DEPARTMENT OF THE ARMY TECHNICAL MANUAL

TM 11-2620A

DEPARTMENT OF THE AIR FORCE TECHNICAL ORDER

TO 16-35AB38-6

ANTENNA SUPPORT

AB-38B/CR

This copy is a reprint which includes current pages from Changes 1 through 4.

DEPARTMENTS OF THE ARMY AND THE AIR FORCE
JANUARY 1952

AGO 2192B—Jan

TM 11-2620A
*C 4

ANTENNA SUPPORTS AB-38B/CR AND AB-38C/CR

CHANGE
No. 4

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *16 January 1964*

TM 11-2620A, 25 January 1952, is changed as follows:

(As changed by C 3, 7 May 57) This manual also applies to:

Nomenclature	*Order No.*
Antenna Support AB-38C/FR	36181-Phila-57

Note. The parenthetical reference to previous change (example: "page 5 of C 2") indicates that pertinent material was published in that change.

Page 1. Add the following "Note" below the title of chapter 1:

Note. Antenna Support AB-38C/CR is similar to Antenna Support AB-38B/CR. Information in this manual applies to both unless otherwise specified.

Delete paragraph 1*b*.

Add paragraph 1.1 after paragraph 1.

1.1. Index of Publications

Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment. DA Pam 310-4 is an index of current technical manuals, technical bulletins, supply manuals (types 4, 6, 7, 8 and 9) supply bulletins, lubrication orders, and modification work orders which are available through publications supply channels. The index lists the individual parts (-10, -20, -35P, etc.) and the latest changes to and revisions of each equipment publication.

Delete paragraph 2 and substitute:

2. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment. Use

*This change supersedes C 3, 7 May 1957.

equipment forms and records in accordance with instructions in TM 38–750.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700–58 (Army), NAVSANDA Publication 378 (Navy), and AFR 71–4 (Air Force).

c. Reporting of Equipment Manual Improvements. The direct reporting by the individual user of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended changes to DA Technical Manual Parts Lists or Supply Manual 7, 8, or 9) will be used for reporting these improvements. This form will be completed in triplicate using pencil, pen, or typewriter. The original and one copy will be forwarded direct to Commanding Officer, U. S. Army Electronics Materiel Support Agency, ATTN: SELMS–MP, Fort Monmouth, N. J., 07703. One information copy will be furnished to the individual's immediate supervisor (officer, noncommissioned officer, supervisor, etc.).

Page 4, paragraph 4.1 (page 3 of C 2, as changed by C 3, 7 May 57).

Chart, "Component" column. In line 8, add the following after "Guy rope, 41-foot": (not supplied with equipment obtained on Order No. 36181–Phila–57).

Page 5, paragraph 5*e,* last line. (As changed by C 3, 7 May 57)

Add the following: In C models obtained on Order No. 36181–Phila–57, the 41-foot guys are not supplied and two of the spare 50-foot guy ropes must be used to stabilize the boom.

Page 6, figure 3. (As changed by C 3, 7 May 57)

Add the following note:

Note.

THE BOOM GUYS ARE NOT SUPPLIED WITH EQUIPMENTS OBTAINED ON ORDER NO. 36181–PHILA–57.

Page 9, paragraph 9. Delete subparagraph *c* and substitute:

c. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (par. 2).

d. See that the equipment is complete as listed on the packing slip. If a packing slip is not available, check the equipment against the table of components (par. 4 or 4.1). Report all discrepancies

in accordance with TM 38–750. Shortage of a minor assembly or part that does not affect proper functioning of the equipment should not prevent use of the equipment.

e. If the equipment has been used or reconditioned, see whether it has been changed by a modification work order (MWO). If the equipment has been modified, the MWO number will appear on the boxes in which the equipment was shipped. Check to see whether the MWO number (if any) and appropriate notations concerning the modification have been entered in the equipment manual.

Note. Current MWO's applicable to the equipment are listed in DA Pam 310–4.

Page 16, paragraph 15*b*, line 1. (As changed by C 3, 7 May 57)

Change "boom guy lines to" to: boom guy lines (one of the spare 50-foot guys with C models obtained on Order No. 36181–Phila–57) to.

Page 25. Delete chapter 3 (page 2 of C 2) and substitute:

CHAPTER 3

MAINTENANCE

Section I. OPERATOR'S PREVENTIVE MAINTENANCE

23. Preventive Maintenance Techniques

Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent the occurrence of trouble, to reduce downtime, and to assure that the equipment is serviceable.

a. Systematic Care. The procedures given in paragraphs 24 and 25 cover routine systematic care and cleaning essential to proper upkeep and operation of the equipment.

b. Preventive Maintenance Checks and Services. The preventive maintenance checks and services chart (par. 25) outlines functions to be performed at specific intervals. These checks and services are to maintain Army electronic equipment in a combat serviceable condition; that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining combat serviceability, the chart indicates what to check, how to check, and what the normal conditions are. The references column lists the illustrations, paragraphs, or manuals that contain supplementary information. If the defect cannot be remedied by the operator, higher echelon maintenance or repair is required.

Records and reports of these checks and services must be made in accordance with the requirements set forth in TM 38–750.

24. Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services of the equipment are required daily and monthly. Paragraph 25 specifies the checks and services that must be accomplished daily.

25. Daily Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	End item equipment.	Inspect equipment for completeness.	Pars. 4, 4.1 (page 3 of C 2) and 7.1 (page 2 of C 1).
2	Guy ropes	Check guy ropes for proper and uniform tension.	
3	Stakes	Check stakes for looseness.	

Section II. ORGANIZATIONAL PREVENTIVE MAINTENANCE

26. Organizational Preventive Maintenance

a. Preventive maintenance is the systematic care, inspection, and servicing of equipment to maintain it in serviceable condition, prevent breakdowns, and assure maximum operational capability. Preventive maintenance is the responsibility of all echelons concerned with the equipment and includes the inspection, testing, and repair or replacement of parts, subassemblies, or units that inspection and tests indicate probably would fail before the next scheduled periodic service. Preventive maintenance checks and services of the equipment at the second echelon level are made at monthly intervals unless otherwise directed by the commanding officer.

b. Maintenance forms and records to be used and maintained on this equipment are specified in TM 38–750.

26.1. Monthly Maintenance

Perform the maintenance functions indicated in the monthly preventive maintenance checks and services chart (par. 26.2). A month is defined as approximately 30 calendar days of 8-hour-per-day operation. Equipment maintained in a standby (ready for immediate operation) condition must have monthly preventive

maintenance checks and services performed on it. Equipment in limited storage (requires service before operation) does not require monthly preventive maintenance.

26.2. Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Publications	See that all publications are complete, serviceable, and current.	DA Pam 310–4.
2	Modifications ...	Check DA Pam 310–4 to determine if new applicable MWO's have been published. All URGENT MWO's must be applied immediately. All NORMAL MWO's must be scheduled.	TM 38–750 and DA Pam 310–4.
3	Spare parts	Check all spare parts (operator and organizational) for general condition and method of storage. There should be no evidence of overstock, and all shortages must be on valid requisitions.	Par. 7.1.
4	Installation	See that equipment is properly installed.	Pars. 10 through 19.
5	Preservation	Check all surfaces for evidence of fungus. Remove rust and corrosion and spot-paint bare spots.	TM 9–213 and par. 26.3.
6	Mounting	See that all nuts are correctly positioned and properly tightened.	
7	Canvas items ...	Inspect canvas items for tears and mildew. **WARNING: Cleaning compound is flammable and its fumes are toxic. Provide adequate ventilation. DO NOT use near a flame.** If necessary, clean the canvas items with a brush or cloth that has been moistened with Cleaning compound (Federal stock No. 7930–395–9542).	

26.3. Cleaning and Touchup Painting Instructions

Remove rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint on

the bare metal to protect it from further corrosion. Refer to the applicable cleaning and refinishing practices specified in TM 9–213.

Page 13. Delete appendix I and substitute:

APPENDIX

REFERENCES

DA Pam 310–4	Index of Technical Manuals, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.
TM 9–213	Painting Instructions for Field Use.
TM 38–750	The Army Equipment Record System and Procedures.

Page 33. Delete appendix II.

BY ORDER OF THE SECRETARY OF THE ARMY:

EARLE G. WHEELER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

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NG: None.

USAR: None.

For explanation of abbreviations used, see AR 320-50.

TECHNICAL MANUAL

ANTENNA SUPPORTS AB-38B/CR AND AB-38C/CR

TM 11-2620A
CHANGES No. 2

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *22 May 1956*

TM 11-2620A, 25 January 1952, is changed as follows:

The title of the manual is changed to read: **ANTENNA SUPPORTS AB-38B/CR AND AB-38C/CR.**

The following information changes TM 11-2620A so that the manual also applies to the following equipments.

Nomenclature	*Order No.*	*Serial No.*
Antenna Support AB-38C/CR	16057-Phila-55	None assigned.

Note. The antenna support procured on Order No. 16057-Phila-55 is similar to Antenna Support AB-38B/CR covered in the manual. Information in the technical manual applies to all Antenna Supports AB-38C/CR unless otherwise specified in Changes No. 2.

Add "(73-foot in the C model)" after "68-foot" in the following places in the manual:

Page 5, paragraph 5*e*. Line 5.
Page 13, paragraph 14. Line 1.
Page 14, paragraph 14*a*(1). Lines 1 and 6.
Page 14, paragraph 14*a*(7). Line 1.

Add "(55-foot in the C model)" after "50-foot" in the following places in the manual:

Page 5, paragraph 5*e*. Line 6.
Page 13, paragraph 14. Line 1.
Page 14, paragraph 14*a*(1). Lines 1 and 4.
Page 14, paragraph 14*a*(6). Line 1.
Page 14, paragraph 14*a*(8). Line 2.
Page 15, paragraph 14*b*(1). Lines 1 and 4.
Page 15, paragraph 14*b*(6). Line 1.
Page 15, paragraph 14*b*(7). Line 2.

Add "(50-foot in the C model)" after "45-foot" in the following places in the manual:

Page 5, paragraph 5*e*. Line 7.
Page 13, paragraph 14. Line 2.
Page 14, paragraph 14*a*(1). Lines 1 and 2.
Page 14, paragraph 14*a*(5). Line 1.
Page 14, paragraph 14*a*(8). Line 1.
Page 15, paragraph 14*b*(1). Lines 1 and 2.
Page 15, paragraph 14*b*(5). Line 1.

Add "(90-foot in the C model)" after "100-foot" in the following places in the manual:

Page 5, paragraph 5*e*. Next to last line.

Add "(snap in the C model)" after "S-hook" in the following places in the manual:

Page 13. Paragraph 14. Lines 1 and 2.
Page 14. Paragraph 14*a*(1). Lines 2, 4, and 6.
Page 14. Paragraph 14*a*(5). Line 1.
Page 15. Paragraph 14*b*(1). Lines 2 and 4.
Page 15. Paragraph 14*b*(5). Lines 1 and 3.

Add "(snubber in the C model)" after "fastener" in the following places in the manual:

Page 14. Paragraph 14*a*(3). Line 2.
Page 14. Paragraph 14*a*(4). Line 1.
Page 14. Paragraph 14*a*(9). Line 3.
Page 15. Paragraph 14*b*(3). Line 2.
Page 15. Paragraph 14*b*(4). Line 1.
Page 15. Paragraph 14*b*(5). Line 8.
Page 15. Paragraph 14*b*(8). Line 2.
Page 16. Paragraph 15*b*. Line 3.
Page 17. Paragraph 16*d*. Line 7.
Page 17. Paragraph 16*d*. Fourth line from bottom.
Page 26. Paragraph 25. Item No. 1 under "How to check."

Add "(dacron in the C model)" after "nylon" in the following places in the manual:

Page 5. Paragraph 5*i*. Line 1.
Page 5. Paragraph 6. Lines 7 and 9.

Page 3. Paragraph 4. Add the following to paragraph heading: Antenna Support AB–38B/CR.

Page 4.

4.1. Table of Components, Antenna Support AB–38C/CR (Added).

Quantity	Component
1	Bag.
1	Cover.
1	Antenna mast boom assembly.
2	Base plate.
4	Guy rope, 73-foot.
4	Guy rope, 55-foot.
8	Guy rope, 50-foot.
2	Guy rope, 41-foot.
1	Guy rope, 90-foot.
1	Hammer, type G, class II.
2	Pulley assembly.
9	Antenna mast section.
1	Rope, 132-foot (halyard).
3	Nut, hexagonal.
1	Rope, 40-foot.
3	Guy plate.
2	Mast shoe.
20	Stake GP–2.
18	Snubber.
10	Wooden stake.

