TRAINER GUIDANCE

Line Item 1.10 Perform engine running off-load or on-load (ERO) operations

Prerequisites:	A. Trainee will: 1. Possess a valid AF IMT 483, Certificate of Competency for Flight Line Training for all flight line operations. 2. Possess all required Personal Protective Equipment, i.e., gloves, hearing protection, steel-toed boots, and reflective gear (during darkness or inclement weather) 3. Complete Air Freight Distance Learning Course 4. Complete the Following QTPs: a) 5.1.2 Assemble/Set-up aircraft loads b) 1.8 Perform spotter/chocker duties c) 5.2.1 Prepare aircraft cargo compartment for loading d) 5.2.2 Load/offload cargo/mail/baggage e) 5.2.3 Calculate Tie down/restrain cargo/mail/baggage in aircraft B. Trainer will establish a timeline for completing the required training with the trainee.
Training References:	A DOD 4500.9-R, Defense Transportation Regulation, Part III, Mobility, Appendix Y. B AFI24-605 V2, Air Transportation Operations, paragraph 3.69.
Additional Supporting References:	N/A
Training Support Material:	A Possess a valid AF IMT 483, Certificate of Competency for Flight Line Training for all flight line operations. B Possess all required Personal Protective Equipment, i.e., gloves, hearing protection, steel-toed boots, and reflective gear (during darkness or inclement weather)
Specific Techniques:	This lesson plan is designed for hands-on (demonstration/performance). Trainers will demonstrate, document, and verify training using a variety of hands-on scenarios with Actual missions or simulated training scenarios.
Criterion Objective:	A. Upon completion of training, trainee will be able to: 1. Determine step by step procedures for performing Engine Running Off/On loads (EROs). 2. Conduct Engine Running Off/On loads (ERO's).

NOTES to Trainer:	This lesson plan is designed for hands-on training (demonstration/performance). Aerial port missions are inherently different from station to station; training sessions may or may not easily lend themselves to hands-on training. Therefore, it is imperative that trainers demonstrate, document and verify training using a variety of hands-on and scenario-based techniques to achieve the desired proficiency prior to signing the Task Evaluation Checklist (TEC). Prior to accomplishing the practical application of this lesson, ensure the trainee has the necessary PPE, i.e., gloves, steel-toed boots, hearing protection, and reflective gear during hours of darkness. Use caution while maneuvering around the Mechanized Material Handling System (MMHS), if applicable.
	Brief the trainee to remain aware of vehicles/Material Handling Equipment (MHE) operating in the warehouse/pallet grid yard. Additionally, remind the trainee to remove all rings and exposed jewelry. This lesson covers the process of performing EROs. EROs are authorized to expedite the flow of aircraft through airfields during operations where the reduction of ground time warrants a departure from normal operating procedures. Other QTP modules cover related material. To better understand the process, these will be completed prior to this lesson.

TASK STEPS

Line Item 1.10 Perform engine running off-load or on-load (ERO) operations

Risks associated with an ERO: Safety is paramount when doing an ERO. Risk Management (RM) is used to assess the risks.

A. The five steps of the RM process are:
   1. Determine the types of hazards.
   2. Assess the risks.
   3. Analyze risk control measures.
   4. Make control decisions.
   5. Implement risk controls.

B. The trainer will explain, using the RM process, how to identify risks associated with:
   1. Day or night operations.
   2. Weather.
      a). Ensure the vehicle operator's vision is not obscured by the elements.
      b). Self-propelled vehicles may require winch assistance if positive traction of vehicle wheels cannot be maintained throughout the operation.
   3. Experience level of team members.
      a). Experienced, qualified members.
      b). Trainees.
      c). Augmentees.
      d). User personnel.
   4. Types of cargo.
      a). Small arms ammunition class/division 1.4 is authorized.
      b). All others must be authorized by the Mobility Force Commander, contingency operations order or air tasking order.
   5. Types of passengers.
   6. Location of ERO.
      a). Limited clearance around aircraft.
      b). Personnel/equipment areas.
      c). Traffic congestion.

