

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL
INCLUDING REPAIR PARTS LIST

MAST AB-577/GRC
AND EXTENSION KIT,
MAST MK-806/GRC

This copy is a reprint which includes current
pages from Changes 1 through 3.

HEADQUARTERS, DEPARTMENT OF THE ARMY
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**OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL
MAST AB-577/GRC (NSN 5820-00-892-3862) AND
EXTENSION KIT, MAST MK-806/GRC (NSN 5985-00-691-2344)**

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*This manual together with TM 11-5820-461-12, 25 October 1966, supersedes TM 11-5820-461-10, 22 June 1962, including C 2, 2 December 1963, C 3, 2 July 1964, and C 4, 14 December 1964; and TM 11-5820-461-20, 22 June 1962, including C 1, 28 March 1963.

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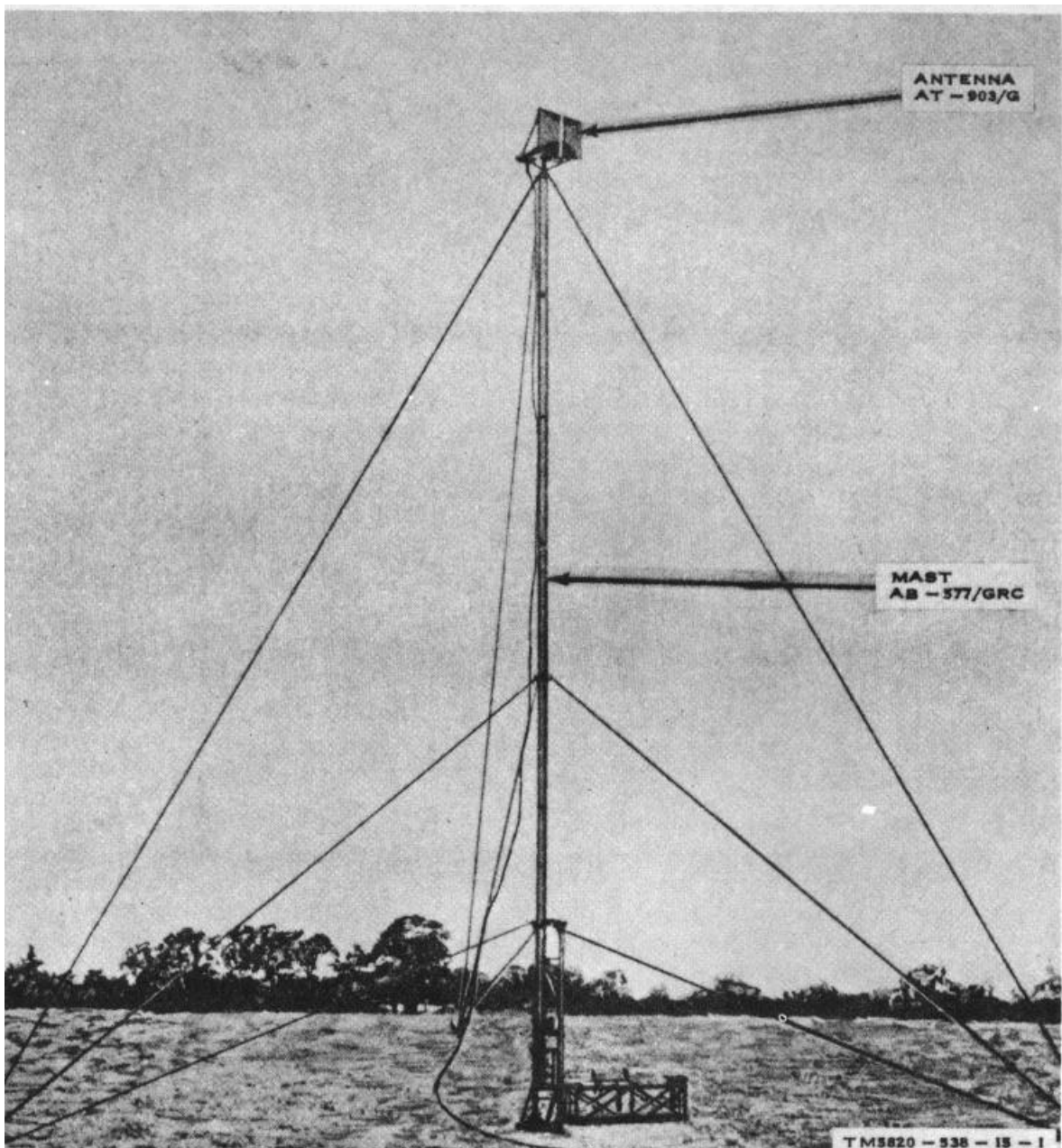
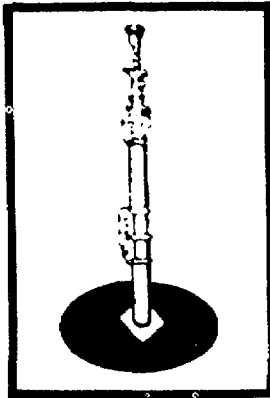
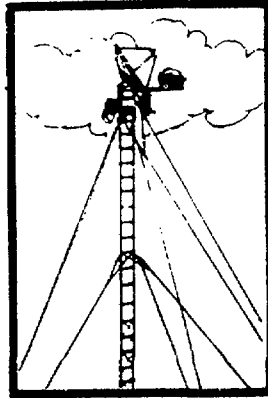


