OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL

OPERATION AND ORGANIZATIONAL MAINTENANCE MANUAL

RAWIN SETS
AN/GMD-1A AND AN/GMD-1B

This copy is a reprint which includes current pages from Changes 1 thru 3. The title was changed by C 1 to read as shown above.

HEADQUARTERS, DEPARTMENT OF THE ARMY

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Technical Manual

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OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL
RAWIN AN/GMD-1A (NSN 6660-00-224-6137)
RAWIN AN/GMD-1B (NSN 6660-00-599-8252)
RAWIN AN/GMD-1C (NSN 6660-01-077-7797)
RAWIN AN/GMD-1D (NSN 6660-01-072-9995)

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, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-ME-MP, Fort Monmouth, NJ 07703-5007.

In either case, a reply will be furnished direct to you.

*This manual supersedes TM 11-6660-206-10, 2 February 1961, and TM 11-6660-206-20, September 1961, including all changes.

LIST OF ILLUSTRATIONS

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CHAPTER 1

INTRODUCTION

Section I. General

1-1. Scope

a. General. This manual describes Rawin Set AN/GMD-1A, AN/GMD-1B*, AN/GMD-1B**, AN/GMD-1C, and AN/GMD-1D (fig. 1-1) and (para 1-11). In this manual you will find a description of the equipment, installation and operating instructions and operator and organizational maintenance information.

b. Components of End Item Basic Issue Items List, Additional Authorization List and Maintenance Allocation Chart (MAC). The Components of End Item List (COEI) and Basic Issue Items List (BII) appear in appendix B. The Additional Authorization List (AAL) appears in appendix C. The Maintenance Allocation Chart (MAC) appears in appendix D.

c. Use of Asterisk Without Parentheses. The single asterisk after the type of designator (for example: /GMD-1B*) indicates equipment built under contracts prior to 1970, the double asterisk after the type designator (for example /GMD-1B** or / GMD-1**) indicates equipment built under contract E-190-69(N).

d. Use of Asterisk In Parentheses (*). Official nomenclature followed by (*), is used to indicate all models of the specific equipment item covered in this manual. Thus, Rawin Set AN/GMD-1(*) represents Ramin Sets AN/GMD-1A/C and AN/GMD-1B/D. Reference to major components of the equipment item will be indicated in a similar manner. Rawin Receiver R-301(*)/GMD-1 represents Rawin Receivers R-301B/GMD-1, R-301C/GMD-1, and R-301D/GMD-1. Antenna Control C-578(*)/ GMD-1 represents Antenna Controls C-578A/ GMD-1, C-578B/GMD-1, and C-578C/GMD-1. Pedestal AB-159(*)/GMD-1 represents Pedestals AB-159B/GMD-1, AB-159C/GMD-1, AB-159D/ GMD-1, and AB-159E/GMD-1, Control-Recorder C-577(*)/GMD-1 represents Control-Recorders C-577B/GMD-1, C-577D/GMD-1, and C-577E/ GMD-1. Antenna AS-462(*)/GMD-1 represents Antennas AS-462A/GMD-1, AS-462B/GMD-1, and AS-462C/GMD-1. Test Set TS-538(*)/U represents Test Sets TS-538A/U, TS-538B/U, and TS-538C/U. Radiosonde AN/AMT-4(*) represents Radiosondes AN/AMT-4, AN/AMT-4A, AN/ AMT-4B, AN/AMT-4C, and AN/AMT-4D. Radiosonde Recorder AN/TMQ-5(*) represents Radiosonde Recorder AN/TMQ-5, AN/TMQ-5A, AN/TMQ-5B, and AN/TMQ-5C. Meterological Data Processing Groups OL-192(*)/GMD-1 represents Meteorological Data Processing Groups OL-192/GMD-1 and OL-192A/GMD-1.

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 DA Pam 738-750, as contained in Maintenance Management Update.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribcd in AR 735-11-2/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.

1-3.1. Administrative Storage

Administrative storage of equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage the PMCS should be performed to assure operational readiness. Disassembly and repacking of equipment for shipment or limited storage are covered in Chapter 7.

1-3.2. Destruction of Army Electronics Materiel

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

1-3.3. Reporting Equipment Improvement Recommendations (EIR)

If your Rawin Set 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: AMSEL-ME-MP, Fort Monmouth, New Jersey 07703-5007. We'll send you a reply.

1-3.4. Hand Receipt

This manual has a companion document with a TM number followed by -HR (which stands for Hand Receipt). The TM 11-6660-206-12-HR consists of preprinted hand receipts (DA Form 2062) that list end item related equipment (i.e., COEI, BII, and AAL) you must account for. As an aid to property accountability, additional —HR manuals may be requisitioned from the US Army Adjutant General Publications Center in Baltimore, MD, in accordance with the procedures in chapter 3, AR 310-2, and DA Pam 310-10.

