~~CONFIDENTIAL~~

DIRECTORY OF COMMUNICATIONS-ELECTRONICS EQUIPMENT

JANAP 161

630 = 575

PAGES 1-940 are CHANGE 1 VERSION
PAGES 941-END are ORIGINAL VERSION

THE JOINT CHIEFS OF STAFF
JOINT COMMUNICATIONS-ELECTRONICS COMMITTEE
WASHINGTON 25, D. C.
MARCH 1953

THE JOINT CHIEFS OF STAFF

JOINT COMMUNICATIONS-ELECTRONICS COMMITTEE

WASHINGTON 25, D. C.

1 October 1956

LETTER OF PROMULGATION TO:

The Department of the Army
The Department of the Navy
The Department of the Air Force

Subject: Change No. 1 to JANAP 161.

1. Change No. 1 to JANAP 161, DIRECTORY OF COMMUNICATIONS-ELECTRONICS EQUIPMENT is prepared by the Joint Communications-Electronics Committee for Joint Use.

2. Change No. 1 to JANAP 161 is an Unclassified Nonregistered Publication. It shall be transported, stored, and safeguarded in accordance with current Service regulations, until it is entered in the basic publication.

3. Change No. 1 to JANAP 161, is EFFECTIVE UPON RECEIPT. Insert new pages in numerical sequence. Check the list of Effective Pages. Destroy the superseded pages and the remaining pages of this change, as listed in the Letter of Promulgation of this change. No report of destruction is required. An appropriate entry shall be made on the Record of Changes and Corrections page that this change has been entered.

4. The pages removed from JANAP 161 incident to the entry of this change shall be destroyed without report.

5. JANAP 161, 6 March 1953, is regraded from CONFIDENTIAL to UNCLASSIFIED when the following pages have been deleted:

AN/ARC-24	Pages 35, 36
AN/ARC-26	39, 40
AN/PAC-1	585, 586
AN/PAR-1	587, 588
AN/SAC-1	655, 656

These pages shall be safeguarded or destroyed in accordance with current Service regulations.

6. Copies and extracts may be made from this publication as required in the preparation of publications.

7. Comments and recommendations concerning this publication should be addressed to one of the following, as appropriate:

a. Chief Signal Officer, U. S. Army.
b. Chief of Naval Operations (DNC), U. S. Navy.
c. Director of Communications, U. S. Air Force.

FOR THE JOINT COMMUNICATIONS-ELECTRONICS COMMITTEE OF THE JOINT CHIEFS OF STAFF

CHANGE NO. 1 TO JANAP 161

1. This change contains the following pages:

2. Change Instructions

Page	Equipment	Change
4	AN/AIC–2	Instruction Literature: TO AN 16–30AIC 2–3 to **TO 12R2–2AIC2–2**
5	AN/AIC–3	Status: Substitute Standard to **Limited Standard**
6		Instruction Literature: TO–16–30AIC 3–3 to **TO 12R2–2AIC3–2**
7	AN/AIC–8	Status: Substitute Standard to **Limited Standard**
8		Instruction Literature: insert **TO 12R2–2AIC8–2**
		Technical Characteristics: 2 to 15 Interphone Stations to **2 to 5 Interphone Stations**
9	AN/AIC–10	Status: Substitute Standard to **Standard**
		Classification of Equipment: Restricted to **Unclassified**
10		Instruction Literature: insert **TO 12R2–2AIC10–2**
		Classification of Equipment: Restricted to **Unclassified**
15	AN/ARC–1A	Status: Limited Standard to **Standard**
19	AN/ARC–3	Status: Standard to **Limited Standard**
		First paragraph: Delete "on the transmitter and/or"
20		Instruction Literature: TO 16–30ARC–3 to **TO 12R2–2ARC3–2**
23	AN/ARC–8	First paragraph: high power to **medium power**
		Third paragraph: AN/ART–13 to **AN/ART–13A**; 200 to 500 kc to **200 to 600 kc**
		Sixth paragraph: AN/ART–13 to **AN/ART–13A**
24		Instruction Literature: TO 16–30ART13 and 16–30ARR–11 to **TO 12R2–2ART13–2**
		Major Components: AN/ART–13 to **AN/ART–13A**
		Technical Characteristics: 200 to 500 kc to **200 to 600 kc**
33	AN/ARC–21	Status: Substitute Standard to **Alternate Standard**
		Classification of Equipment: Restricted to **Unclassified**
		Fourth paragraph: Antenna Coupler CU–145/ARC–21 to **ERA Antenna Tuner Type 3001–B2**
34		Instruction Literature: insert **TO 12R2–2ARC21–2**
		Classification of Equipment: Restricted to **Unclassified**
41	AN/ARC–27	Status: Standard to **Alternate Standard**
		Classification of Equipment: Restricted to **Unclassified**
42		Instruction Literature: TO AN16–30ARC27–2, –3 to **TO 12R2–2ARC27–2**
		Classification of Equipment: Restricted to **Unclassified**
45	AN/ARC–30	Status: Standard to **Limited Standard**
47	AN/ARC–33	Status: Substitute Standard to **Alternate Standard**
		Classification of Equipment: Restricted to **Unclassified**
48		Instruction Literature: TO 16–30ARC33–2 to **TO 12R2–2ARC33–2**
		Classification of Equipment: Restricted to **Unclassified**
49	AN/ARC–34	Status: Substitute Standard to **Standard**
		Classification of Equipment: Restricted to **Unclassified**
50		Instruction Literature: insert **TO 12R2–2ARC34–2**
		Classification of Equipment: Restricted to **Unclassified**
		Major Components: (first item) 7-9/10 x 10-3/5 x 21½; 45.87 (lbs) to **7 9/16 x 10 1/8 x 20 11/16 46.9 (lbs)**
		(second item) insert: **2 x 10¾ x 21 5/16 3.6 (lbs)**
		(third item) 4-3/10 x 5¾ x 3-9/10 2 (lbs) to **4⅞ x 5¾ x 7-1/10 2.7 (lbs)**
		Physical Characteristics: 8 x 10½ x 21½ to **7 9/16 x 10⅛ x 20 11/16**
		(net weight) 50.56 to **53.2** pounds
		(total volume) 1.1 (cu ft) to **1.24** cu ft

Page	Equipment	Change
51	AN/ARC–36	Status: Standard to **Limited Standard**
52		Instruction Literature: insert **TO 12R2–2ARC3–2**
53	SCR–274	Status: Standard to **Limited Standard**
		Service Type Number: SCR–274 to **SCR–274–N**
54		Instruction Literature: TO 16–40BC–224–2 to **TO 12R2–3SCR274–2**
		Service Type Number: SCR–274 to **SCR–274–N**
55	SCR–522	Sixth paragraph: Delete "SCR–542–A"
		Seventh paragraph: Delete "SCR–542–A; 322 w of 14–v dc."
56		Instruction Literature: TO 16–40SCR522–2 to **TO 12R2–3SCR522–2**
59	ARC Type 12	Replace descriptive text with: **Radio Set ARC Type 12 is a group of radio equipments used in various combinations to form a variety of lf, vhf, and uhf communication and navigation systems. The specific components used depend upon the particular requirements of the individual aircraft installation. This equipment is used for air-to-air and air-to-ground communication.**
		(Delete balance of text on this page.)
60		Instruction Literature: Instruction Book & TO 16–45–121 to **TO 12R2–4–1–2**
62	Collins 18S–4	Instruction Literature: Collins Instruction Manual 18S–4 to **TO 12R2–4–5–2**
67	BC–348	Service Type Number: BC–348 to **BC–348–R**
		Replace descriptive text with: **Radio Receiver BC–348–R is an am (voice and cw) equipment used in air-to-ground and air-to-air radio communication over the frequency range .2 to .5 and 1.5 to 18 mc.**
		(Delete balance of text on this page.)
		Service Type Number: BC–348 to **BC–348–R**
68		Instruction Literature: TO 16–40BC–348 to **TO 12R2–3BC–112**
69	BC–453	Status: Standard to **Limited Standard**
70		Instruction Literature: TO 16–40SCR–274–5 to **TO 12R2–3SCR274–2**
73	AN/ART–13A	Using Service: Navy to **Air Force**
		Delete first three paragraphs
		Fourth paragraph: .2 to 1.5 mc (range) to **200 to 600 kc** range
74		Instruction Literature: insert **TO 12R2–2ART13–2**
		Using Service: Navy to **Air Force**
		Technical Characteristics: 0.2 to 1.5 to **.2 to .6**
87	AN/CRT–3	Top of page; Type Number: AN/CRT–3 to **AN/CRT–3A**
		First paragraph: .5 mc and 8.28 mc to **500 kc and 8364 kc**
		Second paragraph: .5 mc to **500 kc**, 8.28 mc to **8364 kc**; .5 mc to **500 kc.**
88		Instruction Literature: TO AN 16–30CRT3–2 to **TO 12R5–2CRT3–2**
		Top of page; Type number: AN/CRT–3 to **AN/CRT–3A**
		Operational Characteristics; Approximate Range: .5 mc to **500 kc**; 8.28 mc to **8364 kc**
		Technical Characteristics: 8.28 to **8.364** (following Frequency Range in Megacycles; Type of Signal; and Power Output)
101	OA–11/FC	Status: Limited Standard to **Substitute Standard**
103	OA–12/FC	Status: Limited Standard to **Substitute Standard**
107	UN	Status: Standard to **Limited Standard**
109	UP	Status: Standard to **Limited Standard**
119	TT–45/FG, TT–46/FG	Status: Standard to **Substitute Standard (TT–45/FG); Limited Standard (TT–46/FG)**
123	AN/FGC–1B	Status: Limited Standard to **Standard**
151	TG–26	Status: Standard to **Limited Standard**
177	TT–21/FG	Status: Limited Standard to **Standard**
185	SFO–2	Commercial Type Number: Philco to **Technical Materiel Corporation**
		First paragraph: Delete "The Philco"
186		Commercial Type Number: Philco to **Technical Materiel Corporation**
		Physical Characteristics: Philco to **Technical Materiel Corporation**
191	TT–51/FG	Status: Standard to **Limited Standard**
193	TT–53/FG	Status: Standard to **Substitute Standard**
201	LS–124/FI	Status: Limited Standard to **Standard**
225	AN/FRC–6	Status: Standard to **Limited Standard**
247	AN/FRR–3	Status: Standard to **Limited Standard**

Page	Equipment	Change
253	AN/FRR–12	Status: Standard to **Limited Standard**
255	AN/FRR–28	Status: Standard to **Substitute Standard**
281	RBF–3	Status: Standard to **Limited Standard**
285	RBQ–1	Status: Standard to **Substitute Standard**
289	RCO	Status: Substitute Standard to **Limited Standard**
291	RDE, RDE–1	Status: Substitute Standard to **Limited Standard**
295	RDM, RDM–1	Status: Substitute Standard to **Limited Standard**
299	SCR–244	Status: Standard to **Limited Standard**
339	OA–60/FRT	Status: Standard to **Limited Standard**
345	T–83/SR	Status: Standard to **Limited Standard**
349	T–159/FRT	Status: Standard to **Limited Standard**
369	TAB–6, –7	Status: Standard to **Limited Standard**
371	TBA–10	Status: Limited Standard to **Standard**
375	TBK–1, –11	Delete "TBK–1" only—obsolete
377	TBL–11	Status: Standard to **Limited Standard**
381	TBU–1, –3	Status: Substitute Standard to **Standard**
397	TDF	Status: Standard to **Limited Standard**
425	OA–9/FC	Status: Limited Standard to **Substitute Standard**
475	AN/GRC–6	Second paragraph: and an auxiliary receiver, both of which operate to **that operates**
489	AN/GRC–27	Fourth paragraph: ADD: **Use of later versions of the power supply and transmitter components (MD–129A/GR and T–217A/GR respectively) permit operation of this equipment at 95% modulation for periods up to one hour at ambient temperatures of 65° C, and continuously at lower temperatures.**
497	SCR–543	Status: Standard to **Standard (–543–( )); Limited Standard (–A, –B, –C)**
519	R–137/GR	Status: Standard to **Limited Standard**
525	SCR–607	Status: Substitute Standard to **Limited Standard**
559	AN/MRC–22	Status: Standard to **Limited Standard**
565	SCR–399	Status: Standard to **Limited Standard**
591	TT–61/FG	Status: Standard to **Limited Standard**
612	AN–PRC–16	Power Output: 50 mw to **500 mw**
621	MAY	Status: Limited Standard to **Substitute Standard**
631	SCR–609	Service Type Number: SCR–609 to **SCR–609; SCR–610; AN/TRC–20** Status: Add after Limited Standard **(SCR–609, –610); Standard (AN/TRC–20)** ADD: (Fifth paragraph) **Radio Set AN/TRC–20 consists of a later version of the SCR–610 and is used as the radio link between outlaying microphones and centrally located control and recording components of such equipment as Sound Ranging Sets GR–3–C and GR–8. It can also be used to provide fm (voice) radio communication facilities.**
632		SCR–609: SERVICE TYPE NUMBER to **SCR–609; SCR–610; AN/TRC–20**
643	R–206/PR	Status: Substitute Standard to **Limited Standard**
645	RC–261	SERVICE TYPE NUMBER: RC–261 to **RC–261; AN/GRA–11** Status: Standard to **Limited Standard (RC–261); Standard (AN/GRA–11)** First paragraph: ADD: **Radio Set Group AN/GRA–11 is similar to, and interchangeable with, RC–261.**
646		RC–261: SERVICE TYPE NUMBER to **RC–261; AN/GRA–11**
667	SCR–281	Status: Standard to **Limited Standard**
681	R–96/SR	Status: Standard to **Limited Standard**
691	AN/SRT–3	Status: Standard to **Limited Standard**
693	AN/SRT–4	Status: Standard to **Limited Standard**
715	TBL, TBL–2, –3	Delete "TBL and TBL–2" only—obsolete
737	CF–1	Status: Standard to **Limited Standard**
739	CF–2	Status: Standard to **Limited Standard**
741	CF–3	Status: Standard to **Limited Standard**
747	TC–21	Status: Standard to **Limited Standard**
749	TC–23	Status: Standard to **Limited Standard**
769	EE–97	Status: Standard to **Limited Standard**
771	EE–98	Status: Standard to **Limited Standard**
775	TC–3	Status: Standard to **Limited Standard**
777	TC–16	Status: Standard to **Limited Standard**
785	TC–22	Status: Standard to **Limited Standard**

