

Aircrew & Flightline Tasks

This Task Guide has been edited
to include only the tasks for
Flight Line Marshaller



11 April 2005

Developed as part of the
National Emergency Services Curriculum Project

O-3001

Discuss Flight Line Marshaller's Responsibilities

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Understand your responsibilities to properly direct, arrange, and park the aircraft for ease of staging flights, safely.
- 2. Understand your responsibilities for assistants and trainees.

TRAINING AND EVALUATION

Training Outline

- 1. When serving as a Flight Line Marshaller you are required to taxi and park the aircraft where they will not interfere with the other aircraft.
 - a. You have the responsibility to direct the aircraft safely on the taxi way and ramp to prevent hitting any objects, damaging it or other aircraft, this requires verifying wing and tail clearances.
 - b. You have the responsibility to assist the pilot to safely refuel his aircraft with the proper fuel minimizing spills.
 - c. You have the responsibility to park the aircraft where it will be safe and not interfere with the operation of other aircraft.
- 2. You are responsible for the safety of your assistants and trainees, assuring they are properly trained
 - a. Verify they know where to stand when directing aircraft, so they will not have to move backward.
 - b. Verify they know the proper hand and arm signals to direct the aircraft.
 - c. Verify that they know how to communicate with you and you with the Flight Line Supervisor for instructions.

Additional Information

More detailed information on this topic is available in the Mission Flight Line Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Explain the necessity and responsibilities of the Flight Line Marshaller.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Demonstrate knowledge and responsibilities of working with aircraft on the Flight Line.	P F
2. Demonstrate knowledge and responsibilities for the safety of assistants and trainees.	P F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

State the Five (5) Flight Line Safety Precautions

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Understand why you need to be alert for sudden dangers, and can't be distracted by these actions.

TRAINING AND EVALUATION

Training Outline

- 1. While on the flight line the following will cause an accident to happen and cannot be tolerated.
 - a. No saluting.
 - b. NO SMOKING.
 - c. No running.
 - d. No horseplay.
 - e. No walking backwards.

Additional Information

More detailed information on this topic is available in the Flight Line Text and reference material.

Evaluation Preparation

Setup: None

Brief Student: explain what the five safety precautions are and why they can't be tolerated.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Name the 5 safety precautions.	P F
2. Explain why they are dangerous.	P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Identify Requirements for Vehicles on the Flight Line

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Know the safety procedures concerning vehicles on the Flight Line.
- 2. Understand why they should be limited to necessary authorized vehicles only.

TRAINING AND EVALUATION

Training Outline

- 1. Vehicles on the flight line can create a major safety hazard.
 - a. Keep vehicle traffic on the flight line to an absolute minimum. You may not have control over non-CAP vehicles, such as a fuel truck, but keep the CAP vehicles to a minimum.
 - b. If a vehicle is picking up a crew or equipment from an aircraft, have the vehicle approach from the rear after the aircraft has been parked and shut down.
 - c. Vehicle movement should be stopped when there is aircraft movement in the vicinity.
 - d. Vehicles should pull off any established taxiway when an aircraft is moving on it.
 - e. When a vehicle is operated on the ramp area, only communication radios should be turned on. Turn off music or any other distraction that may prevent hearing a running aircraft engine or a warning from personnel.
 - f. The IC must authorize, in writing, the use of vehicles on the flight line.

Additional Information

More detailed information on this topic is available in the Flight Line Reference Text.

Evaluation Preparation

Setup: None.

Brief Student: Explain why you would need a vehicle on the flight line?

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Give speed limits for vehicle movement on the flight line.	P F
2. Identify flight line driving requirements.	P F
3. Explain how vehicles should entering or leaving the flight line, taxiway or runways.	P F
4. Explain how vehicles should be parking on the flight line.	P F
5. Explain how vehicles should operate under Restricted Visibility.	P F
6. Explain how to use a follow me vehicle.	P F
7. Identify Equipment Requirements for vehicles on the flight line.	P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Discuss Flight Line Security

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Understand the need to protect CAP assets on the flight line.
- 2. Understand the need to restrict access to the active flight line.

**TRAINING AND EVALUATION
Training Outline**

- 1. When you are present around the flight line you need to stay aware of events around you, particularly those that may be of danger to CAP assets or other aircraft on the field. Your flight line supervisor will brief you on the situation and security concerns for the mission and base you are on
 - a. If CAP aircraft are being fueled in a segregated area you should politely ask any non-CAP people in the area if you can be of assistance. Many flight lines at small fields allow visitors to look at the aircraft tied down, if they have checked in with the FBO. Be polite, they may just want to get a closer look at a CAP aircraft.
 - b. If you are in a situation where CAP aircraft are being parked among other airplanes, other people may be just going to their aircraft.
 - c. If you see someone who may be doing something to a CAP aircraft, and you are not sure who they are, call the Flight Line Supervisor.
- 2. Be alert and observant. If a situation does not look right to you, report it.
 - a. Someone just hanging around and looking to see if anyone is watching them.
 - b. Tampering with an aircraft or fuel tanks/pumps/trucks.
 - c. Breaking into an aircraft or hanger.

Additional Information

More detailed information on this topic is available in the Flight Line Text and reference material.

