

Instructions for Use

Preventative Maintenance Daily (Flight Service) Certificate - MOD Form 705(AH-64E)

Flying and Equipment Running Log - MOD Form 724(AH-64E)

Record of All Refuel/Defuel - MOD Form 706B(H)(AH-64E)

Preventative Maintenance Daily (Flight Service) Certificate - MOD Form 705(AH-64E)

1. **General.** This form is used for the certification of Preventative Maintenance Daily (PMD) and fuel states. Provision is made to record up to 6 PMDs on each form. Responsibilities for completion are detailed in the following paragraphs.
2. **Insertion and Removal of MOD Forms 705(AH-64E).** MOD Forms 705(AH-64E) are to be inserted into, and removed from, the MOD Form 700C in accordance with the instructions for controlled forms on MOD Form 799/1. The person removing the form is to ensure that the last PMD valid until Airframe hours and Next Maintenance Due details have been carried forward. At the beginning of each month the Sheet No. is to be reset back to '1'. The indicated month is to be transferred to the MOD Form 713 along with the Sheet No. and is used as a management aid for retention purposes.
3. **After Flight Declaration (Lines 1 to 4).** The Responsible Aircrew Member's after flight signature returns the responsibility for the Aircraft to the engineering organization and certifies that:
 - a. They have returned the Aircraft to the Initially Armed state in accordance with the Aircraft Flight Reference Cards or that no explosive armament stores are fitted.
 - b. They have accepted those faults, the Serial Number of Work (SNOW) for which are listed in the Accepted Faults Block (**Line 1**) against their after flight declaration.
 - c. An Aircraft Maintenance Log (MOD Form 707A) entry has been raised for each fault that became evident whilst they were responsible for the Aircraft, including pre-flight faults.
 - d. The results of any Flying Requirements undertaken have been entered in the MOD Form 707B(AFRC) in accordance with MOD Form 799/5(AFRC).
 - e. The Flying Log and Equipment Running Log (MOD Form 724(AH-64E)), 'This Flight' and 'Total' Columns have been completed and usage is consistent with the Sortie Profile Code (SPC), Environmental Code (EC) and Mission Effect Codes (MEC) flown.

4. **PMD (Lines 5 to 17) (MAM-P Chapter 4.2).**

- a. **PMD Co-ordinator.** The PMD Co-ordinator is to enter the PMD commenced TDM in **Line 5**. They are also responsible for:

- (1) Identifying in the spare **Line 9** any items contained in the PMD

Schedules (annotating step(s)) which have been undertaken by any technician(s) under training other than those directed to undertake the PMD.

- (2) Striking through any unused or spare lines not required.
- (3) Ensuring that on completion of their task, all technicians involved in the PMD, including any delegated tasks, have signed for their work in the appropriate signature blocks and are authorized to do so.
- (4) Entering the engine hours when the next engine oil level check is due in **Line 10** (Engine 1) and **Line 12** (Engine 2). This is due 10 Flying Hours from the last engine oil check.
- (5) Entering the valid until TDM in **Line 17**.

b. The PMD Co-ordinator is to sign in **Lines 15 and 16** to certify that they have satisfied themselves that:

- (1) A MOD Form 707A entry has been raised for each fault found during the PMD.
- (2) The PMD has been completed satisfactorily.
- (3) The appropriate MOD Form 705(SSC) columns have been completed.
- (4) The Fuel quantity has been annotated.
- (5) All relevant engineering and Aircrew usage information from the previous sortie have been recorded in the MOD Form 724(AH-64E), a corresponding Item Usage Update has taken place in GOLDesp and the GOLDesp Sequence Number for that update has been annotated on the MOD Form 724(AH-64E).
- (6) A careful check of oil state figures has been made, paying particular attention to the quantity added.

c. **Engineering Technicians.** Engineering technicians are to undertake the work as detailed by the PMD Co-ordinator and sign in the appropriate PMD Blocks. A signature in the PMD Block certifies that the PMD has been undertaken in accordance with the appropriate PMD Schedule and, where required, oil replenishments undertaken have been recorded on the Oil Replenishment/Sampling Record (MOD Form 737). The individual(s) conducting the PMD are to sign **Lines 6 to 8** (max of 3 technicians per PMD) and annotate the areas of the PMD they covered. Additionally, certification

of the MOD Form 705(AH-64E) by a technician signifies that any hand tools, used for that aspect of the PMD, have been accounted for.

d. **Delegated PMD Tasks.** When delegated PMD Tasks are specified separately on the PMD Certificate, the technician who completes these tasks is to sign the appropriate block.