Page	Equipment	Change
787	TG–7	Status: Standard to **Limited Standard**
803	PA–8	Status: Standard to **Limited Standard**
805	PA–5	Status: Substitute Standard to **Limited Standard**
823	AN/TRC–30	Page Heading: AN/TRC–30 to **AN/TRC–type**
		Insert: **COMMERCIAL TYPE NUMBER: Philco Microwave CLR–6**
		Illustration: Change AN/TRC–30 to **CLR–6**
		First Sentence: AN/TRC–30 to **Philco Microwave CLR–6 is an fm**
824		Page Heading: AN/TRC–30 to **AN/TRC–type**
		Insert: **Philco Microwave CLR–6: COMMERCIAL TYPE NUMBER**
		Physical Characteristics: AN/TRC–30 to **Philco Microwave CLR–6**
827	SCR–177	Status: Standard to **Standard (–177–( )); Limited Standard (–177; –A)**
829	SCR–188	Status: Standard to **Standard (–188–( )); Limited Standard (–188)**
851	RC–290	Status: Standard to **Limited Standard**
865	TC–4	Status: Standard to **Limited Standard**
867	TC–10	Status: Substitute Standard to **Limited Standard**
869	TC–12	Status: Standard to **Limited Standard**
875	AN/TTQ–2	Status: Standard to **Limited Standard**
905	AN/URA–6, –7	Status: Standard to **Limited Standard**
911	RBV, RBV–1	Status: Substitute Standard to **Limited Standard**
913	AN/URC–4	Classification of Equipment: Restricted to **Unclassified**
914		Instruction Literature: TO 16–30URC4–2 to **TO 12R2–2URC 4–2**
		Classification of Equipment: Restricted to **Unclassified**
		Power Requirements: 125 v, 520 ma to **1.25 v**, 520 ma
915	MAR	Status: Standard to **Substitute Standard**
925	TCS, TCS–1 through –16	Status: Standard to **Substitute Standard**
931	AN/URR–12	Status: Standard to **Limited Standard**
933	AN/URR–13	Status: Standard to **Limited Standard**
		First paragraph: ADD: **Radio Receiving Set AN/URR–35 ( ) is similar to the AN/URR–13 differing from it in certain design details only.**
935	AN/URR–21	Status: Standard to **Substitute Standard**
937	AN/URR–22	Status: Standard to **Substitute Standard**
939	AN/URR–23( )	Status: Standard to **Limited Standard**
971	RAS, RAS–1 thru –5	Status: Standard to **Limited Standard**
973	RBA, RBA–1, –2, –3, –5, –7	Status: Standard to **Substitute Standard**
975	RBA–6	Status: Standard to **Substitute Standard**
977	RBB, RBB–1 thru –6	Status: Substitute Standard to **Limited Standard**
979	RBC, RBC–1 thru –6	Status: Substitute Standard to **Limited Standard**
987	RBK, RBK–1, –2, –5, –7 thru –11	Status: Substitute Standard to **Limited Standard**
989	RBK–12, –13	Status: Substitute Standard to **Limited Standard**
991	RBK–15	Status: Substitute Standard to **Limited Standard**
993	RBL, RBL–1, –2	Status: Standard to **Limited Standard**
995	RBL–3, RBL–4	Status: Standard to **Limited Standard**
997	RBL–5, –6	Status: Standard to **Limited Standard**
1001	RBS, RBS–1	Status: Substitute Standard to **Limited Standard**
1003	RBS–2	Status: Substitute Standard to **Limited Standard**
1011	RDR	Status: Standard to **Limited Standard**
1013	RDZ	Status: Standard to **Limited Standard**
1021	AN/URT–10	Status: Standard to **Limited Standard**
1051	TDZ	Status: Standard to **Limited Standard**
1073	AN/VRC–2	Status: Standard to **Limited Standard**
1084	AN/VRC–8	Frequency Range in Megacycles: 80 preselected channels to **80 detented channels**
1087	AN/VRC–10	Illustration: AN/VRC–10 to **AN/VRC–10; refer to page 1093**
1093	AN/VRC–15	Illustration: AN/VRC–15 to **AN/VRC–10; refer to page 1087**
1117	SCR–506	Status: Standard to **Limited Standard**
1143	AN/VRR–4	Status: Standard to **Limited Standard**

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4. List of Reprinted Insert Pages

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Annex (B) ..... B–1 through B–8

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5. List of New Insert Pages

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142c, 142d	258o, 258p	576e, 576f	792a, 792b	940a, 940b
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6. General Directions for Changing JANAP 161, 6 March 1953

Change JANAP 161, 6 March 1953, as follows:

a. Remove all pages listed in paragraph 3.
b. Insert all revised insert pages listed in paragraph 4.
c. Add all new insert pages listed in paragraph 5.
d. CHECK THE LIST OF EFFECTIVE PAGES; re-number all pages accordingly.
e. Make pen-and-ink corrections listed in paragraph 2.

7. Insert Pages for JANAP 161 (listed in paragraphs 5 and 6).

LIST OF EFFECTIVE PAGES

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PREFACE

1. PURPOSE

JANAP 161, Directory of Communications-Electronics Equipment, including Change No. 1 thereto, contains information pertaining to the technical, physical, and operational characteristics of communication equipment used by the Department of Defense. It is intended primarily for the use of signal officers of Army and Marine Corps division and higher headquarters, Navy staff communications officers, and Air Force wing, base, and higher echelons in the planning and coordination of tactical communications in a theater of operations. This JANAP is not intended for use in connection with procurement, storage, and issue.

2. TYPES OF EQUIPMENT

This publication contains information on radio, wire, sound, light, and other equipment used for purposes of communication.

3. STATUS OF EQUIPMENT

Application of status to equipment of the Department of the Navy is not official but is included for purposes of comparison with equipment of other departments. Also included are items of equipment that have not been assigned a formal status but, nevertheless, have been issued and are in current use. The status of equipment described in this publication is as follows:

a. Standard. (1) USA. The most advanced and satisfactory item of equipment or assemblage that has been adopted and is preferred for procurement.

(2) USAF. An item that meets an established need and is considered suitable for Air Force use.

b. Alternate Standard. USAF. An item that may not be so satisfactory as a standard item, but which is a usable alternate for procurement in quantity in place of the standard item when the standard item cannot be procured in quantities to satisfy Air Force needs.

c. Limited Standard. (1) USA. An item or assemblage that is less satisfactory than the standard or substitute standard type but which is acceptable and used as a substitute therefor until the supply is exhausted unless specific exception is made by the General Staff.

(2) USAF. An item in stock that is not so satisfactory as either standard or alternate standard items but which is usable in place thereof. Limited standard items may be used until stocks are exhausted. Limited standard end items will not be procured. Additional parts and components may be procured when necessary to maintain the item in serviceable condition.

d. Substitute Standard. USA. An item of assemblage that is not so satisfactory as a standard type but is a usable substitute therefor, and may be procured to supplement the supply of the standard type.

e. Tentative Standard. USAF. An item that appears promising enough operationally to warrant the risk of initiating production of limited quantities prior to the completion of development, or prior to completion of testing.

f. Obsolete. (1) USA. An item or assemblage that has been declared unsuitable for military use.

(2) USAF. An item that no longer meets Air Force needs.

4. ARRANGEMENT OF CONTENT

a. General. (1) Items of equipment are arranged and identified in accordance with type nomenclature designations of the Joint Communications-Electronic Nomenclature System, or "AN" System, as described in JANAP 196. This system is an alphabetical arrangement of basic indicators, followed by a numerical arrangement of types of equipment for each set or series of basic indicators.

(2) Items of equipment with service, commercial, or other types of nomenclature are arranged under the most appropriate **TYPE** of AN System/indicator nomenclature. Within each set or series of basic AN/TYPE designations, equipments are arranged alpha-numerically. All such AN/TYPE designations follow items of equipment arranged as indicated in subparagraph (1) above.

EXAMPLES:

AN/ARC–33	AN/FRR–3	AN/GRR–3
AN/ARC–34	AN/FRR–4	AN/GRR–5
AN/ARC–36	AN/FRR–7	AN/GRR–7
AN/ARC–type	AN/FRR–type	AN/GRR–type
SCR–274	RAO	BC–312
SCR–522	RBF	R–247/URR
SCR–542	RBP	RCF

b. Models. (1) Basic or first edition. The AN or AN/TYPE designations on each page normally include all models of equipment bearing those basic nomenclature designations. Minor differences in models are covered in the content of each page. Major differences in models may be covered in separate pages.

(2) Change No. 1. The specific type designation printed at the top of each page indicates the item of equipment covered. The use of parentheses ( ) in the type designation at the top of each page indicates coverage of more than one model of the item.

c. Index. To facilitate the location of items of equipment in this publication, a comprehensive index provides a listing of all nomenclature type designations by which items of equipment may be known or identified.

5. DETAILS OF CONTENT

a. Security classification of equipment. The Security Classification of items of equipment conforms to data contained in JANAP 140 of issue current at date of preparation of each page of information.

b. "Can communicate with". Information given under this heading in the basic edition is superseded by that contained in annex (B). Data is based primarily on technical characteristics and operating capabilities of similar or related equipment. The listing of items of equipment does not signify authorization for such use or that items can or ever have been so used.

c. Ranges for radio equipment. Information given under this heading is confined to nominal or average communicating distances for radio equipment. Limiting factors of terrain, weather, altitude, type of antenna, climate, and other similar operating factors vary the range distances indicated.

d. Major components. Data given under this heading include only the principal operating components and are usually confined to no more than six items. Spare equipment, auxiliary or maintenance components, and modification parts or components are not included.

e. Physical characteristics. Data given under this heading include volume, weight, and dimensions of equipment. These characteristics are given as an aid in planning storage, transportation, shipment, and installation of communication equipment.

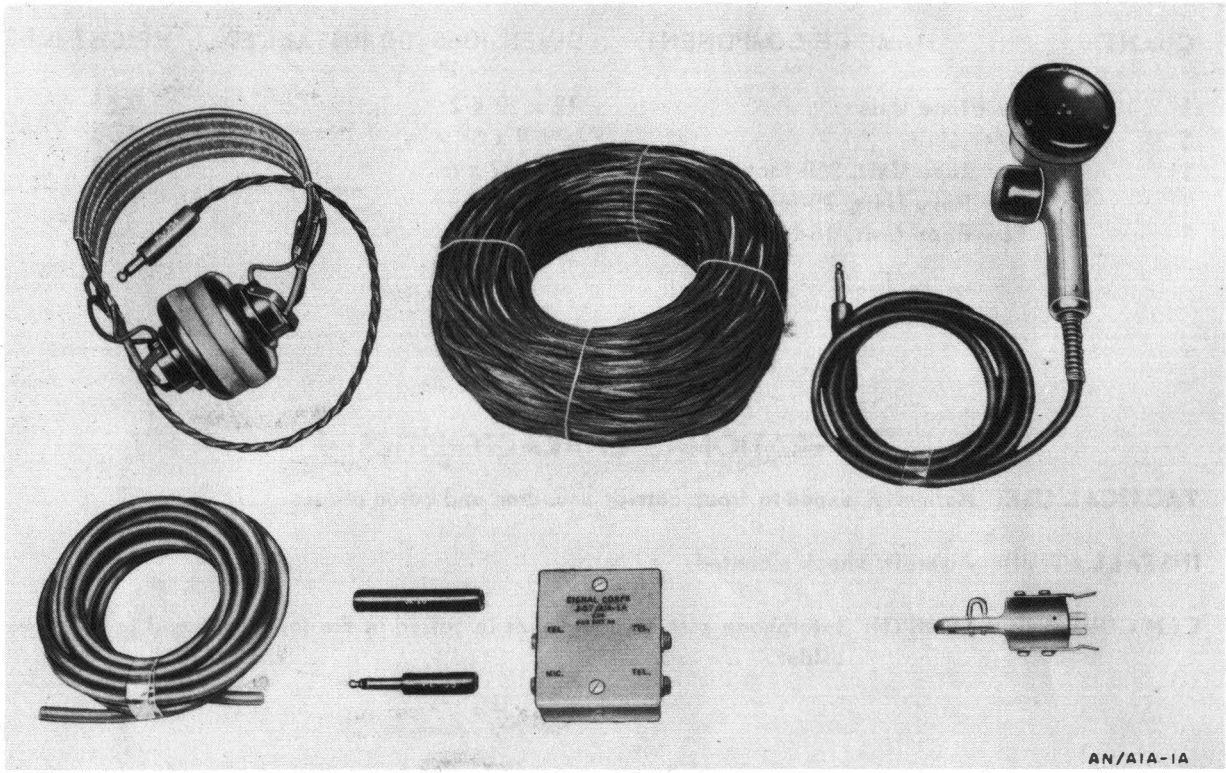
f. Project equipment. This marking applied to certain Air Force equipment indicates that the equipment may be used only under special authorization.

g. Incomplete data. In certain instances, required information could not be determined by the date of publication. In such cases, space has been allowed for the insertion of applicable information as it becomes available to the reader.

6. CURRENCY OF INFORMATION

Information on each page of the publication is current as of the date indicated on each sheet.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 7 Jun 52	**AN/AIA-1A** INTERPHONE EQUIPMENT



Interphone Equipment AN/AIA-1A provides two-way interphone communication between the crew of a tow plane and the crew of a glider by extending interphone facilities already installed in the airplane to the glider. Therefore, it requires no power supply but uses the amplifier in the interphone equipment in the tow plane for an audio power source.

The equipment consists of a tow plane unit, glider unit, and tow rope units (350-foot tow rope kit, 75-foot tow rope kit, or 15-foot tow rope kit, depending on installation requirements).

Wire WT-1/U of the proper length is interwoven at set intervals into a nylon tow rope of predetermined size. Both ends of the wire attached to the tow rope are fitted with Socket Assembly MX-14/AIA. One end is inserted into Plug Assembly MX-15/AIA on the tow plane and the other end into Plug Assembly MX-15/AIA on the glider.

In order to keep maintenance to a minimum and to eliminate failures, strict adherence to proper installation and proper use of tools (included in the 350-foot rope kit) is necessary.

AN/AIA-1A

INTERPHONE EQUIPMENT

INSTRUCTION LITERATURE: TO 16-30AIA1-2
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Tow Plane Unit	12 x 10 x 2	0.61
1	Glider Unit	6 x 8 x 6	2.70
1	Tow Rope Unit, 350-foot	12 x 12 x 6	26.78
1	Tow Rope Unit, 75-foot	6 x 4 x 2	6.11
1	Tow Rope Unit, 15-foot	6 x 4 x 2	2.21

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to troop carrier squadron and cargo planes.