Page 4. Paragraph 5. Line 2. Add the following after "23 guy ropes":

(19 in the C model).

Page 4. Paragraph 5*a*. Add the following after "aluminum" on lines 2 and 3: (magnesium in the C model).

Page 5. Paragraph 5*e*. Line 3. Add the following after the second sentence: In the C model, each guy rope is terminated at one end by a thimble, a snap, and an identification tag on which is stamped the length of the guy. The other end of the guy rope is terminated by a snubber that is used to take up slack.

Page 5. Paragraph 5*g*. Add the following after the last sentence: In the C model, the hauling rope assembly is equipped with a thimble at one end. The thimble is attached to a snap at the free end of the boom during erection of the mast.

Page 5. Paragraph 6. Line 2. Add the following after "soft aluminum": (magnesium in the C model).

Page 7. Paragraph 6. Under "Guy ropes, breaking strength: ¼-inch (all guys except backstay):" add the following:

New dacron.....1,040 lb.

Under "Guy ropes, breaking strength: ⅜-inch (backstay only):" add the following:

New dacron.....2,300 lb.

Page 13. Paragraph 14. Heading. Change "(figs. 9 and 10)" to read: (*figs. 9, 10 and 10.1*).

Page 16. Paragraph 15*a*. Add the following after the last sentence: In the C model, the thimble at one end of the hauling rope is attached to the snap at the free end of the boom.

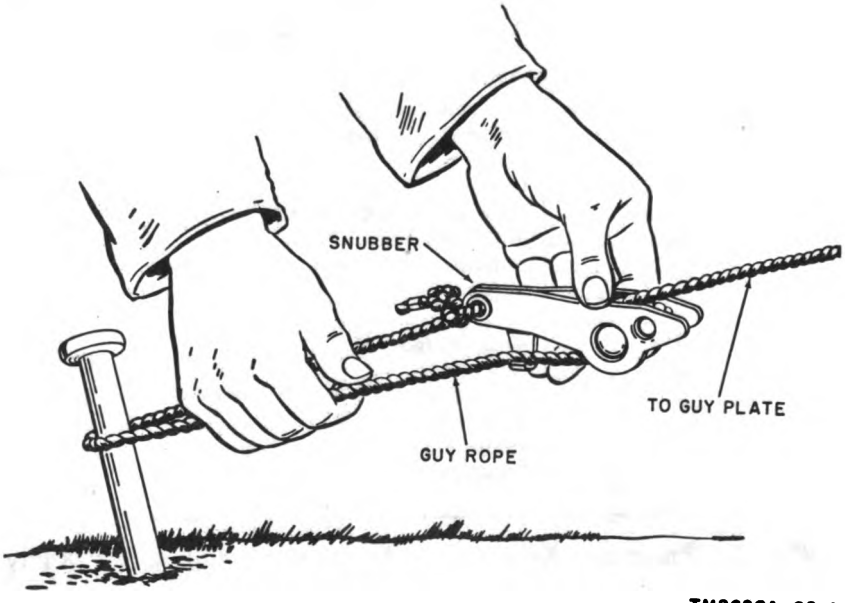

Figure 10.1. (Added.) *Aluminum snubber in use.*

[AG 413.44 (15 May 56)]

By Order of *Wilber M. Brucker*, Secretary of the Army:

MAXWELL D. TAYLOR,
General, United States Army,
Chief of Staff.

Official:

JOHN A. KLEIN,
Major General, United States Army,
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11-16C (2)
11-57C (2)
11-95R (2)
11-98R (2)
11-127R (2)
11-128R (2)
11-500R (AA-AE) (2)
11-557C (2)
11-587R (2)
11-592R (2)
11-597R (2)
32-500R (2)

NG: State AG (6); units—same as Active Army except allowance is one copy to each unit.

USAR: None.

For explanation of abbreviations used, see SR 320-50-1.

DEPARTMENT OF THE ARMY TECHNICAL MANUAL AND DEPARTMENT OF THE AIR FORCE TECHNICAL ORDER

ANTENNA SUPPORT AB-38B/CR

C1, TM 11-2620-A
TO 16-35AB38-6

DEPARTMENTS OF THE ARMY AND THE AIR FORCE
WASHINGTON 25, D. C., *9 October 1953*

TM 11-2620A/TO 16-35AB38-6, 25 January 1952, is changed as follows:

3. General

a. Antenna Support AB-38B/CR is * * * erect the equipment. **This support is designed to support a 140-pound antenna under conditions of a ½-inch ice load and a 70-mph (mile per hour) wind.**

b. (Superseded). A single Antenna Support AB-38B/CR is used to support a coaxial or whip antenna. Two or more supports may be used in combination to support other antennas, such as the doublet, long-wire, or rhombic. The horizontal distance between the masts, the height of the supports (25-foot or 50-foot), and the type of antenna to be supported are dependent on the particular system requirements. Three of these 50-foot masts are used to support transmitting antennas in a radio system, such as Radio Set AN/MRC-2. Specific information regarding such requirements are found in the over-all manual of the system in which the antenna supports are used.

5. Major Components

(fig. 3)

Antenna Support AB-38B/CR * * * raising an antenna.

* * * * * * *

e. Guy Ropes. Each guy rope * * * or a 25-foot mast. **Two** 41-foot guy **ropes are** supplied for stabilizing the boom assembly when the mast is raised, and a 100-foot guy rope for use as a backstay on a 50-foot mast. **The backstay guy is used only when two or more supports are used for a long-wire, doublet, or rhombic antenna to counterbalance the toploading exerted by the antenna. It is run from the pulley assembly to a ground stake in line with, but away from the other antenna support. One end is attached to the pulley assembly prior to raising the mast.**

(1) (Added) The main guys, the boom guys, and the halyard are made of ¼-inch nylon rope with a breaking strength of 1,200 pounds. When aged by sunlight, the breaking strength is reduced to 350 pounds.

(2) (Added) The backstay is made of 3/8-inch nylon rope with a breaking strength of 2,700 pounds. When aged by sunlight, the breaking strength is reduced to 900 pounds.

* * * * * * *

g. Hauling Rope. The hauling rope * * * of the mast. **A manila rope (½-inch diameter, 40-foot) with a breaking strength of 2,650 pounds is used for a hauling rope. This rope is attached to the end of the boom with an S-hook. When the rope is pulled by two men, sufficient force is applied to the end of the boom to raise the mast.**

* * * * * * *

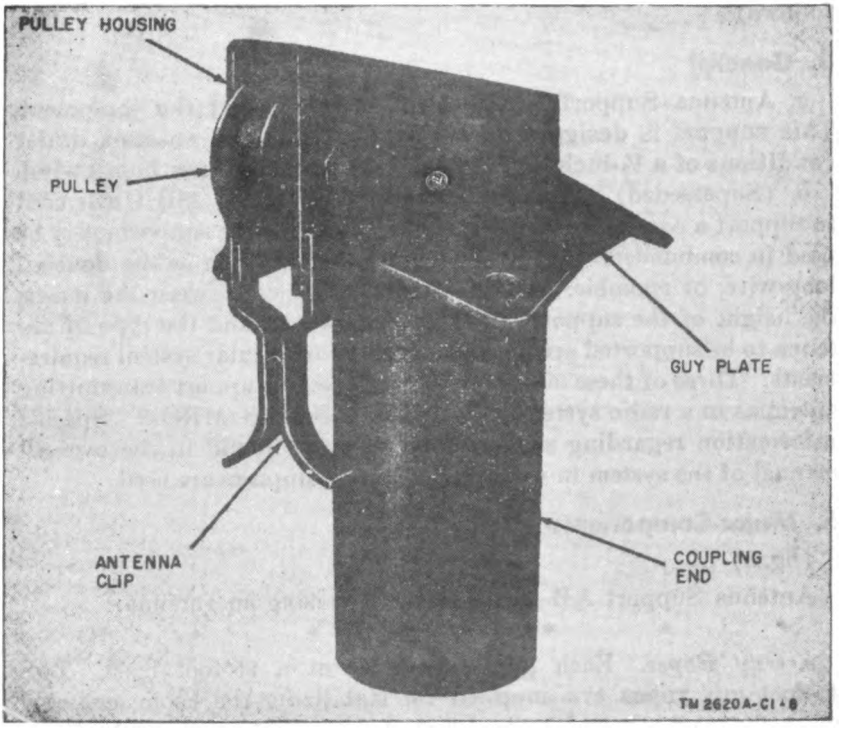

Figure 2.1 (Added). *Components of boom assembly.*

7.1. Running Spares

(Added)

Following is a list of the running spares supplied with each Antenna Support AB–38B/CR:

1 mast section, 6 feet 6 inches long.
1 plate, guy; 3⅞ inch by 3⅞ inch.
4 stakes, guy; metal, 16 inches long, ¾ inch diameter.
2 stakes, guy; wooden, 30 inches long.

10. Initial Assembly Procedure

(figs. 6 and 7)

a. Fifty-Foot Mast.

* * * * * * *

(2) Remove four **16-inch** metal stakes from the canvas bag in which they are packed and drive them into the ground through the four holes in the corners of the base plate.

* * * * * * *

11. Installing Pulley Housing

(fig. 8)

a. Place the pulley * * * on the ground.

Caution (Added): The antenna will face 45° to the right or left from the direction in which the mast is raised, depending on the positioning of the pulley assembly. In multiple antenna support systems, the pulley end of the pulley assembly should face along a line parallel to a line between the antenna supports.

* * * * * * *

13. Stake Location

Note. Use metal stakes * * * in soft ground.

* * * * * * *

c. Determine three points * * * an angle (aprx. 30°). **Only sufficient stake length should remain above ground to permit attachment of necessary guy tie-down ropes (approximately 4 inches). Use metal stakes in hard ground and wooden stakes in soft ground.**

Figure 8.1 (Added). *Location of stakes.*

14. Attaching Guys

(figs. 9 and 10)

The 68-foot guys * * * a blue S-hook.

a. Fifty-Foot Mast.

* * * * * * *

(10) If a backstay * * * the mast itself. **Attach one end of the backstay guy to the pulley assembly before raising the mast.**