e. **PMD Development.** When an appropriately authorized technician Under Training (UT) is participating in a PMD the PMD Co-ordinator is to document areas of the PMD being conducted in **Line 9**, followed by an annotation of 'UT'. The UT(s) shall print their name only to acknowledge participation, having no impact to the PMD validity. The technician(s) undertaking the PMD are to sign as detailed in **Paragraph 4 c**.

f. **Waiver of PMD.** When operational circumstances demand, and provided the conditions of MAM-P Chapter 4.2 are met, PMD between successive flights may be waived. The statement:

'Flight Servicing waived by: Authority Level J/Aircraft Commander*: [Insert Name].' (*Delete as applicable)

is to be entered in the PMD Block on the relevant MOD Form 705(AH-64E). This entry is to be counter-signed by the Authority Level J or the Aircraft Commander. Any mandatory checks detailed in the Topic 2(N/A/R)1 are to be carried out.

g. **Continuous Charge. (MAM-P Chapter 3.2).**

- (1) The outgoing Aircraft Commander is to:
 - a. Record any Aircrew accepted faults on the MOD Form 707A, as stated on MOD Form 799/5.
 - b. Enter across **Lines 6 and 9** the following statement: '**Continuous Charge**' onto the MOD Form 705(AH-64E) and strike through any unused or spare lines that are not required.
 - c. Brief the oncoming Aircraft Commander.
 - d. Complete the After Flight Declaration (**Lines 1 to 4**) certifying that **Paragraph 3** has been completed.
- (2) The oncoming Responsible Aircrew Member is then to:
 - a. Accept the Aircraft (subject to satisfactory verbal report of serviceability from the previous Responsible Aircrew Member) after the normal MOD Form 700C checks (**Paragraph 7**), by completing the next Aircrew Acceptance Certificate of the MOD Form 705(AH-64E).
 - b. On cessation of the Continuous Charge period, the last Responsible Aircrew Member is to complete the After Flight Declaration (**Lines 1 to 4**) of the next column of the MOD Form 705(AH-64E). Cessation of Continuous Charge is when:
 - (3) Charge is transferred back to the Maintenance Organization by the Responsible Aircrew Member.

- a. Scheduled Maintenance operations become due.
- b. A PMD becomes due.
- c. A fault occurs, which is not acceptable to the next Responsible Aircrew Member.

h. **PMD Invalidated by Subsequent Maintenance.** A person holding the appropriate authorization is to determine whether the current PMD has been invalidated by subsequent Maintenance (**see MAM-P Chapter 4.2**) and is to either:

- (1) Rule through unused blocks of the current PMD.
- (2) Endorse the next PMD Block of the current MOD Form 705(AH-64E) at **Lines 6 to 9** with '**No Flight Servicing Required (NFSR) following work at SNOW: [enter SNOW(s) of work carried out]**' and certify this entry.

Or:

- (3) Strike through the PMD Column and detail the SNOW for fault rectification. A new PMD shall be conducted in the next available column.

Note: On completion of any of the above options in **Paragraph 4 h** the MOD Form 700C is to be Co-ordinated in accordance with **Paragraph 5**.

5. **MOD Form 700C Co-ordinator (Lines 18 to 24) (See MAM-D Part 1 Chapter 2.1).** The MOD Form 700C Co-ordinator is to certify in **Lines 22 to 24** that the Aircraft is in a fit condition and ready for flight. The MOD Form 700C is not to be Co-ordinated when a completed PMD has been invalidated by subsequent Maintenance, in these instances **Lines 22 to 29** are to be ruled through. The MOD Form 700C Co-ordinator's signature certifies that:

- a. There is no outstanding Corrective or Preventive Maintenance work.
- b. A Life Limiting Inquiry has been carried out in GOLDesp to establish:
 - (1) That no Scheduled or Out of Phase Maintenance requirements are due before completion of the next sortie.
 - (2) That no Limitations in **Section 2**, or Acceptable Deferred Faults in **Section 3**, are due for rectification/removal before the completion of the next sortie.
 - (3) When the next Flying Hour and calendar based operations are due. These are to be inserted in the 'Next Sched Maint Due' Block. For calendar based activities insert TDM in **Line 18**, and for Flying Hour based activities insert A/F Hours at which activity becomes due in **Line 19**. Annotate the rounds available until the next Maintenance is due at **Line 20**.
- c. All entries in the Acceptable Deferred Husbandry Log (MOD Form 704A) have been certified by a 2nd signatory authorized person.
- d. All hand tools have been accounted for in accordance with MAM-P Chapter

