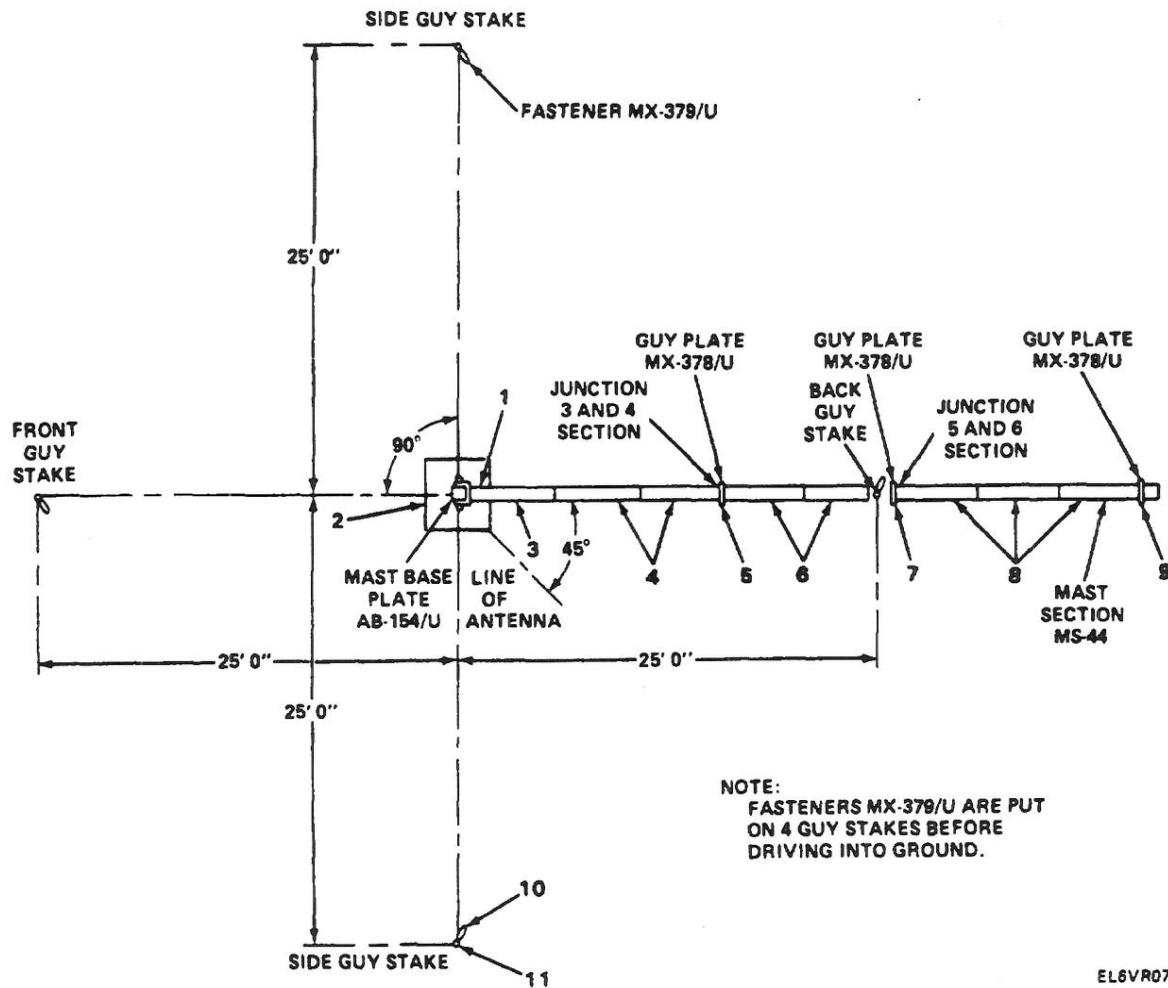


2-17. MAST AB-155/U ERECTION.

These procedures cover erection of antenna mast AB-155/U. Two antenna masts are used to support antenna when overall antenna length is less than 120 feet (36.6 m). A center mast is needed for antennas of 120 feet or longer. Erect end masts several feet beyond each end of antenna. Center mast must be offset 3 feet to left or right of antenna line to allow room for coaxial connector.