Figure 1-1. Mast AB-577/GRC, supporting Antenna AT-903/G.

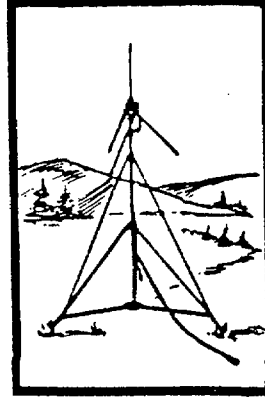
**FIXED OPERATION WITH LONG RANGE ANTENNAS
WARNING**



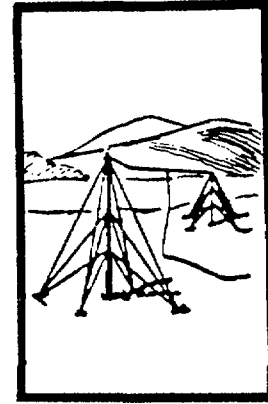
TELESCOPING
ANTENNA MAST



TYPICAL TOWER



EXTENDED RANGE
ANTENNA



DOUBLET ANTENNA

NEVER ERECT THESE LONG RANGE ANTENNAS DIRECTLY UNDER POWERLINES.

IF YOU MUST ERECT THESE LONG RANGE ANTENNAS NEAR POWERLINES. POWERLINE- POLES OR TOWERS, OR BUILDINGS WITH OVERHEAD POWERLINE CONNECTIONS, NEVER PUT THE ANTENNA CLOSER THAN TWO TIMES THE ANTENNA HEIGHT FROM THE BASE OF THE POWERLINE, POLE, TOWER OR BUILDINGS.

NEVER ATTEMPT TO ERECT ANY LONG RANGE ANTENNA WITHOUT A FULL TEAM.

BEFORE ERECTING ANY LONG RANGE ANTENNA, INSPECT ALL THE PARTS MAKING UP THE ANTENNA KIT. DO NOT ERECT THE ANTENNA IF ANY PARTS ARE MISSING OR DAMAGED.

DO AS MUCH OF THE ASSEMBLY WORK AS POSSIBLE ON THE GROUND.

WHEN ERECTING THE ANTENNA, ALLOW ONLY TEAM PERSONNEL IN THE ERECTION AREA.

MAKE SURE THAT THE AREA FOR THE ANCHORS IS FIRM. IF THE GROUND IS MARSHY OR SANDY, GET SPECIFIC INSTRUCTIONS FROM YOUR CREW CHIEF OR SUPERVISOR ON HOW TO REINFORCE THE ANCHORS.