- 4.13.1. The PMD is valid and the fuel and role states are as requested for the task.
- e. A satisfactory Water Sediment Check (WSC) has been completed and the quantity of fuel annotated.
- f. The last Maintenance Work Order is identified by SNOW in the Last SNOW Block **(Line 21)**.
- g. Any Flying Requirements are identified by the SNOW in the Flying Requirements Block **(Line 25)**.
- Note:** When operating off-line from GOLDesp the MOD Form 700C Co-ordinator will need to examine the hard copy MOD Forms/Formats in **Sections 2, 3 and 5** to determine the information provided by the GOLDesp Life Limiting Inquiry.
6. Should any Corrective Maintenance be required on the Aircraft after completion of the Co-ordinating signature, the procedure at **Paragraph 4 h** is to be followed.
7. **Aircrew Acceptance Certificate (Lines 26 to 29) (MAM-D Part 1 Chapter 2.1)**. For normal operations the Responsible Aircrew Member is to accept responsibility for the Aircraft by signing and printing their name at **Lines 27 and 28** entering the relevant TDM at **Line 29**. The Responsible Aircrew Member's signature certifies that:
- Any Limitations are acceptable for the intended flight.
 - They are aware of any Acceptable Deferred Faults, identified by the Maintenance Organization to be of interest to Aircrew.
 - The recorded state of the Aircraft is acceptable for the intended flight.
 - The armament state of the Aircraft, as certified on the appropriate MOD Form 706A(Apache) is as ordered by the authorizing officer.
 - The documentary check of the MOD Form 700C has been carried out and the Co-ordinating Certificate of MOD Form 705(AH-64E) has been signed by the MOD Form 700C Co-ordinator.
 - Any flying or ground run requirements are acceptable and have been adequately briefed, paying particular attention to specific tasks.
 - If applicable, any Aircrew accepted faults, as entered in the Aircraft Maintenance Log, are acceptable to them, and if applicable, their crew, for the intended flight.
 - They are accepting ownership of the Crypto fits iaw details annotated on the MOD Form 705(AAC)(KEYMAT AH-64E), subject to a physical serial check on the fitted equipment on the Aircraft.
8. **Pre-Flight Faults**. Refer to MOD Form 799/5.

9. **Aircrew Accepted Faults**. Refer to MOD Form 799/5.

Fuel Certificate

10. The engineering technician detailed to undertake the Fuel Check is to:
- Undertake the Check in accordance with the appropriate Aircraft Maintenance Manual (AMM).
 - Enter the amount of fuel held within each tank.
 - Enter the total fuel in the Aircraft.
 - Document the results of the daily WSC.
 - Print name and sign for WSC.
 - Complete the TDM Block to coincide with the WSC.

Note: Refuel and defuel operations are recorded on MOD Form 706B(H)(AH-64E).

Flying Log and Equipment Running Log - MOD Form 724(AH-64E)

11. **General**. This form is used to record AH-64E usage for input to GOLDesp. The usage metrics recorded are the GOLDesp Master Lives, which are cumulative counters against the Airframe and are not affected by component changes. The data recorded on this form is to be transcribed into GOLDesp in accordance with the procedures at JAP(D) 100A-0409-1. The recorded metrics may be amended to match Apache Delivery Team recording requirements. Responsibilities for completion are detailed in the following paragraphs.

Insertion and Removal of MOD Forms 724(AH-64E)

12. MOD Forms 724(AH-64E) are to be inserted into, and removed from the MOD Form 700C in accordance with the instructions for controlled forms on MOD Form 799/1. When removing a completed MOD Form 724(AH-64E) the sheet is to be numbered sequentially and recorded on MOD Form 713.

Completion of Form

13. To close the form, ratify the totals of the GOLDesp Master Life Usage, with those recorded in GOLDesp and enter the ratified figures in the last 'C/F Total' Row. Carry the ratified figures forward to the new form in the 'Brought Forward Totals' Row. Complete the Transfer Certificate. The signature in the Transfer Certificate certifies that any discrepancies have been investigated and resolved. Remove the form to the MOD Form 700A in accordance with the MAM-D.