Evaluation Preparation

Setup: None

Brief Student: Explain the importance of flight line security.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Explain why you would perform flight line security.	P F
2. Explain how you would make the flight line secure.	P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Discuss Flight Line Hazards

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Know how to watch for hazards.
- 2. Be aware that safety is the most important job.

**TRAINING AND EVALUATION
Training Outline**

- 1. During flight line operations various hazards are encountered. Other factors involve the variety of weather conditions, the different conditions during day and night operations, mission priorities, and the various aircraft systems. Aircraft and flight line areas present potential fire and explosion hazards such as Gasoline, oil, cleaning solvents, etc. is typical of these hazards. Other hazards include:
 - a. Cell phones and pagers are a distraction and can be an ignition source. Do not wear either while working on the flight line or refueling.
 - b. Antennas, static wicks, pitot tubes, and other projections.
 - c. Lightning.
 - d. Tripping hazards such as cables, tie-down ropes or chains, fuel hoses and ladders.
 - e. Slipping hazards such as oil, hydraulic fluid, grease spills, and weather conditions.
 - f. Noise can cause hearing loss, interference with speech communications, and disruption of job performance.
 - g. The Flight Line Supervisor will ensure all personnel are aware of potentially flammable fuel vapor areas. Fuel vapors are heavier than air and will settle to ground level and enter below ground areas. Some examples of hazardous fuel vapor areas are fuel pits below ground level, and areas within 10 feet of aircraft fuel vent systems and fuel spills.
 - h. Medical conditions as dehydration and fatigue should be treated as hazards too. Both can result in unsafe operations and poor performance
- 2. The primary concern during any flight line operation is SAFETY. No activity is important enough that the safety of any personnel should be compromised, for any reason. All personnel are authorized to stop any activity on a flight line if any actual or perceived unsafe activity is occurring. Aircraft marshaller's should contact the Flight Line Supervisor, Mission Safety Officer or IC if there is any concern over safety. Safety is always your #1 PRIORITY.

Additional Information

More detailed information on this topic is available in the Flight Line Text and reference material.

Evaluation Preparation

Setup: None.

Brief Student: Explain the hazards of the flight line.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Identify hazards associated with flight line operations?	P F
2. Discuss how to minimize the hazards?	P F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Marshall an Aircraft

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

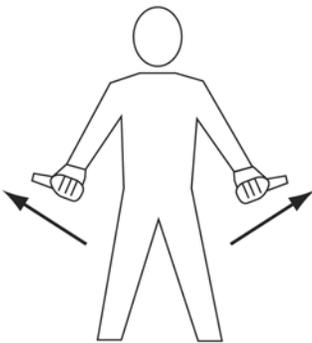
OBJECTIVES

1. Know how to use the proper hand and arm signals to direct the aircraft.

TRAINING AND EVALUATION

Training Outline

1. The hand signals taught in this course are universal and are used by all aviation services. REMEMBER some pilots may not be familiar with these signals.
 - a. These signals are designed for use by the marshaller, using flashing lights when necessary, to facilitate observation by the pilot, and facing the aircraft in a position to the pilots left.
 1. For fixed wing aircraft – within view of the pilot at all times.
 2. For helicopters – where the marshaller can best be seen by the pilot.
 - b. The meaning of the relevant signals remains the same if batons, illuminated wands or flashlight's are used.
 - c. The aircraft engines are numbered, for the marshaller facing the aircraft, from right to left (i.e., # 1 engine being the port or left outer engine).
2. Marshalling signals are a very important part of any flight line operation, and the knowledge of their meaning by both aircrews and marshaller's are imperative. The following signals will be used on all CAP flight lines to provide a safe environment for both aircraft and personnel.



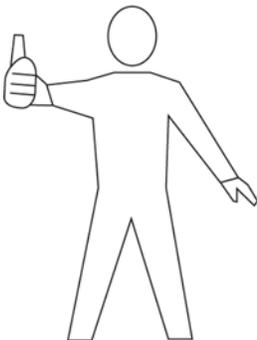
Outward motion with
Thumbs - **PULL
CHECKS**



Circular motion of right hand
at head level with left arm
pointing to engine. **START
ENGINE**



Raise arm, with fist
clenched, horizontally in
front of body, and then
extend fingers.
RELEASE BRAKE



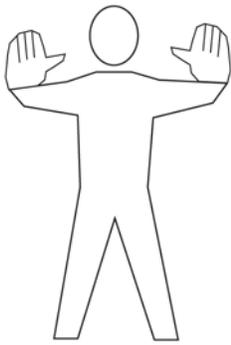
Thumb up
OK or YES



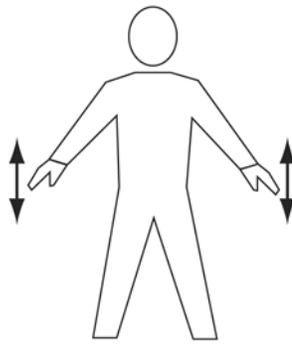
Thumb down
**NOT OK or
NO**



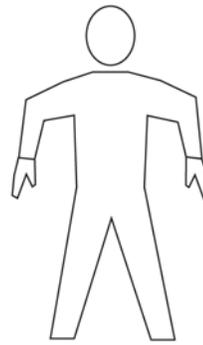
Arms above head in vertical
position with palms facing
inward. **THIS MARSHALLER**