* * * * * * *

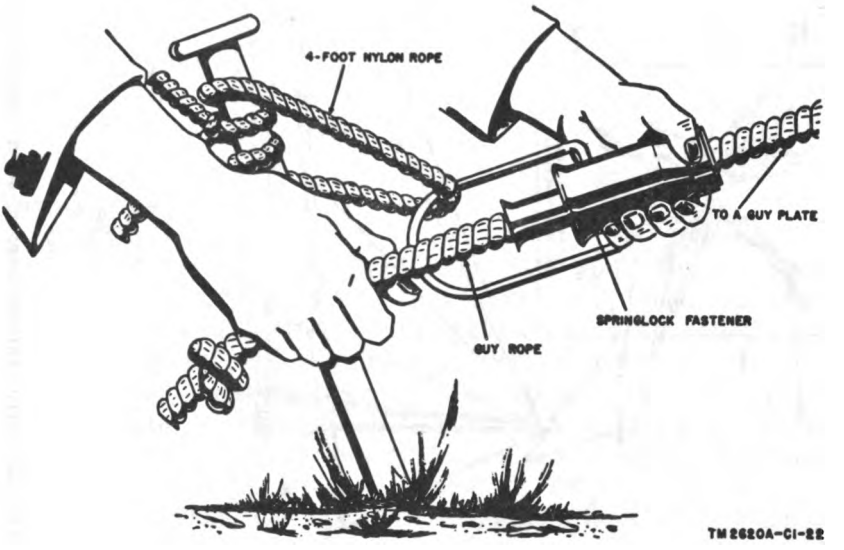

Figure 10.1 (Added). *Securing and adjusting springlock fasteners.*

15. Attaching Hauling Rope *and Boom Guys*

* * * * * * *

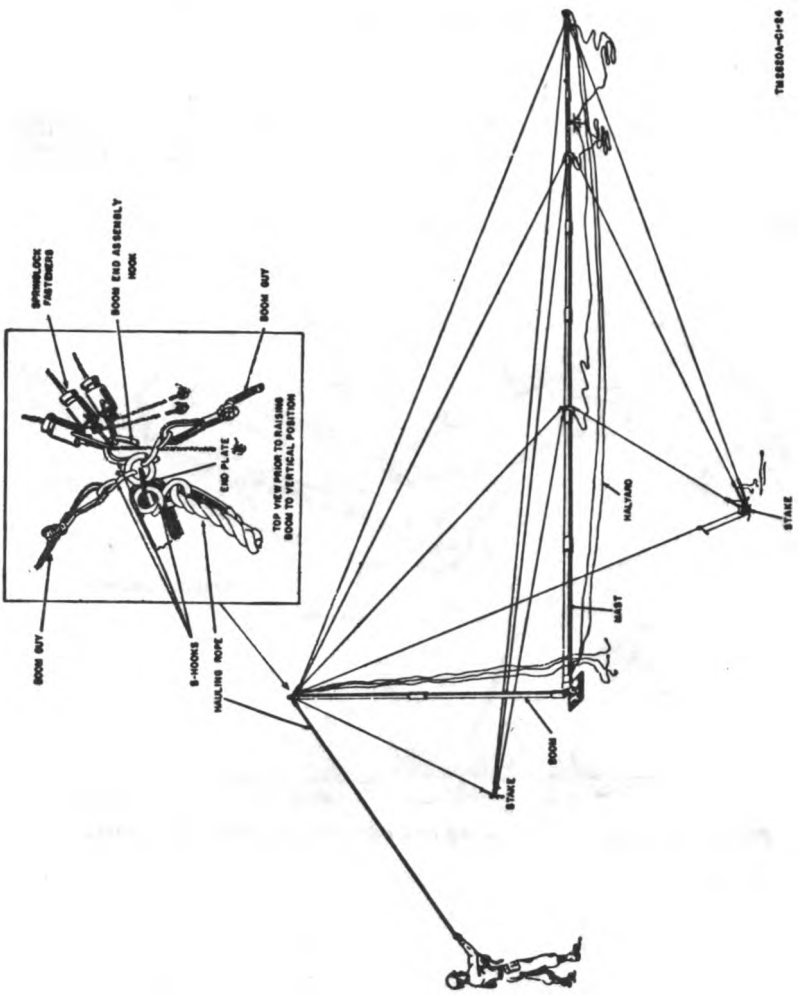

Figure 11.1 (Added). *Antenna support boom and guys, prior to erection.*

18. Mounting Half-Rhombic Antenna on Antenna Support AB–38B/CR

* * * * * * *

d. (Added) The backstay assembly (par. 5*e*) should be connected to the top of the mast to oppose antenna pull.

20. Preparation for Lowering Mast

* * * * * * *

d. (Added) Secure one of the boom guys to the right side stake and the other to the left side stake.

[AG 413.44 (15 Sep 53)]

BY ORDER OF THE SECRETARIES OF THE ARMY AND THE AIR FORCE:

M. B. RIDGWAY,
General, United States Army,
Chief of Staff.

OFFICIAL:
WM. E. BERGIN,
Major General, United States Army,
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For explanation of distribution formula, see SR 310-90-1.

ANTENNA SUPPORT
AB-38B/CR

United States Government Printing Office
Washington: 1952

AGO 2192B

DEPARTMENTS OF THE ARMY
AND THE AIR FORCE

WASHINGTON 25, D. C., *25 January 1952*

TM 11–2620A/TO 16–35AB38–6 is published for the information and guidance of all concerned.

[AG 413.44 (11 Dec 51)]

BY ORDER OF THE SECRETARIES OF THE ARMY AND THE AIR FORCE:

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NG: Same as Active Army.

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For explanation of distribution formula, see SR 310–90–1.

CONTENTS

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1. Scope

a. This manual is published for the information and guidance of the personnel to whom this equipment is issued. It contains information on the operation and maintenance of the equipment. These instructions apply only to Antenna Support AB–38B/CR.

b. Appendix I contains a list of references, including supply catalogs, technical manuals on associated equipment, and other applicable publications; appendix II contains an identification table of parts.

2. Forms and Records

The following forms will be used for reporting unsatisfactory conditions of Army equipment and in performing preventive maintenance.

a. DD Form 6, Report of Damaged or Improper Shipment, will be filled out and forwarded as prescribed in SR 745–45–5.

b. DA AGO Form 468, Unsatisfactory Equipment Report, will be filled out and forwarded to the Office of the Chief Signal Officer, as prescribed in SR 700–45–5.

c. AF Form 54, Unsatisfactory Report, will be filled out and forwarded to the Commanding General, Air Matériel Command, Wright-Patterson Air Force Base, Dayton, Ohio, as prescribed in 700–45–5 and AFR 65–26.

d. DA AGO Forms 11–238 and 11–239, Operator First, Second, and Third Echelon Maintenance Checklist for Signal Corps Equipment, will be prepared in accordance with the instructions on the back of the form.

e. Use other forms and records as authorized.

Section II. DESCRIPTION AND DATA

3. General

a. Antenna Support AB–38B/CR is an eight-section assembly that can be set up as a single 50-foot mast (fig. 1) or as two 25-foot masts (fig. 2). Each mast is pivot-supported at the base (fig. 1) and is adjusted and guyed in a fixed vertical position. At least two men are required to erect the equipment.

b. Antenna Support AB–38B/CR is used to mount coaxial or half-rhombic antennas in the field.

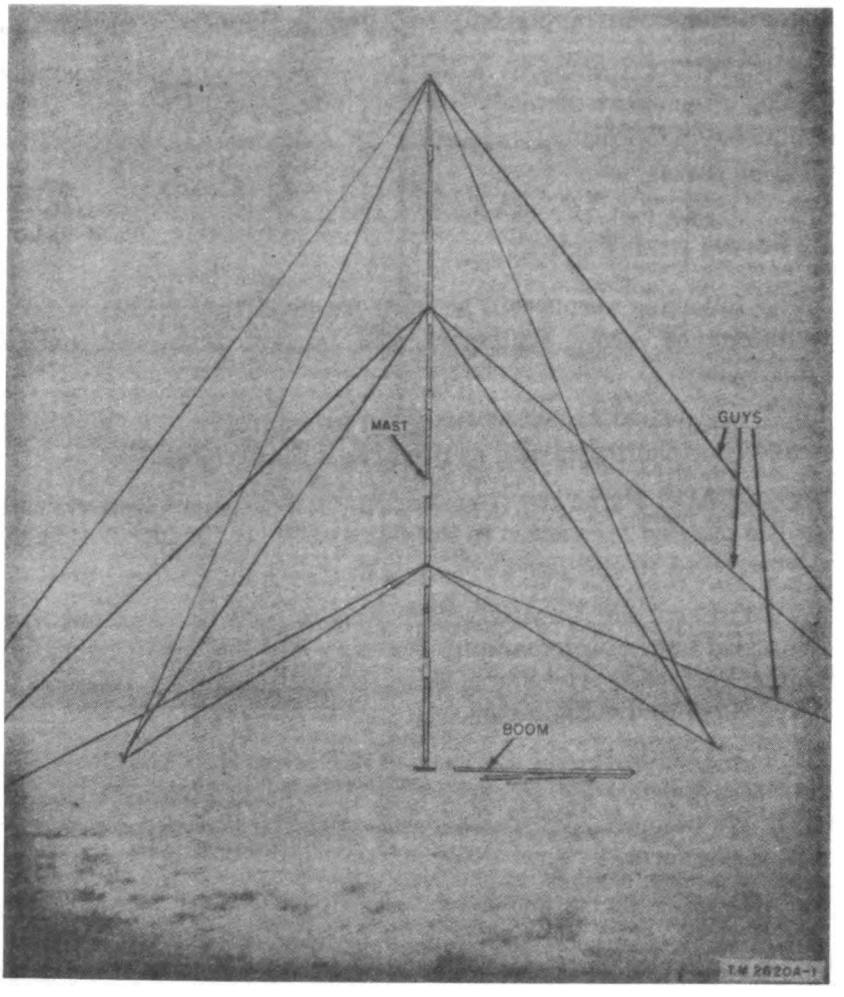

Figure 1. Antenna Support AB–38B/CR, 50-foot mast.

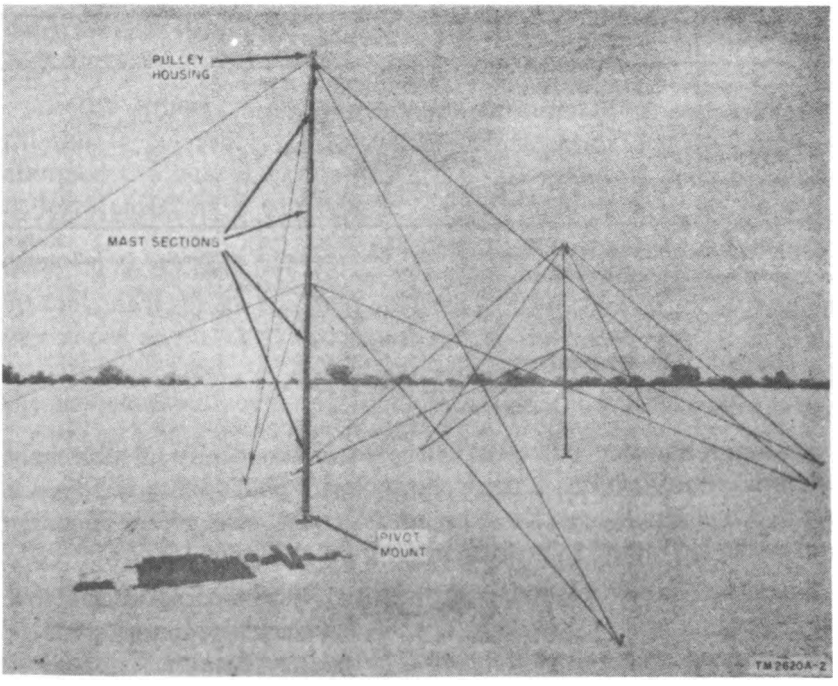

Figure 2. Antenna Support AB–38B/CR, 25-foot masts.

4. Table of Components

Quantity	Component
1	Bag.
2	Base plate.
1	Antenna mast boom assembly.
1	Cover.
4	Fastener FT–9.
22	Springlock fastener.
2	Guy rope, 41-foot.
4	Guy rope, 68-foot.
8	Guy rope, 50-foot.
8	Guy rope, 45-foot.
1	Guy rope, 100-foot.
1	Hammer HM–1.
2	Pulley housing.
2	Pulley.
9	Antenna mast section.
2	Nut, hexagonal.
2	Pivot pin and safety chain.
2	Roller pin.
3	Guy plate.
1	Rope, 132-foot.

Quantity	Component
1	Rope assembly, 41-foot.
2	Mast shoe.
10	Wooden stake.
20	Stake GP–2.

Note. This list is for general information only. See appropriate publications for information pertaining to the requisition of spare parts.