Responsible Aircrew

14. After each sortie, Period of Operation (not exceeding 24 Hours) the Responsible Aircrew Member is to:

- a. **Line 1.** Enter the appropriate Date.
 - b. **Line 2.** Enter the Sortie Profile Code, **Table 2.**
(most appropriate for the Sortie).
 - c. **Line 3.** Enter the Environment Code, **Table 3.**
 - d. **Line 4.** Enter the Mission Effect Code, **Table 4.**
 - e. **Line 5.** Enter the Take Off time.
 - f. **Line 6.** Enter the Landing time.
 - g. **Line 7.** Enter the JHC Flying time (Chock to Chock as per JHC FOB).
 - h. **Line 8.** Engine 1 Op HIT. Enter: Op HIT Code, **Table 5.** If 'F' raise an applicable entry on the MOD Form 707A.
 - i. **Line 9.** Engine 2 Op HIT. As per (**Line 8**).
 - j. **Line 10.** Enter the Maximum All Up Mass (MAUM) at the Aircraft's heaviest point of the sortie.
 - k. **Line 11.** Enter the total number of Auto Rotations undertaken.
 - l. **Line 12 to 15.** Enter the number of landings conducted by type:
(LD) Landing Desert, (LS) Landing Ship (Embarked), (RL) Running Landings, (LF) Landings Total.
 - m. **Line 16.** Enter the total number of Quickstop (MQ) undertaken.
 - n. **Line 17.** Enter the total number of Wingovers (MW) undertaken.
 - o. **Line 18.** Enter the total number of Rotor Start Stop Cycles (RS).
- Note:** Each entry number (x) corresponds to the appropriate line in the MOD Form 724(AH-64E).

Engineering Technician

15. The MDR is downloaded in accordance with the appropriate Aircraft Maintenance Manual (AMM). The engineering technician is required to:

- a. **Line 19.** Enter Number 1 Engine cumulative hours (Engine history counter).
- b. **Line 20.** Enter Number 2 Engine cumulative hours (Engine history counter).
- c. **Line 21.** Enter the Flying Hours in hours and minutes (round up to nearest minute) (MDR Flying Hours) as per **Table 1.**
- d. **Line 22.** Enter the total sortie landings (MDR Landings).
- e. **Line 23.** Period of Operation - Placeholder for future use.
- f. **Line 24.** Enter total number of rounds fired (MDR Rounds Fired).
- g. **Line 25.** Enter the DTG the MDR download was conducted at.

h. **Line 26.** Enter the GOLDesp sequence number.

Notes:

- a. If no MDR data is available at MDR download, the engineering technician shall utilise values from the Aircrew section into the engineering section with the following mandatory comment added to the MDR download DTG: **"MDR REV"**. This signifies MDR data was not available on download and that Aircrew recorded data has been used in its place to update GOLDesp. Engineering to carry out DAP101C-3101-5G1, MDR Technique 4.
- b. Decimal hours to minutes are achieved by using the conversion table, **Table 1.**

Table 1 – Apache Sortie Profile Codes

MDR Flight Hour	Minutes	MDR Flight Hour	Minutes
0.1	6 Minutes	0.6	36 Minutes
0.2	12 Minutes	0.7	42 Minutes
0.3	18 Minutes	0.8	48 Minutes
0.4	24 Minutes	0.9	54 Minutes
0.5	30 Minutes	1.0	60 Minutes

- c. The engineering technician shall input all values in **Paragraphs 14 and 15** onto GOLDesp, where required.
- d. MAUM is to be entered into the item usage entry comments field in the format: MAUM: xxxxx
- e. Each individual sortie/ground run recorded on the MOD Form 724(AH-64E) requires a separate GOLDesp sequence.
- f. If multiple sorties are conducted without MDR download or engine checks being conducted, **Rows 19-25** are to be ruled through with only Aircrew data being transferred to GOLDesp for that sequence. Once period of operation is concluded **Rows 19-25** are to be completed and transferred to GOLDesp.

GOLDesp Off-Line Procedure/Reversionary Procedures

16. During off-line operations engineering technicians are to calculate and record the 'Total' usage in the relevant row of the MOD Form 724(AH-64E) against all GOLDesp input metrics. These totals are to be used with the MOD Form 721 (preferably generated in accordance with JAP(D) 100A-0409-1) to forecast Aircraft Servicing.

GOLDesp Off-Line Recovery

17. All GOLDesp catch-up entries are to be carried out in strict chronological order to determine actual usage for GOLDesp. This is to be compared against all entries in the Flying Log and Equipment Running Log and any corrections are to be made in conjunction with the work recorded in the MOD Form 707A (Aircraft Maintenance Log) in accordance with JAP(D) 100A-0409-1.

Record of All Refuel/Defuel - MOD Form 706B(H)(AH-64E)

18. **General.** The MOD Form 706B(H)(AH-64E) is used to record all Refuel/Defuel activity. Where, due to operational circumstances, (eg field operations), it would cause un-necessary delays to complete the MOD Form 706B(H)(AH-64E), the Aircraft Commander may waive the requirement to enter the fuel uplifts at that time, but the MOD Form 706B(H)(AH-64E) is to be completed on completion of the next mission/return to base.