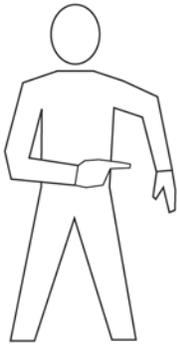
Arms a little aside, palms facing backwards and repeatedly moved upward and backward from shoulder height. **MOVE AHEAD**



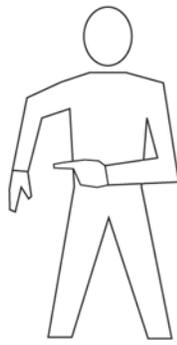
Arms down with palms toward ground, then moved up and down several times. **SLOW DOWN**



Arms extended with forearm perpendicular to ground. Palms facing body. **HOT BRAKES**



Arms extended with forearm perpendicular to ground. Palms facing body. Gesture indicates right side of aircraft. **HOT BRAKES-RIGHT SIDE**



Arms extended with forearm perpendicular to ground. Palms facing body. Gesture indicates left side of aircraft. **HOT BRAKES-LEFT SIDE**



Waiving arms over head. **EMERGENCY STOP**



Right or left arm down, other arm moved across the body and extended to indicate direction of next marshaller. **PROCEED TO NEXT MARSHALLER**



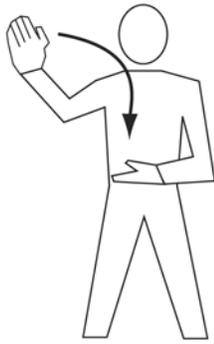
Point right arm downward, left arm repeatedly moved upward-backward. Speed of arm movement indicating rate of turn. **TURN TO THE LEFT**



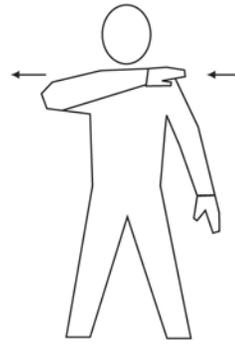
Point left arm downward, right arm repeatedly moved upward-backward. Speed of arm movement indicating rate of turn. **TURN TO THE RIGHT**



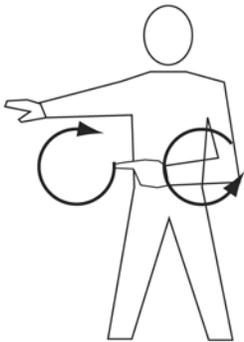
Arms crossed above the head, palms facing forward. **STOP**



Make a chopping motion with one hand slicing into the flat and open palm of the other hand. Number of fingers extended on left hand indicates affected engine.
FEATHER/FUEL SHUT OFF



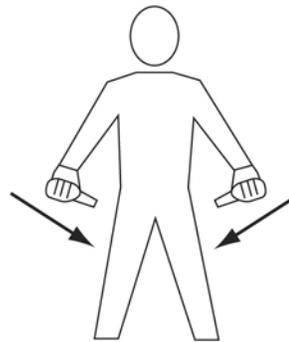
Either arm and hand level with shoulder, hand moving across throat, palm downward. **CUT ENGINES**



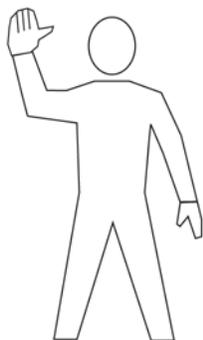
Make rapid horizontal figure-of-eight motion at waist level with either arm, pointing at source of fire with the other.
FIRE ONBOARD



Raise arm and hand, with fingers extended horizontally in front of the body, then clench fist.
ENGAGE BRAKE



Inward motion with Thumbs - **INSERT CHOCKS**



Right arm raised; elbow shoulder height; palm forward.
MARSHALLER FINISHED

Additional Information

More detailed information on this topic is available in the Flight Line Text and reference material.

Evaluation Preparation

Setup: Provide an aircrew and aircraft for this evaluation. Set up an obstacle course whereby the student and/or students can demonstrate all the proper hand signals.

Brief Student: Demonstrate the proper hand and arm signals.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Demonstrate all of the required hand and arm signals.	P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Be a Wing Walker

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Know how to be a wing walker and how to properly help the tower.

