

Instructions for Use

MOD Form 799/4(Watchkeeper)(UAV)

(Revised Feb 24)

Sheet 1 of 3

Flying and Equipment Running Log - MOD Form 724(Watchkeeper)(UAV) Watchkeeper Flight Servicing Certificate - MOD Form 705(Watchkeeper)(UAV) UAV KEYMAT Loading Certificate - MOD Form 705(Watchkeeper)(Keymat-UAV) Role Equipment State - MOD Form 706(Watchkeeper)(UAV)

Flying and Equipment Running Log - MOD Form 724(Watchkeeper)(UAV)

1. **General.** This form is used to record flight details and measurable parameters, including the engine use.
2. **Insertion and Removal of Forms.** MOD Forms 724(Watchkeeper)(UAV) are to be inserted into, and removed from the MOD Form 700C iaw the instructions for Controlled Forms on MOD Form 799/1. Sheet numbers are to run from 001 to 999.
3. The following information is to be brought forward into the 'B/F Totals' Column when inserting a new sheet and the Transfer Certificate completed:
Brought Forward (B/F) totals for:
 - a. **At Line 6.** Total Engine Operating Hours.
 - b. **At Line 10.** Total Aircraft Flying Hours.
 - c. **At Line 12.** Total Number of Landings.
 - d. **At Line 14.** Total IPS Activations.
4. **Equipment Operators.** After each use of the Air Vehicle the responsible operator is to complete the required details of MOD Form 724(Watchkeeper)(UAV) below in the next available column.
 - a. **Date.** At **Line 1** enter the date of the Sortie.
 - b. **SPC/Event.** At **Line 2** enter the most appropriate Sortie Profile Code (SPC) from **Table 1**. If a ground run only was completed enter 'SPC 06' (this includes aborted sorties with no arrests). If a ground taxi was completed enter 'SPC 07' (this includes aborted sorties with arrests).
 - c. **Engine Start Time.** At **Line 3** enter the time that the Air Vehicle engine was started.
 - d. **Engine Stop Time.** At **Line 4** enter the time that the Air Vehicle engine was stopped.
 - e. **Engine Duration.** At **Line 5** calculate and enter the duration between the

Start and Stop times entered at **Lines 3 and 4**.

- f. **Total Engine Operating Hours.** At **Line 6** calculate and enter the Total Engine Operating Hours by adding the duration at **Line 5** to the total at **Line 6** in the previous column (for **Column (a)** this will be the 'B/F Total').
 - g. **Take off (Time).** At **Line 7** enter the take off time of the sortie. If 'SPC 06' or 'SPC 07' was entered at **Line 2** enter "**N/A**".
 - h. **Landing (Time).** At **Line 8** enter the landing time of the sortie. If 'SPC 06' or 'SPC 07' was entered at **Line 2** enter "**N/A**".
 - i. **Flight Duration.** At **Line 9** calculate and enter the duration of the sortie. If 'SPC 06' or 'SPC 07' was entered at **Line 2** enter "**NIL**".
 - j. **Total Flying Hours.** At **Line 10** calculate and enter the Total Flying Hours by adding the duration at **Line 9** to the total at **Line 10** in the previous column (for **Column (a)** this will be the 'B/F Total').
 - k. **UAV Landings.** At **Line 11** enter the number of landings this sortie. If 'SPC 06' or 'SPC 07' was entered at **Line 2** enter "**NIL**".
 - l. **Total UAV Landings.** At **Line 12** calculate and enter the Total Landings by adding the landings at **Line 11** to the total at **Line 12** in the previous column (for **Column (a)** this will be the 'B/F Total').
 - m. **IPS Activations.** At **Line 13** enter the number of Ice Protection System (IPS) activations recorded this sortie (One activation is **one** wing firing and **two** V-Tail firings. Firings during testing are not recorded as activations).
 - n. **Total IPS Activations.** At **Line 14** calculate and enter the Total Activations by adding the activations at **Line 13** to the total at **Line 14** in the previous column (for **Column (a)** this will be the 'B/F Total').
5. **Engineering Tradespersons.** Engineering tradespersons are to complete the required details when running equipment during Maintenance. If the engine is replaced, the appropriate usage values of the new engine are to be entered in the next available column, "**Replaced**" is entered against the Engine Operating Hours 'Duration' and all unchanged values entered in the total column. All unused boxes are to be ruled through (see **Example 1**).

