintenance actions record.
        - (7) 2408-14, uncorrected fault record.
        - (8) 2408-18, equipment inspection list.
        - (9) DD Form 1896, jet fuel identaplate/white.
        - (10) 2408-32, jet fuel conversion chart.



# MAINTENANCE TEST FLIGHT - RECURRING

1. AIRCRAFT SERIAL NUMBER <i>84-24202</i>		2. MODEL <i>AH-64 A</i>		3. DATE		4. PAGE <i>8</i>				
<b>PART I - FAULT INFORMATION</b>				<b>PART II - CORRECTING INFORMATION</b>						
<input checked="" type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>23 Aug 93</i>	NO. <i>0845</i>	TIME <i>0845</i>	PID	DATE <i>23 Aug 93</i>	TIME <i>1100</i>	HRS		
FAULT/REMARKS <i>FLT 1 YAW SCAS channel Failed in Flight and would not Re-engage P. Pilot</i>					ROUNDS			ACTION CODE	WUC	
					ACTION <i>Status Symbol changed to RED - See entry below M. Pilot</i>					
					PID	HOURS	PID	HOURS	PID	HOURS
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	OMH	OMH	FMH	DMH	
W.O.		REQ	OTHER			TI	PI	MAN-HOURS		
<input type="checkbox"/> STATUS	SYS <i>A</i>	DATE <i>23 Aug 93</i>	NO.	TIME <i>1100</i>	PID	DATE	TIME	HRS		
FAULT/REMARKS <i>Acft Cleared for MTF to verify YAW SCAS Channel failed in Flight and would not Re-engage M. Pilot</i>					ROUNDS			ACTION CODE	WUC	
					ACTION					
					PID	HOURS	PID	HOURS	PID	HOURS
A/C HRS <i>1096.5</i>		WHEN DISC	HOW REC	MAL EFF	WUC	OMH	OMH	FMH	DMH	
W.O.		REQ	OTHER			TI	PI	MAN-HOURS		

01-93-250

## NOTES

c) Local regulations/SOP's may add to this list but not delete any of these listed.

b. The DA Forms listed below will not be kept in the aircraft:

- 1) 2408-5, equipment modification record.
- 2) 2408-5-1, equipment modification record component.
- 3) 2408-15, historical record.
- 4) 2408-15-1, warranty identification card.
- 5) 2408-16, component historical record.
- 6) 2408-17, inventory record.
- 7) 2408-19, turbine wheel historical record.



## **FLIGHT REGULATIONS AR 95-1**

---

- **Maintenance Test Flights  
(MTF's)**
- **Maintenance Operation Checks  
(MOC's)**
- **Maintenance Test Pilots  
(MTP's)**
- **Maintenance Test Flight Evaluators  
(ME's)**

01-93-204

NOTES

071-606-04

- A. Flight regulations. (AR 95-1)
  - 1. Maintenance test flights (MTFs). (paragraph 3-16)
  - 2. Maintenance operational checks (MOCs). (paragraph 3-17)
  - 3. Maintenance test pilots (MTPs). (paragraph 4-14)
  - 4. Maintenance test flight evaluator's (ME'S). (paragraph 4-15)



## **PUBLICATIONS**

---

- **Operator's manuals/checklists are primary references governing operation of a specific aircraft**
- **ATM's, FM's, FC's, TM's, and TC's used as required**
- **When differences exist between other publications and AR 95-1, AR 95-1 has precedence**
- **DA Form 2028 will be submitted through the Aviation Unit Commander to the proponent of the publications**

01-93-205

NOTES

5. Publications: (paragraph 4-17)
  - a. Operator's manuals/checklists are primary references governing operation of a specific aircraft.
  - b. ATMs, FMs, FCs, TMs, and TCs used as required.
  - c. When differences exist between other publications and AR 95-1, AR 95-1 has precedence.
  - d. DA Form 2028 (recommended changes) will be submitted through the aviation unit commander to the proponent of the publications.



## ***FLIGHT REGULATIONS (CON'T)***

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- **Weight and Balance**
- **Required Equipment**

01-93-206

NOTES

071-606-04

6. Weight and balance. (paragraph 5-2.j)
7. Required equipment. (Table 5-2)



## **AR 95-3**

---

- **MP/PILOT Responsibilities**
- **Weight and Balance Technician Qualification**
- **Weight and Balance Technician Responsibilities**
- **Weight and Balance Classifications**
  - a. **Class 1**
  - b. **Class 2**

01-93-207

NOTES

- A. General Provisions, Training, Standardization, and Resource Management. (AR 95-3)
  - 1. MP/Pilot responsibilities. PIC responsibilities for weight and balance are described in AR 95-1 (previously discussed).
  - 2. Weight and Balance Technician qualification. (paragraph 6-2.a. and b)
  - 3. Weight and Balance Technician responsibilities. (paragraph 6-2.c)
  - 4. Aircraft weight and balance classifications.
    - a. Class 1. (paragraph 6-3.a)
    - b. Class 2. (paragraph 6-3.b)
    - c. AH-64A is a class 1 aircraft in accordance with TM 55-1520-238-10, Chapter 6.