Determine direction antenna is to radiate. Always consider connection of antenna to shelter before positioning antenna along ground for erection. Arrange two or three antenna masts and guy plates as illustrated on page 2-53. Erect each antenna according to the following procedures,

ANTENNA ASSEMBLY



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2-17. MAST AB-155/U ERECTION. (CONT)

1. Place mast AB-155/U assembly at each mast location.

NOTE

If ground is soft or sandy, place mast base plate AB-154/U on ground and push it down firmly. Then drive mast base swivel stake AB-154/U through center hole in mast base plate.

2. Drive mast base AB-154/U swivel ground stake (1) into ground, through mast base plate (2) if needed, at desired mast location with swivel end pointing 45 degrees from antenna line.
3. Aline female ends of mast sections MS-44 for assembly.
4. Install first mast section (3) to mast base swivel stake (1).
5. Install second and third mast sections (4).
6. Install guy plate MX-378/U (5) over third mast section.
7. Install fourth and fifth mast sections (6).

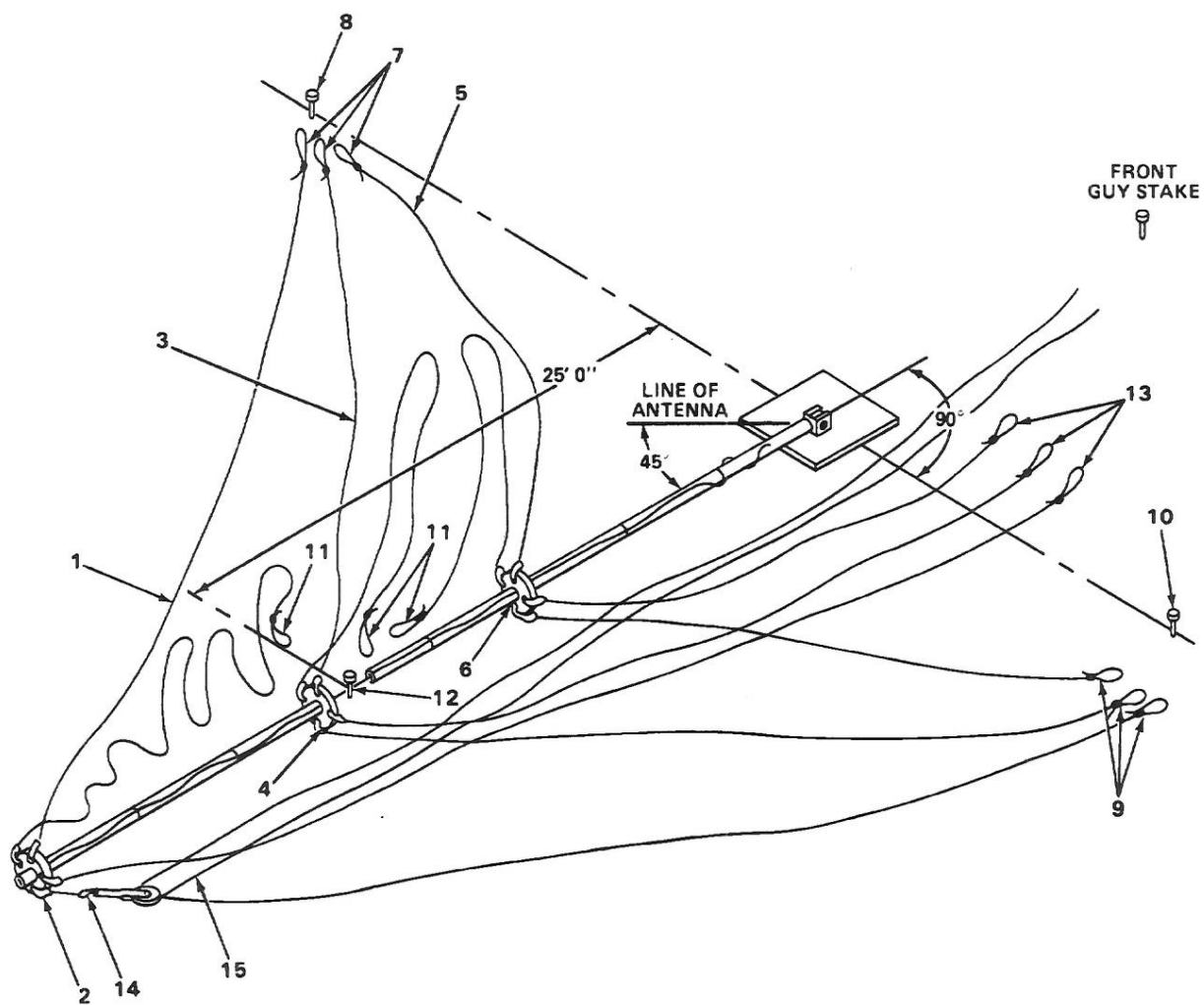
NOTE

Use five assembled mast sections to measure distance between mast base and guy stakes. If ground is soft or sandy use wooden stakes instead of aluminum stakes, and loop guys over stakes.