WHEN SELECTING LOCATIONS FOR ANCHORS, AVOID TRAVELED AREAS AND ROADS. IF YOU CANNOT AVOID THESE AREAS, GET SPECIFIC INSTRUCTIONS FROM YOUR SUPERVISOR AS TO WHAT CLEARANCE YOUR GUY WIRES AND ROPES MUST HAVE OVER THE TRAVELED AREAS AND ROAD.

CLEARLY MARK ALL GUY WIRES AND ROPES WITH THE WARNING FLAGS OR SIGNS SUPPLIED BY YOUR UNIT. IN AN EMERGENCY, USE STRIPS OF WHITE CLOTH AS WARNING STREAMERS.

IF YOU SUSPECT THAT POWERLINES HAVE MADE ACCIDENTAL CONTACT WITH YOUR ANTENNA, STOP OPERATING, ROPE OFF THE ANTENNA AREA, AND NOTIFY YOUR SUPERIORS.

IF THE WEATHER IN YOUR AREA CAN CAUSE ICE TO FORM ON YOUR LONG RANGE ANTENNA AND ITS GUY WIRES AND ROPES, ADD EXTRA GUYS TO SUPPORT THE SYSTEM. ROPE OFF THE AREA AND POST IT WITH WARNING SIGNS LIKE "BEWARE OF FALLING ICE."

DO NOT TRY TO ERECT ANY ANTENNA DURING AN ELECTRICAL STORM.

KEEP A SHARP EYE ON YOUR ANCHORS AND GUYS. CHECK THEM DAILY AND IMMEDIATELY BEFORE AND AFTER BAD WEATHER.

CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual describes Mast AB-577/GRC and Extension Kit, Mast MK-806/GRC and covers their installation and organizational maintenance. It includes instructions for cleaning and inspecting the equipment and lists the parts available to the organizational category of maintenance.

1-2. Consolidated Index of Army Publications and Blank Forms

Refer to the latest issue of DA Pam 310-1 to determine whether there are new editions, changes or additional publications pertaining to the equipment.

1-3. Maintenance Forms, Records, and Reports

a. *Reports of Maintenance and Unsatisfactory Equipment.* Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750. The Army Maintenance Management System (TAMMS).

b. *Report of Packaging and Handling Deficiencies.* Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 73511-2/DLAR 4140.55/NAVMATINST 4355.73A/AFR 400-54/MCO 4430.3F.

c. *Discrepancy in Shipment Report (DISREP)*

(SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

1-4. Reporting Errors and Recommending Improvements

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703. In either case, a reply will be furnished direct to you.

1-4.1 Reporting of Equipment Improvement Recommendations (EIR)

If your AB-577/GRC and/or MK-806/GRC needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703. We'll send you a reply.

Section II. DESCRIPTION AND DATA

1-5. Purpose and Use

a. Mast AB-577/GRC (fig. 1-1) is an eight-section antenna support that can be extended as high as 48 feet (14.63 meters) above the ground. Extension Kit, Mast MK806/GRC is a five-section mast kit that is mounted on top of the AB-577/GRC to produce a total height of 75 feet (22.86 meters).

WARNING:

The use of more than one 25-foot mast extension kit (MK-806/GRC) on the Antenna Mast AB-577/GRC is

hazardous and is not authorized.

b. In some applications, the AB-577/GRC supports Antenna AT-903/G, a born-type directional antenna. The AB-577/GRC (and the MK-806/GRC) may be used to support two AT-903/K's when they are mounted on Support Antenna AB-720/G (fig. 1-2), which is part of Radio Set Group AN/TRA-24A (for F-band operation of Radio Set AN/TRC-24), and Radio Set Group OA-36681A/ TRC-24 (for J-band operation of the AN/TRC-24). Refer to TM 11-5820-287-12 and TM 11-5820-287-34 for additional information on the AN/TRC-24 series of radio sets.