

APPENDIX C

HAND AND ARM SIGNALS

VOICE CONTROL

Ground guides controlling all tracked vehicle recovery operations will use electronic voice means when available supplemented by minimal hand and arm signals as the primary means of ground control during recovery and lift operations. Until a wireless system is developed, units will use CVC cable (NSN 5995-00-434-5755) to link the ground guide with the vehicle operator via the vehicle intercom system for operations within 30 feet of the recovery vehicle.

An alternative means, especially for operation in excess of 30 feet of the recovery vehicle, is to connect a TA-312 (utilizing an optional headset for hands

free operations) to the 1780 control box via WD-1 field telephone wire. If voice means cannot be established, then hand and arm signals will continue to be used.

The restrictions are:

- Units acquire extended CVC cord and/or items needed to use.
- Units conduct familiarization, stressing potential for extended cord or WD-1 to become snagged or severed during operations. The ground guide must take care not to get cord or

wire wrapped or entangled while moving. Therefore, if the movement of components is required, the wire or cord should be disconnected during such movement and reconnected when the ground guide is finally positioned.

- Warn crew that if voice operation cannot be established or fails at anytime they will return to hand and arm signals.
- CVC cable assembly can be connected to any C-2298 box in vehicle, except for driver's, to support ground guide being in most effective location.

- When using either CVC cord or WD-1 in winching operations, the length must be such that the ground guide can be located sufficiently outside any hazard area as required and defined in FM 20-22.
- Voice communication between the operator and the ground guide will make safer lift operations by removing doubt associated with hand signals. This would be especially safer and more effective for limited visibility and night operations. It also removes doubt as to who is controlling the operation.

HAND AND ARM SIGNALS

Only hand and arm signals that apply to specific recovery vehicles are illustrated in this appendix. For

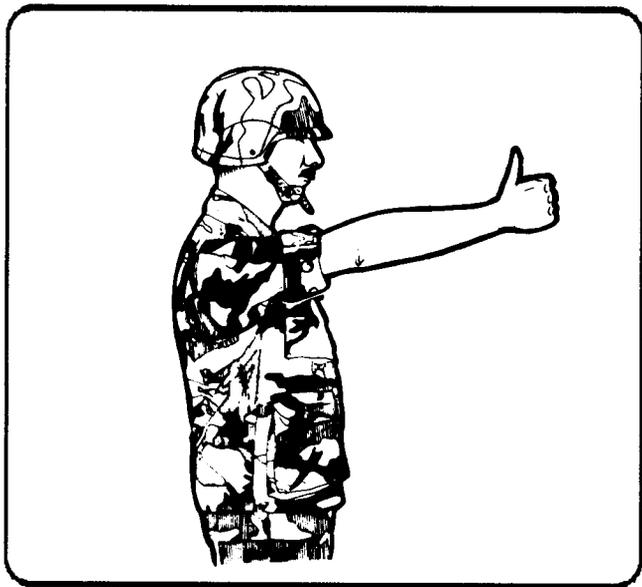
hand and arm signals that apply to driving, refer to FM 21-305 or FM 21-306.



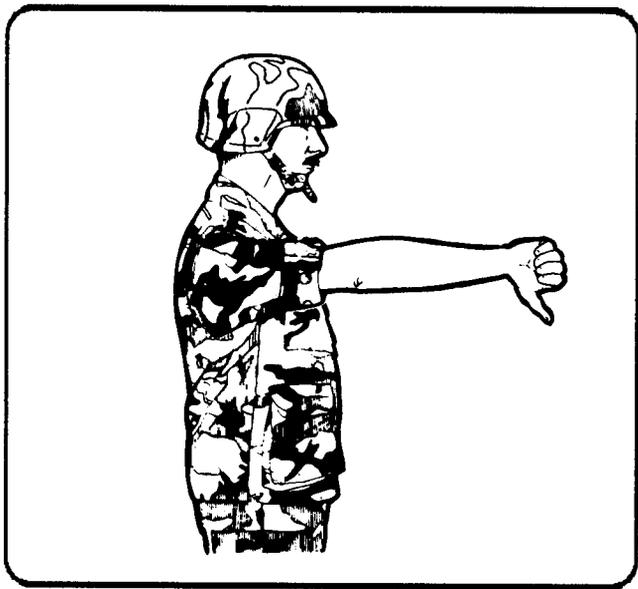
The signal to **RAISE THE HOIST CABLE** is made with the arm extended to the side and bent upward at the elbow, with the index finger extended from a fist, and the hand rotated slowly.