19. Helicopter engines are not at risk from fuel not containing lubricity additives. Fuel not containing FSII may be used for up to 14 days, providing an equivalent period of fuel containing FSII is carried out.

Insertion and Removal of MOD Form 706B(H)(AH-64E)

20. The MOD Form 706B(H)(AH-64E) is to be inserted and removed from the MOD Form 700C in accordance with the instructions for controlled forms on MOD Form 799/1. The individual removing the MOD Form 706B(H)(AH-64E) is to ensure that the details of the last two refuels have been carried forward to the next MOD Form 706B(H)(AH-64E) in the rows annotated with '**P1**' and '**P2**'.

Person Undertaking Refuel

21. The person undertaking the refuel is to complete the next line on the MOD Form 706B(H)(AH-64E), unless the requirement has been waived in accordance with **Paragraph 18**. Airframe hours will be taken from the MOD Form 724(AH-64E).

Table 2 – Sortie Profile Codes (SPC)

Sortie Profile Code	Description	Notes
01	Transit/Aviation Escort	Generally consists of a climb to a cruising height, predominantly straight and level flight then descent to landing. Includes dedicated rotor track and balance sorties.
02	Transit (Low Level)	As above, but all flying carried out at low level (<150 ft Above Ground Level (AGL)).
03	Battle Position (BP) Ops	Generally, consists of low level ingress and egress transit to an area, followed by NAP Of the Earth (NOE) flight into a static BP, in order to engage enemy target.
04	Ground Escort	Providing top cover to both foot patrols and vehicle convoys.
05	General Flying Practice (GFP)	Includes some of the more demanding manoeuvres not always flown in other sortie profiles, such as auto-rotations, quickstops and wingovers. Does include IF or training for specific roles (eg BP Ops).
06	Instrument Flying (IF) - General Flying Practice (IFGFP)	Covers specific IF training and assessment flying.
07	Air Test	Includes the full -5M Flight Test and any other Test Flights not adequately characterised by any other SPC.
08	Ground Suppression	Engagement of ground targets using low and high AH attack flight profiles which may include diving fire.
09	Degraded Visual Environment Training	Training profiles flown to train Aircrew for degraded visual environments. It incorporates numerous take-offs and landings in a dust/snow environment.
10	Display Flying	Manoeuvres flown within the RTS flight envelope.
11	Max Performance (Max AUM, Max DA)	Routine training sortie delivered during CTT.

Table 3 – Environment Codes (EC)

Reflects the Maintenance regime under which the platform is being operated in consultation with the engineering technician.

Environment Code	Environment Code Description	Notes	Delivery Team Mandated Use
CO	Cold Weather	Aircraft is land based, maintained on a Cold Weather (extreme cold, snow + ice) Servicing Schedule.	
CS	Cold + Salt/ Brackish Water	Aircraft is land based, maintained on a Cold Weather + Saltwater Servicing Schedule.	
DE	Desert	Aircraft is land based, maintained on a Desert (sand, dust) Servicing Schedule.	Afghanistan Arizona
EC	Embarked + Cold	Aircraft is ship based, maintained on a Cold Weather + Embarked Servicing Schedule.	
ET	Embarked + Tropical	Aircraft is ship based, maintained on Tropical + Embarked Servicing Schedule.	
ER	Embarked + Routine (UK Temperate)	Aircraft is ship based, maintained on Routine + Embarked Servicing Schedule.	
RS	Routine + Salt/ Brackish Water	Aircraft is land based, maintained on Routine + Saltwater Servicing Schedule.	
RU	Routine (UK Temperate)	Aircraft is land based, maintained on Routine Servicing Schedule.	Wattisham, Middle Wallop, Yeovil
TR	Tropical	Aircraft is land based, maintained on a Tropical (hot + humid) Servicing Schedule.	
TS	Tropical + Salt/ Brackish Water	Aircraft is land based, maintained on a Tropical + Saltwater Servicing Schedule.	

Table 4 – Mission Effect Codes (MEC)

Code	Description/Definition
0	Task not completed - non-technical reason.
1	Task completed - nil or minor technical.
2	Task completed - effectiveness degraded due to technical fault.
3	Task completed - effectiveness degraded due to technical fault. (Would have led to an operational abort).
4	Sortie aborted - technical fault.

Table 5 – Op HIT Codes (OHC)

Op HIT Result	Figure To Be Entered
Pass	P
Pass - within 5 degrees	P5
Pass - within 4 degrees	P4
Pass - within 3 degrees	P3
Pass - within 2 degrees	P2
Pass - within 1 degree	P1
Fail	F
Not Conducted	Line Through