Equipment used during EROs: The trainer will explain and demonstrate the use of:

A. Safety equipment.
   1. Gloves.
   2. Steel-toed boots.
   3. Hearing protection.

4. Goggles (optional for C-17 operations parked on hard surface).
5. Reflective vests or belts during hours of darkness.
6. Reflective wands for spotting. B. Other equipment.

1. Extra sets of C-130 auxiliary loading ramps, as required.
2. Vehicle with front-mounted pintle hook (prime mover).
3. C-130 ramp support (milk stool).
4. Materiel Handling Equipment (MHE).

Brief participants on EROs: The load team chief will brief all members prior to the ERO. The trainer will explain and demonstrate a briefing consisting of:

A. Procedures.
B. Safety requirements.
C. Hand signals.
D. Route to and from the aircraft.
E. Load team position.
F. Cargo type.
G. Special on/offloading instructions.
H. Use of any MHE.

Onload Procedures The trainer will explain and demonstrate the onload procedures. Vehicle and troop directors use distinctive clothing/equipment such as reflective vest and wands for night operations. The trainer will explain and demonstrate how to:

A. Position load team in a pre-planned area. The load team chief must make sure the area is:
   1. A minimum of 50 ft. aft (C-5: 200 ft., C-17: 25 ft.) of the aircraft when it has stopped.
   2. Clear of engine exhaust.
   3. On the outside of the aircraft's turning radius.
B. Approach the aircraft. For C-5s, always approach the aircraft from the front when the crew entrance door is deployed, and the scanner has deplaned. When loading pallets at the rear, the person chocking the K-loader approaches the aircraft from the nose and is escorted to the rear by the scanner.
   1. Wait until all engines are in low-speed ground idle or reverse thrust and an aircrew member signals you.
   2. Lead the load team perpendicular to the fuselage at least 50 ft. aft (C-5: 200 ft., C-17: 25 ft.) until reaching the centerline.
   3. Turn and approach the aircraft.
   4. Remain clear of aircraft cargo ramp until it is positioned for loading.
C. Coordinate with the loadmaster. The loadmaster retains overall responsibility for loading the aircraft. The load team chief coordinates with the loadmaster to:

1. Present manifest
2. Confirm load sequence.
3. Confirm ground vehicle direction
4. Confirm tie-down requirements.

D. Prepare for loading. For C-5s, the preferred method for loading is in the forward kneels, drive-in position.
1. Position necessary MHE.
2. For C-130s, install extra auxiliary ground loading ramps if needed.
3. For C-130s, team members may assist the loadmaster in positioning the milk stool.
4. Go aboard and prepare the aircraft for a specific load.
5. Position loads a minimum of 50 ft. (C-5: 200 ft. forward or aft, C-17: 25 ft.) aft and slightly to the right or left of aircraft fuselage, leaving a clear path behind the aircraft.
6. Position the first piece of equipment to be loaded at the bottom of the aircraft cargo ramp.
7. Ensure only one piece of loading equipment approaches the aircraft at a time. E. Load the aircraft.

1. Vehicle operators remain in their vehicles when within 50 ft. of the aircraft (C-5: 200 ft., C-17: 25 ft.) and until vehicle is secure aboard aircraft with one chain forward and one aft.
2. Ensure ground vehicle spotter takes a position clearly visible to the vehicle driver.
3. For trailers, ensure the vehicle director takes position next to the driver's side cab of the prime mover.
4. Ensure load team members are positioned to observe load clearance.
5. Load troops after the main cargo floor is loaded.
   a). Ensure all troops remain a minimum distance of 50 ft. aft (C-5: 200 ft. forward, C-17: 25 ft.) off the aircraft.
   b). When troops reach aircraft centerline, the team chief directs them to the aircraft.
6. Load the ramp cargo after the troops are aboard. F. Leaving the aircraft.