TRAINING AND EVALUATION

Training Outline

- 1. Since you will be moving aircraft in and out of congested spaces, you should always have another person act as your wing walker.
 - a. A wing walker is essential, because it is impossible for the marshaller to see all the extremities of the aircraft from the marshalling position. Using a wing walker is most important when marshalling an aircraft into a close parking spot.
 - b. As the marshaller, you have the ultimate responsibility for the aircraft. If you lose contact with your wing walker, or you do not understand the directions being given by the wing walker, stop immediately. Verify that you have adequate clearance.
 - c. If you are working as a wing walker, always maintain eye contact with the marshaller. The same hand signals that you used to direct a pilot should be used to direct the person marshalling. Use crisp and distinct hand signals and vocalize the situation if necessary. Do not hesitate to call out "STOP" if you see a problem or are unsure of the clearances.
- 2. Since you will be moving aircraft in and out of congested spaces, you should always have another person act as your wing walker.
 - a. A wing walker is essential, because it is impossible for you to see all the extremities of the aircraft from the tow position. Using a wing walker is most important when pushing an aircraft back into a hangar or another parking spot.
 - b. As the tow operator, you have the ultimate responsibility for the aircraft. If you lose contact with your wing walker, or you do not understand the directions being given by the wing walker, stop immediately. Verify that you have adequate clearance.
 - c. If you are working as a wing walker, always maintain eye contact with the tower. The same hand signals that you used to direct a pilot should be used to direct the person towing. Use crisp and distinct hand signals and vocalize the situation if necessary. Do not hesitate to call out "STOP" if you see a problem or are unsure of the clearances.
- 3. Since we do not have tugs, a tow team is necessary to help both the tower and wing walkers to get our aircraft from one point to another. In some cases the tower can move an aircraft by themselves, but help makes the move easier and safer.
 - a. The tow team will be properly positioned at aircraft push-points.
 - b. Their only job is to push. This frees the tower and wing walker to doing only their assigned jobs.
 - c. The tow team will carry chocks during the towing operation in case of an emergency.
 - d. After stopping, hold the aircraft in position until it is properly chocked.

Additional Information

More detailed information on this topic is available in the Flight Line Reference Text.

Evaluation Preparation

Setup: Parked aircraft, three wing walkers

Brief Student: Position a wing walker at each wing tip and the tail.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Demonstrate the ability to be a wing walker?	P F
2. Demonstrate the ability to serve as a tow team member?	P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Perform Aircraft Startup Procedures

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Know how to use the correct procedures for aircraft startup.

TRAINING AND EVALUATION

Training Outline

- 1. The following outlines procedures used during engine start up. The marshaller will be positioned within view of the pilot at all times.
 - a. Engine starting procedures should be included in aircrew briefing.
 - b. The pilot should not start the engine without a marshaller in position.
 - c. Check that chocks are removed before engine start.
 - d. Before starting the engine, the pilot will let the marshaller know they are ready by holding their hand out the window, moving their hand up and down, and stating "Clear Prop". The marshaller will the "Clear Prop" warning with a 'thumbs up' sign. This signal lets the pilot know the area is clear and the marshaller is ready for engine start.
 - e. During night operations flashing of the landing lights may be substituted for the hand signals.

Note: Every aircrew will need time to go through their checklist before moving from one point in this procedure to the next. Marshallers will need to be patient and give the aircrew time to complete their checklists.

Additional Information

More detailed information on this topic is available in the Flight Line Text and reference material.

Evaluation Preparation

Setup: A parked aircraft

Brief Student: Demonstrate the proper place to stand and give the correct signal for 'Engine Startup'.

Evaluation

Performance measures

Results

- 1. Demonstrate the ability to properly work with an aircrew during aircraft startup.

P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Perform Aircraft Taxi Procedures

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

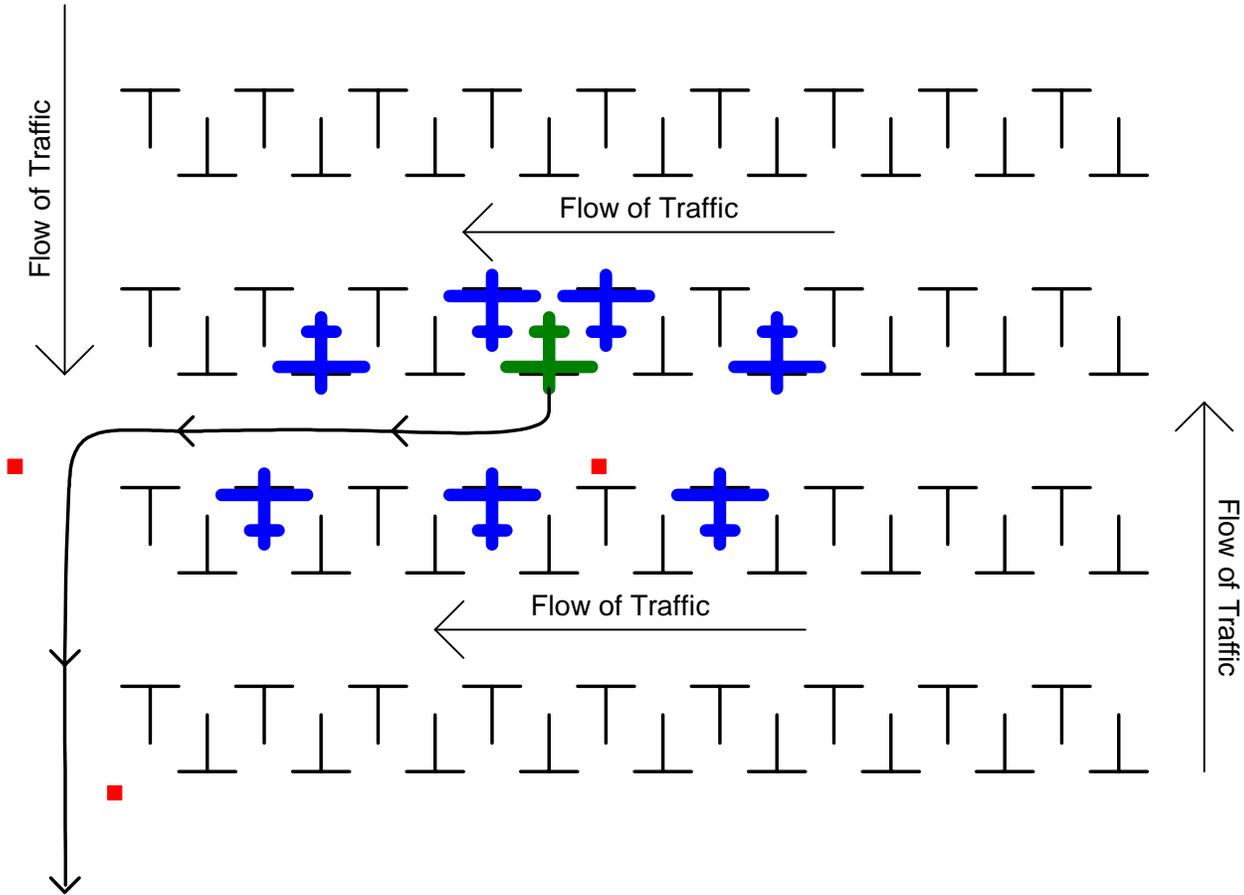
1. Know how to use the correct procedures for taxiing an aircraft.