8. Install second guy plate MX-378/U (7) over fifth mast section.
9. Install sixth, seventh, and eighth mast sections (8).
10. Install third guy plate MX-378/U (9) over eighth mast section. Walk down mast assembly and turn three guy plates so three halyard holes face same direction.
11. Install four guy fasteners MX-379/U (10) over four guy stakes (11).
12. Install four guy stakes (11) 25 feet (7.6 m) from mast base as illustrated.

2-17. MAST AB-155/U ERECTION. (CONT)

ANTENNA ASSEMBLY (CONT)



EL6VR071

2-17. MAST AB-155/U ERECTION. (CONT)**NOTE**

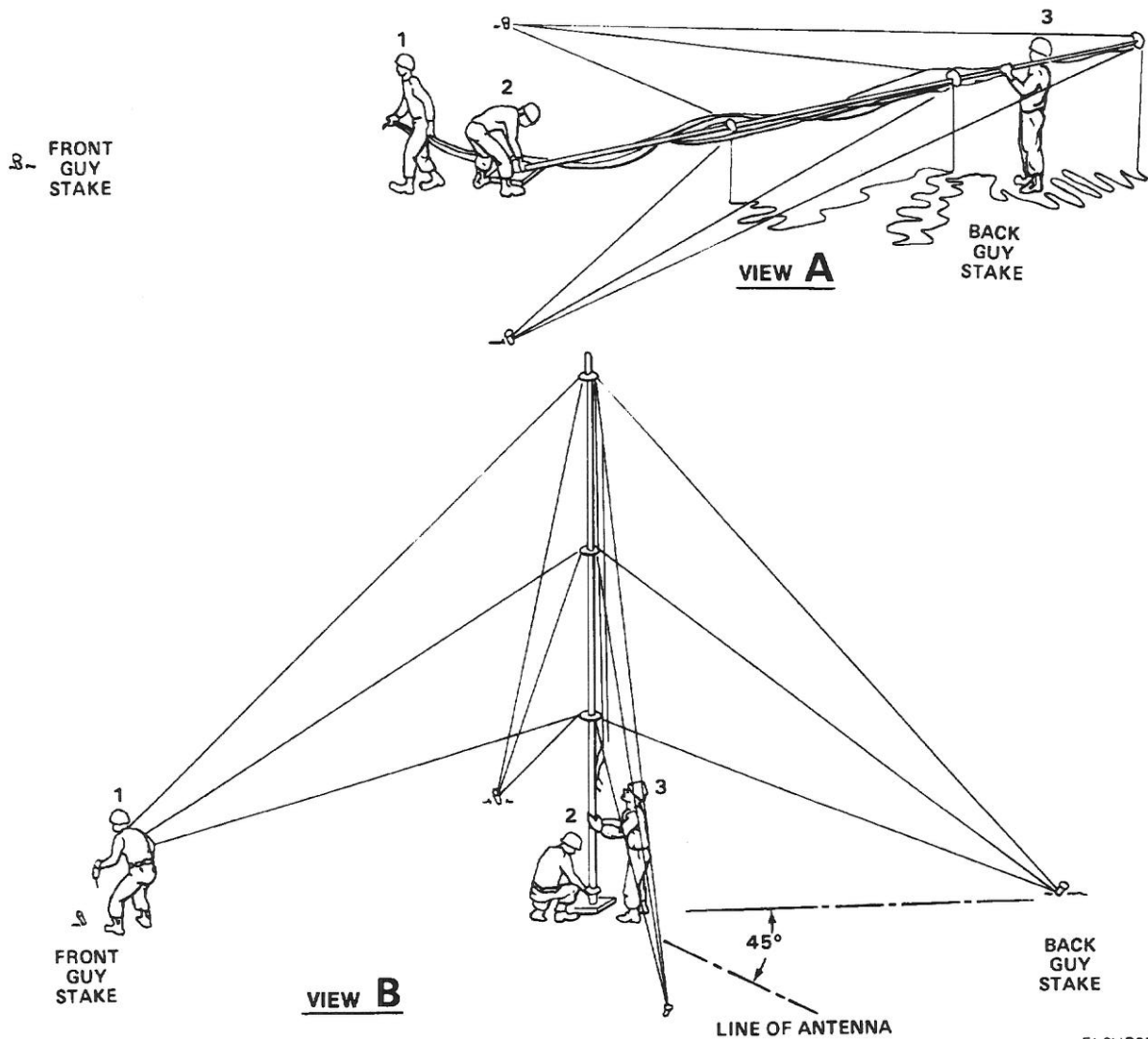
Fasten guy lines by snapping fastener at end of each guy line into one of four holes located 90 degrees apart on MX-378/U.