1. Obtain the completed outbound DD Form 365-4F weight and balance clearance form from the loadmaster
2. For C-130s:
   a). Assist in placing the auxiliary loading ramps on the aircraft ramp as required.
   b). If used, stow the extra auxiliary loading ramps in the load team's vehicle.
3. Proceed aft down the aircraft centerline with the rest of the team.
4. Team chief stops 50 ft. aft (C-5: 200 ft. fwd. or aft, C-17: 25 ft.) and signals with thumb up informing the loadmaster that the load team and equipment are all clear.

Offload procedures: The trainer will explain and demonstrate the offload procedures. The procedures are the same as on load with the additional requirements outlined below.

A. Position load team in a pre-planned area. The load team chief must make sure the area is:

1. A minimum of 50 ft. aft (C-5: 200 ft., C-17: 25 ft.) off the aircraft when it has stopped.
2. Clear of engine exhaust.
3. On the outside of the aircraft's turning radius.

B. Approach the aircraft. For C-5s, always approach the aircraft from the front when the crew entrance door is deployed, and the scanner has deplaned. When offloading pallets at the rear, the person chocking the K-loader approaches the aircraft from the nose and is escorted to the rear by the scanner.
   1. Wait until all engines are in low-speed ground idle or reverse thrust and an aircrew member signals you.
   2. Lead the load team perpendicular to the fuselage at least 50 ft. aft (C-5: 200 ft., C17: 25 ft.) until reaching the centerline.
   3. Turn and approach the aircraft.
   4. Remain clear of aircraft cargo ramp until it is positioned for offloading

C. Coordinate with the loadmaster. The loadmaster retains overall responsibility for offloading the aircraft. The load team chief coordinates with the loadmaster to receive manifests.

D. Prepare for offloading. For C-5s, the preferred method for offloading is in the forward kneels, drive-in position.
   1. Position necessary MHE.
   2. For C-130s, install extra auxiliary ground loading ramps as needed.
   3. If troops are aboard, team members position themselves to the side of the aircraft ramp until all troops have deplaned.

E. Offload the aircraft. Exiting through the aft cargo door or ramp is the preferred method when troops are involved on the C-130, and C-17. For C-5s, the preferred method is through the forward ramp.
   1. Troops.
      a). Deplane passengers before offloading cargo, unless cargo size and location dictate otherwise. Deplaning personnel must be briefed to remain forward of the extended interphone cord.
      b). When unloading personnel, baggage, or equipment through the crew entry door with engines operating, stay clear of engine inlets or engine props.
      c). Secure all loose personal items before passing in front of operating engines.
      d). Personnel will not proceed aft of the crew entrance door while engines are operating.
      e). When offloading troops through the front crew door, troop buses park in front of the aircraft on the left side with the nose of the bus pointing away from the aircraft, and no closer than 50 ft. (C-5: 200 ft.) forward of the left wing.
      f). Loadmaster briefs troops on the hazards involved with ERO procedures. Items such as securing loose articles, hearing protection, local conditions, etc.
      g). Loadmaster directs troops to deplane.
      h). Troops proceed a minimum of 50 ft. aft (C-5: 200 ft. forward and aft, C-17: 25 ft. aft) of the aircraft.

i). Troops then turn left or right and continue parallel to the aircraft's wing a minimum of 300 ft. (C-17: 200 ft.) before stopping.

2. Cargo.
   a). Direct team aboard to remove any remaining tie-down restraints, beginning with the first vehicle to be offloaded.
   b). Put all tie-down equipment on aircraft centerline (C-5: stow tie-down in containers if time permits).
   c). Position the ground vehicle director 25 feet aft of the aircraft to direct vehicles 50 ft. aft (C-5: 200 ft. forward and aft, C-17: 25 ft. aft) before turning left or right to the receiving area.
   d). Ensure load team members are positioned to observe load clearance. F.