TRAINING AND EVALUATION

Training Outline

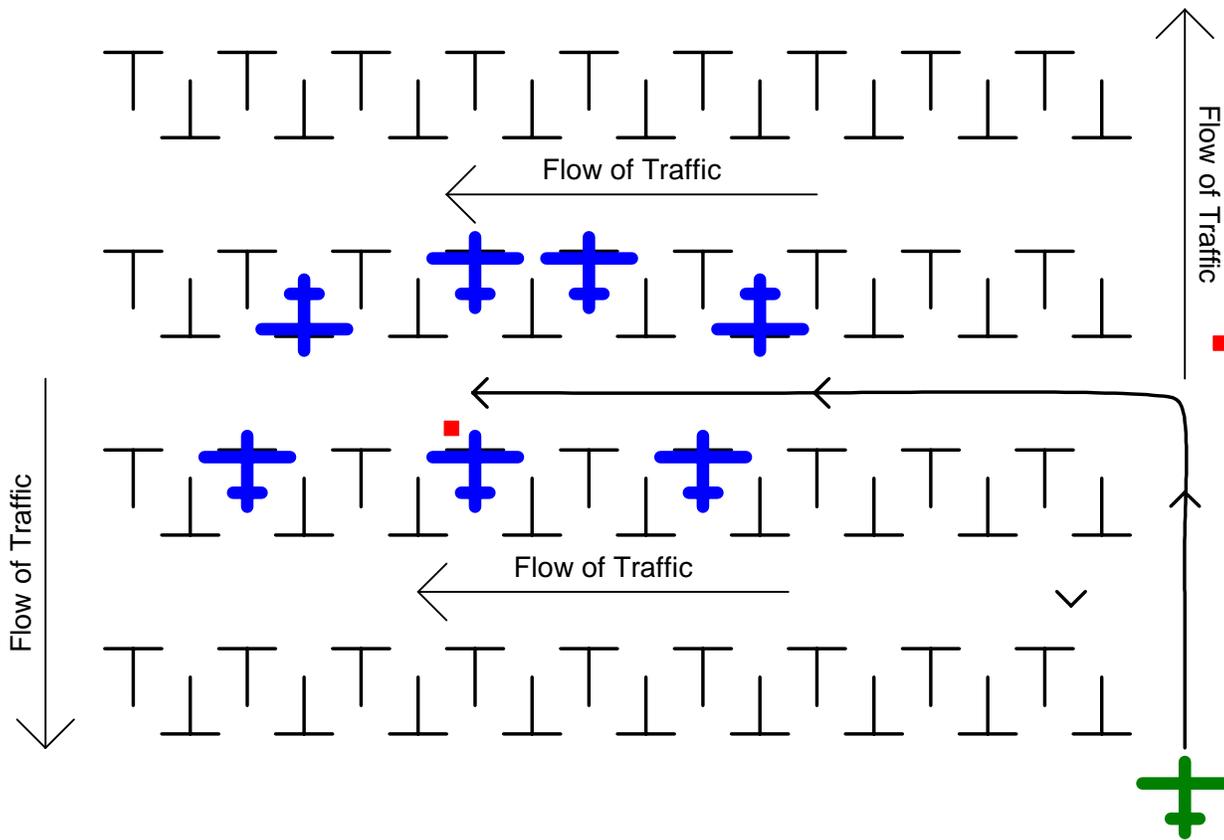
1. The following outlines procedures used to taxi the aircraft. The marshaller will be positioned within view of the pilot at all times.
 - a. Taxi procedures should be included in aircrew briefing.
 - b. The pilot should not begin to taxi without the marshaller's permission.
 - c. When the pilot is ready to taxi, they will turning their pulse light on or flashing their landing/taxi light.
 - d. The marshaller will give the pilot permission to taxi using standard taxi signals.
 - e. The pilot may then taxi to designated run-up area.
 - f. During Taxi operations if you see an aircraft taxiing too fast, signal them to slow down by using the appropriate marshalling signal.
2. CAP personnel marshalling aircraft must position themselves to meet the following requirements.
 - a. Never position yourself in the path of an oncoming aircraft
 - b. Never position yourself in a location where any part of an aircraft will pass over you
 - c. Never walk backwards on the ramp
 - d. Never run on the ramp
 - e. Always marshal aircraft entering a congested ramp under CAP control
 - f. Always get enough personnel to control aircraft movement without compromising safety
 - g. Always position yourself where you can maintain direct eye contact with the pilot-in-command (ten feet to the pilot's left of the left wing tip and far enough in front of the aircraft to allow for a turn in front of you is ideal)
 - h. Always hand the aircraft off to the next marshaller before the pilot losses sight of you.
3. Careful planning of the number of resources and their position can accomplish this with ease. Suggested marshaller positioning is shown on the following diagrams for departing (fig. 1) and arriving (fig. 2) aircraft.