6. **GOLDesp Updated.** The individual responsible for updating GOLDesp is to enter the Sheet Sequence number at **Line 15**.

Example 1

This extract of a MOD Form 724(Watchkeeper)(UAV) shows a sortie being completed in **Column (a)** followed by an engine change. **Column (b)** is completed in accordance with **Paragraph 5** to reflect the usage of the fitted engine.

Engine Operating Hours (E1)	Start Time		09:00	
	Stop Time		10:00	
	Duration		1	Replaced
	Total	20:30	21:30	10:00
Aircraft Flying Hours (HH)	Take Off (Time)		09:15	
	Landing (Time)		09:50	
	Duration		0:35	
	Total	150:35	151:10	151:10
Landings (LU)	This Sortie		2	
	Total	100	102	102
IPS Activations (AN)	This Sortie		1	
	Total	4	5	5

Table 1 Sortie Profile Codes (SPC)

SPC 01	EO/IR/LSS or EO/IR and DP – ISTAR Role
SPC 02	GMTI/SAR and DP – ISTAR Role
SPC 03	GMTI/SAR and EO/IR/LSS or EO/IR – ISTAR Role
SPC 04	Airfield Circuits - Training
SPC 05	Functional Check Flight – Engine Test
SPC 06	Engine Run (including aborted sorties no arrests)
SPC 07	Ground Taxi (including aborted sorties with arrests)

Watchkeeper Flight Servicing Certificate - MOD Form 705(Watchkeeper)(UAV)

7. **General.** This form is used for:

- The certification of a REME Technical Flight Servicing (TFS) and Daily Flight Servicing (DFS) of the UAV.
- Fuel check/refuel/defuel and current fuel state.
- UAV Commander acceptance of UAV.
- UAV Commander transfer of charge of UAV back to the Maintenance Organization.

8. **Insertion and Removal.** MOD Forms 705(Watchkeeper)(UAV) are to be inserted into, and removed from the MOD Form 700C iaw the instructions for Controlled Forms on the MOD Form 799/1. The person removing the form is to ensure that the Technical Flight Servicing valid until TDM details have been carried forward to the new sheet. 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 number and is used as a management aid for retention purposes.

9. **Operator After Flight Declaration (Lines 1 to 3).** This is to be filled in post flight by the responsible operator, when equipment is brought out of action. The signature at **Line 2** certifies the following:

- The post flight checks detailed in the Watchkeeper IETP have been carried out.
- Any damage/faults found have been entered in the AML.
- That all relevant usage data has been transferred to the MOD Form 724(Watchkeeper)(UAV).

10. **Flight Servicing (Lines 4 to 15).**

- Flight Servicing Co-ordinator Actions.** The Flight Servicing Co-ordinator is to define the type of Flight Servicing required in **Line 4** and enter the commenced TDM in **Line 5**. They are also responsible for:
 - Entering any additional requirements in the numbered spare **Lines 7 and 8**, detailing the appropriate tradesperson to undertake and sign for the work.
 - Identifying in the spare **Lines 7 and 8** any items contained in the Flight Servicing Schedules, eg oil replenishment, which they have delegated to a tradesperson other than those directed to undertake the Flight Servicing.
 - Striking through any spare lines not required.
 - Ensuring that all tradespersons involved in the Flight Servicing,

including any delegated tasks, have signed for their work in the appropriate signature blocks and are authorized to do so.

(5) Entering the Servicing valid until TDM at **Line 14 or 15** as applicable.

b. **Flight Servicing Co-ordinator Certification.** The Flight Servicing Co-ordinator is to print their name at **Line 12** and sign at **Line 13** to certify they are satisfied that:

- (1) An AML entry has been raised for each fault found during the Flight Servicing.
- (2) The Flight Servicing has been completed satisfactorily.
- (3) The appropriate MOD Form 705(SSC) columns have been completed.
- (4) The next available Fuel Certificate has been completed and the recorded fuel state is sufficient for the next planned sortie.
- (5) The Flying Hours and component running hours recorded in the MOD Form 724(Watchkeeper)(UAV) have been calculated correctly.

c. **Engineering Tradespersons.** Engineering tradespersons are to undertake the work detailed by the Flight Servicing Co-ordinator and sign in the appropriate Flight Servicing blocks (**Lines 6 to 8**). A signature in the Flight Servicing block certifies that the Flight Servicing has been undertaken iaw the appropriate Flight Servicing schedule and where required, oil replenishments undertaken have been recorded correctly on the Oil Replenishment/ Sampling Record (MOD Form 737). Additionally, certification of MOD Form 705(Watchkeeper)(UAV) by a tradesperson signifies that any hand tools used for that aspect of the Flight Servicing they have undertaken have been accounted for.

