

ADDENDUM. HRET HAND SIGNALS

1.1 **Background.**

These hand signals are designed for a guide person on the ground to provide instruction to the HRET operator in the cab when needed during piercing operations. These signals are not intended for the initial positioning of the boom (i.e., raising the boom out of the cradle or other actions required by the HRET manufacturer in its instructions for piercing). These signals were adapted from OSHA 1926 Subpart CC – Appendix A (Crane Hand Signals).

CAUTION: Keep safe distance from overhead obstructions, especially power lines. Serious injury or death will result from contact with or inadequate clearance from power lines. When operating in close proximity to power lines, be sure to allow for boom sway and bounce. Also, consider the effects of wind, snow, ice, and similar elements on power lines.

1.1.1 HRET Hand Signal Quick Reference Guide.

A quick reference guide is available on the FAA [Aircraft Rescue and Fire Fighting](#) webpage.

ARFF Vehicle with High Reach Extendable Turret (HRET) with Skin-Penetrating Nozzle



1.2 Which Device?

Use these hand signals for movements of the boom as well as the aircraft skin-penetrating nozzle (ASPN). Before giving hand signals, identify the device for which the signals are intended.



This signal, “Tap Top of Head”, indicates instructions are for the HRET Boom.



This signal “with arm bent at elbow; hand, forearm vertical; elbow is tapped with other hand” indicates the next instructions are for the Aircraft Skin-Penetrating Nozzle (ASPN).

1.3 Signals.

1.3.1 Raise HRET Boom.



First, indicate “which device?” (Boom), with a tap to the top of the head.



With arm extended horizontally to the side, thumb points up with other fingers closed.



The HRET Boom raises.

1.3.2 Lower HRET Boom.

First, indicate
“which device?”
(Boom), with a
tap to the top of
the head.



With arm
extended
horizontally to
the side, thumb
points down with
other fingers
closed.



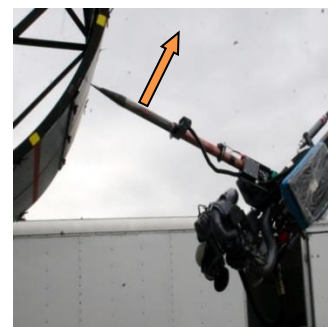
The HRET Boom
lowers.

1.3.3 Raise (Rotate Up) ASPN.

Use a hand signal
to indicate the
next signal
applies to an
ASPN movement.



Use the same hand
signal as used for
“boom up” to call
for the ASPN to be
rotated up.



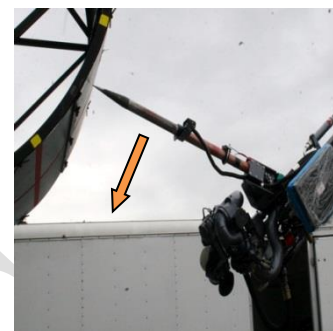
The ASPN rotates
up.

1.3.4 Lower (Rotate Down) ASPN.

Use a hand signal to indicate the next signal applies to an ASPN movement.



Use the same hand signal as used for “boom down” to call for the ASPN to be rotated down.



The ASPN rotates down.

1.3.5 Extend HRET Boom.

Use a hand signal to indicate the next signal applies to a Boom movement.



With hands to the front at waist level, the thumbs point outward with the other fingers closed.



The HRET Boom extends.

1.3.6 Retract HRET Boom.

Use a hand signal to indicate the next signal applies to a Boom movement.



With hands to the front at waist level, the thumbs point inward with the other fingers closed.



The HRET Boom retracts.

1.3.7 Swing Boom Right or Left.

Use a hand signal to indicate the next signal applies to a Boom movement.



With arm extended horizontally, the index finger points in the direction the boom is to swing.

1.3.8 Normal STOP.

Raise the arm into a 90-degree bend with the hand in a closed fist. The Normal Stop signal should be used after the movement directed by the hand signal has reached the desired location.



The ASPN stops once it has reached the desired location.

1.3.9 Emergency Stop / All Stop.

Extend vertically and cross into an "X". Used to stop ALL movement of the HRET immediately.



The HRET Boom stops immediately.

1.3.10 Order to Pierce.

Once the correct position is achieved for piercing, if the operator needs further guidance, use the following two signals:



- a. **STOP Signal** – indicating the final position has been reached.



- b. **Two Thumbs Up** – Ready to Pierce.

1.3.11 Secure (Retract and Bed) the HRET.

Hold hands together at waist level.