Figure 1



Departing aircraft are marshaled out of their spot and released once clear of the congested area.

Figure 2



Arriving aircraft are marshaled into place just passed their assigned parking spot and pushed back into place.

Additional Information

More detailed information on this topic is available in the Flight Line Text and reference material.

Evaluation Preparation

Setup: Working with an aircrew and aircraft, let each student perform required taxi procedures

Brief Student: Demonstrate the correct signal for taxiing an aircraft.

Evaluation

Performance measures

1. Demonstrate the ability to taxi an aircraft.

Results

P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-3010

Perform Aircraft Shutdown & Chocking Procedures

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Know the correct procedures for engine shutdown.
- 2. Know the correct procedures for chock the wheels.

TRAINING AND EVALUATION

Training Outline

- 1. The following outlines procedures used to park and shut down the aircraft. The marshaller will be positioned within view of the pilot at all times.
 - a. The pilot should follow the taxi plan and marshalls directions (with help from wing walkers and aircrew as needed).
 - b. The pilot should indicate engine shutdown by showing the marshaller the aircraft keys.
 - c. The marshaller will indicate when chocks have been installed, and at that time the pilot should release the parking brake.
 - d. The aircrew on all aircraft will perform a post-flight inspection after each sortie.
- 2. After the engine is shut down and the pilot shows their keys, the aircraft should be chocked.
 - a. Have another person place a chock in front of and behind the main landing gear wheels.
 - b. Signal chocks in place.
 - c. Signal release parking brake.
 - d. After completing chocking procedures for the aircraft, marshalls are free to move to their next assignment
- 3. Wheel chocks will be placed fore and aft of the main landing gear or as specified in applicable aircraft manual.

Additional Information

More detailed information on this topic is available in the Flight Line Reference Text.

Evaluation Preparation

Setup: parked aircraft, another marshaller.

Brief Student: Demonstrate the signal to shutdown the engine, chock wheels, release parking brake.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Demonstrate proper shutdown procedures?	P F
2. Demonstrate proper chocking procedures?	P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Tie Down an Aircraft

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

- 1. Know how to properly tie down an aircraft.

TRAINING AND EVALUATION

Training Outline

- 1. This will be accomplished according on type of aircraft. When ropes are used, they will be tied to designated mooring fittings on aircraft. Normally a bowline knot will be used to prevent slippage and to provide secure fastening. Just enough slack should be allowed to prevent excessive stress on the wings, fittings and rope due to tires and strut expansion or deflation and to prevent contraction of the tie-down ropes due to moisture or wetness. The mooring points on the ground should be as close as possible directly under the respective mooring points on the aircraft. This diagram shows a vertical anchor using straight link coil chain for connection between the wire rope and aircraft wing. One link on the free end is then passed through a link of the taut portion and a safety snap is used to keep the link from passing back through. Any load on the chain is borne by the chain itself instead of the snap.
- 2. The following will review procedures as outlined in CAPR 66-1 paragraph 15 (1 February 2000).

"15. Storage and Tie-Down. Region and wing commanders are responsible for assuring that all possible preventive measures are taken to safeguard corporate 6 CAPR 66-1 (E) aircraft from wind and weather damage. Aircraft should be kept in a hangar whenever possible. Aircraft parked in the open shall be tied down at the three approved tie-down points (wings and tail) and securely chocked to prevent wind damage. The control lock shall be installed. Aircraft in extended outside storage shall be tied at four points (nose, wings, and tail).

a. Tie-Down Anchors. There are many methods of anchoring tie-downs. Satisfactory tie-down anchors may be constructed as shown at Attachment 3. Variations may be necessary when local conditions dictate.

b. Tie-Down Ropes. Tie-down ropes with tensile strength of 3,000 pounds or greater shall be used. Nylon or dacron tie-down ropes are recommended. Refer to Attachment 3 for rope specifications.

c. Tie-Down Chains. Chains shall not be used directly from aircraft mooring points to an anchor point because of excessive impact loads on wing spars. When chain tie-downs are used, they shall be attached to wire rope anchors as depicted in Attachment 3. Wire rope anchors are constructed of two continuous lengths of parallel wire rope passed through the anchor points. The tie-down chains shall be attached to the wire rope with round pin galvanized anchor shackles. This allows the chains to float along the wire rope to reduce impact loads. Chain links used for tie-down must be at least 5/16-inch steel and a proof load of 2,720 pounds and breaking load of 5,440 pounds. All fittings must be equally as strong and chains should be secured without slack.

d. Spoilers. In high wind areas, the use of sandbags, or spoiler boards as described in FAA advisory circular 20-35C, are recommended."