The signal to **LOWER THE HOIST CABLE** is made with the arm held downward and out slightly from the side, with the index finger extended from a fist, and the hand rotated slightly. This signal may be made with either hand with rotation made in either direction.



The signal to **RAISE THE BOOM** is made by extending the arm toward the operator with the fist clenched and the thumb pointing upward.



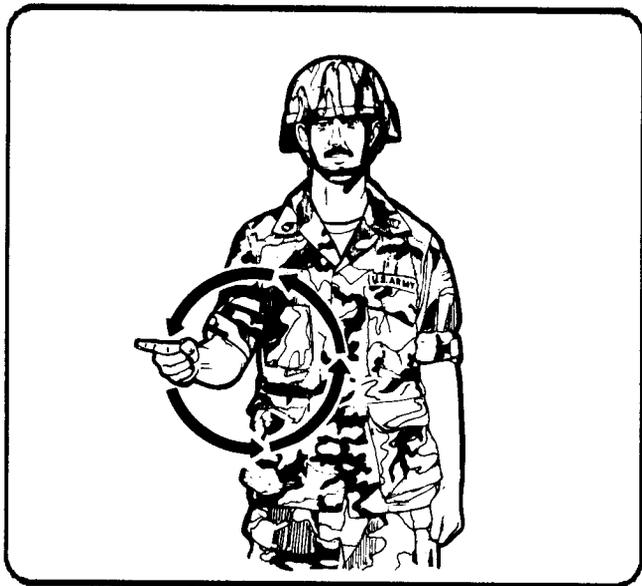
The signal to **LOWER THE BOOM** is made by extending the arm and clenching the fist in the same way, but with the thumb pointing downward. This signal may be made with either hand.



The signal to **RAISE THE SPADE** is given by first pointing at the spade with the index finger of the left hand. While pointing with the left hand, extend the right arm toward the operator, with the arm bent upward at the elbow while clenching the fist and pointing the thumb upward.



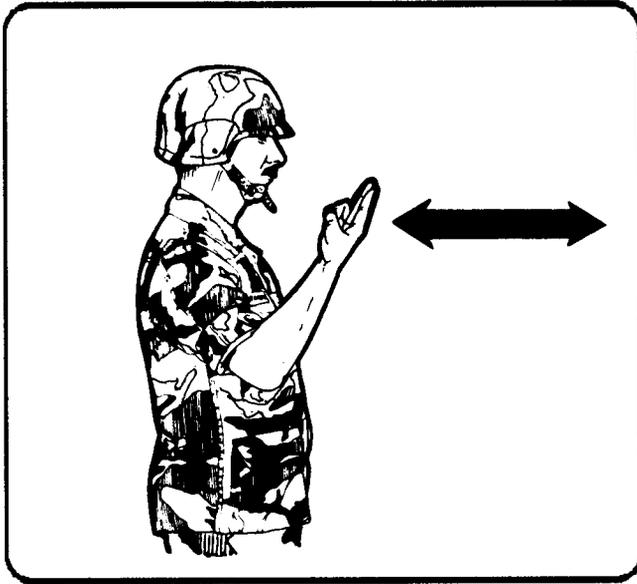
The signal to **LOWER THE SPADE** is made in the same way, but with the thumb of the right hand pointing downward.



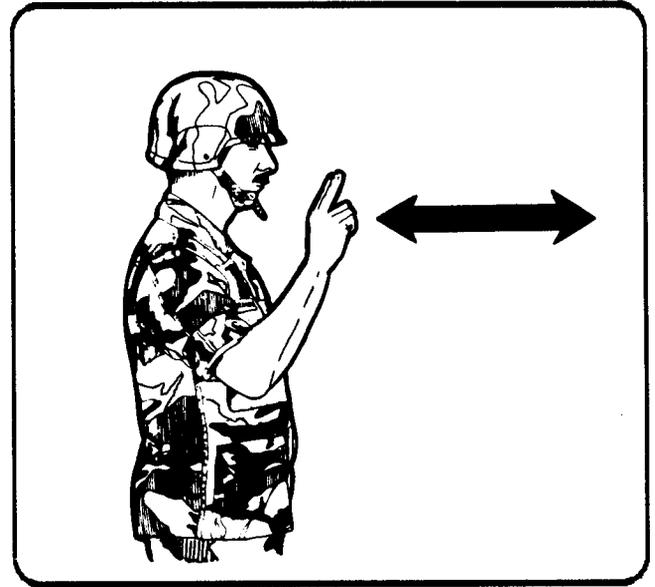
The signal to **INHAUL THE MAIN WINCH CABLE** is made by pointing at the operator with the index finger and rotating the arm in a circular motion.