INSTALLATION: Aircraft, shock mounted.

CAN COMMUNICATE WITH: Interphone station equipment installed in the tow plane and in the towed glider.

TECHNICAL CHARACTERISTICS

FACILITIES AFFORDED: Interphone between tow plane and glider.

TYPE CONTROLS: Press-to-talk switch.

POWER REQUIREMENTS: Power is taken from the tow plane interphone to operate one microphone and a maximum of three headsets in the glider.

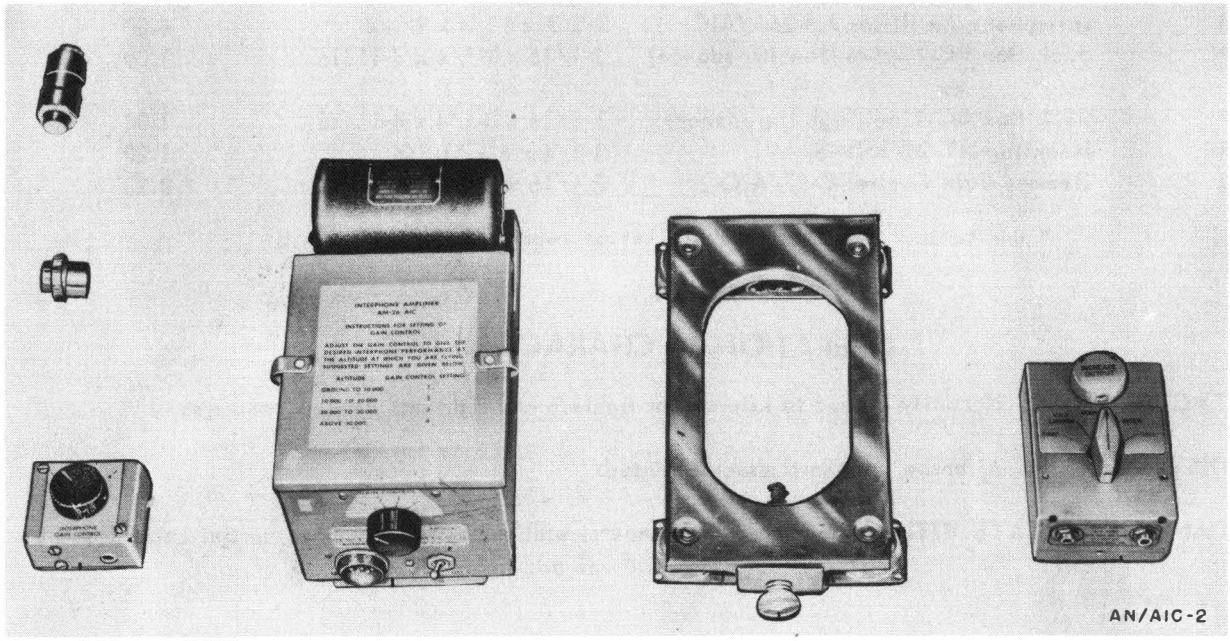
PHYSICAL CHARACTERISTICS

Interphone Equipment AN/AIA-1A weighs 38.41 pounds net, volume 0.9 cu ft. Packed for domestic or export shipment: total weight 51.85 pounds, total volume 1.2 cu ft. Shipped in 1 package.

STATUS: Limited Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force
DATE OF THIS SHEET: 12 May 52

AN/AIC-2

INTERPHONE EQUIPMENT



Interphone Equipment AN/AIC-2 provides aircraft with intraplane and interplane communication. Interphone Amplifiers AM-26/AIC (manually operated gain control) and AM-26A/AIC (automatic gain control) provide power output levels adequate for operating a maximum of 15 stations at altitudes up to 40,000 feet.

All stations are provided with control of five circuits as follows: compass, v-h-f liaison, command, interphone, and call.

The stations are placed for convenient operation at stations of the radio operator, the pilot, copilot, observer, and any other members of the crew requiring communication facilities.

There are two types of stations available: Jack Box BC-1366 for high-impedance circuits and Jack Box BC-1366-M for low-impedance circuits.

This equipment is lightweight and requires less than a 50-w input during operation.

AN/AIC-2

INTERPHONE EQUIPMENT

INSTRUCTION LITERATURE: TO AN/16-30AIC2-3
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 12 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Interphone Amplifier AM-26A/AIC	5-1/8 x 5-1/4 x 9-3/4	6.80
*	Jack Box BC-1366-M (low impedance)	3-1/16 x 3-1/4 x 4-11/16	1.00
	or		
*	Jack Box BC-1366 (high impedance)	3-1/16 x 3-1/4 x 4-11/16	1.00
1	Mounting MT-28/ARN-5	1-1/4 x 6 x 11-3/4	1.20
1	Remote Gain Control C-97/AIC-2	2-1/16 x 2-1/2 x 2-3/4	0.30

* One to 15, depending on installation requirements.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to interceptor fighters and light and medium bombers.

INSTALLATION: Airborne, standard shock mounted.

CAN COMMUNICATE WITH: A maximum of 15 master station units which have partial control of three radio sets and one additional receiver.

TECHNICAL CHARACTERISTICS

FACILITIES AFFORDED: Operation of 15 stations (maximum) each of which is capable of selecting compass, v-h-f liaison, command, interphone, and call circuits.

TYPE CONTROLS: Each station has a manual volume control and a five-position rotary switch for selection of any circuit from the following: compass, v-h-f liaison, command, interphone, and call. AM-26A/AIC has automatic gain control; AM-26/AIC uses local manual gain control or Remote Gain Control C-97/AIC-2. The system is operated by a push-to-talk control located on the microphones.

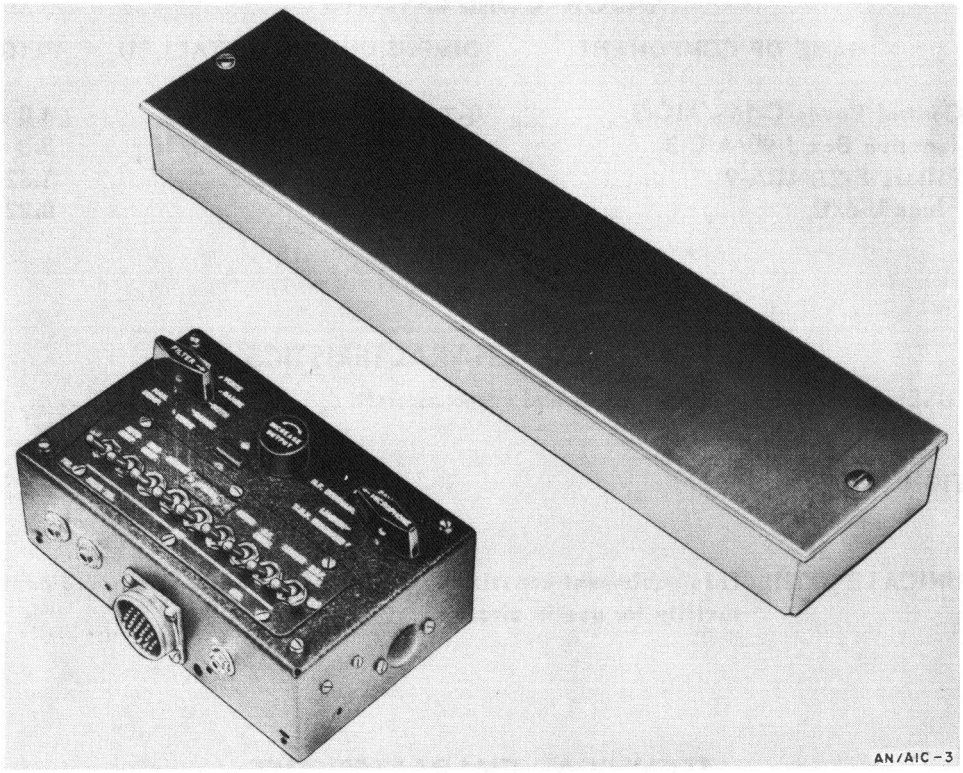
POWER OUTPUT: 4 w into a 250-ohm load with 6% distortion.

POWER REQUIREMENTS: 47.6 w (maximum), 24/28 v, (1.7 amp), dc.

PHYSICAL CHARACTERISTICS

The components of Interphone Equipment AN/AIC-2 are normally installed where needed in the aircraft. For space and weight requirements, see dimensions and weight of major components.

STATUS: Substitute Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 26 May 52	**AN/AIC-3** INTERPHONE EQUIPMENT



Interphone Equipment AN/AIC-3 is an airborne interplane, intraplane, and air-to-ground intercommunication system normally having two to five interphone stations.

This equipment has five important functions: voice communication between any or all interphone stations; individual selection at each station of the audio output of eight radio receivers (h-f command, v-h-f command, liaison, automatic radio compass, manual radio compass, marker beacon, and any two other special receivers) and of interphone; means of switching the microphone to any one of three transmitters (h-f command, v-h-f command, and liaison transmitters) or to interphone; a "call" facility whereby all positions may be called by voice regardless of the setting of the microphone or facility switches at any of the called stations; and a "filter" facility whereby the output signal of either the automatic radio compass receiver or the manual radio compass receiver may be fed through a radio range filter (at each interphone station) to the operator.

It is designed for aircraft requiring not more than five master stations with all control facilities available at each station.

AN/AIC-3

INTERPHONE EQUIPMENT

INSTRUCTION LITERATURE: TO 16-30AIC3-3
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force
DATE OF THIS SHEET: 26 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
✓2-5	Control Boxes C-166/AIC-3	8-3/4 x 5-3/4 x 3-9/16	4.0 each
1	Junction Box J-90/AIC-3	20-13/32 x 4-57/64 x 2-1/16	3.3 each
✓2-5	Filters F-21/ARA-9	3-3/4 x 2-3/4 x 2-1/2	1.62 each
2-5	Plugs U-6/U	Not Available	0.22 each

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Installed in light bombers and cargo aircraft.

INSTALLATION: Airborne.

CAN COMMUNICATE WITH: This equipment constitutes a complete communication and control facility for use in aircraft.

TECHNICAL CHARACTERISTICS

FACILITIES AFFORDED: Intraplane communication and control of radio equipment.

TYPE CONTROLS: Manual; 3-position switch for voice, range, or both;
5-position switch for v-h-f command, liaison, and h-f command transmitters and interphone and call.

8 individual switches for selecting audio output from various receivers.

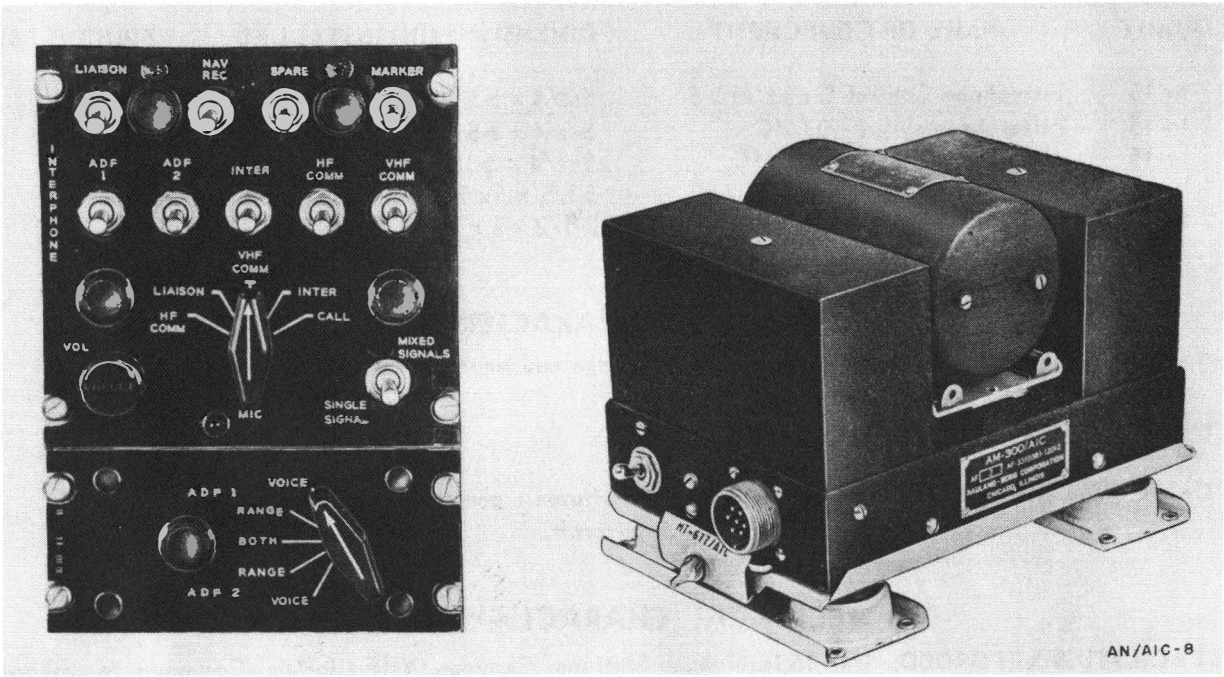
POWER OUTPUT: Approximately 60 mw at 600-ohm impedance (per unit).

POWER REQUIREMENTS: 14 w of 24/28 v,(0.445 amp)dc (per station).

PHYSICAL CHARACTERISTICS

Two to five units are installed where needed in the aircraft. For space and weight requirements see logistical data under major components.

STATUS: Substitute Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 7 Jun 52	**AN/AIC-8** INTERCOMMUNICATION SET



Intercommunication Set AN/AIC-8 is an airborne interphone for operation in multi-place aircraft requiring 2 to 15 operating positions. It is used for interplane and intraplane communication.

Basically the equipment consists of audio amplifier (including dynamotor), interphone control and filter assembly components.

The interphone control has a 5-position rotary switch for connecting the microphone to hf command, liaison, vhf command, interphone, and call circuits; toggle switches connect any one of the following circuits to the "Single Signal/Mixed Signals" switch: - liaison; navigation receiver; spare; marker; ADF-1; ADF-2; interphone; hf command; vhf command.

The two position "Single Signal/Mixed Signals" switch permits reception of any one of the 9 channels indicated above when placed in the "Single Signal" position; in the "Mixed Signals" position two or more of the channels may be monitored simultaneously by operating the appropriate switches of the 9 listed above.

The filter assembly (when used at toggle switch positions ADF-1 and ADF-2) permits reception of either one or both ADF receivers.

The filter is standard for removing tone when it is desired to use a range channel for voice communication.