5. Major Components (fig. 3).

Antenna Support AB–38B/CR consists essentially of nine mast sections, 2 base plates, 2 mast shoes, 3 guy plates, 23 guy ropes, a boom assembly, a rope for raising the mast, two pulley housings and pulleys, and a halyard for raising an antenna.

a. MAST SECTIONS. Each of the nine mast sections is made of aluminum tubing, 6 feet long by 2½ inches in diameter, with an aluminum sleeve, 1 foot long by 3 inches in diameter, riveted to one end. Eight sections are required for the erection of one 50-foot mast or two 25-foot masts.

b. BASE PLATES. Each of the two base plates (mast bases) is 13 inches square by 5⅝ inches high. A bracket in the center of each plate is used to hold a mast shoe. Seven plugs around three sides of the plate hold the mast sections when the equipment is packed. Of these seven plugs, one at each corner of the plate contains a hole through which a metal stake is hammered into the ground to hold the base plate in place. One base plate is required for erection of a 50-foot mast; two base plates for erection of two 25-foot masts.

c. MAST SHOES. Two mast shoes are furnished with the equipment. Each shoe consists of a 6-inch metal tube and a pivot arm riveted together. A boat cleat is bolted to the tubing. During erection of a mast, a mast section is fitted into the shoe tubing, and the boom assembly is attached to the pivot arm. One mast shoe is required for erection of a 50-foot mast; two mast shoes for erection of two 25-foot masts.

d. GUY PLATES. There are three metal guy plates. Each plate is square in shape, and the four corners are bent at a 30° angle. A ½-inch-diameter hole in each corner provides for attachment of the guy ropes; the aluminum tubing of a mast section fits through the center hole in each plate so that the plate rests on the

mast section coupling. Two guy plates are required for one 50-foot mast, or for two 25-foot masts.

e. GUY ROPES. Each guy rope is terminated at one end by a thimble, a colored S-hook, and an identification tag on which is stamped the length of the guy. The other end of each guy rope is terminated by a springlock fastener that is used to take up slack. The 68-foot guy ropes are used as top supports for a 50-foot mast. The 50-foot guy ropes are used as middle supports for a 50-foot mast, or as top supports for a 25-foot mast. The 45-foot guy ropes are used as bottom supports for either a 50-foot mast or a 25-foot mast. A 41-foot guy rope is supplied for stabilizing the boom assembly when the mast is raised, and a 100-foot guy rope for use as a backstay on a 50-foot mast.

f. BOOM ASSEMBLY. The boom assembly consists of two sections, complete with end plates and coupling. The lower end of the assembled boom fits into the pivot arm of the mast shoe.

g. HAULING ROPE. The hauling rope assembly, which is equipped with a snap hook at one end, is used to raise the mast to a vertical position. The snap hook is attached to a ring at the free end of the boom during erection of the mast.

h. PULLEY HOUSING AND PULLEY. Each of the two steel pulley housings is 2 inches in outside diameter and 1/16 inch thick. The upper part of the housing includes the pulley, metal jaws to receive the hoisting bracket of an antenna, and a guy plate. The lower part of the housing is tubular and fits over the top mast section of an antenna support. One pulley housing is required for a 50-foot mast; two pulley housings for two 25-foot masts.

i. HALYARD. A 132-foot nylon rope serves as a halyard and is used in conjunction with the pulley to raise an antenna to the top of a mast.

6. Technical Characteristics

Materials:

Mast and boom sections	Soft aluminum.
Base plates	Magnesium casting.
Mast shoes	Steel.
Pulley housings	Steel.
Guy plates	Steel.
Guy ropes	Nylon.
Hauling rope	Manila hemp.
Halyard	Nylon.

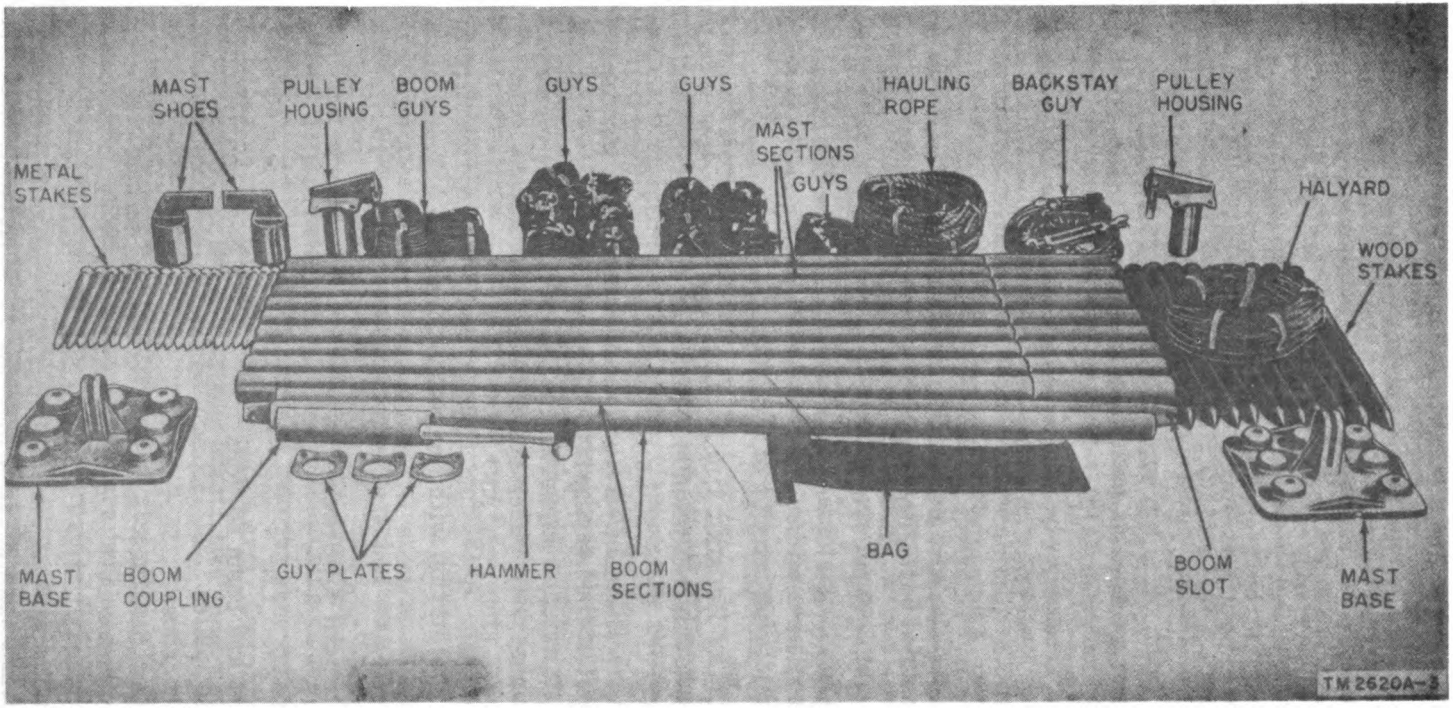

Figure 3. Antenna Support AB-88B/CR, unpacked.

Loading	Designed to withstand a 70-mph wind with a ½-in. ice load and a 140-lb antenna.
Guy ropes, breaking strength:	
¼-in. (all guys except backstay):	
New	1,200 lb.
Sunlight-aged	350 lb.
⅜-in. (backstay only):	
New	2,700 lb.
Sunlight-aged	900 lb.
Guy rope hardware:	
¼-in. guy ropes	500 lb.
⅜-in. guy rope:	
Small S-hooks	350 lb.
Large S-hooks	900 lb.
Foundation	Base plate, secured to ground by metal stakes.
Mounting	Mast shoe, with tube to receive mast section and pivot arm for connection to boom assembly.

7. Packing, Weight, and Dimensions

a. DOMESTIC. Antenna Support AB–38B/CR is wrapped in a canvas holder and weighs 194 pounds (fig. 4). The packed equipment is 12⅜ inches high, 12⅜ inches deep, and 84 inches long. The total volume of the package is 7.45 cubic feet.

b. EXPORT. For export, the packaged antenna support is sealed in a moisture-vaporproof barrier and inclosed in a wooden case that is bound by metal straps.

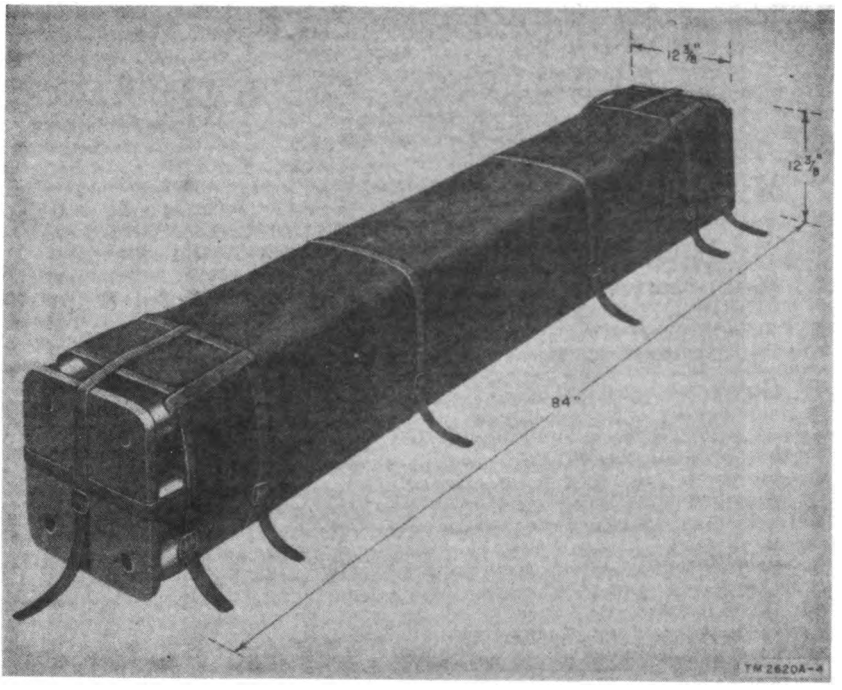

Figure 4. Antenna Support AB–38B/CR, in canvas cover, for domestic shipment.

CHAPTER 2

INSTALLATION AND DISASSEMBLY

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

8. Siting

The primary factor to be considered when a mast site is selected should be the radio transmission conditions of the area. Next, the position of the mast base or bases should be determined by the ground characteristics. The most favorable location for a mast is flat, level terrain, devoid of trees and high shrubs. The ground must be firm enough to hold the stakes and free of large rocks that might interfere with driving the stakes. If such an area is not available, the next choice should be a flat, level, triangular space without trees or high shrubs. The space should be large enough to accommodate the mast or masts and guys when they are assembled completely and lying on the ground. If a flat, level site cannot be found, sloping or uneven ground may be used if one or more extra men are available to adjust the lengths of the various guy ropes while the mast is being raised to prevent it from buckling, swaying, or moving beyond the vertical position.

9. Unpacking Equipment

a. If the equipment has been boxed for export shipment, cut the metal straps around the box, remove the nails from the box cover with a nail puller, remove the cover, tear open the paper barrier, and lift out the equipment. Set the equipment at the selected site, unfasten the straps, and open the canvas cover (fig. 5). Note carefully how the various components are packed, so that they may be repacked in a similar manner.

b. Remove the mast bases and lay out the equipment as shown in figure 3. Remove the 2-inch boom sections that are telescoped into the 2½-inch mast sections.

c. Check the equipment to be sure that all the items listed in the table of components (par. 4) have been included in the package.

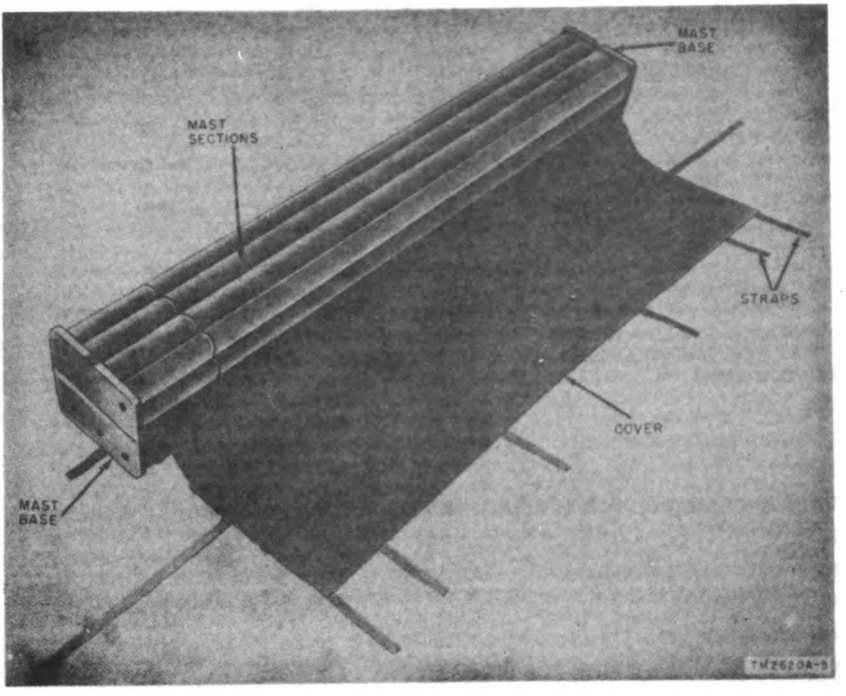

Figure 5. Antenna Support AB–38B/CR, cover open.

Section II. ASSEMBLY AND ERECTION

10. Initial Assembly Procedure

(figs. 6 and 7)

a. FIFTY-FOOT MAST.

(1) Remove stones and pebbles from the ground at the point selected for installation of the base plate. Level the dirt so that the plate can be set firmly on the ground. Place the base plate on the cleared space.