Notes:

1. Delegated Flight Servicing Items. When delegated Flight Servicing items are specified separately on the Flight Servicing Certificate, the tradespersons who complete these items are to sign in the appropriate block.

2. Supervised Flight Servicing. When a tradesperson holding auth MAMP-A101 is undertaking Flight Servicing, the appropriate amount of supervision is to be provided iaw MAM-P Chapter 2.1. In this instance the Flight Servicing Co-ordinator is to annotate a spare line(s) with the wording **"2nd Sig [insert details of the element of the Flight Servicing(s) being supervised]"**. The tradesperson undertaking the Flight Servicing is to complete the appropriate Flight Servicing field as normal and the individual undertaking the supervisor aspects of the Flight Servicing is to sign the block

identified by the Flight Servicing Co-ordinator.

d. **Flight Servicing Invalidated by Maintenance.** An appropriately authorized person is to determine whether a current Flight Servicing has been invalidated by subsequent Maintenance (see MAM-P Chapter 4.2) and either:

- (1) If a Flight Servicing **HAS NOT** been invalidated:
 - (a) Rule through unused blocks of the current Flight Servicing.
 - (b) Endorse the next Flight Servicing column (**Lines 4 to 18**) with **"No Flight Servicing Required following work at SNOW: [enter SNOW(s) of work carried out]"** and certify this entry at **Line 12/13**.

Or:

- (2) If a Flight Servicing **HAS** been invalidated:
 - (a) Overwrite the signature at **Line 13** with the word **"CANCELLED"** and initial the amendment.
 - (b) Rule through unused blocks of current Flight Servicing.
 - (c) Endorse the next Flight Servicing column with **"Partial Flight Servicing To Be Carried Out following work at SNOW: [enter SNOW(s) of work carried out]"** and certify this entry at **Line 12/13**.
 - (d) Inform the Flight Servicing Co-ordinator who is to restore the validity of the Flight Servicing by detailing those parts of the servicing(s) that are considered to have been affected.

Notes:

1. Unless the Flight Servicing is re-applied in total, the validity of the Flight Servicing is not altered by the re-application of a part.

2. On completion of either **Paragraph 10 d (1) or (2)** the MOD Form 700C is to be co-ordinated iaw **Paragraph 11**.

11. MOD Form 700 Co-ordinator (Lines 20 and 21)(see MAM-D Part 1 Chapter 2.1). The MOD Form 700C Co-ordinator is to certify at **Lines 20 and 21** that the Aircraft equipment is in a fit condition and ready for flight. The MOD Form 700C is not to be co-ordinated after a completed Flight Servicing has been invalidated by subsequent Maintenance, in this instance **Lines 20 to 26** are to be ruled through. The MOD Form 700 Co-ordinator's signature certifies that:

- a. There is no outstanding Corrective or Preventative Maintenance work.
- b. No Scheduled or Out of Phase Maintenance requirements are due before the completion of the next sortie.

- c. No Limitations (MOD Form 703) or Acceptable Deferred Faults (MOD Form 704) are due for rectification/removal before completion of next sortie.
- d. All entries in the Acceptable Husbandry Deferred Faults Log (MOD Form 704A) have been certified by an authority Level C.
- e. All hand tools have been accounted for.
- f. The Flight Servicing is valid and the Fuel Certificate is as requested for the task.
- g. Next 'Maintenance Due' block has been updated to reflect when the next Preventative Maintenance operation becomes due as follows:
 - (1) **Line 16.** Enter when the next calendar Maintenance operation is due.
 - (2) **Line 17.** Enter when the next Airframe hours Maintenance operation is due.
 - (3) **Line 18.** Enter when the next Engine hours Maintenance operation is due.
- h. The Flying Hours and equipment running hours recorded in the Flying Log and Equipment Running Log have been calculated correctly from the previous sortie details and the totals prior to that sortie.
- i. The last SNOW from the AML has been transferred to **Line 19**.
- j. Any Flying Requirements are identified by the SNOW in the Flying Requirement block at **Line 23**.

12. Should any Corrective Maintenance be required on the Aircraft/equipment after completion of the co-ordinating signature, the procedure at **Paragraph 10 d** is to be followed with the exception that the word "**CANCELLED**", if applicable is to overwrite the signature at **Line 21**.

