Customer Service Bulletin - REVISED
Ramp Marshalling Procedures and Training Module
July 23, 2007

Introduction

This bulletin/training module presents the proper use of hand signals when marshalling aircraft in and out of gate parking positions. The safety of personnel, customers, and equipment requires the correct, proper use of hand signals as a means of communication. Only ramp agents who have completed full initial ramp training are permitted to act as marshallers or wing-walkers. New hire employees in training or working "shadowing" shifts are not permitted to marshal or provide wing-walker duties until they have completed formal ramp training.

Ramp Roles and Teamwork

In a wide open ramp with unlimited clearance space, an aircraft may arrive or depart with the use of one **marshaller**. Whenever there is any doubt about the available clearance space to or from a parking position, additional ramp agents as **wing-walkers** must be used. Wing-walkers may be requested by either the marshaller or the **pilot**. If the marshaller does not have adequate clearance, he/she should pre-plan the use of wing-walkers. If a pilot is taxiing into a gate area and feels that there is not enough clearance, he/she may choose to stop the aircraft and request wing-walkers.

Marhaller duties

This is the person who actively directs the aircraft to and from its parking position using standard aircraft guidance signals, shown later in this module for both **arrivals and departures.** The marshaller must watch not only the aircraft, but also the wing-walkers, who will be providing assistance by advising the amount of clearance or an emergency stop signal at any time. The marshaller will use the standard hand signals to guide the aircraft and will issue the emergency stop signal whenever he/she personally sees a danger, or whenever signaled to stop by a wing-walker. The marshaller is also responsible for ensuring that the aircraft arrival/departure area is free of FOD or any obstructions before allowing an aircraft to enter or leave the ramp.

Wing-walker duties

These individuals monitor the wing clearance and potential ramp hazards during the aircraft arrival/departure at the gate. Wing-walkers must remain visible to the marshaller at all times. Wing-walkers will not provide direct guidance to the pilot, but rather to the marshaller. The wing-walkers' only signals should be the "all clear" signal, indicating sufficient clearance, the "amount of clearance" signal when clearance is becoming limited, and the "stop" signal, when there is danger of the aircraft hitting an obstruction.

Pilot duties

The pilot should always be aware of his/her surroundings. The pilot should not proceed in or out of a gate parking area without the direction of a marshaller. The pilot should look around and be aware of his/her surroundings, but should be looking to the marshaller for direction. The pilot should NOT be looking to the wing-walkers for direction, though if the pilot notices the wing-walker giving the stop signal to the marshaller, he/she should stop the aircraft. While the pilot is required to follow the direction of the marshaller, if the pilot is uncomfortable with the requested direction, the pilot should stop the aircraft and resolve the discrepancy.

Complex Maneuvers

In the event of complex parking maneuvers, such as 180 degree turns, it is necessary to use more than one marshaller with a **handoff** procedure. There may only be one marshaller actively giving direction to the pilot, however once the aircraft has pulled into its intermediate parking position, the first marshaller must **handoff** the marshalling activity to the second marshaller.

Example- Doing a 180 degree clockwise turn between two aircraft: The first marshaller should be positioned to guide the pilot into the spot with nose in, utilizing the help of two wing-walkers. Once the nose is in, the first marshaller shall instruct the pilot to begin the clockwise turn, and then gives the "**change marshaller**" hand signal, turning over marshalling to the right wing-walker, who now becomes the marshaller, and walks with the aircraft on the turn to guide the aircraft to its final stop. The initial marshaller becomes the left wing-walker, and the original left wing-walker now becomes the right wing-walker as the aircraft makes the 180 degree spin.

Please see marshalling and wing-walking "Guide to Hand Signals" on the next pages
After reading this module, ramp agents should complete the quiz on the learning center for Ramp 101

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Aircraft Arrival And Departure:

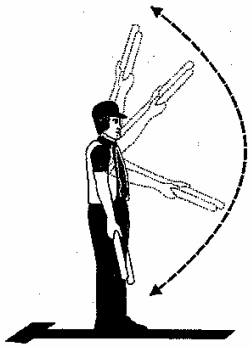
These hand signals are used for normal aircraft guidance and handling activities. The persons who will receive instructions via these hand signals are flight crewmembers and taxi-qualified mechanics.

Ready to Guide Aircraft

Indicates to an arriving aircraft that the guidance team is ready to receive the aircraft. Ground guidance begins with this signal.

Once the aircraft has visual contact with the parking crew and begins moving towards the gate, the marshaller moves to his parking position, makes a final check of the area and shows that the parking crew is ready to guide the aircraft. Face the flight deck with both arms raised above the head.