(2) Remove four 8-inch metal stakes from the canvas bag in which they are packed and drive them into the ground through the four holes in the corners of the base plate.

(3) Hook the mast shoe to the base plate bracket (fig. 6) and insert, through the matching holes, the pivot pin on the end of the safety chain. Lock the pin by moving the locking plate from the horizontal to the vertical position.

(4) Lay eight mast sections on the ground in a straight line so that the coupling end of each section faces the mast base.

(5) Fit the coupling end of the first section into the mast shoe. Fit the coupling end of the second section over the

free end of the first section, and fit the third section over the second section in the same way. Slide a guy plate over the free end of the third section until it rests on the coupling. Turn the guy plate until one of its four corners rests on the ground.

(6) Fit the fourth section over the third section, the fifth section over the fourth section, and the sixth section over the fifth section. Slide a guy plate over the free end of the sixth section until it rests on the coupling and turn the plate until one of its corners rests on the ground.

(7) Fit the seventh section over the sixth section and the eighth section over the seventh section.

b. TWENTY-FIVE-FOOT MASTS. Each of two 25-foot masts is assembled by following the procedure given for assembly of the 50-foot mast (*a* above), except that four mast sections instead of eight are used for each mast.

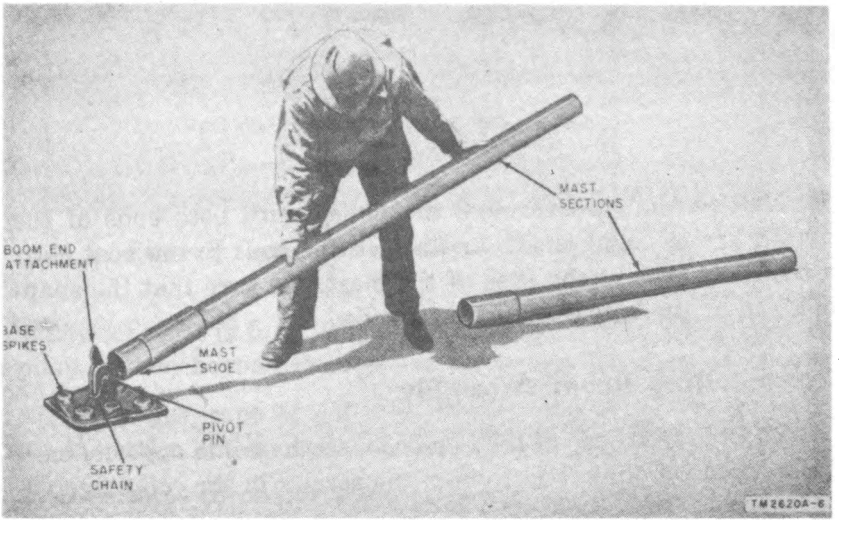

Figure 6. Preliminary installation.

11. Installing Pulley Housing
(fig. 8)

a. Place the pulley housing, with halyard installed, on the ground so that the pulley is in a vertical position (fig. 8). Turn the housing 45° to the left, and slip the tubular section of the housing over the last section of the mast. One corner of the pulley housing guy plate should now rest on the ground.

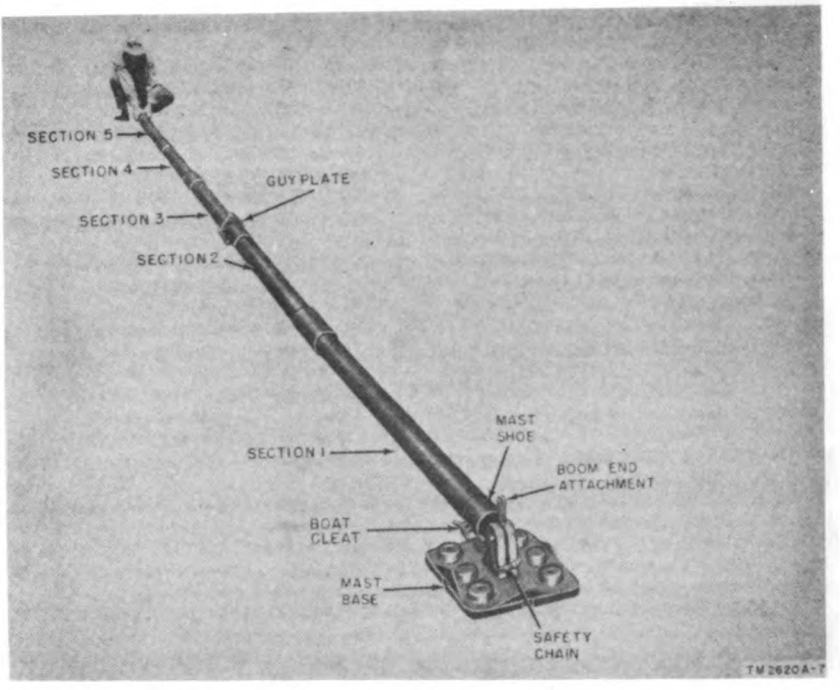

Figure 7. Section assembly.

b. Pull the halyard through the pulley until both ends of the halyard are of equal length and attach the ends to the boat cleat on the mast shoe at the base of the mast. Be sure that the snap-hook end of the halyard is on the inside.

12. Installing Boom Assembly

a. Slip the free ends of the two boom sections into opposite ends of the boom coupling, and tighten the screws in the coupling.

b. Insert the slotted shaft in the end plate at the bottom of the boom assembly into the pivot arm of the mast shoe, and lay the boom down so that it rests along the upper side of the mast. Be sure that the ring in the end plate is at the free end of the boom assembly.

13. Stake Location

Note. Use metal stakes in hard ground, wooden stakes in soft ground.

a. If a 50-foot mast is to be erected, drive a stake into the ground adjacent to the middle of the coupling between sections 6 and 7.

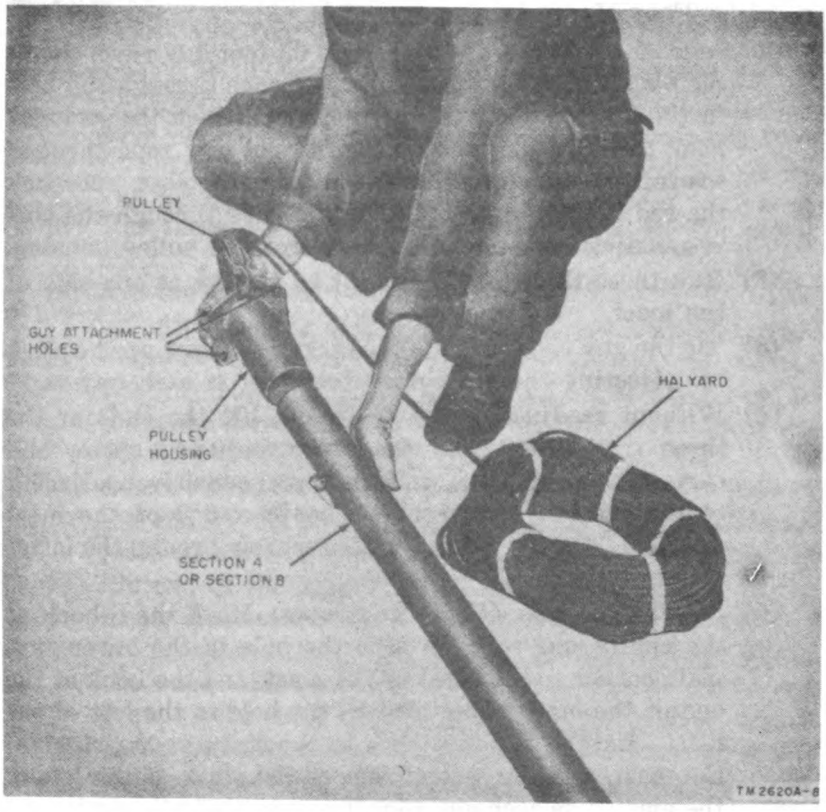

Figure 8. Installation of pulley housing and halyard.

If a 25-foot mast is to be erected, drive a stake into the ground at a point 10 feet beyond the mast in a straight line with the mast.

b. Use a guy rope of suitable length to measure the distance from the stake to the side of the base plate nearest the stake.

c. Determine three points, each at right angles to another side of the base plate and each the same distance from the base plate as the stake (*b* above). These three points, with the stake, should form a square. Drive a stake into the ground at each point. The stakes should be driven so that each leans away from the base plate at an angle (approximately 30°).

14. Attaching Guys

(figs. 9 and 10)

The 68-foot guys have a red S-hook, the 50-foot guys a white S-hook, and the 45-foot guys a blue S-hook.

a. FIFTY-FOOT MAST.

(1) Select a 45-foot, a 50-foot, and a 68-foot guy rope. Hook the blue S-hook on the 45-foot guy rope through the hole in the lower-guy-plate corner that rests on the ground; hook the white S-hook on the 50-foot guy rope through the corresponding hole in the middle guy plate, and hook the red S-hook on the 68-foot guy rope through the corresponding hole in the guy plate of the pulley housing.

(2) Run these three guy ropes out to a stake at one side of the mast.

(3) Tie the guy ropes around the stake and draw up the slack by adjusting the springlock fastener on each guy rope.

(4) Without readjusting the fasteners, lift the ends of the three guy ropes from the aforementioned stake, and carry them over to the stake that has been driven adjacent to the coupling between sections 6 and 7 of the mast (fig. 10). Fasten the rope ends securely around the latter stake.

(5) Select two other 45-foot guy ropes. Hook the S-hook at the end of one rope through the hole in the lower-guy-plate corner to the right of the mast, and the hook at the end of the other rope through the hole to the left of the mast. Extend the first rope to the stake at the right of the mast, and the second rope to the stake at the left of the mast. Tie each guy rope down firmly to the stake and draw up the slack by adjusting the springlock fasteners.

(6) Select two other 50-foot guy ropes. Use these guy ropes and the middle guy plate to follow the procedure given in (5) above.

(7) Select two other 68-foot guy ropes. Use these guy ropes and the guy plate on the pulley housing to follow the procedure given in (5) above.

(8) Hook another 45-foot guy rope through the remaining hole in the lower guy plate and another 50-foot guy rope through the corresponding hole in the pulley-housing guy plate. Run each of these guy ropes down the mast, and fasten them to the boom attachment ring.

(9) Raise the boom to the vertical position. The guy ropes attached to the boom should be taut; if they are not, adjust the springlock fasteners. Then lower the boom to its original position.

(10) If a backstay should be required, drive a stake 50 feet from the base of the mast on a line that forms a 45° angle with the mast itself.

b. **Twenty-Five Foot Mast.**

(1) Select a 45-foot and a 50-foot guy rope. Hook the blue S-hook on the end of the 45-foot rope through the hole in the lower-guy-plate corner that rests on the ground, and hook the white S-hook on the end of the 50-foot guy rope through the corresponding hole in the pulley-housing guy plate.

(2) Run these two guy ropes out to a stake at one side of the mast.

(3) Tie the ropes around the stake and draw up the slack by adjusting the springlock fastener on each guy rope.

(4) Without readjusting the fasteners, lift the ends of the two guy ropes from the stake, and carry them over to the stake driven 10 feet beyond the free end of the mast. Tie the rope ends securely around the latter stake.

(5) Select two other 45-foot guy ropes. Hook the S-hook at the end of one rope through the hole in the lower-guy-plate corner to the right of the mast, and the S-hook at the end of the other through the hole to the left of the mast. Extend the first rope to the stake at the right of the mast, and the second rope to the stake at the left of the mast. Tie each guy down firmly to the stake and draw up the slack by adjusting the springlock fasteners.

(6) Select two other 50-foot guy ropes. Use these ropes and the pulley-housing guy plate to follow the procedure outlined in (5) above.

(7) Hook another guy rope through the remaining hole in the lower guy plate, and another 50-foot guy rope through the corresponding hole in the pulley-housing guy plate. Run each of these ropes down the mast and fasten them to the boom attachment ring.

(8) Raise the boom to the vertical position. The guy ropes should be taut; if they are not, adjust the springlock fasteners on these ropes. Then lower the boom to its original position.