Additional Information

More detailed information on this topic is available in the Flight Line Text and reference material.

Evaluation Preparation

Setup: Parked aircraft, tie down ropes, and anchors.

Brief Student: Demonstrate how to properly tie down the aircraft.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Demonstrated how to properly tie down an aircraft.	P F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

Demonstrate Proper Ground Safety Observer Techniques

CONDITIONS

You are a new/old member on a mission, and are asked to be a Flight Line Marshaller.

OBJECTIVES

1. Understand how to plan where to stand to direct the aircraft, so you can see and be easily seen by the pilot, and you won't have to move while the aircraft taxi.
2. How to assist the Flight Line Supervisor in planning the best parking areas, and taxiway paths to use.

TRAINING AND EVALUATION

Training Outline

1. Determine the proper position to stand, where you can be seen and not have to move as aircraft are directed to the ramp area.
 - a. The proper place to stand is on the outside corner of a taxiway intersection. The aircraft will taxi off the runway toward you and turn the direction you give them, and not cross the centerline.
 - b. When the aircraft is approaching the ramp area, contact the aircraft by radio to find out if the pilot is going to refuel before parking the aircraft?
 - c. Direct the aircraft to the refueling area first, and then back to the staging area to park.
2. Determine the proper place to stand when parking an aircraft.
 - a. The proper place to stand is ahead of the aircraft, off center; on the side opposite from the direction you want the pilot to turn.
 - b. Never stand directly in front of the prop, and hope the brakes hold.
 - c. Park the aircraft on the paved part of the ramp area, if possible.
3. Try to choose taxiway paths that don't cross or traffic goes both ways.
 - a. Use different entry and exit from the parking ramp area.
 - b. Use different sections of taxiways so the traffic will be one way.

Additional Information

More detailed information on this topic is available in the Flight Line Reference Text.

Evaluation Preparation

Setup: None.

Brief Student: Explain safety procedures for use on the flight line and what to watch for.

Evaluation

<u>Performance measures</u>	<u>Results</u>
1. Discussed safety measures?	P F
2. Demonstrated the correct position to stand when marshalling aircraft?	P F

Trainee must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

DEMONSTRATE THE ABILITY TO FUEL AN AIRCRAFT

CONDITIONS

You are a new Flight Line Marshaller trainee and need to learn to interact with aircraft and aircrews on the flight line to refuel aircraft safely and efficiently to support mission operations.

OBJECTIVES

The student will be able to safely fuel a CAP aircraft for use on a mission.

TRAINING AND EVALUATION

Training Outline

1. Safe expeditious work is necessary for a smooth running flight line. Fueling aircraft is one of the primary duties of flight line personnel.
 - a. Never approach an aircraft while the prop is turning
 - b. Make sure the chocks are in place to prevent the aircraft from moving while you are working.
 - c. Ground the aircraft to the fueling pump before beginning your work
 - d. Use foot/hand holds to access the fueling points
 - e. Only add fuel to the level indicated. DO NOT OVERFILL.
 - f. Be mindful of spillage as aviation fuels present environmental hazards
 - g. Replace the fuel caps before moving away from the fueling points.
 - h. Document how much fuel was taken on

Additional Information

More detailed information on this topic is available in the Flight Line Reference Text.

Evaluation Preparation

Setup: Present the student with several opportunities to interact with flight crews and refuel aircraft.

Brief Student: Safety and efficiency are requirements for Flight Line Operations. Utilize the briefing and checklist to refuel and aircraft.

Evaluation

Performance Measures

Results

The individual successfully refuels an aircraft:

1. Approaches the aircraft safely.	P	F
2. Ensures aircraft is chocked	P	F
3. Grounds the aircraft at the fuel pump	P	F
4. Uses appropriate hand and footholds for accessing fueling points	P	F
5. Adds fuel to the levels indicated without spilling	P	F
6. Caps fuel tanks	P	F
7. Documents fuel dispersed	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-3014
DEMONSTRATE KNOWLEDGE OF FLIGHT LINE SECURITY

CONDITIONS

You are a new Flightline Marshaller trainee. Flight line safety and security is your number one priority.

OBJECTIVES

The student should understand the security concerns and requirements for CAP when operating on a flightline.

TRAINING AND EVALUATION

Training Outline

1. Safe expeditious work is necessary for a smooth running flight line. Discerning who should and should not be on the flight line and making sure they enter and leave safely is necessary for flight line security.
 - a. People on the flight line should have the proper uniforms and equipment.
 1. Eye and ear protection
 2. Red or Orange vest
 3. Highly visible marshalling battons
 - b. If personnel on the flight line are not Marshallers or aircrew members heading to an aircraft, advise the members to stay behind the caution line.
 - c. Monitor personnel moving around aircraft to ensure they are conducting themselves safely and efficiently.
 - d. Vehicles that belong on the flight line are easily identified-work vehicles, fuel trucks, and towing equipment.
 - e. Other vehicles or personnel should be reported to the Flightline Supervisor.