13. **Operator Acceptance Certificate (Lines 24 to 26).** For normal operations the responsible operator is to accept responsibility for the equipment by entering the relevant TDM at **Line 26** and printing and signing their name at **Lines 24 and 25**. The operator signature certifies that:

- a. Any Limitations are acceptable to them for the intended flight.
- b. They are aware of any Acceptable Deferred Faults, identified by the Maintenance Organisation to be of interest to the operator.
- c. The recorded state of the Aircraft in respect of fuel, is acceptable to them for the intended flight.
- d. The documentary check of the MOD Form 700C has been carried out and the Co-ordinating Certificate (**Lines 20 to 22**) of the MOD Form 705(Watchkeeper)(UAV) has been signed by the MOD Form 700 Co-ordinator.
- e. Any flying or ground running requirements are acceptable to them and they

have been adequately briefed on any special tests required.

- f. Any operator accepted faults, as entered in the MOD Form 707A, are acceptable to them for the intended flight.
- g. That all equipment used for the flight has been co-ordinated by either physically reading the MOD Form 705(Watchkeeper)(GCS) entry or, in the case of the launch site's equipment, by radio message.
- h. They are aware of the KEYMAT status of the systems listed on the MOD Form 705(Watchkeeper)(Keymat-UAV) and they are acceptable for the intended flight.

UAV KEYMAT Loading Certificate - MOD Form 705(Watchkeeper)(Keymat-UAV)

14. **General.** This form is used to certify the loading/erasing of KEYMAT fills and record the identity of the fills including the security classification. The form also indicates to operators the current status of the software of the systems listed.

15. **Insertion and Removal of Forms.** MOD Forms 705(Watchkeeper)(Keymat-UAV) are to be inserted into, and removed from the MOD Form 700C iaw the instructions for Controlled Forms on MOD Form 799/1. Sheet numbers are to run from 001 to 999.

16. When the sheet is full and a new entry is required all extant data is to be transferred to the next sheet and the Transfer Certificate completed.

17. **Completion.** On every occurrence of a data fill or erase the next available row of the MOD Form 705(Watchkeeper)(Keymat-UAV) is to be completed by the person carrying out the activity as follows: (See example at **Figure 1**).

- a. **Date.** At **Column (a)** enter the date of activity.
- b. **Activity and Identity Details.** At **Columns (c) to (g)** carry out the following for every system listed.

(1) Indicate the type of activity undertaken by striking through the inapplicable activities as follows:

- (a) "**E**" is used to indicate a data erase was carried out.
- (b) "**L**" is used to indicate a data fill was carried out.
- (c) "**CFwd**" is used to indicate that no change was made to a system and that the data has been transferred from the line above.

(2) For 'Load' or 'CFwd' activities enter all the 'Fill Details' in the appropriate blocks.

(3) For 'Erase' only activities enter a cross across the identity data blocks.

Note: "E" and "L" are to be used when an erase is immediately followed by a fill.

c. **RVTIU.** At **Column (h)** enter "**Y**" if the RVTIU was filled or "**N**" if no RVTIU fill was carried out.

d. **Carried Out By.** The person who carried out the activities indicated for each system is to enter their name and signature at **Column (i)**. A signature in this column certifies that:

- (1) They have carried out the indicated activity and they are authorized to carry out that activity and sign the Maintenance documentation in accordance with MAM-P, Chapter 6.4.
- (2) Any tools used during the activity are accounted for.
- (3) In the case of carrying forward the data has been accurately transcribed from the line above.
- (4) No data fills have exceeded their expiry dates.
- (5) When not required by **Paragraph 17 e (2)**, the 'Witnessed By' boxes are struck through.

e. **Witnessed By.** Any erasure of COMSEC key must be witnessed by a suitably authorized person who should enter their name and signature in **Column (j)**. A signature in this column certifies that:

- (1) The erase was correctly carried out and that they are authorized in accordance with MAM-P, Chapter 6.4.
- (2) If no data fill was carried out following an erasure that the 'Fill Details' boxes for the erased system have been crossed through.

18. An example of a partially completed MOD Form 705(Watchkeeper)(Keymat-UAV) is shown at **Figure 1** overleaf.

Role Equipment State - MOD Form 706(Watchkeeper)(UAV)

19. **General.** The MOD Form 706(Watchkeeper)(UAV) is used to record the primary and secondary role state of the Air Vehicle. The last completed state box should reflect the current role State of the Air Vehicle.