## ***AR 95-3 (CON'T)***

---

- **Individual Aircraft Weight and Balance Files**
  - a. **Must contain all aircraft weight and balance data**
  - b. **Files will include the following forms:  
PARA 6-4.B**
- **Removal, Additional or Relocation of Aircraft Equipment**

01-93-208

NOTES

5. Individual aircraft weight and balance files.
  - a. Must contain all aircraft weight and balance data. (paragraph 6-4.a.(1))
  - b. Files will include the following forms. (paragraph 6-4.b)
6. Removal, additional or relocation of aircraft equipment. (paragraph 6-5.a., b., and c)



## ***AR 95-3 (CON'T)***

---

- **Reviewing the weight and balance file**
- **Aircraft weighing**

01-93-209

NOTES

071-606-04

7. Reviewing the weight and balance file. (paragraph 6-6)
8. Aircraft weighing. (paragraph 6-7)



## **AR 700-138**

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- **CHAPTER 3 - Aircraft Material Condition Status**
  - a. Instructions for preparing DA form 1352
  - b. Aircraft material goals
  - c. FMC requirements
- **CHAPTER 4 - Missile Material Condition Status**
  - 1. Units required to submit report
  - 2. Equipment to be reported
  - 3. Preparation instructions

01-93-210

NOTES

- A. Army logistics readiness and sustainability.
  - 1. Chapter 3 - Aircraft material condition status, inventory, and flying time.
    - a. Instructions for preparing DA Form 1352. (Table 3-2)
    - b. Aircraft material goals. (Table 3-3)
    - c. Fully mission capable (FMC) requirements for helicopters and partially mission capable (PMC) codes. (Table 3-13)
  - 2. Chapter 4 - Missile material condition status reporting.
    - a. Missile material readiness report.
      - 1) Units required to submit report. (paragraph 4-6.b.(1))
      - 2) Equipment to be reported. (paragraph 4-6.b.(1))
      - 3) Preparation instructions. (paragraph 4-6.d)
    - b. Command SOP's with greater equipment readiness restrictions/requirements than this regulation will not be reflected/documented on DA Form 1352 or 3266-1, unless instructed in writing by ATCOM.
    - c. Future considerations: requirement to report weapons systems on DA Form 3266-1.



# DA FORM 1352

ARMY AIRCRAFT INVENTORY, STATUS, AND FLYING TIME <small>For use of this form, see A. R 700-138; the proponent agency is DCSLOG.</small>				1. PERIOD ENDING 15 Sep 86		2. PAGE NO. 1		3. NO. OF PAGES 1		REQUIREMENT CONTROL SYMBOL CSGLD-183TRJ		
4. ORGANIZATION 517th Trans Co (AVIM) Fort Bragg, NC 28307				5. TELEPHONE (Commercial or Airway) AV 236-3552		6. UNIT IDENTIFICATION CODE WDFJAA		7. (Do not write in this space)				
8. POST, CAMP, STATION Fort Bragg, NC 28307				9. COMMAND FORSCOM								
10. SUMMARY DATA												
MISSION DESIGN SERIES <i>a</i>	SERIAL NUMBER <i>b</i>	ASSIGNMENT AND FUNCTIONAL CODE <i>c</i>	HRS. ON HAND DURING REPORT PERIOD <i>d</i>	MISSION CAPABLE			NOT MISSION CAPABLE			HOURS FLOWN DURING MONTH <i>r</i>	NUMBER OF LANDINGS/ TOUCHDOWNS/ AUTO-ROTATIONS <i>s</i>	GAINED OR LOST <i>m</i>
				FMC <i>e</i>	PMC <i>f</i>	NMCS <i>g</i>	DEPOT <i>h</i>	AVIM <i>i</i>	AVUM <i>j</i>			
UH-1H	64-09790	BGC	744	527						217	27	52.0
UH-1H	71-20046	BGC	744	738						6	29	71.0
UH-1H	74-22453	BGC	744	736						8	15	29.0

11. TYPED OR PRINTED NAME, GRADE, AND POSITION OF AUTHENTICATING OFFICER  
ROBERT C. STANDS, MAJ, AV Commanding

12. SIGNATURE  
*Robert C. Stands*

01-93-251

NOTES

071-606-04



# MISSILE MATERIAL READINESS REPORT

**Table 4-10**  
**Rating table for Helicopter Armament Subsystem, AH-64 (HELLFIRE and Related Equipment)**

Weapon system: CH000000 HELLFIRE

Reportable on DA Form 3266-1	Subsystem components	Missile equipment code	Minimum quantities of equipment required to be on hand and operational
X	1. HELLFIRE Missile Equipment	HMEQIP	1
X	a. Remote HELLFIRE Electronics	RHFELE	1
X	b. Pilot's Missile Panel	PILPAN	1
X	c. Co-pilot/Gunner Panel	CPGPAN	1
X	2. Launcher, Guided Missile Aircraft (M272)	LAU272	2
	3. Fire Control Subsystem to include fully operational components as listed:		1
X	a. Fire Control Computer	AHOFCC	1
X	b. Co-pilot/Gunner Fire Control Panel	CPGFPC	1
X	c. Pilot Fire Control Panel	PLTFPC	1
X	d. Data Entry Keyboard	DENKEY	1
X	e. Multiplex Remote Terminal Unit Type I	MRTUOI	2
X	f. Multiplex Remote Terminal Unit Type II	MRTUII	4
X	g. Multiplex Remote Terminal Unit Type III	MRTUII	1
X	h. Air Data Processor	AHOADP	1
X	i. Omnidirectional Air Speed Sensor	AHOASS	1

System rating instructions - When the subsystem meets the minimum requirements for all lines shown, that subsystem is then considered FMC. Failure to meet the standard for one or more lines causes the subsystem to be rated NMC.

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## NOTES

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