AN/AIC-8

INTERCOMMUNICATION SET

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force
DATE OF THIS SHEET: 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
2 to 15	Interphone Control C-633/AIC-8	5-3/4 x 5-5/8 x 3-1/8	2.32 (each)
2 to 15	Filter Assembly F-90/AIC	5-3/4 x 2-5/8 x 3-1/4	1.44 "
2 to 15	Mixer Amplifier AM-142/AIC	5-1/4 x 3-1/4 x 5-1/4	2.5 "
1	AF Amplifier AM-300/AIC	5-1/8 x 5x 7-1/2	6.0 "
2 to 15	Jack Box J-139A/AIC	3-1/2 x 2 x 1-7/8	0.375 "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Installed on fighter, bomber, cargo and transport aircraft as required.

INSTALLATION: Aircraft shock mounted.

CAN COMMUNICATE WITH: This equipment constitutes a complete communication and control facility for use in aircraft.

TECHNICAL CHARACTERISTICS

FACILITIES AFFORDED: 2 to 15 Interphone Stations, Compass, VHF Liaison, Command, Interphone, Private Interphone, 2 ADF Receivers, Range with or without Voice Filter, Mixed Signals and Call Facilities.

TYPE CONTROLS: Manual.

5-position rotary switch:

hf command	interphone
liaison	call
vhf command	

5-position rotary switch:

ADF-1:	voice	ADF-2: voice
	range	range
	voice and range	voice and range

9 toggle switches for separate or simultaneous operation of:

liaison	ADF-2
vhf nav	interphone
spare	hf command
marker	vhf command.
ADF-1	

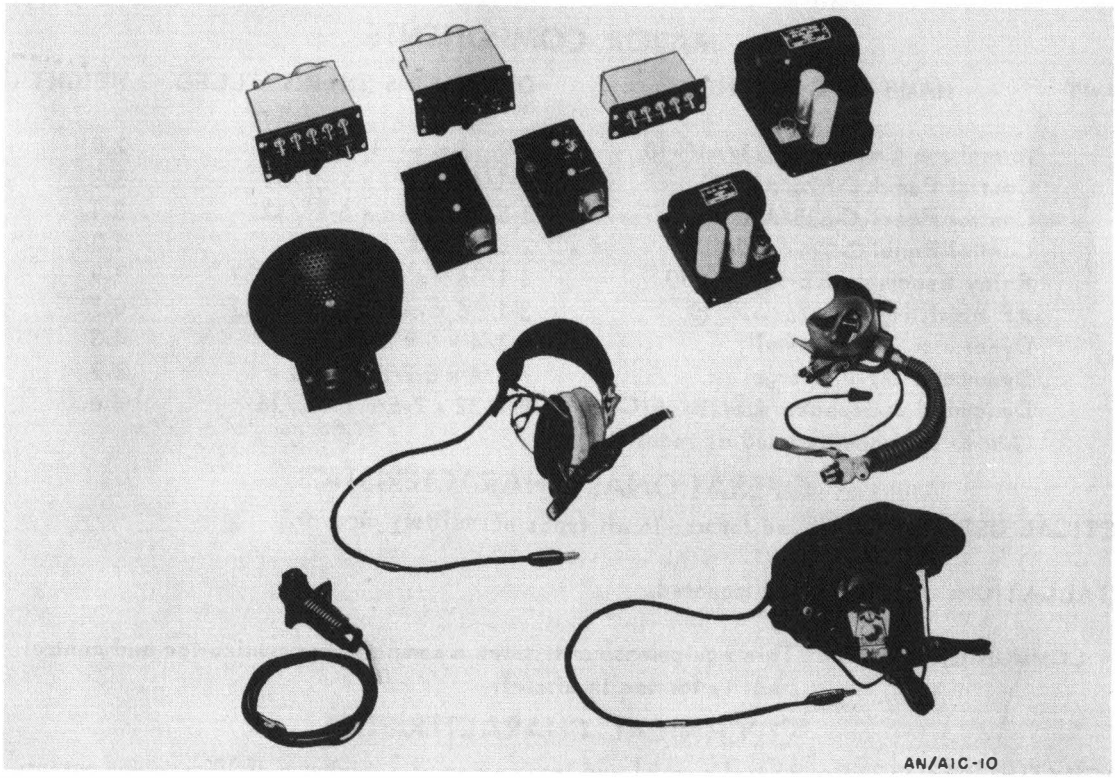
PHYSICAL CHARACTERISTICS

Two to fifteen of each of the station units are used to form the intercommunication system, depending upon the type of installation required. The approximate space requirements and weight of each station unit is indicated above under "Major Components".

STATUS: Substitute Standard
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE: Air Force
DATE OF THIS SHEET: 7 Jun 52

AN/AIC-10

INTERCOMMUNICATION SET



Intercommunication Set AN/AIC-10 is an intercommunication equipment to give increased performance at high altitudes with lower noise pick-up, higher intelligibility and reduced discomfort and inconvenience to the operator.

This set consists of an indeterminate number of items which can be used to meet the tactical requirements of any type aircraft. It consists essentially of five groups of basic components; microphones, the control panels and associated equipment, power supplies, headsets and dynamic loudspeakers with component audio frequency amplifiers.

The functions that may be performed with the AN/AIC-10 will depend on the control panels used. Three types are available; C-823/AIC-10 provides for talking and call, listening with manual volume control and a two position switch for one receiver output, or monitoring as many as 10 receivers; C-825/AIC-10 provides talking, listening, and manual volume control through a six position switch as follows: private interphone, command, liaison, compass, intercommunication, call; (C-824/AIC-10 is the same as C-825/AIC-10 except 5 toggle switches have been added to monitor the output of any one or all of 5 receivers).

All panels have a "Normal/Auxiliary Listen" two-position toggle switch that permits reception from a single receiver; or permits monitoring up to 10 receivers simultaneously when auxiliary Control Panel C-826/AIC-10 is used.

In quiet aircraft, and for stand-by operation, loudspeakers are available. The microphones are noise-cancelling, moving coil type; headphones are also moving coil type designed for minimum discomfort to the wearer.

AN/AIC-10

INTERCOMMUNICATION SET

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE: Air Force
DATE OF THIS SHEET: 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Interphone Control C-823/AIC-10	3-9/16 x 5-7/16 x 4-5/16	2.0
1	Control Panel C-824/AIC-10	3-3/4 x 5-3/4 x 6-21/32	3.3
1	Control Panel C-825/AIC-10	3-3/4 x 5-3/4 x 6-21/32	3.1
1	Control Panel C-826/AIC-10	2-5/8 x 5-3/4 x 4-5/8	1.0
1	Relay Assembly RE-95/AIC-10	3-1/16 x 4-7/16 x 3-19/32	1.9
1	AF Amplifier AM-476/AIC-10	3-1/16 x 4-7/16 x 3-19/32	0.7
1	Dynamotor DY-77 (small)	4-3/4 x 6 x 3-17/32	4.3
1	Dynamotor DY-76 (large)	7-3/4 x 6-7/8 x 5-1/2	8.9
1	Dynamic Loudspeaker LS-184/AIC-10	8-7/32 x 7-5/8 x 4-5/16	4.6
	(Above components used as required)		

OPERATIONAL CHARACTERISTICS

TACTICAL USE: May be issued for use in all types of military aircraft.

INSTALLATION: Aircraft shock mounted.

CAN COMMUNICATE WITH: This equipment constitutes a complete communication and control facility for use in aircraft.

TECHNICAL CHARACTERISTICS

FACILITIES AFFORDED: Partial control and intermixing of a maximum of 10 receiver outputs, talking on 6 positions, loudspeaker monitoring and automatic volume compression, automatic gain control and speech clipping.

TYPE CONTROLS: 5-10 toggle switches for audio output of 5-10 receivers.
6-position rotary switch permits talking over the following circuits: private interphone, command, liaison, intercommunication, interphone, and call.
Mixing, or single-receiver, monitoring.
Loudspeaker operation when desired.

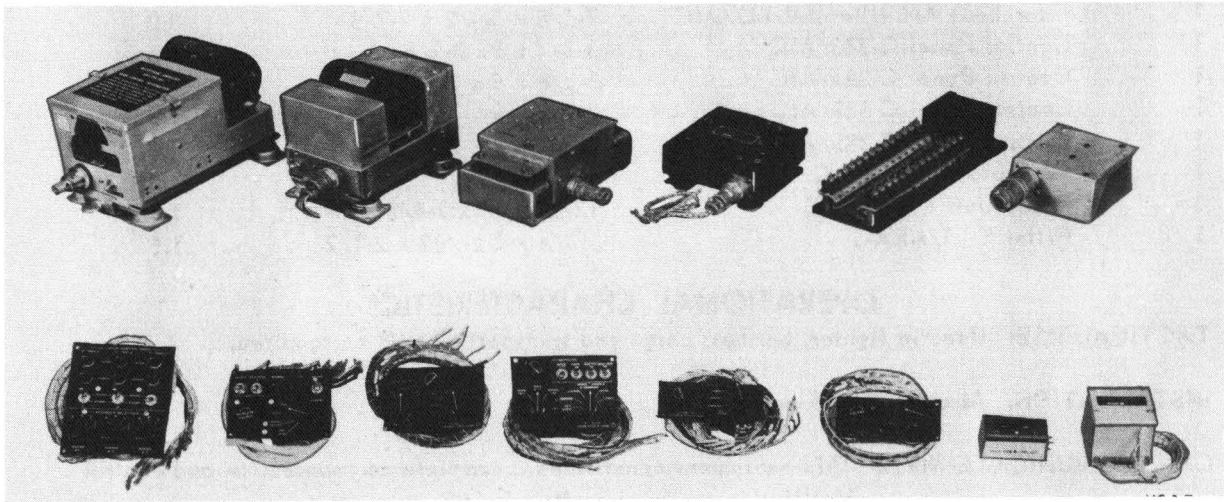
POWER OUTPUT: 200 mw (nominal) per interphone station.

POWER REQUIREMENTS: Per interphone station (nominal): 750 mw, 26.5 v, dc.
Control Panel C-824/AIC-10: 150 mw, 27.6 v, dc.
AF Amplifier AM-476/AIC-10: 150 mw, 27.6 v, dc.
Relay Assembly RE-95/AIC-10: 110 mw, 27.6 v, dc.
Dynamotor DY-77: (1.3 amp) at 27.6 v, dc.
Dynamotor DY-76: (7 amp) at 27.6 v, dc.

PHYSICAL CHARACTERISTICS

The number of principal operating units used are determined by the installation requirements of the Aircraft. Approximate space and weight requirements of each item is listed above under "Major Components."

STATUS: Substitute Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 7 Jun 52	AN/AIC-TYPE SERVICE TYPE NUMBER: USAF COMBAT INTERPHONE



USAF Combat Interphone components consist of an assortment of control panels, audio amplifiers, relay units, and related items used to provide interphone communication between the various crew members and/or crew members and radio equipment in multi-place aircraft. The availability of a variety of control panels and amplifiers permit the selection of appropriate components to provide an interphone system which best meets the tactical needs of each individual aircraft and crew station.

The most elaborate combination provides selection of either constant or automatic volume control; control of one to 15 stations (singly or simultaneously); compass; vhf liaison; command; interphone; private interphone; three recorders (maximum); range or voice filter; mixed signals; and call facilities.

Interphone Amplifier AM-26A/AIC is ordinarily used in high altitude aircraft having six or more interphone stations; Interphone Amplifier AM-147/AIC is installed in two- or three-place low-altitude aircraft.

Power requirements are: 24-28 v, dc, the total load will vary with each different installation.

AN/AIC-TYPE	INSTRUCTION LITERATURE: TO 16-55-391 CLASSIFICATION OF EQUIPMENT: Unclassified
USAF :SERVICE TYPE NUMBER	USING SERVICE : Air Force
COMBAT INTERPHONE	DATE OF THIS SHEET: 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Interphone Amplifier AM-26A/AIC	10-1/2 x 5-7/8 x 5-1/4	8.0
1	Mixer Amplifier AM-142/AIC	5-1/4 x 6 x 1-3/4	1.9
1	Interphone Amplifier AM-147/AIC	7-5/8 x 5-1/2 x 2-7/8	3.0
1	Control Panel C-383/AIC	3-3/4 x 5 x 3-1/8	1.5
1	Control Panel C-384/AIC	3-3/8 x 5 x 3-1/8	1.25
1	Control Panel C-389/AIC	2-1/4 x 5 x 3-1/8	0.8
1	Control Panel C-385/AIC	2-1/4 x 5 x 2-1/4	0.7
1	Jack Box J-139A/AIC	3-3/8 x 2 x 2	0.3
1	Relay Unit RE-50/AIC	12-3/8 x 4 x 2-1/2	1.9
1	Filter F-21/ARA-9	3-3/4 x 2-27/32 x 2-1/2	1.5

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in fighter, bomber, cargo and transport aircraft as required.

INSTALLATION: Aircraft, shock-mounted.

CAN COMMUNICATE WITH: This equipment constitutes a complete communication and control facility for use in aircraft.

TECHNICAL CHARACTERISTICS

FACILITIES AFFORDED: 2 to 15 interphone stations, compass, vhf liaison, command, interphone, private interphone, 3 recorders, range with or without voice filter, mixed signals and call facilities.

TYPE CONTROLS: Rotary selector switches, toggle switches and volume controls to select various stations and/or radio equipment with which interphone is connected.

POWER OUTPUT: Amplifiers: 4 w (maximum) to 250-ohm resistive load.

POWER REQUIREMENTS: Total power requirements must be determined from type of installation. Power drawn by basic components:

Instantaneous starting current 106 w, 24 to 28 v, (1.8 amp) dc.
Interphone Amplifier AM-26A/AIC 27.7 w, 24 to 28 v, (1.8 amp) dc.
Interphone Amplifier AM-147/AIC 19.88 w, 24 to 28 v, (0.75 amp) dc.
Mixer Amplifier AM-142/AIC 17.66 w, 24 to 28 v, (0.13 amp) dc (holding current).