20. **Insertion and Removal.** MOD Forms 706(Watchkeeper)(UAV) are to be inserted into, and removed from the MOD Form 700C iaw the instructions for Controlled Forms on MOD Form 799/1. Sheet numbers in the Series 001 to 999 are to be used. When raising a new form enter the Aircraft Serial Number and the next sheet number in sequence. After ensuring that the first 'State' box of the new form shows the current Air Vehicle state, the Transfer Certificate is to be completed.

21. **Role State.** The fitting and removal of role equipment is to be recorded

on a Maintenance Work Order. On completion of the task, the Supervisor is to complete the next State box of the MOD Form 706(Watchkeeper)(UAV) to show the current role state of the Air Vehicle. Where many role state changes are carried out during a period of Maintenance only a single column need be completed, after the last role change, to reflect all changes.

22. At local management discretion the form may be used to record checks to confirm the current role state. These checks may be aligned with Flight Servicing if required by utilising the MOD Forms 705(SSR) and (SSC) (Supplementary Flight Servicing Register and Certificate).

23. **Compilation.** The MOD Form 706(Watchkeeper)(UAV) is to be completed by the supervisor as follows:

- a. **Primary State.** Using the table at the top of the form, select and enter the letter that represents the status of the Fwd and Aft Payload bays from the options A to F.
- b. **Secondary State.** Using the table at the top of the form, select and enter from the roles listed against G, H and I, the letter of each role that is fitted to the Air Vehicle in the appropriate box. Unused boxes are to be struck through.
- c. **TDM and Name.** The individual completing the State box is to enter the time, date and month that the role State was completed and print their name.
- d. Superseded Role State boxes are to be ruled through.

Figure 1 - Example of Partially Completed 705(Watchkeeper)(Keymat-UAV)

The entry at **Row 1** represents the following activity on the 8 Jan 15:

1. LBdr Brown certifies carrying out Secret KEYMAT fills on the WB UIU, NB UIU, GPS 1 and GPS 2
2. Currently the IFF has no Fill and this data was carried forward from the previous sheet and certified as correct by LBdr Brown.
3. RVTIU fill carried out.

The entry at **Row 2** represents the following activity on the 8 Jan 15:

1. LBdr Green certifies carrying out an erase of the WB UIU , NB UIU, GPS 1 and GPS 2 with no subsequent fill, erases witnessed and certified by Bdr Black.
2. Currently the IFF has no Fill and this data was carried forward from the previous line and certified as correct by LBdr Green.
3. RVTIU fill not carried out.

The entry at **Row 3** represents the following activity on the 9 Jan 15:

1. Cpl White certifies carrying out Secret KEYMAT fills on the WB UIU, NB UIU, GPS 1, GPS 2. and IFF.
2. RVTIU fill carried out.

Date (a)	Fill Details (b)		UAV System					RVTIU Filled Y/N (h)	Indicated Activity Carried Out By (i)	Indicated Erasure(s) Witnessed By (j)					
			WB UIU (c)		NB UIU (d)		GPS 1 (e)				GPS 2 (f)		IFF (g)		
1 8 Jan 15	Ser Nos		0124		0122		1084		1086		Y	Name	X		
	Edition	Segment	7	21, 22	1	21, 22	59	1/01	59	1/01		Name LBdr BROWN			
	Classification		Secret		Secret		Secret		Secret			Signature			
	Expiry Date		30 Mar 15		30 Mar 15		30 Apr 15		30 Mar 15			<i>Brown</i>			
Erased / Loaded/ Carried Fwd			E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*		Signature			
2 8 Jan 15	Ser Nos		0124		0122		1084		1086		N	Name	X		
	Edition	Segment	X		X		X		X			Name LBdr GREEN			
	Classification		X		X		X		X			Signature			
	Expiry Date		X		X		X		X			<i>Green</i>			
Erased / Loaded/ Carried Fwd			E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*		Signature <i>Black</i>			
3 9 Jan 15	Ser Nos		0124		0122		1084		1086		Y	Name	X		
	Edition	Segment	7	21, 22	1	21, 22	59	1/01	59	1/01		2		D	Name Cpl White
	Classification		Secret		Secret		Secret		Secret			Secret		Signature	
	Expiry Date		30 Mar 15		30 Mar 15		30 Apr 15		30 Mar 15			1 Apr 15		<i>White</i>	
Erased / Loaded/ Carried Fwd			E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*	E / L / CFwd*		Signature			