

011-47Z-2066
Perform Extended Range Fuel System Operations
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the USAACE, Fort Rucker, AL foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Conditions: In a CH-47D/F helicopter with ERFS installed. Some iterations of this task should be performed in MOPP 4.

Standards: Perform extended range fuel system operations in accordance with and 100% adherence to the performance measures below.

Special Conditions: None

Safety Risk: Medium

MOPP 4: Sometimes

Task Statements

Cue: None

DANGER

None

WARNING

Failure to remove water and contaminants from the ERFS II tank sump could result in contaminants being transferred to the helicopter fuel tank(s) or other aircraft or equipment during FARE operations. If water and contaminants are not removed, a loss of ENG power may result.

CAUTION

Failure to close the Unisex valves at the ERFS II tank(s) end of the single point pressure refueling hose assembly could allow suctioning of fuel from the helicopter main fuel tanks during FARE operations.

Remarks: None

Notes: NIGHT OR NIGHT VISION GOGGLES CONSIDERATIONS: If time permits, accomplish servicing and preflight inspections during daylight hours. During the hours of darkness, use a flashlight with an unfiltered lens to supplement available lighting. HYD leaks, oil leaks and other defects are difficult to see using a flashlight with a colored lens.

Performance Steps

1. Conduct a thorough mission briefing (PC).
2. Ensure that all personnel are familiar with normal and EPs (PC).
3. Ensure that a preflight of the ERFS is conducted before flight (PC).
4. Ensure that all main tanks are on and all AUX pumps are "OFF" when ERFS transfer to the main tanks is desired (P).
5. Monitor the main fuel indicators (P).
6. Ensure that fuel management procedures are conducted (P).
7. Ensure that the system is operational before flight (NRCM).
8. Monitor the fuel management panel inflight (NRCM).
9. Ensure that ERFS tank(s) and associated equipment are inspected for proper operation and that no leaks are evident (NRCM).
10. Manage the tank fuel transfer sequence as directed by the PC (NRCM).
11. Inform the crew when the low-level warning lights illuminate (NRCM).
12. Close the dump valve when empty (NRCM).
13. Inform the crew of any unusual or EMERG situations (NRCM).
14. Complete all required inspections pertaining to section of TM 1-1520-240-10, TM 1-1520-271-10, TM 1-1560-312-10, and the unit SOP.
15. Ensure that no fuel leaks are evident during servicing, preflight and inflight operation of the ERFS (NRCMs).

Cue: If leaks are evident,
16. Stop servicing immediately.

17. Refer to the appropriate maintenance manuals.

Cue: After the ERFS tank system is serviced,
18. Take a fuel sample from the sample area of each tank.

Cue: If contamination is found,
19. Conduct contamination inspection procedures IAW TM 1-1560-312-10, FM 3-04.111, and FM 10-67-1.
20. Ensure that a fuel sample has been taken IAW the appropriate manuals.
21. Ensure that all safety and operational procedures are conducted IAW TM 1-1560-312-10.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: 1. Training will be conducted in the helicopter.

Evaluation Preparation: 2. Evaluations will be conducted in the helicopter.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Rated.			
a. Ensured ERFS data was entered/recognized in the CAAS.			
b. Managed fuel tank levels (if appropriate) to maintain aircraft within center of gravity (CG) limits.			
c. Responded to ERFS malfunctions.			
d. Performed appropriate emergency procedures IAW TM 1-1520-240/271-10, chapter 9.			
2. Non-Rated.			
a. Configured aircraft IAW TM 1-1560-312-10.			
b. Completed preflight, inflight and postflight duties IAW TM 1-1520-240-10/CL, TM 1-1520-271-10/CL, and TM 1-1560-312-10.			
c. Performed all fuel servicing IAW TM 1-1520-240-10, TM 1-1520-271-10, TM 1-1560-312-10, FM 3-04.111, and FM 10-67-1.			
d. Alerted the pilot not on the controls (P) to ERFS malfunctions.			
e. Removed ERFS IAW TM 55-1560-307-13&P or TM 1-1560-312-10, after ERFS operation.			
f. Stored ERFS IAW TM 55-1560-307-13&P or TM 1-1560-312-10, after ERFS operation.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	AR 95-1	FLIGHT REGULATIONS	No	No
	ATP 4-43	Petroleum Supply Operations	No	No
	TC 3-04.11	Commander's Aviation Training and Standardization Program	No	No
	TM 1-1520-271-PMS1	PREVENTATIVE MAINTENANCE SERVICES MODULAR DAILY INSPECTION CHECKLIST CH-47F HELICOPTER (THIS ITEM IS INCLUDED ON EM 0281)	No	No
	TM 1-1560-312-10	OPERATORS MANUAL FOR EXTENDED RANGE FUEL SYSTEM II (ERFS II) CONFIGURED FOR THE ARMY CH-47 HELICOPTER P/N HM022-509 (NSN 1560-01-456-2704) (EIC: RCG)	Yes	No
	TM 55-1520-240-PMD	CH-47D Helicopter Preventive Maintenance Daily Checklist	No	No
	USOP	Unit SOP	No	No

TADSS :

TADSS ID	Title	Product Type
01-239	CH-47F Cockpit Procedural Trainer (CPT)	DVC
552-AC-034	CH-47D-H Chinook Helicopter (Local TADSS – Not in TSMATS/PAM 25-30)	TA

Equipment Items (LIN):

LIN	Name
H30517	Helicopter Cargo Transport: CH-47D
C15172	CH-47F Improved Cargo Helicopter

Materiel Items (NSN) :

Step ID	NSN	LIN	Title	Qty
No materiel items specified				

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC).

Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None

Knowledges :

Knowledge ID	Knowledge Name
011-332K	Contents of current unit SOP
K659	defined emergencies and procedures IAW operator's manual
011-1561K	knowledge of aircraft fuel systems

Skills :

Skill ID	Skill Name
S0837	Ability to read and follow checklist
91L-S-135	Undertaking fuel system calculations and numerical operations