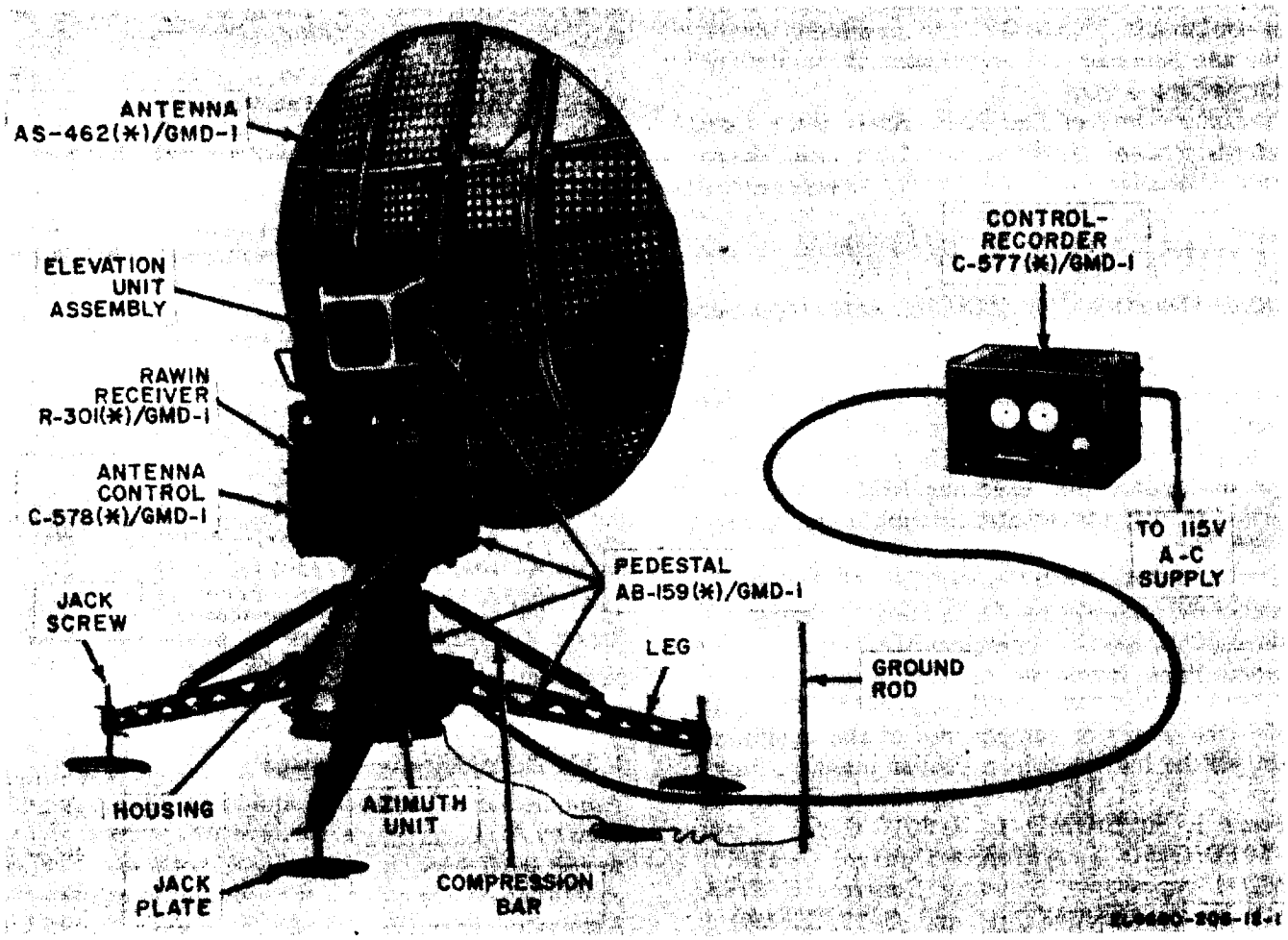

Figure 1-1. Rawin Set AN/GMD-1(*), operating components (excluding OL-192(*)/GMD-1).

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

Rawin Set AN/GMD-1(*) (fig. 1-1) is a transportable radio direction finder. It is designed to track a balloon-borne radiosonde transmitter automatically. A radiosonde signal containing meteorological information in the form of amplitude or frequency modulation is received, amplified and detected by this equipment. The detected radiosonde signal is passed to separate equipment in the rawinsonde system (para 1-5) where it is recorded. By reference to calibration data for the Radiosonde AN/AMT-4(*) or National Weather Service Radiosonde Set J031 (para 1-5), this recorded information is converted to values of temperature, humidity, and pressure. Recordings