13. Fasten four 52-foot guy lines MX-383/GRA-4 (1) to top guy plate MX-378/U (2).
14. Fasten four 42-foot guy lines MX-381/GRA-4 (3) to center guy plate MX-378/U (4).
15. Fasten four 32-foot guy lines MX-382/GRA-4 (5) to bottom guy plate MX-378/U (6).
16. Connect three different lengths of right side guy lines (7) to right side guy stake (8).
17. Connect three different lengths of left side guy lines (9) to left side guy stake (10).
18. Tighten each side guy line installed in steps 16 and 17. Do not over tighten as antenna mast could bend.
19. Connect three different lengths of back guy lines (11) to back guy stake (12).
20. Position three front guy lines (13) pointing toward front guy stake.
21. Fasten snap fastener (14) on pulley to unused hole in top guy plate MX-378/U (2).
22. Slip rope (15) through pulley and tie ends of rope near mast base to keep rope from running through pulley.

2-17. MAST AB-155/U ERECTION. (CONT)

ANTENNA ERECTION

Personnel Required: Three technicians



EL6VR072

1. Technician (1) holds front guy lines and pulls steadily on them, keeping more tension on top guy line to bow mast slightly (view A).
2. Technician (2) takes a position near mast base and holds mast base in position.
3. Technician (3) takes position near top end of mast and raises it.
4. Technician (3) walks toward mast base raising mast as technician (1) pulls on guy lines.
5. Adjust guy lines until mast is vertical (view B).

2-17. MAST AB-155/U ERECTION. (CONT)