The one who normally uses this hand signal: *Marshaller.*



Aircraft Alignment

Indicates the proper parking spot and J-line alignment to the arriving aircraft.

Stand on or near the stop mark, and hold the wands (or lights) straight down to the side. Then, swing them in an arc that extends from straight down to overhead several times. This arc is oriented along the axis of the J-line. Use broad, sweeping movements to ensure maximum visibility to the flight deck crew.

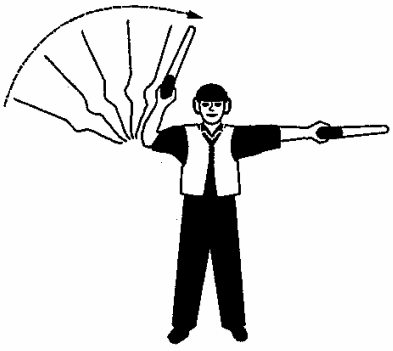
The one who normally uses this hand signal: *Marshaller.*

Taxi Straight Ahead

Directs an aircraft in a straight line.

Raise both arms extended to the sides, flex them at the elbows and execute beckoning motions using the full sweeping motions. This ensures maximum visibility.

The one who normally uses this hand signal: *Marshaller.*



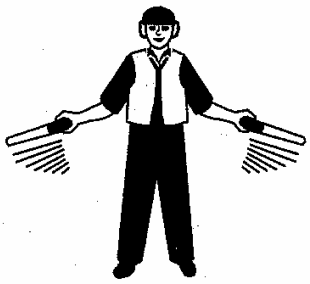
Execute Turn

This hand signal directs aircraft or ground equipment to execute a turn.

Execute the 'Proceed Straight Ahead' signal with one arm while using the other arm to point in the direction that the aircraft should proceed. The arm indicating direction of movement is outstretched to the side and stationary.

The one who normally uses this hand signal: *Marshaller.*

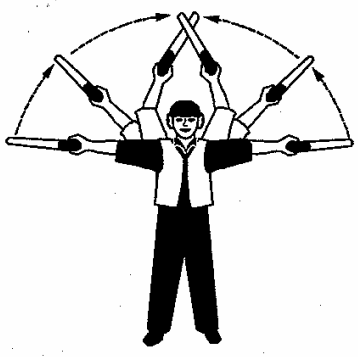
Slow Down



Instructs the flight deck crew to slow the approach speed.

Transition from the 'Taxi Straight Ahead' signal into 'Slow Down'. Drop the arms so that the wands are at a slight downward angle with the elbows slightly bent. From that position, execute several sharp, downward motions in rapid succession.

The one who normally uses this hand signal: *Marshaller.*



Final Spotting of Aircraft

This signal is used to bring the aircraft to a slow, gradual stop on the aircraft stop mark.

As the aircraft approaches the stop mark, extend the wands outward, at shoulder level, and bring them slowly together as the nose gear moves the last twenty (20) feet to the stop mark.

The one who normally uses this hand signal: *Marshaller.*

All Clear

Indicates that conditions are favorable for the aircraft to continue to taxi.

Hold one arm aloft with the wand extended and the other arm relaxed and down.

The one who normally uses this hand signal: *Wingwalker.*

The wingwalker must remain visible to the marshaller at all times.

Amount of Clearance

Indicates to the marshaller that the aircraft is in the vicinity of obstructions and that the movement should proceed with **extreme caution.** ***It also advises that STOP may be imminent. As a general rule, anytime an obstruction is within the Aircraft Buffer Zone, (within 25 feet of any aircraft surface) use this hand signal.***

Raise your arms upward to indicate that there is clearance to move safely but with caution due to not having optimal clearance. As clearance decreases, the wands are moved closer together.

This hand signal can quickly transition to the STOP signal.

The one who normally uses this hand signal: *Wingwalker.*

If clearance falls below 8-10 feet, the aircraft movement must be stopped using the "STOP" signal and the situation re-evaluated.

A GUIDE TO HAND SIGNALS

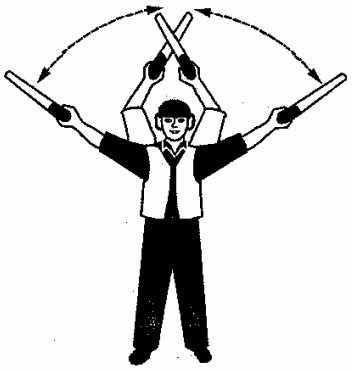
STOP Signal

The STOP Signal is the conclusion of the 'Final Spotting of Aircraft' signal. At this signal, the flight deck crew stops the aircraft and sets the brakes. STOP is also used:

- **Whenever the wingwalker(s) or marshaller thinks that it is necessary to stop the aircraft due to a hazard or potential hazard.**
- **To hold the aircraft on the pad while the towbar and tractor are disconnected and clear of the area.**

Bring your arms upward and inward until wands are crossed.