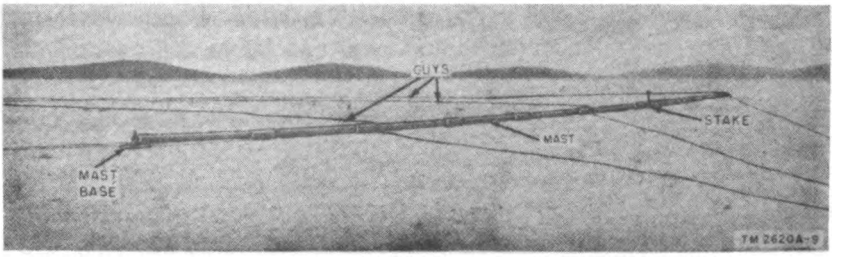

Figure 9. Guy attachment detail, 50-foot mast.

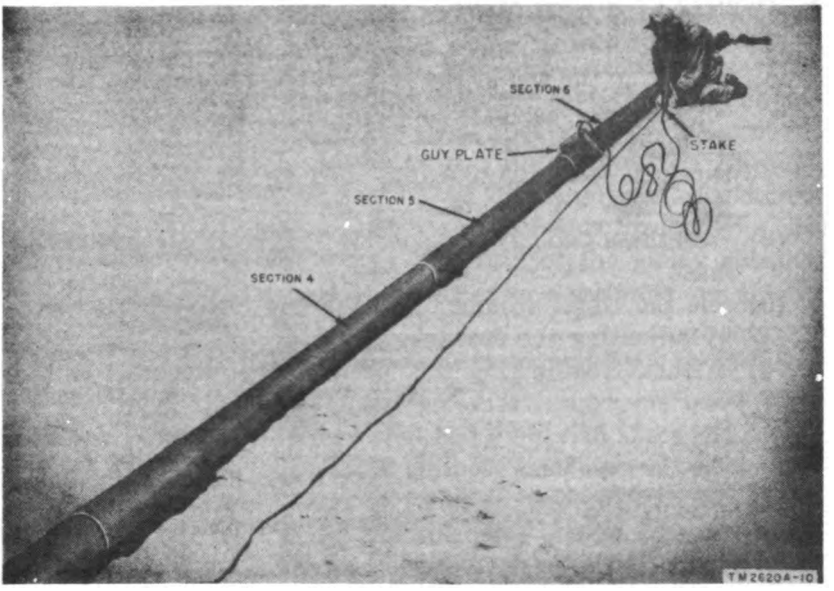

Figure 10. Guy connection detail, 50-foot mast.

15. Attaching Hauling Rope

a. The hauling rope is terminated at one end by an S-hook. Two lines are attached to the same hook (or to the loop in the hauling rope) for guying the boom. Attach the S-hook to the ring at the free end of the boom (fig. 11).

b. Attach one of the boom guy lines to the stake at the right of the mast, and the other to the stake at the left of the mast. Adjust fastener FT–9 on each line until the guys are taut.

16. Raising Mast

(figs. 12, 13, 14, and 15)

a. Check all guys to be sure that they are not fouled.

b. Raise the boom to the vertical position without pulling on the hauling rope.

c. With the boom in the vertical position, have two men pull on the hauling rope. The mast should begin to leave the ground at the pulley housing.

d. Continue to pull on the hauling rope. When the mast is about 1 foot from the ground, the middle coupling of the 50-foot mast will begin to leave the ground, and the mast will sag slightly in the center. The middle coupling of the 25-foot mast will have left the ground, and the mast will not sag. If either the 50-foot or the 25-foot mast does not react in the aforementioned manner, read-

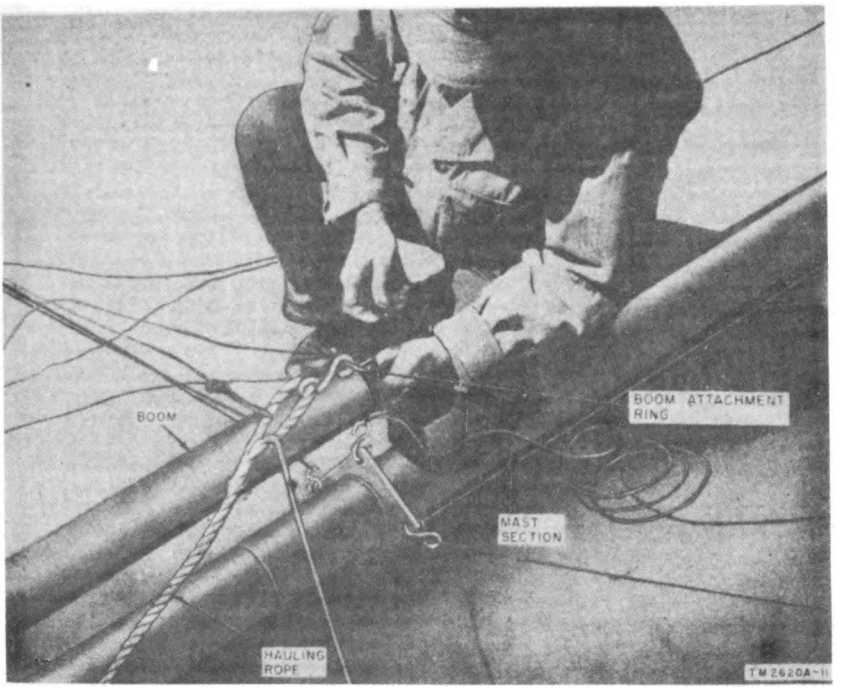

Figure 11. Hauling rope and boom attachment detail.

just the position of the springlock fasteners on the guy ropes until the proper reaction is obtained when the hauling rope is pulled. As the mast is raised from the ground, the boom assembly will approach the ground.

e. As soon as the boom is within reach, one man should leave the hauling rope, push the boom downward, and hold it down with his foot when it reaches the ground. At this point, the mast will be in the vertical position, where it may be held easily by the pressure exerted on the boom.

f. The hauling rope may be released now and, as one man continues to hold the boom down with his foot, another man should walk to the opposite side of the mast to ascertain that it is in the proper vertical position. If it is not, the tension on the guy ropes should be shifted by adjusting the springlock fasteners until the correct mast position is obtained.

g. When the mast is vertical, untie the guy ropes attached to the boom attachment ring and attach them to the remaining stake. Be sure that the guy ropes are taut at all times as they are transferred from the boom to the stake.

h. Remove the boom assembly and the hauling rope from the mast shoe.

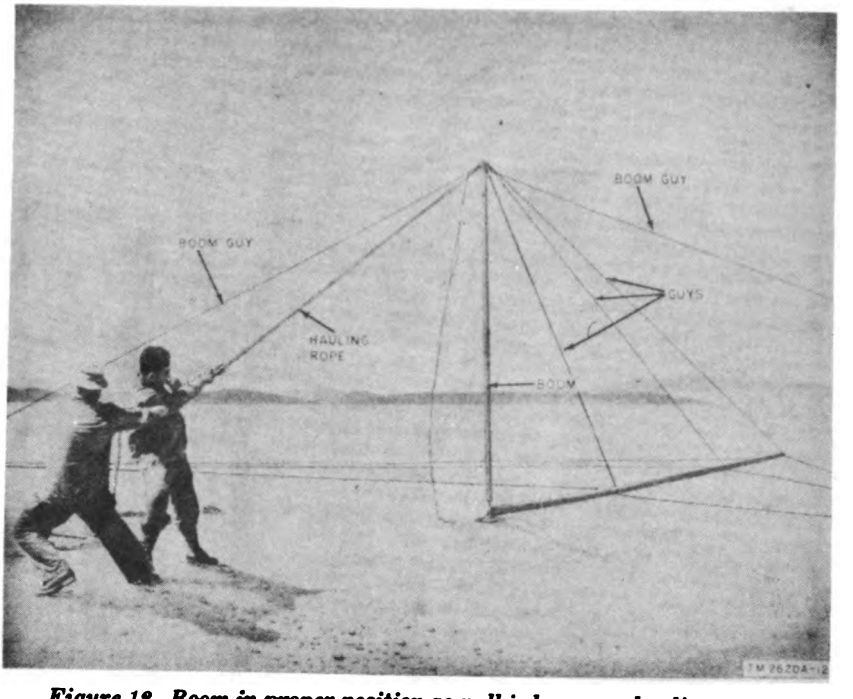

Figure 12. Boom in proper position as pull is begun on hauling rope.

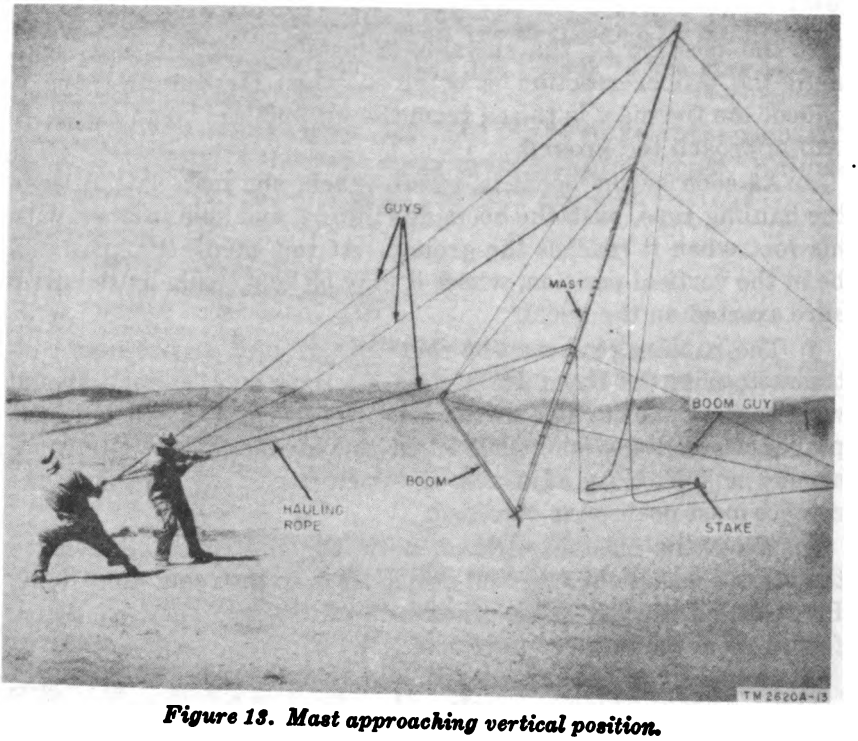

Figure 13. Mast approaching vertical position.

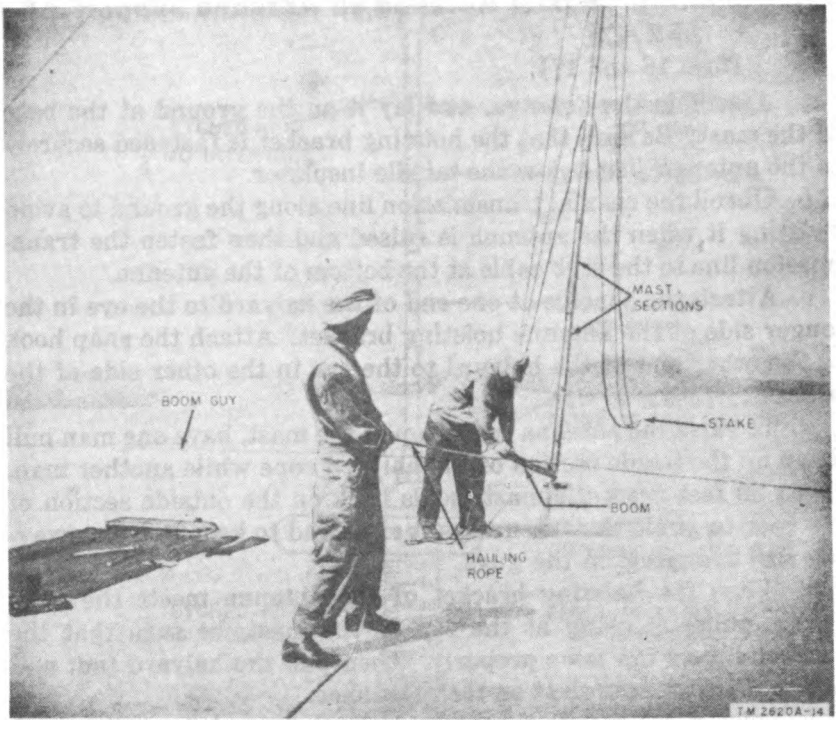

Figure 14. Boom approaching ground.