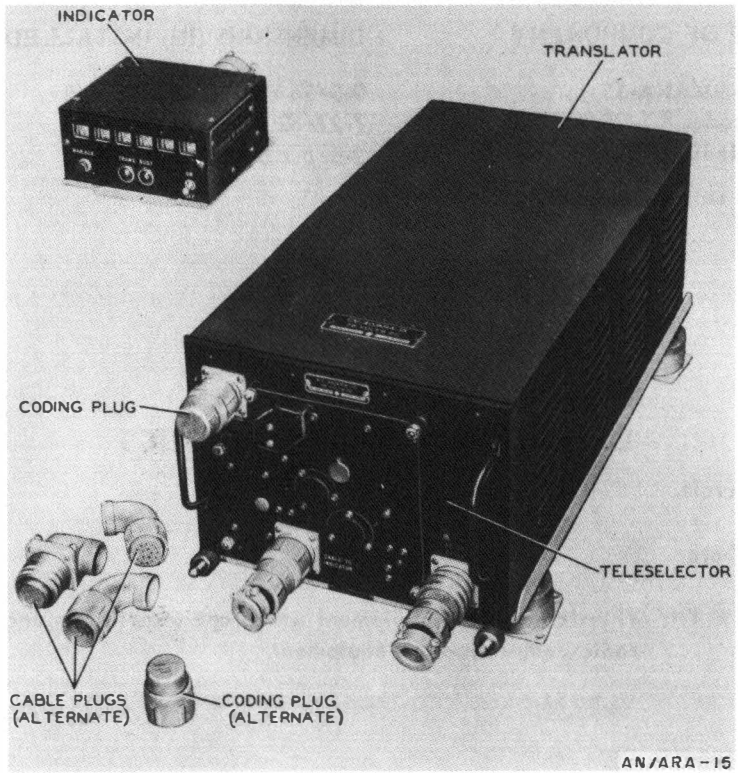
PHYSICAL CHARACTERISTICS

Two to fifteen of each of the station units are used to form the intercommunication system, depending upon the type of installation required. The approximate space requirements and weight of each station unit is indicated above under "Major Components."

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: ~~Confidential~~
USING SERVICE: Navy
DATE OF THIS SHEET: 29 May 52

AN/ARA-15

IMPULSE TRANSLATING EQUIPMENT



Impulse Translating Equipment AN/ARA-15 is installed in aircraft to automatically decode and acknowledge a-m signals received from Experimental Impulse Keying Equipment CXJV, (shipborne or shore station equipment). It is used in conjunction with radio communication equipment of the aircraft and of the ship, to translate and visually display a coded message. The visual message consists of six ideograms or symbols. It is designed for use with such equipment as Radio Set AN/ARC-1.

This equipment consists essentially of a selector-decoder, a selector, and an indicator unit.

The selector-decoder converts audio tones into d-c impulses, and the indicator unit converts these d-c impulses to visual messages, and automatically causes transmission of an acknowledgment signal by the aircraft's transmitter to the sending station, indicating either correct or incorrect receipt of the message.

A manual control is provided to enable the operator to answer a request-for-acknowledgment signal from the sending station. The selector-decoder automatically determines whether the received message is intended for the particular equipment; each sending and receiving station has individual code numbers.

AN/ARA-15

IMPULSE TRANSLATING EQUIPMENT

INSTRUCTION LITERATURE: CO-NavAer 16-30ARA15-507
CLASSIFICATION OF EQUIPMENT: Confidential
USING SERVICE : Navy
DATE OF THIS SHEET : 29 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Selector CV-40/ARA-15	9-5/16 x 11-7/16 x 25-3/8	23.2
*1	Selector Decoder KY-26/ARA-15	7-27/32 x 10-1/4 x 8-5/16	11.3
1	Indicator Unit ID-215/ARA-15	2-5/8 x 5-3/32 x 6-1/32	2.77

*Mounted in selector chassis.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

CAN COMMUNICATE WITH: This is auxiliary equipment which operates in conjunction with primary radio communication equipment.

TECHNICAL CHARACTERISTICS

TYPE OF SIGNAL: AF (coded).

TYPE COMMUNICATION CIRCUITS: Composite.

CONTROLS: Manual acknowledgment-of-signal control; ON-OFF switch.

POWER REQUIREMENTS: 318 w, 26.5 v, dc.

PHYSICAL CHARACTERISTICS

Impulse Translating Equipment AN/ARA-15 measures 9-5/16 x 16-11/16 x 25-3/8 inches.

STATUS: Std

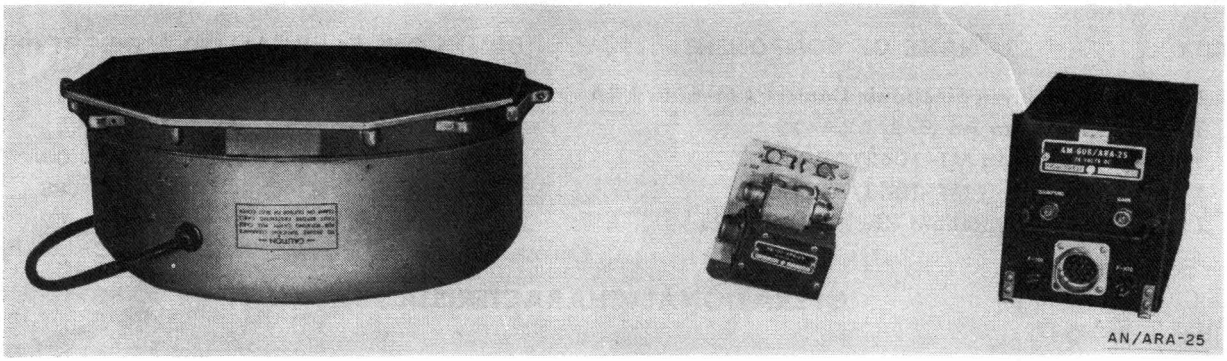
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USAF

DATE OF THIS SHEET: 6 June 1956

AN/ARA–25

DIRECTION FINDER GROUP



Direction Finder Group AN/ARA–25 is used for indicating relative bearing of, and for homing on, radio signal sources. The signals may be amplitude-modulated or unmodulated. The equipment extracts the information from signals received by such radio sets as AN/ARC–27. The relative bearing of the signal source is indicated on Indicator ID–90A/ARN–6 or Course Indicator ID–250/ARN.

This equipment consists of three major operating units: electronic control amplifier, antenna, and solenoid relay.

AN/ARA–25

DIRECTION FINDER GROUP

INSTRUCTION LITERATURE: 12R1–2ARA25–2

USING SERVICE: USAF

DATE OF THIS SHEET: 6 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Amplifier, Electronic Control AM–608/ARA–25	5 7/8 x 4 7/8 x 12 17/32	5.4
1	Antenna AS–578/ARA–25	6 x 16 x 14 1/2	17.5
1	Mounting MT–1042/ARA–25	4 5/16 x 4 3/8 x 3/16	.09
1	Mounting MT–1043/ARA–25	2 5/64 x 5 3/4 x 11 3/16	.88
1	Relay, Solenoid RE–120/ARA–25	5 15/16 x 6 1/2 x 1 3/4	.82

OPERATIONAL CHARACTERISTICS

TACTICAL USE: In fighters, bombers, and cargo aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE: Line of sight.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 225 to 400.

TYPE MODULATION: Am (A1, A3).

TYPE OF SIGNAL: Cw, voice.

POWER REQUIREMENTS: 26.5 v, 6 va, 380 to 420 cy, 1 ph ac (syn-gen rotor); 225 v, .03 amp dc (p); 28 v dc (sol rel, .2 amp; ADF rel, .3 amp; fil, .35 amp; ant. drive mot, 2 amp).

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:					
DOMESTIC PACK:					
EXPORT PACK:					

STATUS: Std

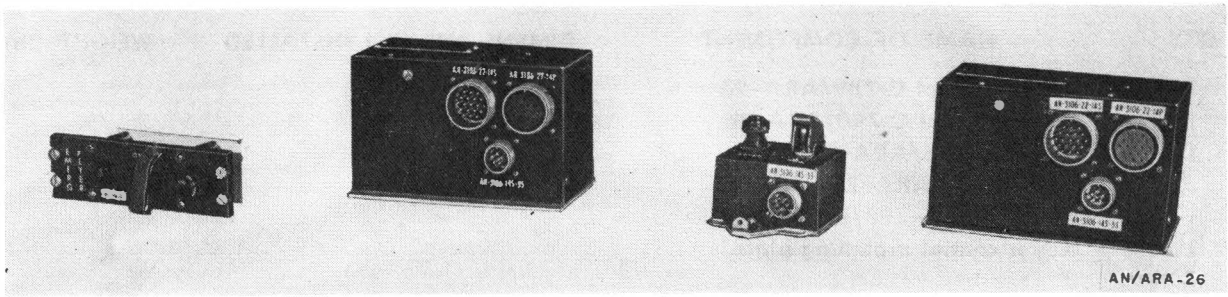
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USAF

DATE OF THIS SHEET: 6 June 1956

AN/ARA–26

CONTROL-KEYER GROUP



Control-Keyer Group AN/ARA–26 provides automatic keying of airborne radio transmitter equipment to transmit distress signals, during an extreme emergency, to the aircraft.

The control panel, mounted in the pilot's instrument board, and the keyer control, mounted in the radio operator's section of the plane, are used to tune the keyer "on or off" and also to provide an indicator light for checking the power to the keyer group.

The keyer component is a motor-driven device for automatically keying the distress signals and for channeling the transmitter. A time delay, which can be preset for any interval from 5 to 30 seconds, allows time for transmitter warmup and channeling.

AN/ARA-26

CONTROL-KEYER GROUP

INSTRUCTION LITERATURE: 12R5-2ARA26-2

USING SERVICE: USAF

DATE OF THIS SHEET: 6 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Keyer Control C-789/ARA-26		
1	Control Panel C-790/ARA-26		
1	Keyer KY-65/ARA-26 or KY-65A/ARA-26		
1	Mounting MT-797/U		
1	Keyer control mounting plate		

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in bombers, air-sea rescue, trainer, and cargo aircraft.

INSTALLATION: Airborne.

TECHNICAL CHARACTERISTICS

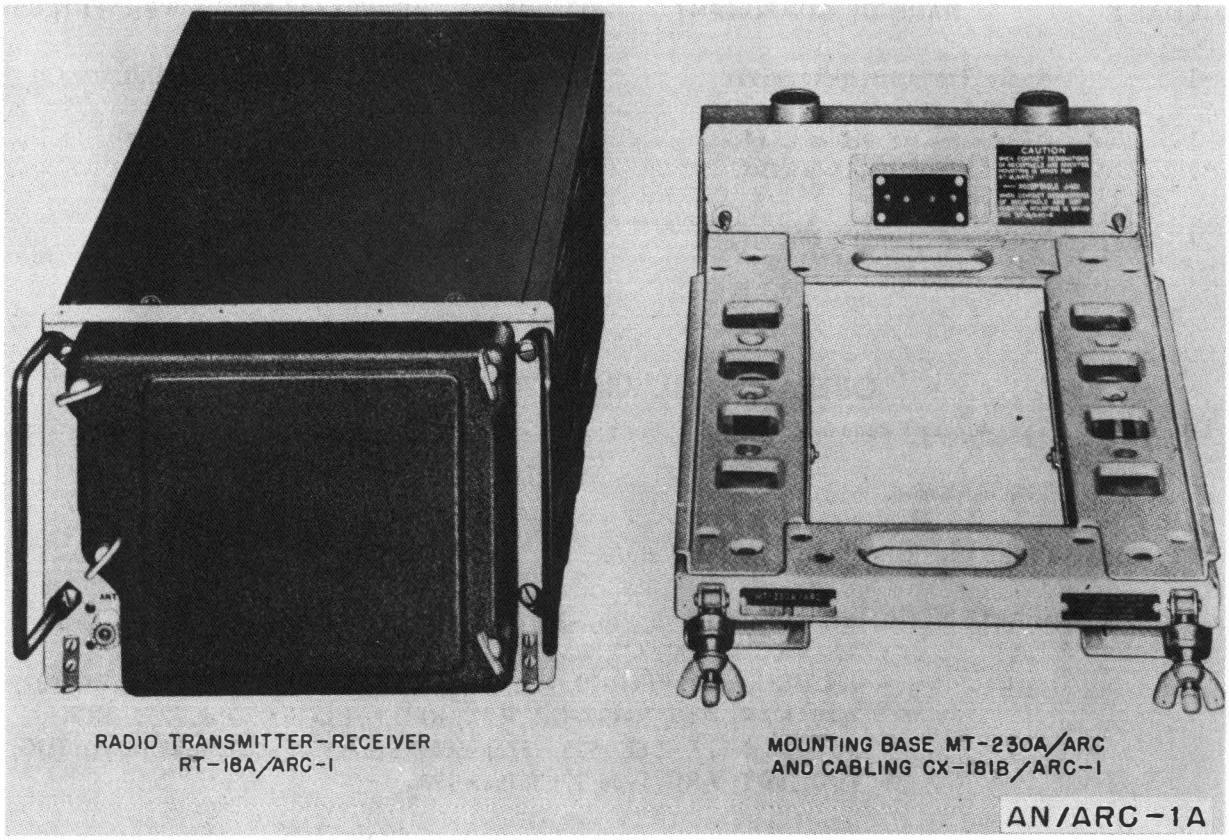
FREQUENCY RANGE IN MEGACYCLES: Operates on distress freq.

POWER REQUIREMENTS: 26.5 v, .7 amp dc.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:					
DOMESTIC PACK:					
EXPORT PACK:					

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 May 52	AN/ARC-1A RADIO SET



Radio Set AN/ARC-1A is a general purpose low power v-h-f, a-m (voice) transceiver for radiotelephone communication between aircraft, and from aircraft to ground stations. Remote selection of any one of ten preset crystal-controlled channels is possible. The receiver permits monitoring on the guard channel while operating on a main communication channel.

The equipment is designed to use a quarter-wave base-fed rod or mast-type antenna, which should be installed as nearly as possible along the centerline of the plane.