The one who normally uses this hand signal: *Marshaller or Wingwalker.*



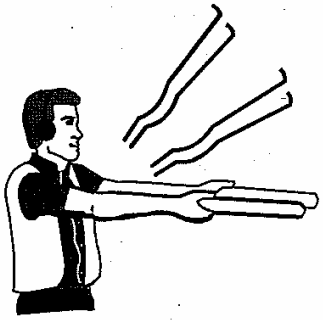
Emergency STOP

The Emergency STOP is only used when the aircraft or personnel are in immediate danger.

Execute the EMERGENCY STOP signal just like the NORMAL STOP, except you wave your arms **urgently** several times, **crossing and uncrossing the wands**, while doing so. Finish with wands crossed.

The one who normally uses this hand signal: *Marshaller or Wingwalker.*

Change Marshaller



Transfers marshalling responsibility. Used if more than one person is needed to marshal the aircraft. This is also used to pass off aircraft to an automated guide-in system in some cities.

Perform this signal by extending both arms in the direction of the next marshaller when the aircraft reaches the hand-off point.

The one who normally uses this hand signal: *Secondary Marshaller.*

Chocks Installed

Informs the flight deck crew that the wheel chocks are in place.

Hold your arms up and away from your body at a forty-five degree angle with the wands pointing inward. Then swing your arms inward so that the ends of the wands touch.

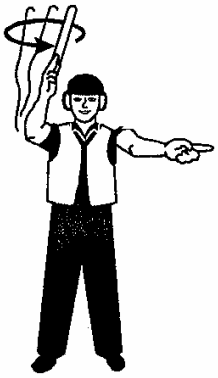
The one who normally uses this hand signal: *Marshaller.*

The flight deck crew may also use this signal using, clenched fists and thumbs to indicate that they desire chocks to be installed or as an acknowledgement to this hand signal.

Doors Secure / Check for Warning light

Made with one arm pointing straight down and the other up without holding the wand, the marshaller twists his closed fist. The ramp agent makes the signal indicating that he has checked each door latch, that all are secure, and requests the pilot to check indicators for a door warning light. The pilot will respond with an affirmative thumb up to confirm that there is no door warning light.

The one who normally makes this signal: Marshaller



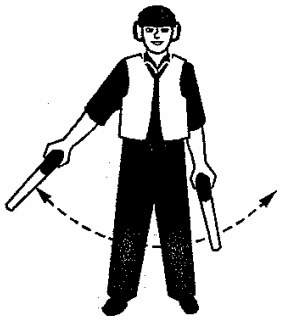
Clear to Start Engine

Informs the flight deck crew that it is clear to begin the engine start process. Rotate the right hand in 12 inch circles at head height.

Note: The pilot requests an engine start by holding up the number of fingers for the requested engine (1 for aircraft left; 2 for aircraft right). The marshaller confirms that the area is free of obstructions and people, and responds by POINTING to the requested engine and giving the clear to start signal.

The one who normally uses this hand signal: Marshaller

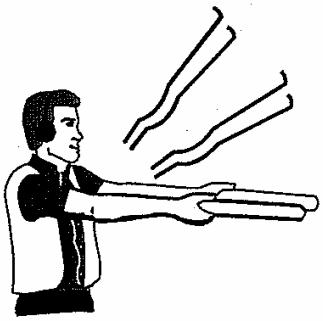
Engine Fire



Lets the flight deck crew know that there is an engine fire.

Extend your right arm downward and waved in a "fanning" motion below the waist. Fingers, corresponding to the engine number which is on fire, may be extended. At night, illuminate the fingers with a lighted wand.

The one who normally uses this hand signal: *Lead agent or anyone on the ground crew.*



End Of Ground Guidance

Directs the aircraft taxi towards the taxiway and ends all ground control over the flight.