Depart the aircraft.

1. Obtain the completed outbound DD Form 365-4F, Weight and Balance Clearance Form. For C-17s and C-130s leaving empty, a DD Form 365-4F is not required.
2. For C-130s:
   a). Assist in placing the auxiliary loading ramps on the aircraft ramp, as required.
   b). If used, stow the extra auxiliary loading ramps in the load team's vehicle.
3. Proceed aft down the aircraft centerline with the rest of the team.
4. Team chief stops 50 ft. (C-5: 200 ft. forward or aft) aft of aircraft centerline and gives thumbs up to inform the loadmaster the team and equipment are clear of aircraft.

* NOTE: Close coordination is always required between air and ground crews. Due to the fastpaced nature of an ERO, it is imperative the trainee thoroughly understands the procedures before participating. At the time of execution, EROs cannot be slowed down or stopped and started to satisfy the needs of the trainee.

TASK EVALUATION CHECKLIST (TEC)

Line Item 1.10 Perform engine running off-load or on-load (ERO) operations

Directions: The trainee will successfully complete the TA IAW AFI 24-605, Vol. 5 before completing the TEC.	YES	NO	N/A
1. Training Assessment			
Directions: Given all applicable materials, the trainee will complete the following items unassisted and without error.			
2. Risks associated with ERO operations			
Trainee demonstrated proficiency by identifying risks associated with EROs.			
3. Brief participants on ERO procedures			
Trainee demonstrated proficiency on:			
A. Procedures.			
B. Safety requirements.			
C. Hand Signals.			
D. Route to and from the aircraft.			
E. Load team position.			
F. Cargo type.			
G. Special on/offloading instructions.			
H. MHE use.			
4. Conduct an ERO on a C-130, C-17, or C-5 aircraft			
Trainee demonstrated proficiency by:			
A. Positioning load team in correct pre-planned area.			
1. Maintaining minimum distance for type aircraft.			
2. Maintaining clearance of engine exhaust.			
3. Maintaining position outside of turning radius.			

B. Safely approaching the aircraft.			
1. Waiting until engines are set to idle or reverse thrust and signaled from aircrew member.			
2. Ensure ramp team maintains minimum distance for type of aircraft until reaching centerline.			
3. Remaining clear of cargo ramp until positioned.			
C. Coordinating with the loadmaster.			
D. Preparing for loading. For offloading, skip to letter “F”.			
1. Positioning MHE.			
2. Preparing aircraft (auxiliary loading ramps, milk stool, aircraft floor, struts).			
3. Positioning loads correctly in relation to the aircraft.			
4. Ensuring one piece approaches aircraft at a time.			
E. Loading the aircraft.			
1. Positioning personnel (ground vehicle director, load team).			
2. Loading troops.			
3. Loading ramp cargo after troops are aboard.			
F. Preparing for offload. If loading, skip to letter “H”.			
1. Positioning MHE.			
2. Preparing aircraft (auxiliary loading ramps, aircraft floor, struts).			
3. Positioning team for troop offload.			
G. Offloading the aircraft.			
1. Ensuring troops are briefed by loadmaster.			
2. Directing troops down centerline until minimum distance is reached.			
3. Directing troops parallel to wing maintaining minimum distance.			
4. Removing tie down restraints in order of offload.			
5. Putting tie down on aircraft centerline or in storage containers.			

6. Positioning personnel (ground vehicle director, load team).			
H. Safely leaving the aircraft.			
1. Obtaining the weight and balance clearance form.			
2. Stowing equipment (struts, auxiliary loading ramps).			
3. Leaving aircraft maintaining minimum distance.			
4. Signaling all clear to loadmaster.			
I. Using safety equipment.			
J. Using other equipment (auxiliary loading ramp, prime mover, milk stool, MHE).			
NOTES:			

Trainee (print): _____ Start Date: _____

Trainer's Signature: _____ Complete Date: _____