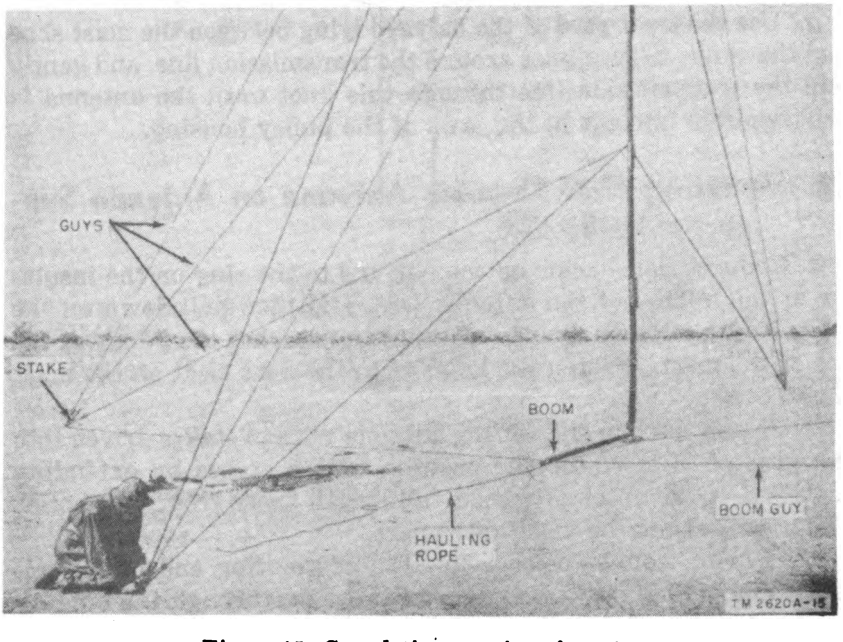

Figure 15. Completing erection of mast.

17. Mounting Coaxial Antenna on Antenna Support AB–38B/CR

(figs. 16 and 17)

a. Assemble the antenna, and lay it on the ground at the base of the mast. Be sure that the hoisting bracket is fastened securely to the antenna just below the middle insulator.

b. Unroll the coaxial transmission line along the ground to avoid twisting it when the antenna is raised and then fasten the transmission line to the stub cable at the bottom of the antenna.

c. Attach the shackle at one end of the halyard to the eye in the longer side of the antenna hoisting bracket. Attach the snap hook at the other end of the halyard to the eye in the other side of the bracket.

d. To raise the antenna to the top of the mast, have one man pull down on the inside section of the halyard rope while another man, about 20 feet from the mast, holds back on the outside section of the rope to guide the antenna as it rises and to keep it from swaying and snagging on the guys.

e. When the hoisting bracket of the antenna meets the jaws of the pulley housing at the top of the mast, be sure that the bracket enters the jaws properly. Then pull the halyard taut and fasten it to the boat cleat on the mast shoe.

f. Drive a stake into the ground about 20 feet from the mast base on the side from which the antenna extends. Pull the outside length of the halyard rope taut and fasten it to this stake.

g. Use the loose part of the halyard lying between the mast shoe and the stake, to tie a knot around the transmission line, and gently pull the transmission line through this knot until the antenna is held securely upright in the jaws of the pulley housing.

18. Mounting Half-Rhombic Antenna on Antenna Support AB–38B/CR

a. Connect the shackle on the halyard to the ring on the insulator at the middle of the antenna wire and then pull down on the inner length of the halyard until the ring reaches the pulley at the top of the mast. Fasten the halyard to the boat cleat on the mast shoe.

b. Fasten the two ends of the antenna wire to stakes driven into the ground. Determine the position of the stakes by extending each end of the antenna wire a full length away from the center. The stakes should be about 90° apart.

c. Install a counterpoise below the originating end of the antenna and connect it to the transmission line through the binding post on the coupling unit. If a terminating resistance is required,

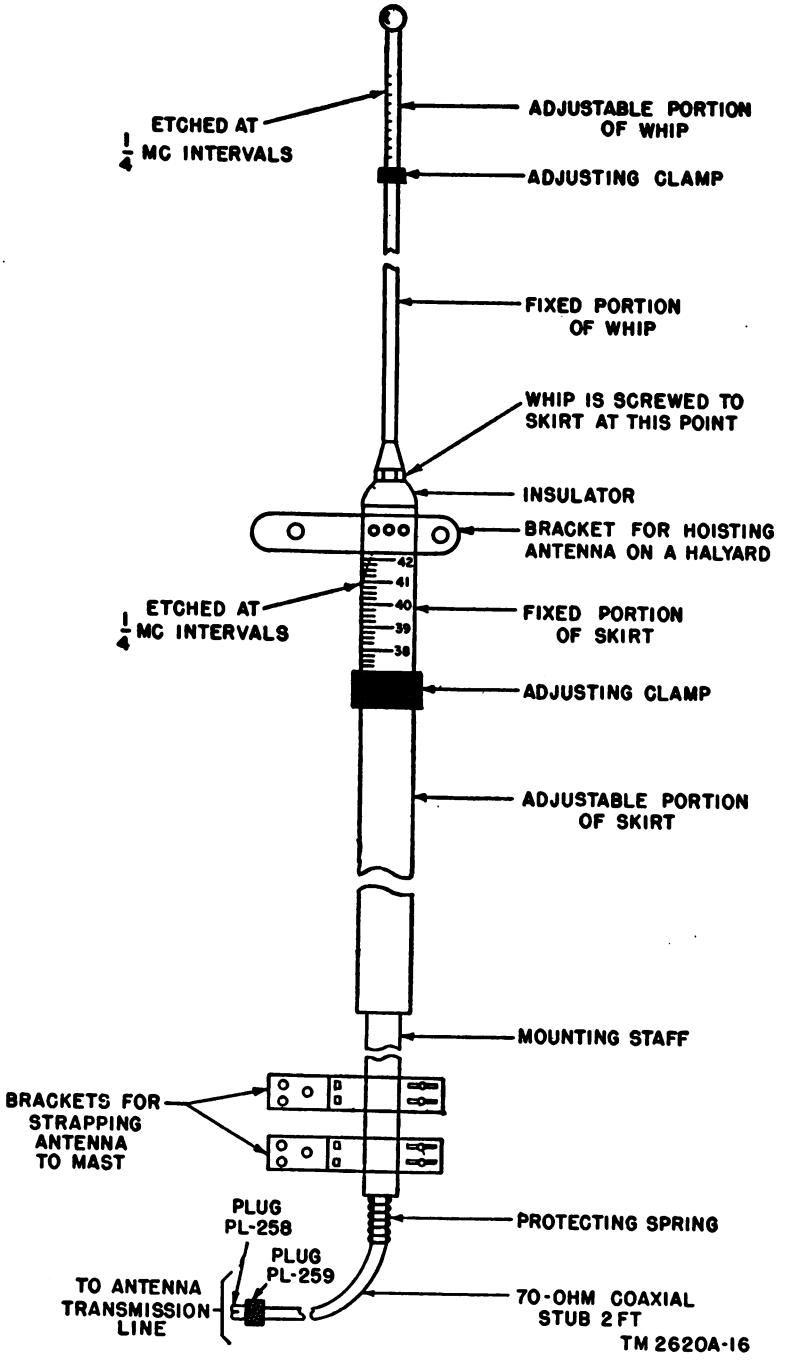

Figure 16. Typical coaxial antenna.

install a counterpoise below the terminating end of the antenna and connect it to the resistance unit.

19. Lowering Antenna

a. COAXIAL.

(1) Untie the knob in the loose part of the halyard lying between the mast shoe and the halyard stake and release the transmission line.

(2) Unfasten the halyard from the stake to which it is tied and from the boat cleat on the mast shoe.

(3) Have one man pull steadily on the outer length of halyard rope to release the antenna hoisting bracket from the

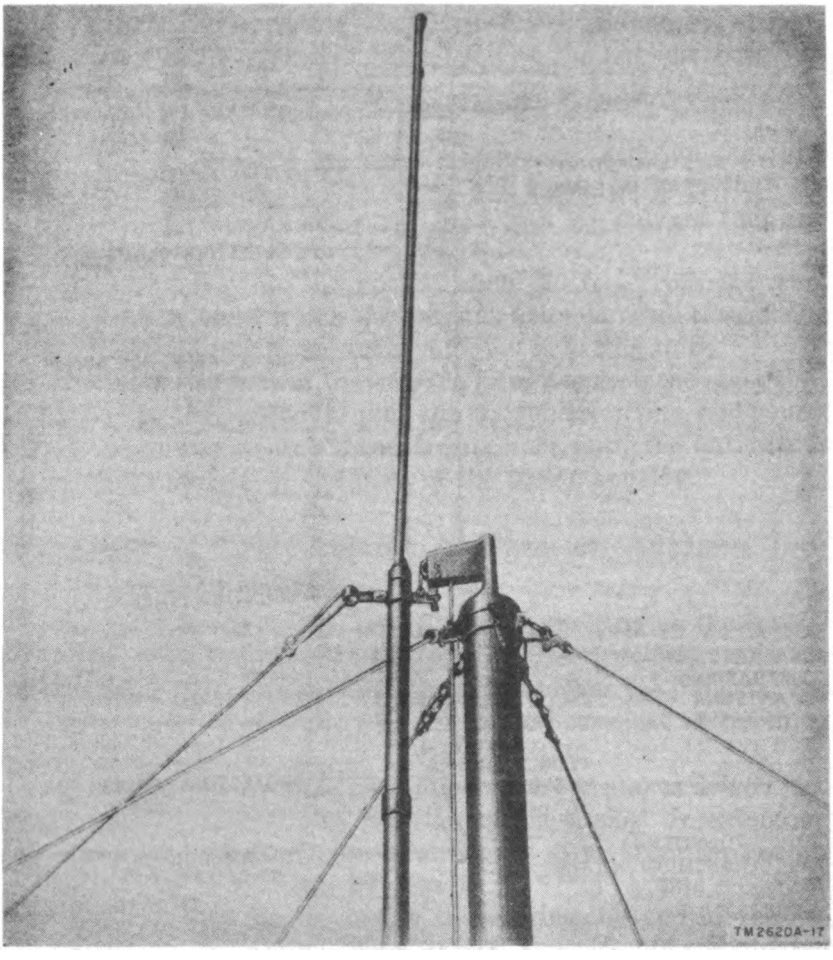

Figure 17. Typical coaxial antenna, installed.

jaws of the pulley housing, while another man holds back lightly on the inner length of rope to keep the antenna from jerking downward. When the antenna is free of the pulley-housing jaws, lower it to the ground.

(4) Remove the shackle and snap hook from the hoisting bracket so that the antenna is free of the halyard.

b. HALF-RHOMBIC.

(1) Disconnect the antenna from counterpoises and unfasten it from the stakes to which it is attached.

(2) Unfasten the halyard from the boat cleat on the mast shoe and lower the antenna slowly to the ground. Remove the shackle from the ring to which it is connected so that the antenna is free of the halyard.

Section III. DISASSEMBLY

20. Preparation for Lowering Mast

a. Assemble the boom, and attach it to the mast shoe in accordance with the instructions in paragraph 12, but lay the boom along the ground instead of against the mast.

b. Disconnect the three guys that extend over the boom from the stake to which they are attached and fasten them to the ring on the free end of the boom. Be sure that the guys are taut at all times while they are being transferred, and that one man holds the boom down with his foot as soon as the transfer has been made.

c. Attach the hauling rope to the boom assembly (par. 15).

21. Lowering Mast

a. While one man holds the hauling rope taut, have the man who is holding the boom down with his foot ease the boom slowly upward so that the mast moves toward the ground.

b. When the boom is beyond the reach of the man lifting it, he must grasp the hauling rope and assist the other man in lowering the mast to the ground.

22. Disassembling Antenna Support

a. DISCONNECTING GUYS. Disconnect all guys from the mast and from the stakes. Coil each one separately.

b. DISASSEMBLING BOOM. Remove the hauling rope from the boom and coil the rope. Separate the boom sections from the coupling.

c. DISASSEMBLING MAST SECTIONS. Separate each mast section from the section immediately below it. Remove the lowest section from the mast shoe.

d. REMOVING BASE PLATE. Remove the four stakes that hold the base plate to the ground. Lift the plate from the ground. Disconnect the mast shoe from the base plate.

e. REMOVING PULLEY HOUSING. Work the pulley housing from the mast section to which it is attached by twisting it alternately to the left and the right. Remove the halyard and coil it.

f. REMOVING STAKES. Pull up the stakes. Place the metal stakes in the canvas bag provided for them and pile the wooden stakes together.