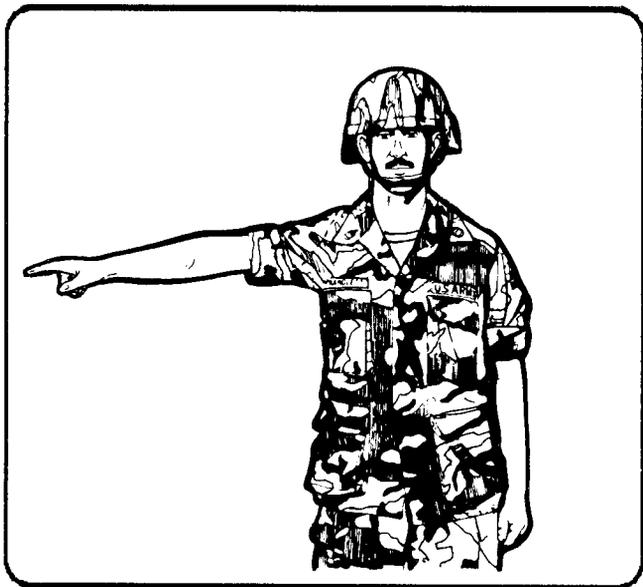
The signal to **PAY OUT THE WINCH CABLE** is made with the arm bent, bringing the hand in front of the chest. The hand is moved down and away from the body at belt level, circling back to the chest. The circular motion is continued until the signal to stop is given.



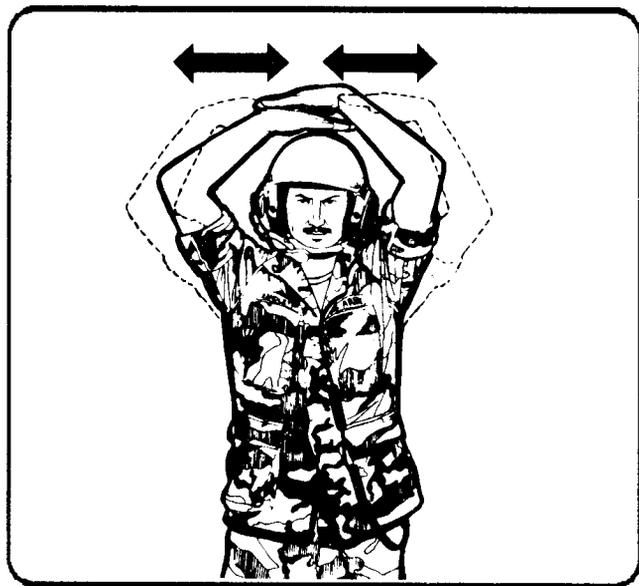
The signal to **EXTEND THE BOOM** is made with the index and center fingers extended upward, with the back of the hand facing the operator and the hand moved in toward and away from the chest by bending the elbow slowly in a pumping action.



The signal to **RETRACT THE BOOM** is made in the same way, but with the palm of the hand facing the operator.



For vehicles with a traversing boom, the signal to **SWING THE BOOM RIGHT OR LEFT** is made by extending the arm to shoulder level in the direction which the operator must traverse.



For the signal to **BUTTON UP**, place both hands on top of the helmet, palms down, one on top of the other. Place both arms back and in the same plane as the body. For the signal to **UNBUTTON**, give the button up signal; then separate the hands, moving them slightly to each side in a slicing motion. Repeat.



**REFER TO FM 21-305
OR FM 21-306 FOR MORE
INFORMATION ON HAND SIGNALS**

The signal to **STOP** any action that is being performed is given by clapping the hands together with palms facing each other at chin level.