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Traffic Signals

Do You Understand Aviation's Sign Language?

By Jeff Pardo

One of the least considered and most unappreciated tasks that airport line crews must perform is that of marshalling aircraft. From the perspective of many ramp personnel, this aspect of airport operations is also one of the most poorly understood by pilots. Any line person anywhere who has ever had to face down a whirring propeller could share a few misgivings that the person at the controls might not have this whole semaphore system figured out. Understanding the signals doesn't require the choreographic intuition of a John Travolta, but some can seem a bit incongruous. So let's have a look, then.

First, you should know that marshalling signals -- those gestures and upper body positions meant to guide or lead one or more individuals in some effective way -- are not unique to aviation; some of those shown here may have other meanings. Second, even within aviation, you may not always see it done exactly the same way; some standard signals suggested by, for example, the Air Transport Association of America might be improvised a bit and slightly modified. (Someone more limber might make it seem a bit like break dancing; someone else might be feeling a bit stiff that day, etc. Don't expect military standards everywhere you go; just try and get the gist of it all.)

Safety first

Here are a few safety considerations. First, whenever you're taxiing near anyone, never rush things; take it slow. The more confined your maneuvering space becomes, the slower you should go. Once you've got that propeller stopped, make it known that you have taken the key out of the ignition and you've turned off the master switch. (I always make a bit of an exaggerated arm motion to the line person that tells him or her that the key is on *top of the dashboard*, and not in the ignition.)

In places where it's busy and your aircraft might need to be moved, understand that it might be best and actually safest to leave the parking brake off. Finally, when you park somewhere *without* benefit of specific directions, be wary of just where that is. You wouldn't want to find out later that you had parked behind a jet and you'd never put on the gust lock.

Normally the flagman will stand in front of the airplane and to its left side so as to be conspicuous in the pilot's field of view. But obstacles, footing, or just a lack of enthusiasm could lead the marshaller to stand elsewhere relative to the pilot's seat. (A really savvy line person will stand to the *right* front corner of a helicopter, recognizing that the pilot normally sits on the right side of that breed of flying machine.)

These signals are by no means exhaustive; there are still more. Also, you may see the use of "Day-Glo" paddles or, at night, illuminated wands -- like those shown in the accompanying photos -- rather than just hands and arms. These are described from the pilot's vantage point, since the two players always face each other and the potential for confusing left and right always exists. To remove all ambiguity, when a description involves the signaler's arm motion or position, I'll state specifically just which arm that is: left or right.

- First, when you see the line person standing with one arm up, or both upraised, it means "I'll be your traffic cop today," or simply "this way." For the big guys, the signalman raises his extended arms from fully forward to upward above his head, for gate identification.
- The next signal is the "come forward" motion. One variation involves the palms facing upwards or backwards, with arms repeatedly moved upward and backward from the elbow in a kind of beckoning motion. A similar motion might involve the arms extended, bent at the elbows, moving the hands up and down from waist to head.
- Left and right turns can be confusing. (When I first saw these, I wasn't sure if I should be focusing on the bent arm or the extended one.) For a left turn, the flagman might point his or her right arm and hand downward, with the left arm extended horizontally to the left and moving up and down while pivoting at the elbow in a 90-degree arc. The rate of motion generally indicates the rate of aircraft movement desired. which represents the signal for a right turn, the arm motions are of course reversed. As I said, there are variations on these signals. Using the signaling motions for a left turn as an example, another variation involves the same position for the signaler's "pointing" arm, but the left arm is moved down from vertically overhead to horizontally forward, repeating that motion.
- The "slow down" signal is easy. The arms are sometimes placed down with the palms toward the ground, and then moved up and down several times. The extended arms may be moved downwards in a "patting" gesture, from waist toward the knees.

- "Stop" is fairly straightforward. The arms are fully extended sideways, then slowly moved upward above the head until the forearms cross. The arms may also be moved repeatedly across the head, with the speed indicating the desired urgency of the braking action. An *emergency stop* is when the arms are abruptly extended upwards until the arms are crossed above the head.
- The "cut engine" signal never fails to evoke the image of some vaudevillian silent movie scoundrel pronouncing that "it's curtains." In this one, one arm is extended forward of the body at shoulder level, bent at the elbow so that the hand extends to the other shoulder, and the hand is drawn horizontally in a slicing motion across the throat, with the palm held downwards.
- The start engine signal is a no-brainer. It can be a circular motion of the right hand at head level, and the other arm pointing at the appropriate engine. Or the circular motion can be a pantomime of a cowboy swinging a lasso more vertically above the head.
- In the "all clear" signal, the right arm can be raised at the elbow, facing forward. Or it can simply be a salute or brief waving motion, as in, "goodbye."

There are some other signals that you're not likely to see at general aviation airports. The "push-back" signal, frequently seen by airline pilots, is kind of like a gentle "shoo" as the arms are raised upward from the sides. The "next flagman" signal consists of both arms pointed upward, moved outward to the sides, and then pointed in the direction of the next taxi area or signalman (another version uses one arm down and the other simply moved across the body and extended in the desired direction). It's hard to know how to comply with the "insert chocks" signal while behind the yoke of an airplane.

A complete depiction of hand signals can be found in the Aeronautical Information Manual.

Become fluent

Some of these signals, one might argue, do seem a bit archaic, stilted, or perhaps even counterintuitive. But becoming fluent in this aviation version of sign language is in everyone's best interest. We owe it to those who are laboring on the front lines at our airports, some of whom are young people working their way into an aviation career the hard way (and whose presence provides businesses with safety and satisfied customers). The least we should do is give them a chance to get that experience without too much undue concern that we're going to harm them.

And we owe it to ourselves to operate our aircraft as safely as possible on the ground when in close proximity to other aircraft, equipment, and people -- as well as in the air.

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