CHAPTER 3
MAINTENANCE INSTRUCTIONS

23. Definition and Importance of Preventive Maintenance

a. DEFINITION. Preventive maintenance is work performed on equipment to keep it in good working condition so that breakdowns and needless interruptions in service will be kept at a minimum.

b. IMPORTANCE. Since the failure or inefficient functioning of even one item of an equipment may cause the breakdown of an entire signal communication system, the importance of preventive maintenance is obvious. Operators must maintain equipment in such condition that it will perform at top efficiency at all times.

24. Preventive Maintenance Tools and Materials

The following tools and materials are required for maintenance of Antenna Support AB–38B/CR:

Brush, steel-wire.
Cloth, lint-free.
Paint, high-grade outside.

25. Preventive Maintenance Checklist

The following checklist shows preventive maintenance procedures for Antenna Support AB–38B/CR. The list contains information on what to check, when to check, how to check, and precautions to be taken.

Item No.	What to check	When to check	How to check	Precautions
1	Guy ropes	Daily	Test the guys at each level to ascertain that all are at the same tension. Test by swaying each guy sideways to get the *feel*. A tight guy has less sway and vibrates more rapidly. Tighten loose guys by adjusting springlock fasteners.	Do not try to tension guys when strong winds prevail.
2	Stakes	Daily	Test each stake to see that it is set firmly in the ground. If the stake is loose, drive it farther into ground to tighten it.	
3	Mast shoe, pulley housing, and guy plates.	Whenever mast is lowered.	Inspect for corrosion. Use steel-wire brush to remove corrosion, clean with lint-free cloth, and coat cleaned parts with high-grade outside paint in accordance with existing regulations.	

26. Weatherproofing

a. GENERAL. Signal Corps equipment, when operated under severe climatic conditions such as prevail in tropical, arctic, and desert regions, requires special treatment and maintenance. Fungus growth, insects, corrosion, salt spray, excessive moisture, and extreme temperatures are harmful to most materials.

b. TROPICAL MAINTENANCE. A special moistureproofing and fungiproofing treatment has been devised, which if properly applied provides a reasonable degree of protection. This treatment is explained fully in TB SIG 13 and TB SIG 72.

c. WINTER MAINTENANCE. Special precautions necessary to prevent poor performance or total operational failure of equipment in extremely low temperatures are explained fully in TB SIG 66 and TB SIG 219.

d. DESERT MAINTENANCE. Special precautions necessary to prevent equipment failure in areas subject to extremely high temperatures, low humidity, and excessive sand and dust are explained fully in TB SIG 75.

CHAPTER 4

REPAIRS

27. General

Repair of Antenna Support AB–38B/CR is limited to the replacement of parts. Damage sufficient to require replacement of a part may be caused by excessively high winds, by heavy ice loads, or by enemy action.

28. Replacement of Parts

Before replacing a part, remove the antenna (par. 19) and lower the mast to the ground (pars. 20 and 21). After the part has been replaced raise the mast (par. 16) and remount the antenna (par. 17 or 18).

a. PULLEY HOUSING.

(1) Remove guy ropes from the pulley-housing guy plate.

(2) Pull the housing from the top mast section by twisting it to the left and the right and remove the halyard from the housing.

(3) Install the halyard around the pulley of a new housing and mount the housing on the top mast section (par. 11).

(4) Attach guy ropes to holes in the pulley-housing guy plate, each rope in the relative position from which it was removed.

b. MAST SECTION.

(1) Separate the defective mast section from the sections adjacent to it. If there is a guy plate on the section, remove the plate.

(2) Fit a new mast section in place as part of the mast at the point from which the old section was removed. Be sure to replace the guy plate if it has been removed.

c. GUY ROPE. Detach the defective guy rope from the guy plate at one end and the stake at the other end. Attach a new guy rope to the guy plate and stake.

CHAPTER 5

SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

29. Preparation for Repacking Antenna Support AB–38B/CR

After the equipment has been disassembled completely (pars. 20 through 22), be sure that all wooden stakes are in one pile, that metal stakes have been placed in the canvas bag provided for them, and that all ropes have been coiled neatly. Then slide the two boom sections inside two of the mast sections.

30. Repacking

a. Lay the canvas cover on the ground and place the two mast bases on the ground at opposite ends of the cover.

b. Place seven of the mast sections over the base plugs of the mast bases so that a trough is formed. The coupling end of each section will fit over a plug on one of the mast bases, and the free end will fit over a plug on the other base.

c. Place all remaining parts, except two mast sections, into the trough, and then set the two mast sections on top of the bundle.

d. Draw the canvas cover across the top of the bundle and fasten the straps to form a closed package.

Section II. DEMOLITION TO PREVENT ENEMY USE

31. General

The demolition procedures outlined in paragraph 32 will be used to prevent the equipment being used or salvaged by the enemy. Demolition will be accomplished *only* upon order of the commander.

32. Methods of Destruction

a. SMASH. Smash S-hooks, springlock fasteners, and pulley housing, using sledges, axes, handaxes, pickaxes, hammers, crowbars, and heavy tools.

b. CUT. Cut all ropes and canvas containers using axes, handaxes, and machetes.

c. BURN. Burn ropes and canvas containers, using gasoline, kerosene, oil, flame throwers, and incendiary grenades.

d. EXPLODE. If explosives are necessary, use firearms, grenades or TNT.

e. DISPOSAL. Bury or scatter destroyed and remaining parts in slit trenches, fox holes, or other holes, or throw them into streams.

f. DESTROY EVERYTHING. Use anything immediately available for destruction of the equipment.

APPENDIX I
REFERENCES

Note. For availability of items listed, check SR 310–20–3, SR 310–20–4, and SR 310–20–5.

1. Technical Manuals

TM 11–462	Signal Corps Tactical Communication Reference Data.
TM 11–486	Electrical Communication Systems Engineering.

2. Army Regulations

AR 380–5	Safeguarding Military Information.
AR 750–5	Maintenance of Supplies and Equipment-Maintenance Responsibilities and Shop Operation.

3. Supply Publications

SB 11–47	Preparation and Submission of Requisitions for Signal Corps Supplies.
SB 11–64	Maintenance Equipment Replenishment.

4. Other Publications

SR 310–20–3	Index of Training Publications (Field Manuals, Training Circulars, Firing Tables and Charts, Army Training Programs, Mobilization Training Programs, Graphic Training Aids, Joint Army-Navy-Air Force Publications, and Combined Communications Board Publications).
SR 310–20–4	Index of Technical Manuals, Technical Regulations, Technical Bulletins, Supply Bulletins, Lubrication Orders, Modification Work Orders, Tables of Organization and Equipment, Reduction Tables, Tables of Allowances, Tables of Organization, and Tables of Equipment.

SR 310–20–5	Index of Administrative Publications.
SR 700–45–5	Unsatisfactory Equipment Report (Reports Control Symbol CSGLD–247).
SR 745–45–5	Report of Damaged or Improper Shipment.

5. Painting and Preserving

TB SIG 66	Winter Maintenance of Signal Equipment.
TB SIG 75	Desert Maintenance of Ground Signal Equipment.
TB SIG 123	Preventive Maintenance Practices for Ground Signal Equipment.
TB SIG 219	Operation of Signal Equipment at Low Temperatures.

6. Packaging and Packing Instructions

a. JOINT ARMY-NAVY PACKAGING SPECIFICATIONS.

JAN–D–169(4)	Desiccants (Activated).
JAN–P–100	Packaging and packing for overseas shipment—General specification.
JAN–P–106A	Packaging and packing for overseas shipment—Boxes; wood, nailed (for weight of contents not in excess of 1,000 pounds).
JAN–P–116(2)	Packaging and packing for overseas shipment—Preservation, methods of.
JAN–P–125(1)	Packaging and packing for overseas shipment—Barrier-materials, water-proof, flexible.
MIL–B–131A	Barrier - material, moisture - vaporproof, flexible.

b. U. S. ARMY SPECIFICATIONS.

100–2E	Marking Shipments by Contractors, Standard Specification for.

c. SIGNAL CORPS INSTRUCTIONS.

720–7	Standard Pack.
726–15	Marking of Interior Containers (for Signal Corps Equipment).

APPENDIX II

IDENTIFICATION TABLE OF PARTS

Note. **The fact that a part is listed in this table is not sufficient basis for requisitioning the item. Requisitions must cite an authorized basis, such as a specific T/O&E, T/A, SIG 7, SIG 7 & 8, SIG 7–8–10, SIG 10, list of allowances of expendable material, or other authorized supply basis. The Department of the Army Supply Catalog applicable to the equipment covered in this manual is SIG 7 & 8 AB–38/CR. For an index of available supply catalogs in the Signal portion of the Department of the Army Supply Catalog, see the latest issue of SIG 1.**

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	ANTENNA SUPPORT AB–38B/CR: soft aluminum; one 8 sect. 50′ mast or two 25′ masts; packed for shipment, 7′ lg x 15″ sq.	Supports half-rhombic or coaxial antenna.	2A248–38B
MS02	BAG: canvas and leather; olive drab; 25¼″ lg x 6″ wd	Carrying bag for 20 stakes	2A307
A01	BASE, mast: 13″ sq x 5⅝″ h o/a	Base plate for mast and male end of packing cover.	2A326–22
A02	BASE, mast: 13″ sq x 5⅝″ h o/a	Base plate for mast and female end of packing cover.	2A326–21
A03	BOOM, antenna mast: c/o 2 aluminum sections complete with 2 end plates and coupling.	Used as lever to raise mast to vertical position.	2A353–5
MS01	COVER: canvas and leather; olive drab; 6′6″ lg x 4′1½″ wd	Packing cover for antenna support.	2A780
	FASTENER FT–9: slide, 3″ lg x ⅝″ dia	Used to take up slack in boom guys.	2Z4309
	FASTENER, springlock: 2¾″ lg x 1¼″ dia; for use on ⅛″ to 5/16″ dia rope.	Used to take up slack in mast section guys.	2A264–19B/C2
A04	GUY: nylon rope; 41′ lg	Used to stabilize boom assembly when raising mast.	2A1344–123
	GUY: nylon rope; 68′ lg	Top support for 50-foot mast	2A1344–121
	GUY: nylon rope; 50′ lg	Middle support for 50-foot mast or top support for 25-foot mast.	2A1344–120
	GUY: nylon rope; 45′ lg	Lower support for 50- or 25-foot mast.	2A1344–119
	GUY: nylon rope with steel fittings; 100′ lg	Backstay guy on 50-foot mast	2A1344–122
H01	HAMMER HM–1: engineers; double face; 2 pound	Used to drive stakes and spikes into ground.	6Q49001
O–2	HOUSING: pulley and masthead; steel	Used to raise antenna	2A1382–6
A05	MAST SECTION, antenna: 1 piece aluminum tubing 6′ lg x 2½″ dia; aluminum sleeve 1′ lg x 3″ dia riveted to one end.	Used as antenna support	2A2496–52

H02	NUT, hexagon: ¼"–20	Retains shaft in pulley housing	6L3504–20
H03	PIN: c/o pin and safety chain; self-contained locking device	Connects mast base to mast shoe	2A2805–14
O–3	PIN, roller: round, hex. head; threaded ¼"–20	Holds pulley in pulley housing	2A2805–15
H04	PLATE, guy: steel; flat with 4 corners bent at 30° angle; ½" dia hole in each corner.	Provides means for attaching guy ropes.	2A28822.11–6
O–1	PULLEY: cast-iron; 2" OD x 1/16" thk	Used to raise antenna	2A3000–4
	ROPE (Halyard): nylon; 132' lg; 1200-pound breaking strength	Used to raise antenna	6Z7955B.1–6
	ROPE ASSEMBLY: Manila hemp; 41' lengths; 2100-pound breaking strength.	Used to raise mast to vertical position.	6Z7955B.1–5
	SHOE, mast: 6" tube and pivot arm welded together; boat cleat bolted to tubing.	Used as mount and pivot for mast.	2A3225–4
	STAKE, guy: hickory wood; 30" lg	Used to stake guy ropes in soft ground.	2A3330–15
H05	STAKE, GP–2: wrought steel, galvanized	Used to stake guy ropes in hard ground.	2A3302

INDEX

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