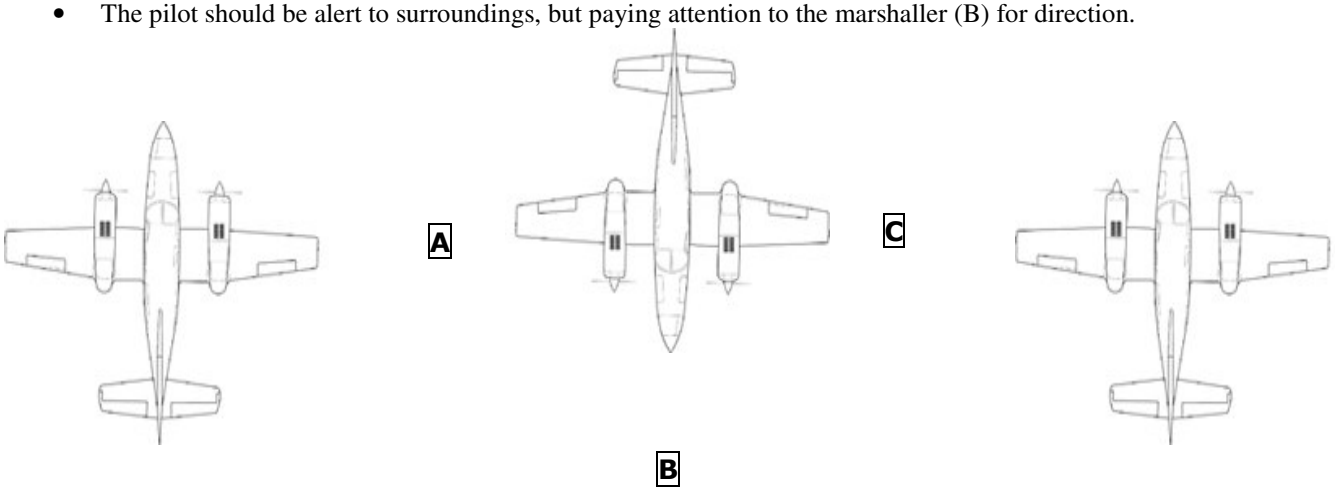
Once the aircraft is on the ramp and able to taxi on its own, the flight deck crew will indicate that they are ready to taxi by flashing the nose gear light. Face in the direction of aircraft movement, extend arms upward, and then point straight and directly forward. This relieves the marshaller, and the pilot takes control of the aircraft movement.

The one who normally uses this hand signal: Marshaller

Complex Maneuvers – 180 degree Turns between two aircraft

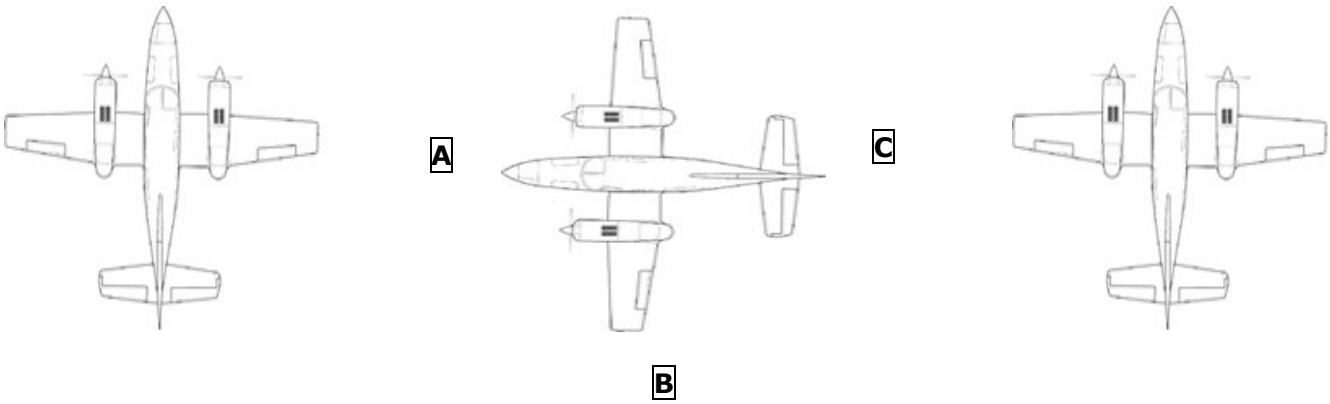
1. Initial Guidance

- Ramp agent in position "B" is marshaller, guiding aircraft into the intermediate position
- Ramp agents "A" and "C" are wing-walkers, providing guidance and clearance to the marshaller
- The pilot should be alert to surroundings, but paying attention to the marshaller (B) for direction.



2. Turn and Handoff

- Once the marshaller (B) instructs the pilot to make the first 90 degrees of the clockwise turn, he/she hands off marshalling to ramp agent A using the "change marshaller" hand signal.
- Ramp agents "A" then becomes the marshaller, and moves with the aircraft in a clockwise direction.
- Ramp agent "B" (the initial marshaller) now becomes the left wing-walker after the handoff, and moves with the aircraft to provide wing clearance to the new marshaller.
- Ramp agent "C" remains in the same position as wing-walker now for the right wing as the aircraft spins.



Final Marshalling

- Ramp Agent A now standing in front of the final parking position guides the aircraft into its final stop with the assistance of ramp agents B and C as wing-walkers.