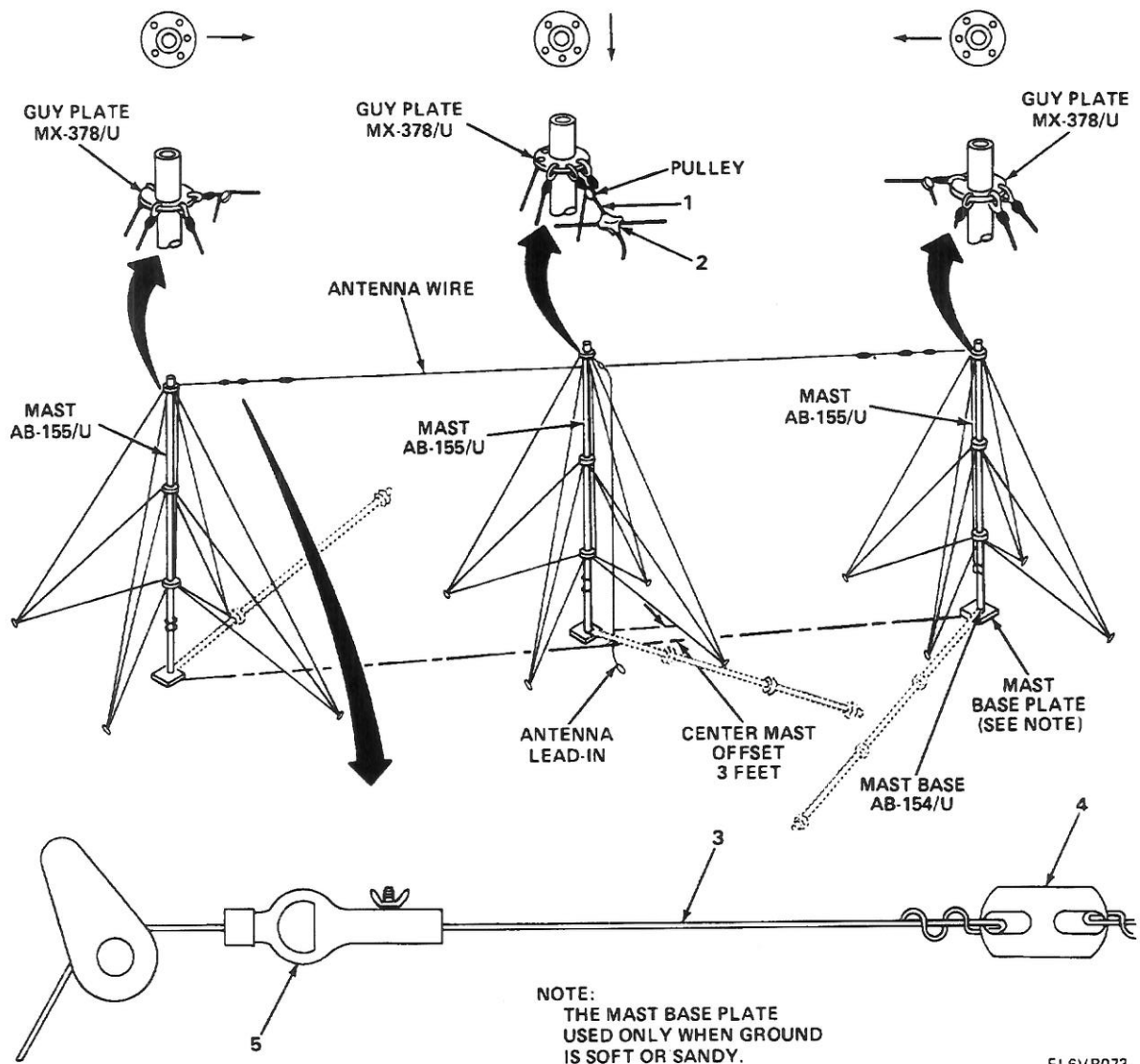
NOTE

When a guy line is tightened, opposite guy line may have to be loosened slightly to keep mast from bowing.

ANTENNA RAISING

When operating within frequency range of 2.0 to 4.0 MHz, length of antenna wire requires use of three 40-foot antenna masts AB-155/U. At frequencies above 4.0 MHz, only two antenna AB-155/U masts are required. Length of antenna should be positioned at right angles to direction of transmission and reception.

The dark lines illustrated below show position in which masts are assembled so halyard holes face in right direction.



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2-17. MAST AB-155/U ERECTION. (CONT)

ANTENNA RAISING

NOTE

Do not do step 1 if two antenna masts are required.

1. Attach fastener on halyard MX-516/GRA-4(1) to coaxial connector (2).
2. Cut a 15-inch piece of rope or wire (3).
3. Attach one end of antenna wire (3) to end strain insulator (4).
4. Attach free end of antenna wire (3) to halyard MX-516/GRA-4 (5).
5. Repeat steps 2, 3, and 4 for opposite end of antenna wire.
6. Pull antenna into position with halyards MX-516/GRA-4. Tie ropes to antenna masts.

NOTE

Antenna lead-in cable should be raised off ground on poles if possible. Raising lead-in cable from ground prevents damage. Antenna lead-in should be taped to both antenna mast and shelter to relieve tension on coaxial connector.

7. Connect antenna lead-in cable to OWR-DX-SEND DOUBLET ANTENNA connector located on roadside of shelter.

2-18. CAMOUFLAGE PROCEDURES,

General instructions for camouflage procedures are contained in TM 5-200. Specific procedures for camouflaging AN/GRC-122/142(*) shelters with radar scattering screen, when operating with one whip antenna, are given below:

CAUTION

During combat or simulated combat conditions, make sure metal poles used to support camouflage netting material do not touch antenna. Metal poles should be positioned a minimum of 4 feet (1.22 m) away to avoid contact and prevent damage to equipment.

Do not cut nylon strings of netting.

1. Cut three quarters of a 16-inch (40 cm) diameter hole in garnish material (vinyl) in approximate location of antenna. Do not cut nylon strings of netting.
2. Open cut flap to expose netting.
3. Secure flap open with plastic tape (NSN 1080-00-108-1114) from repair kit.
4. Pass whip antenna through hole, positioning antenna in center.
5. When erecting poles to support camouflage screen, place poles at least 4 feet (1.22 m) from whip antenna.