Additional Information

More detailed information on this topic is available in the Flight Line Reference Text.

Evaluation Preparation

Setup: Present the student with several opportunities to interact with flight crews, bystanders, and other mission personnel.

Brief Student: Utilize the briefing and checklist to maintain security on the flight line.

Evaluation

<u>Performance Measures</u>	<u>Results</u>	
Visitors to the flight line are met and briefed; crews are delivered safely to their aircraft.		
1. Members are provided with ear protection if they do not have it	P	F
2. Members are advised to stay behind the caution line while the flightline is active	P	F
3. Nonessential personnel or dangerous activity is reported to the Flightline Supervisor	P	F
4. POV's and non-mission or non-flight line vehicles are noted and reported to the Flightline Supervisor	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0001
BASIC COMMUNICATIONS PROCEDURES FOR ES OPERATIONS

CONDITIONS

You are a member of the CAP mission staff performing a task in which the use of a radio is necessary.

OBJECTIVES

Properly operate a CAP radio.

TRAINING AND EVALUATION

Training Information Outline

1. From time to time, duties may require the use of a CAP radio. This is not a difficult task, but does require some knowledge of operating procedures and equipment.
2. You should be able to demonstrate the following skills:
 - a. Demonstrate the proper method to contact another station.
 - b. Demonstrate knowledge of call signs.
 - c. Demonstrate knowledge of basic prowords.
 - d. Demonstrate ability to operate basic radio equipment.
 - e. Demonstrate knowledge of prohibited practices.
 - f. Demonstrate knowledge of National communications policies.
 - g. Demonstrate knowledge of local operating practices.
 - h. Demonstrate knowledge of region, wing, and local policies.

Additional Information

Additional information is available in CAPR 100-1 Vol. 1 and the "Radiotelephone Procedures Guide."

Evaluation Preparation

Setup: The student is provided with a basic radio (volume, squelch, channel controls) and asked to communicate with another station. At least one radio will be needed for this exercise. The pro-words "roger," "over," "out," affirmative," should be used. The exchange should go through several transmissions with questions and answers. Prohibitive practices, such as "chit chat," should be used or discussed.

Brief Student: The student is at mission base and has been assigned the task of reporting when the director of the local office of emergency management arrives for his/her tour of the facility.

Evaluation:

<u>Performance measures</u>	<u>Results</u>	
1. Listen before transmitting	P	F
2. Demonstrate calling procedures including call signs	P	F
3. Demonstrate use/understanding of basic prowords	P	F
4. Demonstrate understanding of radio equipment including finding local repeater/simplex	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

SPECIALTY QUALIFICATION TRAINING RECORD (SQTR)

Flight Line Marshaller

NAME (Last, First, MI)

CAPID

DATE ISSUED

Prerequisites

Item	Date Completed
Qualified GES	

The above listed member has completed the required prerequisite training for the flightline marshaller specialty.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE

DATE

Familiarization and Preparatory Training

Task	Evaluator's CAPID and Date Completed
Complete Task O-3001 Discuss Flightline Marshaller's Responsibilities	
Complete Task O-3002 State the Five Flight Line Safety Precautions	
Complete Task O-3003 Identify Requirements for Vehicles on the Flightline	
Complete Task O-3004 Discuss Flight Line Security	
Complete Task O-3005 Discuss Flight Line Hazards	

The above listed member has completed the required familiarization and preparatory training requirements for the flightline marshaller specialty qualification and is authorized to serve in that specialty while supervised on training or actual missions.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE

DATE

Advanced Training

Task	Evaluator's CAPID and Date Completed
Complete Task O-3006 Marshall an aircraft	
Complete Task O-3007 Be a Wing Walker	
Complete Task O-3008 Perform Aircraft Startup Procedures	
Complete Task O-3009 Perform aircraft taxi procedures	
Complete Task O-3010 Perform Aircraft Shutdown and Chocking Procedures	
Complete Task O-3011 Tie Down an Aircraft	
Complete Task O-3012 Demonstrate Proper Ground Safety Observer Techniques	
Complete Task O-3013 Demonstrate the Ability to Fuel an Aircraft	
Complete Task O-3014 Demonstrate knowledge of flight line security	
Complete Basic First Aid Training or equivalent	
Complete Basic Communications User Training	
Complete Task L-0001 Basic Communications Procedures for ES Operations	
Complete the appropriate portion of CAPT 117, <i>Emergency Services Continuing Education examinations</i>	

Exercise Participation

The above listed member satisfactorily participated as a flightline marshaller trainee under my direct supervision on mission number _____.

QUALIFIED SUPERVISOR'S SIGNATURE

DATE

The above listed member satisfactorily participated as a flightline marshaller trainee under my direct supervision on mission number _____.

QUALIFIED SUPERVISOR'S SIGNATURE

DATE

Unit Certification and Recommendation

The above listed member has completed the requirements for the flightline marshaller specialty qualification and is authorized to serve in that specialty on training or actual missions.

UNIT/WING/REGION COMMANDER OR
AUTHORIZED DESIGNEE'S SIGNATURE

DATE