AN/ARC-1A

RADIO SET

INSTRUCTION LITERATURE: AN 16-30ARC1-7
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter-Receiver RT-18A/ARC-1	24-3/4 x 10-7/8 x 9-1/32	40.0
1	Dynamotor DY-9B/ARC-1	5-1/4 x 3-1/2 x 9-3/16	5.7
*1	Control Unit C-115/ARC-1	2-1/4 x 6 x 6-1/2	1.0
	or C-45/ARC-1	8-3/8 x 3-3/8 x 2-5/8	0.2
1	Mounting Base MT-230/ARC	24 x 10-19/32 x 3-7/8	4.13

*Not supplied.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft communications.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

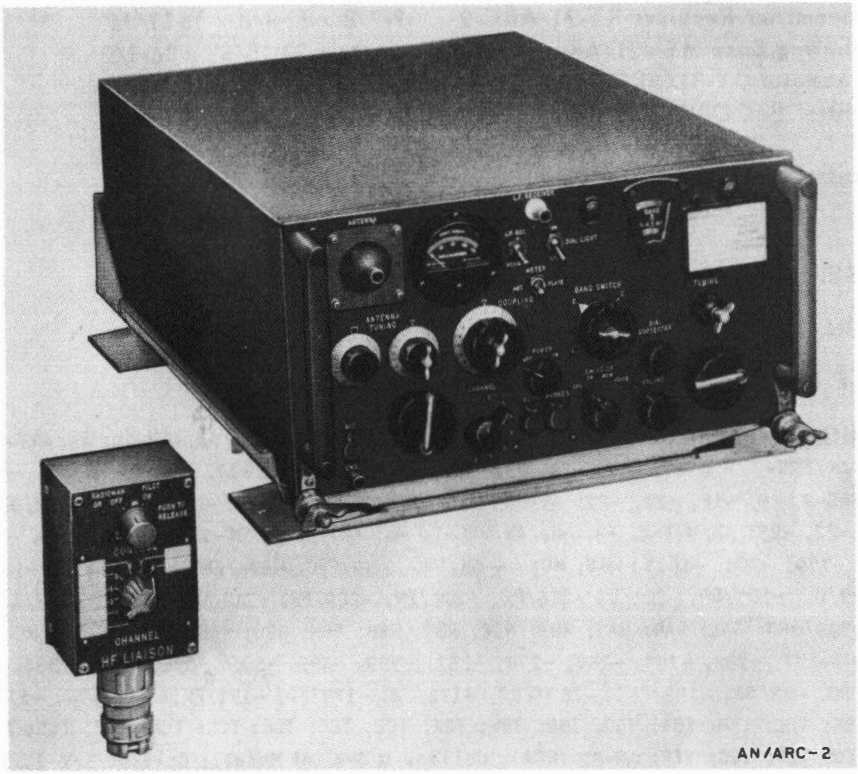
POWER OUTPUT: Transmitter: 8 w.
Receiver: 400 mw into 300 or 4000 ohm output (dual output).

POWER REQUIREMENTS: 504 w, 24-29 v,d c.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-1A measures 24-3/4 x 10-7/8 x 9-1/32 inches.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 May 52	**AN/ARC-2** RADIO SET



Radio Set AN/ARC-2 is a general purpose medium power, m-f and h-f, am (voice, cw, and mcw) transceiver designed for installation in all types of Naval aircraft. Provides manual selection by pilot or radio operator of eight preset master-oscillator controlled channels or remote control of the autotune system of channel selection.

The equipment will operate satisfactorily up to an altitude of 40,000 feet above sea level.

AN/ARC-2	INSTRUCTION LITERATURE: AN 16-30ARC2-3 CLASSIFICATION OF EQUIPMENT: Unclassified
	USING SERVICE: Navy
RADIO SET	DATE OF THIS SHEET: 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter-Receiver RT-91/ARC-2	7-7/8 x 21-1/8 x 15 11/16	69.5
1	Mounting Base MT-421/AR	5-3/16 x 23-15/32 x 16-1/2	6.0
1	Dynamotor DY-31/ARC-2	4-1/16 x 9-3/32 x 4-1/16	9.5
2	Control Box C-243/ARC-2	5-15/16 x 3-1/2 x 3-1/4	2.0
	C-244A/ARC-2	8-1/8 x 3-5/8 x 3-1/4	1.3
1	Control Panel C-245A/ARC-2	7-23/32 x 6 x 2-1/4	1.3

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Naval aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Medium.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28, -32; AN/FRT-5, -6, -15, -17, -18; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRR-3, -8, -12, -13; AN/SRT-4; AN/TRQ-1; AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; AN/VRR-2; BC-191, -312, -339, -342, -348, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -608/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -536, -543, -585, -593, -607, -694, -704; T-4/FRC, -83/SR, -158/FRT, -159/FRT, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCZ; TDE; TDF; TDH; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 2.0 - 9.05.

Band A: 2.1 - 2.9
Band B: 3.1 - 4.4
Band C: 4.1 - 5.9
Band D: 6.1 - 8.9.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, cw, mcw.

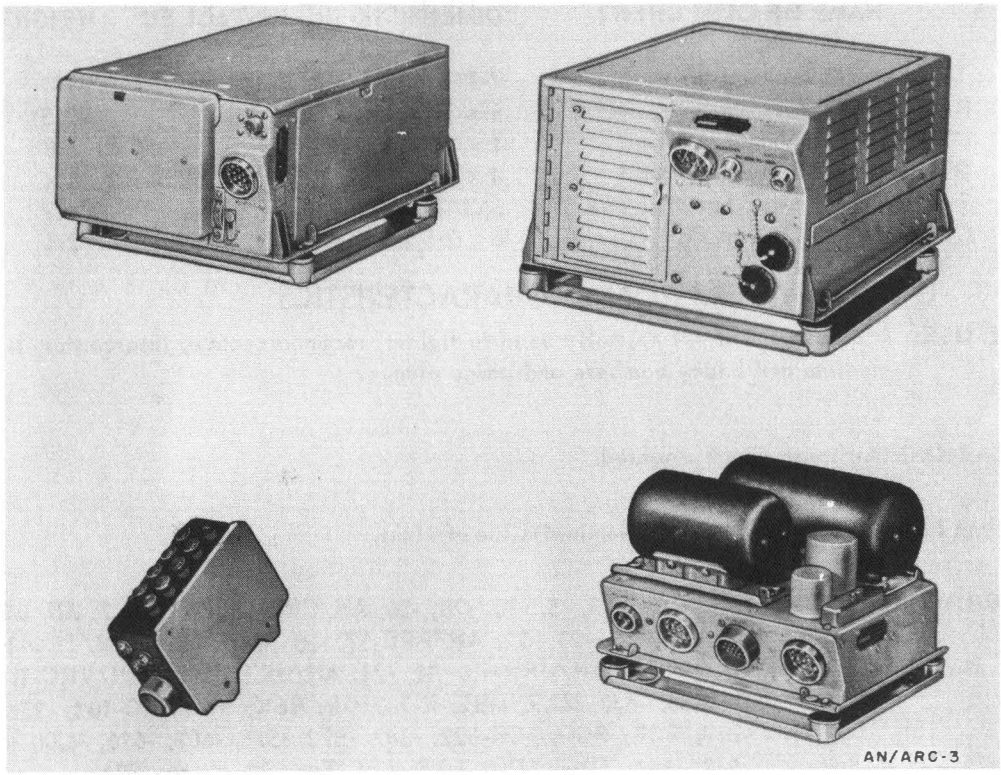
POWER OUTPUT: Transmitter: 17-30 w.
Receiver: 500 mw into 300 ohm output.

POWER REQUIREMENTS: 530 w, 26.5 v dc. (Must withstand surge of 60 amp for 0.5 sec).

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-2 measures 9-1/8 x 23-15/32 x 16-1/2 inches, net weight 90 pounds.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force, Army, Navy DATE OF THIS SHEET: 28 Apr 52	**AN/ARC-3** RADIO SET



Radio Set AN/ARC-3 is an airborne command v-h-f communication system for air-to-air and air-to-ground communication. It operates on any eight preset crystal-controlled channels in the 100 to 156 mc range, by push buttons located on the transmitter and/or on the remote Control Box C-118/ARC-3.

The crystals are capable of operating under conditions of high humidity and temperature.

The transmitter has an output impedance of 52 ohms matching low impedance transmission lines such as RG-8/U.

It is normally operated with Antenna Mast AN-104-B.

Power is supplied by aircraft batteries at 28 volts.

AN/ARC-3

RADIO SET

INSTRUCTION LITERATURE: TO 16-30ARC-3
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force, Army, Navy
DATE OF THIS SHEET: 28 Apr 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	T-67/ARC-3 Transmitter	7-1/2 x 12-1/8 x 15-1/4	21.0
1	R-77/ARC-3 Receiver	6 x 11 x 14-5/16	20.5
1	DY-22/ARC-3 Dynamotor Unit	4 x 3-7/16 x 7-3/16	4.8
1	DY-21/ARC-3 Dynamotor Unit	4 x 3-7/16 x 7-1/2	8.4
1	J-68/ARC-3 Power Junction Box	5-3/16 x 8-3/8 x 10-11/32	6.7
1	C-118/ARC-3 Control Box	6 x 2-5/8 x 6-7/8	2.1

OPERATIONAL CHARACTERISTICS

TACTICAL USE: A command vhf set normally used in fighter, reconnaissance, interceptor, light, medium and heavy bombers and cargo planes.

INSTALLATION: Airborne, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156 on any 8 preset crystal-controlled channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone.

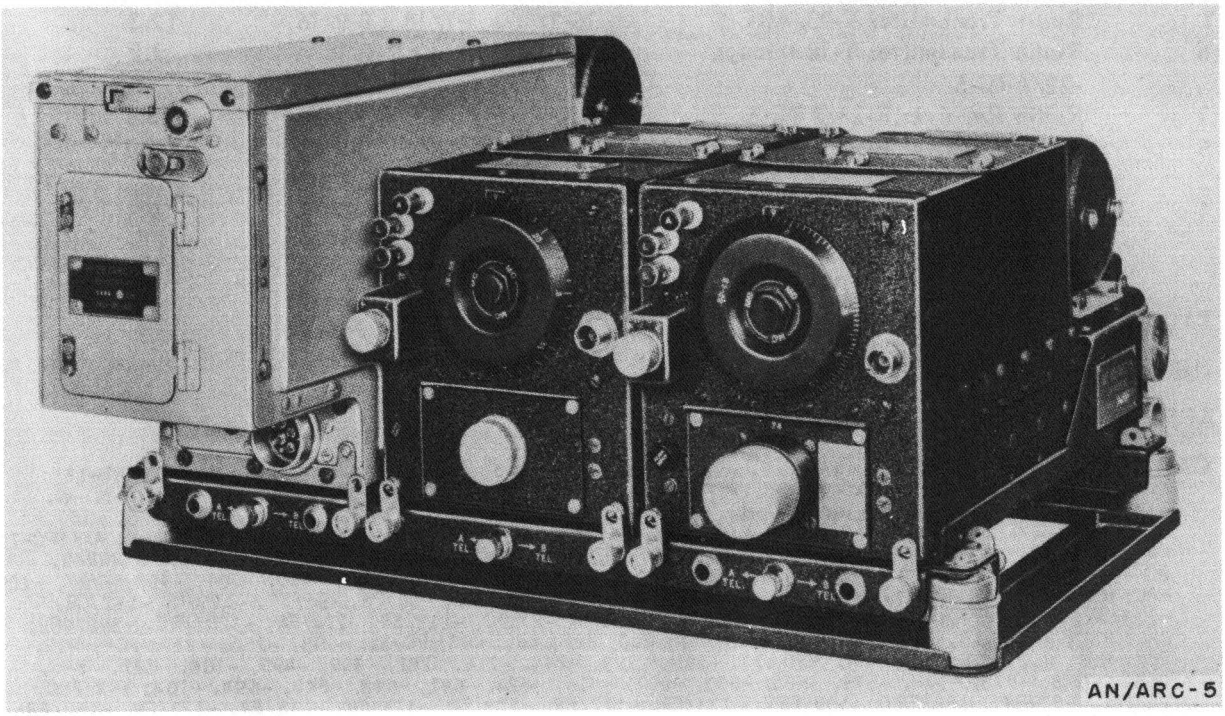
POWER OUTPUT: Transmitter: 8 w.
Receiver: 600 mw into 50 or 600 ohm load impedance.

POWER REQUIREMENTS: Starting; 3324 w, 28 - 32 v, (118 amp) dc.
Continuous operation; 385 w, (13.75 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-3 measures 7-1/2 x 25-1/2 x 15-1/4 inches (approximate), net weight 68.1 pounds, volume 2 cu ft (approximate). Packed for domestic or export shipment: total weight 96 pounds, total volume 5 cu ft. Shipped in 1 package.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 23 May 52	**AN/ARC-5** RADIO EQUIPMENT



Radio Equipment AN/ARC-5 is a multichannel l-f, m-f, h-f and v-h-f, am (cw, mcw, voice) transmitting and receiving equipment assemblage for installation in aircraft for general air-to-ground communication, and for reception of instrument landing and navigational signals. It is a multiple-unit equipment, the number of transmitters and receivers employed (limit of five receivers and eight transmitters) depend upon the type of installation.

The l-f, m-f, and h-f transmitters and receivers cover their respective frequency ranges by means of five independent units, any one of which may be operated individually or all simultaneously. Five additional transmitters with lower frequency coverage may be used for special purposes. For v-h-f coverage one transmitter and receiver is used in radiotelephone applications.

Frequency control is by crystal-oscillator; the l-f, m-f, and h-f units are of the single frequency type, while the v-h-f transmitter and receiver employs four preset channels. The l-f, m-f, and h-f equipment may be remotely controlled if desired, however, the v-h-f equipment is designed specifically for operation by remote control.

AN/ARC-5

RADIO EQUIPMENT

INSTRUCTION LITERATURE: NavAer 08-50-95, AN 08-10-195
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 23 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter T-23/ARC-5	15-3/16 x 5-7/16 x 8-9/16	12.3
*5	Radio Transmitter T-18 through -22/ARC-5	12-3/4 x 5-1/4 x 7-1/16	9.0
1	Radio Receiver R-28/ARC-5	8-5/8 x 6 x 17-7/8	13.6
*5	Radio Receiver R-23 through -27/ARC-5	11-1/2 x 4-13/16 x 5-5/8	6.0
1	Modulator MD-7/ARC-5	7-11/16 x 10-3/16 x 8-7/8	9.1

* Quantity dependent upon type installation.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Short.

CAN COMMUNICATE WITH: AN/ARC-1, -2, -3, -5, -8, -9, -18, -21, -25, -26, -28, -36; AN/ARR-15; AN/ART-13; AN/CRC-2; AN/CRT-3, -5; AN/FRC-7, -10; AN/FRR-3, -4, -7, -12, -28, -32; AN/FRT-5, -6, -10, -15, -17, -18, -19; AN/GRC-9, -13, -26, -30; AN/GRR-2, -3, -5; AN/GRT-2; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -17, -19, -20; AN/SRC-3; AN/SRR-3, -9, -11, -12, -13; AN/SRT-1, -3, -4; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -21, -22, -23; AN/URT-2, -3, -4, -7, -10; AN/VRC-1, -4; AN/VRR-2; BC-191, 312, -329, -339, -342, -348, -365, -401, -447, -610, -639, -640, -779, -787, -794, -797, -1004; MAW; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -60B/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -137/GR, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBK; RBM; RBO; RBP; RBQ; RBS; RC-52, -103, -256, -257; RCF; RCG; RCH; RCK; RCO; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -522, -536, -542, -543, -573, -574, -575, -585, -593, -607, -616, -624, -641, -643, -644, -694, -704; T-4/FRC, -5/FRC, -83/SR, -158/FRT, -159/FRT, -171/FR, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TAB; TAJ; TAQ; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCO; TCP; TCS; TCY; TCZ; TDD; TDE; TDF; TDG; TDH; TDK; TDN; TDO; TDQ; TDT; TEB; TEC; TEF; AR-88 (RCA); ARC Type 12; Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: Transmitting: 2.1 - 9.1 and 100 - 156 in the ranges below:

2.1 - 3.0	4.0 - 5.3	7.0 - 9.1
3.0 - 4.0	5.3 - 7.0	100 - 156

Receiving: 0.19 - 9.1 and 100 - 156 in the ranges below:

0.19 - 0.55	1.5 - 3.0	6.0 - 9.1
0.52 - 1.5	3.0 - 6.0	100 - 156.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, mcw, cw.

POWER OUTPUT:

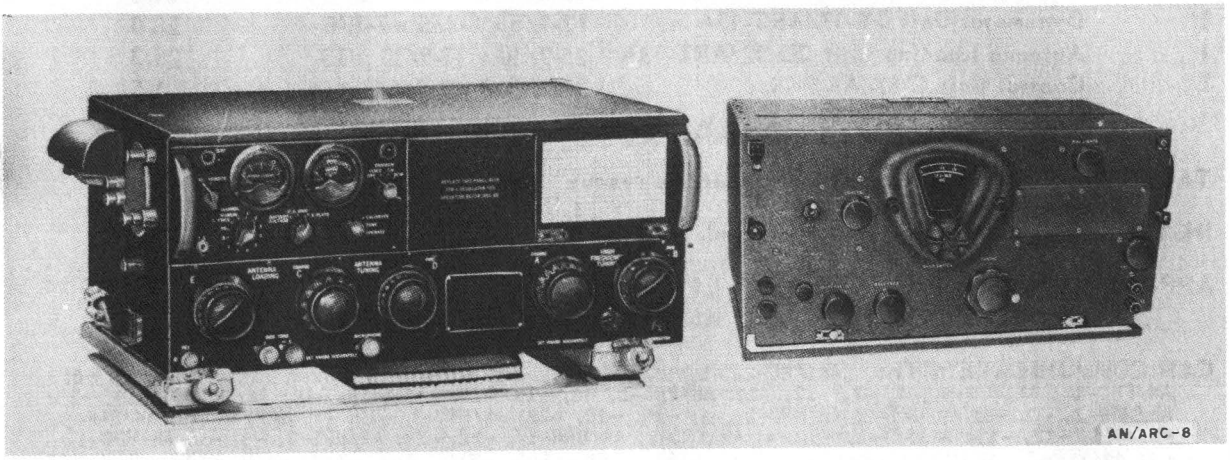
100 to 156 mc:	6 w on voice.
2.1 to 3.0 mc:	16 w on cw; 7 w on mcw; 5 w on voice.
3 to 4 mc:	24 w on cw; 11 w on mcw; 6 w on voice.
4 to 5.3 mc:	31 w on cw; 16 w on mcw; 10 w on vcice.
5.3 to 7 mc:	36 w on cw; 18 w on mcw; 11 w on voice.
7 to 9.1 mc:	39 w on cw; 20 w on mcw; 13 w on voice.

POWER REQUIREMENTS: 24-28 v, d-c aircraft supply.

PHYSICAL CHARACTERISTICS

Information on Radio Equipment AN/ARC-5 not available.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 7 Jun 52	**AN/ARC-8** ✓ RADIO SET



Radio Set AN/ARC-8 is an airborne high power, long range, a-m, h-f, transmitting and receiving set designed for two-way air-to-ground and air-to-air communication. The transmitter and receiver will operate on voice, tone or telegraph signals. (These components are illustrated above.)

This set consists of a radio transmitting set, a control unit, a radio receiving set, and interconnecting cables.

Radio Transmitting Set AN/ART-13 covers two frequency ranges; 200 to 500 kc and 2 to 18 mc. The power output varies from 4 w at 200 kc to 90 w at 13.5 mc.

It operates on 11 preset channels which can be crystal calibrated but not crystal-controlled.

Radio Receiving Set AN/ARR-11 consists of a Radio Receiver BC-348-Q (or-R) shock mounting and necessary plugs, and interconnecting cables. It is designed for continuous tuning over the 200 to 500 kc and 1.5 to 18.0 mc ranges. The receiver can be locally tuned only.

Radio Transmitting Set AN/ART-13 may be remotely controlled by means of Control Unit C-87/ART-13 which utilizes the Collins Auto-tune System of automatic remote control.

Antenna requirements vary with the frequency on which the equipment is operating. Normally a fore-and-aft inverted L or T type antenna is used for h-f operation; for l-f a trailing wire and Antenna Loading Unit CU-32/ART-13A are used.

AN/ARC-8

RADIO SET

INSTRUCTION LITERATURE: TO 16-30ART-13 & 16-30ARR-11
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET: 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitting Set AN/ART-13	23-5/8 x 13-5/8 x 10-3/4	103.6
1	Radio Receiving Set AN/ARR-11	18 x 10-1/2 x 9-1/2	41.8
1	Dynamotor Unit DY-17/ART-13A	13-1/5 x 8-4/5 x 7-1/5	28.0
1	Antenna Loading Unit CU-32/ART-13A	25-7/10 x 13-9/10 x 13	28.3
1	Control Unit C-87/ART-13	3-3/5 x 8 x 3-1/5	1.5

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in all bombers, air sea rescue, trainer and cargo aircraft.

INSTALLATION: Airborne, shock-mounted.

APPROXIMATE RANGE (IN MILES): Lf short,
Hf medium to long.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25; AN/ARR-15; AN/ART-13; AN/CRT-3, -5; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28; AN/FRT-5, -6, -10, -15, -17, -18, -19; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/GRT-2; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRC-3; AN/SRR-3, -8, -11, -12, -13; AN/SRT-1, -3, -4; AN/TRQ-1; AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; AN/VRR-2; BC-191, -312, -329, -339, -342, -348, -365, -401, -447, -453, -610, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -60B/FRT; R-62/PR, -90/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -212/SR, -213/SR, -215/SR, -247/URR, -274/FRR, -320/FRC, -388/URR; RAK; RAL; RAO; RAS; RBA; RBB; RBC; RBG; RBH; RBL; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDF; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -536, -543, -585, -593, -694, -704; T-4/FRC, -5/FRC, -83/SR, -158/FRT, -159/FRT, -171/FR, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TAB; TAJ; TAQ; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCY; TCZ; TDD; TDE; TDF; TDH; TDK; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: Transmitter: 11 preset channels, 200 - 500 kc and 2 - 18 mc.
Receiver: Continuous tuning, 6 bands, 0.2 - 0.5 and 1.5 - 18 mc.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone cw.

POWER OUTPUT: Varies with frequency.

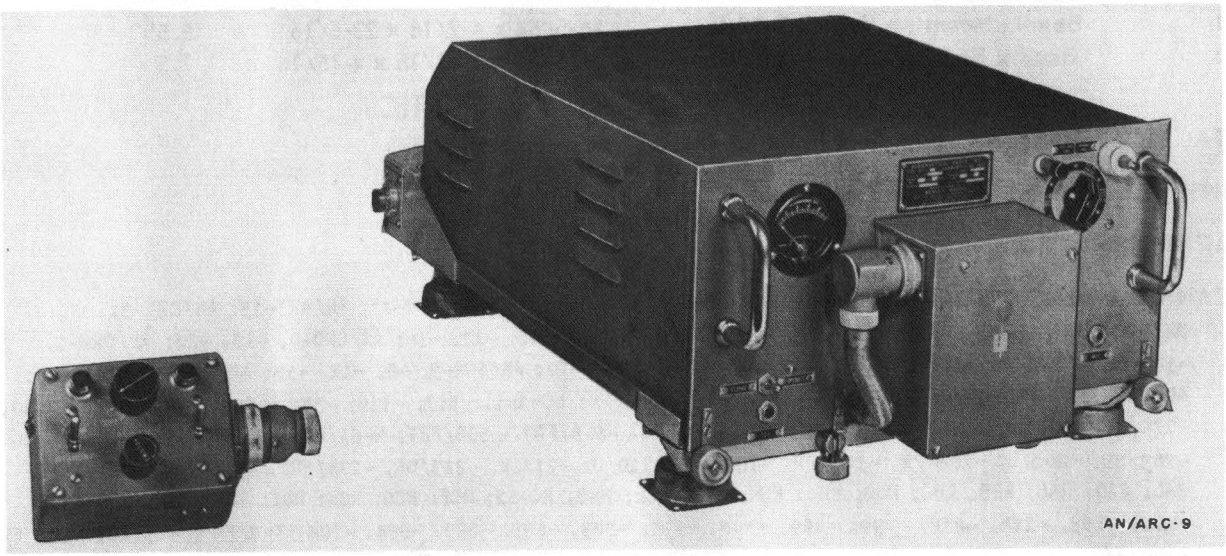
Transmitter:	200 kc 4.0 w	600 kc 18.0 w	5.5 mc to
	300 kc 7.5 w	2.0 mc 30.0 w	13.5 mc 90 w
	400 kc 11.0 w	3.0 mc 60.0 w	15.5 mc 75 w
	500 kc 14.0 w	4.0 mc 80.0 w	18.1 mc 65 w
Receiver:	3 w (maximum) into 300 or 4000 ohm resistive load.		

POWER REQUIREMENTS: Input 28 v at(37 amp) dc, 1036 w.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-8 measures 84-1/5 x 13-9/10 x 10-3/4 inches, net weight 203.2 pounds. Packed for either domestic or export shipment: total weight 243.8 pounds, total volume 3.64 cu ft. Shipped in 4 packages.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 26 May 52	**AN/ARC-9** RADIO SET



Radio Set AN/ARC-9 is an airborne liaison two-way radio set for long range air-to-air and air-to-ground communication. Equipment operates on amplitude modulated signals only. Ten crystal controlled channels are available as follows: 3105.0, 4220.0, 4495.0, 4575.0, 4917.5 (or 4465.0), 5588.0, 5662.0, 6210.0, 6440.0 and 6500.0 kc.

The radio frequency power output from the transmitter is 50 w at 100% modulation. Two independent audio channels are available from the receiver, each supplying 300 miliwatts to a 500 ohm resistive load. Interphone facilities are provided between pilots when transmitter switch is in "stand-by" position. An antenna matching system is included which will couple the equipment to any type of commonly used aircraft antenna, which will operate on the frequencies covered by this set.

Radio Set AN/ARC-9X is identical to AN/ARC-9 except that the AN/ARC-9X Model is supplied with a dynamotor which will operate on either 12.5 or 25 v, dc; the AN/ARC-9 operates from 25 v, dc, 20 amp, 500 w; AN/ARC-9X, 25 v, dc, 20 amp, 500 w; 12.5 v, dc, 40 amp, 500 w.

AN/ARC-9

RADIO SET

INSTRUCTION LITERATURE: TO-16-30ARC-9-3
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET: 26 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	(12 or 24 volt) Bendix Communication Unit RTA-1B	15-11/16 x 7-11/16 x 22-13/16	68.5
1	Bendix Mounting Base MT-68-E	16-5/64 x 4-9/16 x 23-5/16	5.55
1	Bendix Remote Control Unit MS-44	3-15/16 x 2-13/16 x 4-15/16	1.5

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used in cargo and transport aircraft.

INSTALLATION: Aircraft, shock-mounted.

APPROXIMATE RANGE (IN MILES): Long.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3; AN/FRC-10; AN/FRR-3, -4, -12, -28, -32; AN/FRT-5, -6, -15, -17, -18; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRR-3, -8, -12, -13; AN/SRT-4; AN/TRQ-1; AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; BC-191, -312, -339, -342, -348, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -60B/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, -399, -499, -506, -536, -543, -585, -593, -694, -704; T-4/FRC, -83/SR, -158/FRT, -159/FRT, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCO; TCS; TCZ; TDE; TDF; TDH; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 10 channels, crystal-controlled as follows: 3.105, 4.22, 4.495, 4.575, 4.9175 (or 4.465), 5.588, 5.662, 6.21, 6.44 and 6.5.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

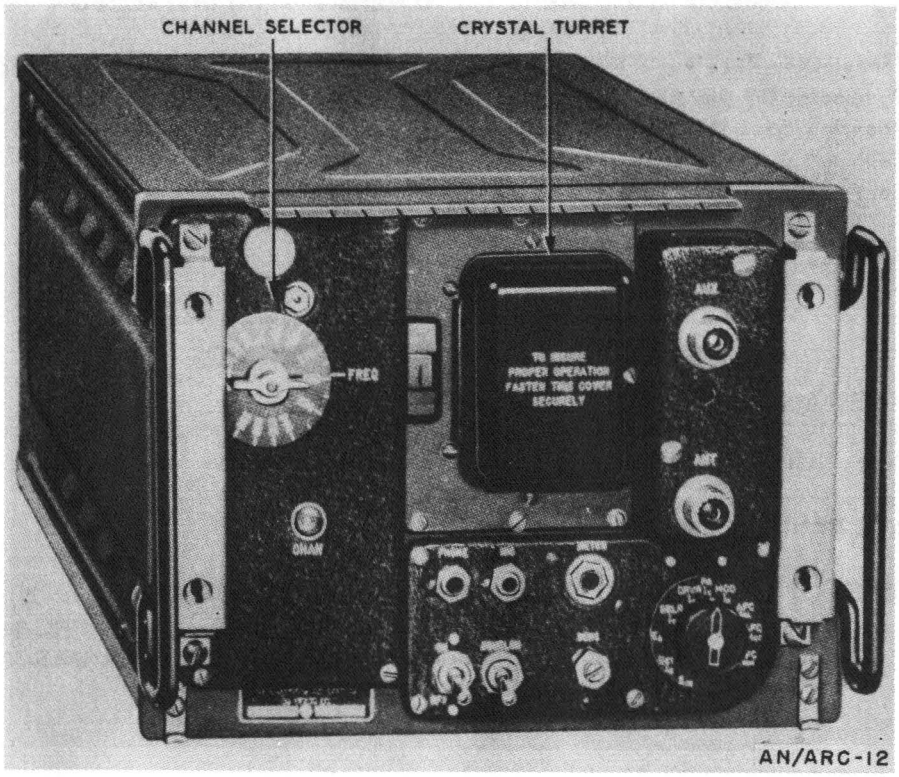
POWER OUTPUT: Transmitter: 50 w at 100% modulation.
Receiver: 300 mw into 500 ohm load (two channels available).

POWER REQUIREMENTS: 500 w, 24-28 v,(20 amp)dc (maximum).
AN/ARC-9; 500 w, 25 v,(20 amp) dc.
AN/ARC-9X; 500 w, 12.5v,(40 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-9, -9X measures 19-5/8 x 7-11/16 x 23-5/16 inches, net weight 83.608 pounds, volume 2.1 cu ft. Packed for either domestic or export shipment: total weight 105 pounds, total volume 2.55 cu ft. Shipped in 1 package.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: ~~Restricted~~ USING SERVICE: Navy DATE OF THIS SHEET: 29 May 52	**AN/ARC-12** RADIO SET



Radio Set AN/ARC-12 provides am (voice) facilities for communication between aircraft, or between aircraft, and ground installations.

This set has 10 preset crystal-controlled channels, one of which is a guard channel, with provision for monitoring the guard frequency while operating over one of the communication channels.

It is also a component of Radio Set AN/ARC-30, an airborne communications relay system, which consists essentially of two AN/ARC-12's receiving on one frequency and transmitting on a different frequency.

This equipment is functionally similar to the AN/ARC-1, except for the frequency range covered.

AN/ARC-12

RADIO SET

INSTRUCTION LITERATURE: AN16-30ARC12-3
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Navy
DATE OF THIS SHEET: 29 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter-Receiver RT-58/ARC-12	9-1/32 x 10-7/8 x 24-1/2	45.3
1	Dynamotor DY-9B/ARC-1	3-1/2 x 5-1/4 x 9-3/16	5.7
1	Mounting Base MT-230A/ARC-12	Not Available	4.1
1	Cabling CX-181B/ARC-1	" "	1.8
1	Control Unit C-115/ARC-1 or C-45/ARC-1	" "	1.0
1	Mounting Plate MT-4/ARR-2	" "	0.1

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Line of sight.

CAN COMMUNICATE WITH: AN/ARC-12, -19, -27, -30, -33, -34; AN/GRC-16, -27, -29, -30, -32; AN/GRR-7; AN/GRT-3; AN/MRC-12, -20, -22; AN/PRC-14, -17, -20; AN/TRC-32; AN/URC-4; AN/URR-9, -12, -13; AN/URT-10; MAR; MAY; R-278/GR; RDR; RDZ; SCR-616; TED.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 225 - 350, 9 preset main frequencies and 1 guard frequency.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

POWER OUTPUT: Transmitter: 6 w.
Receiver: 500 mw.

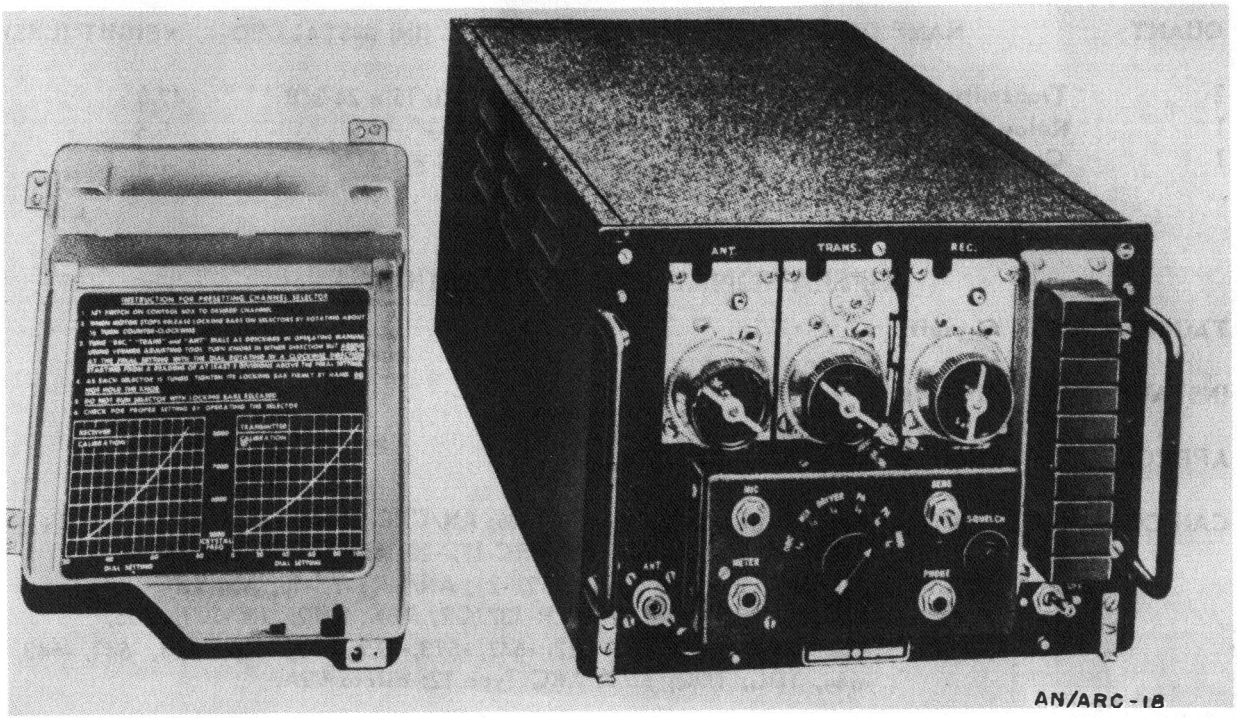
POWER REQUIREMENTS: 24 v, dc(45 amp)intermittent*,(20.5 amp) continuous.

* The result of channel selection and non-continuous transmission.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-12 measures 9-1/32 x 10-7/8 x 24-1/2 inches, net weight 58.8 pounds.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Restricted USING SERVICE: Navy DATE OF THIS SHEET: 2 Jun 52	**AN/ARC-18** RADIO SET



Radio Set AN/ARC-18 is an airborne v-h-f, automatic relay station equipment for extending the range of am (voice) radio communication between a shore station, or ship, and other aircraft. A transmitted signal from a ship or shore station is received by one transceiver, and applied through a relay unit, to the second transceiver for relaying to the aircraft with which contact is desired.

This equipment consists essentially of two Radio Sets AN/ARC-1 interconnected by a relay unit. Each transceiver provides ten preset crystal-controlled channels, one of which is used as a guard channel.

The signal received on one frequency by either of the two transceivers is transmitted on a second frequency by the opposite transceiver; a certain minimum separation between receiving and transmitting frequencies is necessary to prevent interference, and permits the operator to monitor both sides of the conversation.

This equipment is very similar in makeup and operation to the AN/ARC-28. The primary difference is that the AN/ARC-28 allows individual transceiver operation.

AN/ARC-18

RADIO SET

INSTRUCTION LITERATURE: AN 16-30ARC18-4
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Navy
DATE OF THIS SHEET : 2 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
2	Transmitter-Receiver RT-18/ARC-1	9-1/32 x 11-1/16 x 24-3/8	47.0
1	Relay Unit RE-15/ARC-18	Not Available	5.5
1	Control Unit C-156/ARC-18	6-3/4 x 5-5/8 x 3-5/16	1.9

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Medium.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573,-575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156, 9 main channels and 1 guard channel.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

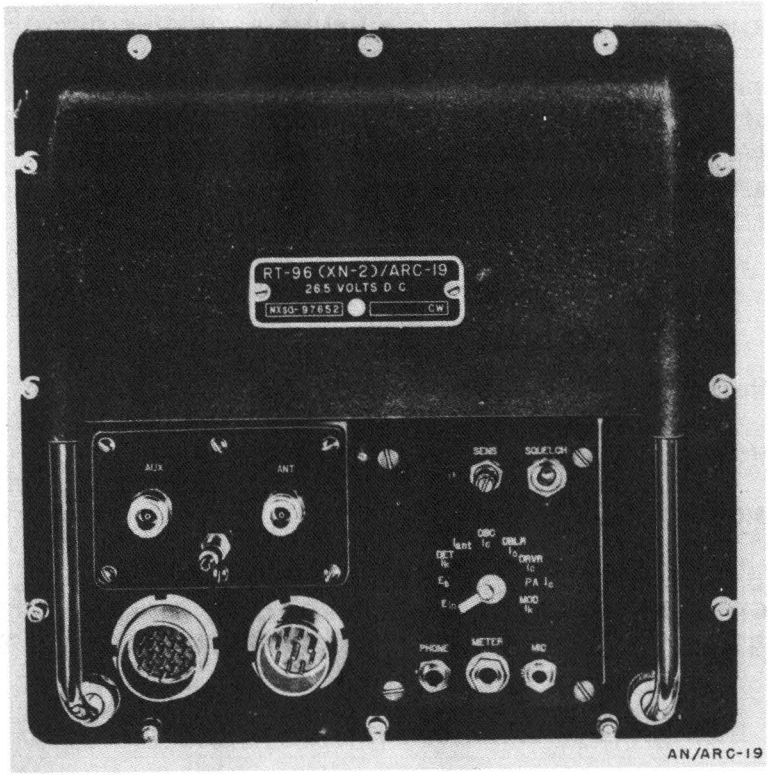
POWER OUTPUT: Transmitter: 8 w.
Receiver: Dual output, 400 mw into each 300 ohm load.

POWER REQUIREMENTS: 504 w, 28 v dc.

PHYSICAL CHARACTERISTICS

Information on Radio Set AN/ARC-18 not available.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Restricted USING SERVICE: Navy DATE OF THIS SHEET: 29 May 52	AN/ARC-19 RADIO SET



Radio Set AN/ARC-19 is an airborne am (voice, mcw) radio transmitter-receiver for v-h-f and u-h-f communications between aircraft, or between aircraft and ground stations. It is intended for radio-telephone use, tone operation being used only in emergencies.

This radio set is designed for remote control operation. The control unit facilitates automatic selection of any one of nine preset crystal-controlled main channels, and a guard channel; manual adjustment of the nine channels provides possible selection of 875 frequencies and a guard frequency.

The receiver circuit includes a separate r-f unit which permits monitoring on the guard channel while operating on a main channel.

An antenna of the broad-band non-directional type is used, and the change from receiving to transmitting is accomplished by push button control.

AN/ARC-19

RADIO SET

INSTRUCTION LITERATURE: AN 16-30ARC19-7
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Navy
DATE OF THIS SHEET : 29 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter-Receiver RT-96/ARC-19	13-5/8 x 11-5/8 x 26-1/8	92.5
1	Radio Set Control C-590/ARC-19	6-3/4 x 5-3/4 x 6-5/8	5.1
1	Dynamotor, DY-62/ARC-19	4-9/16 x 3-5/8 x 7-13/16	6.5
1	Mounting MT-716/ARC-19	Not Available	2.1

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Line of sight.

CAN COMMUNICATE WITH: AN/ARC-12, -19, -27, -30, -33, -34; AN/GRC-16, -27, -29, -30, -32; AN/GRR-7; AN/GRT-3; AN/MRC-12, -20, -22; AN/PRC-14, -17, -20; AN/TRC-32; AN/URC-4; AN/URR-9, -12, -13; AN/URT-10; MAR; MAY; R-278/GR; RDR; RDZ; SCR-616; TED.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 225 - 400.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, (mcw in emergency).

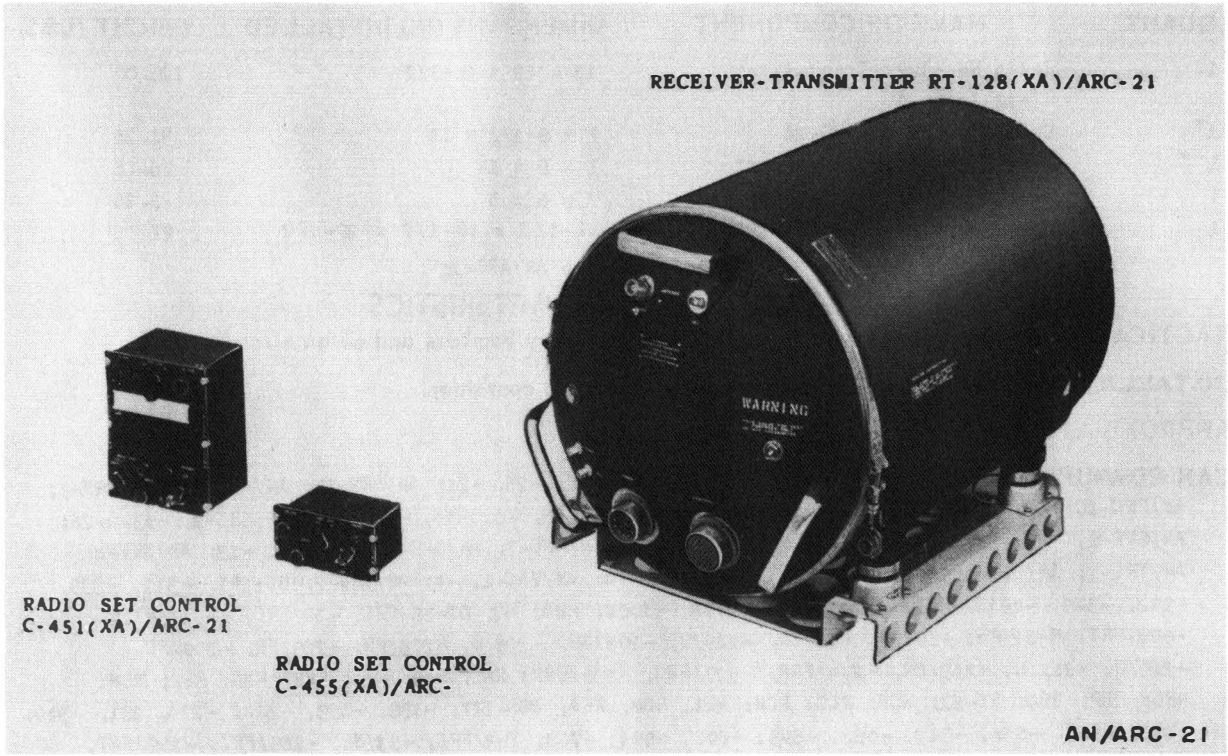
POWER OUTPUT: Transmitter: 9 w.
Receiver: 100 mw into a 300 ohm load.

POWER REQUIREMENTS: 344 w, 26.5 v d-c aircraft supply.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-19 measures 16-3/8 x 11-5/8 x 26-1/8 inches.

STATUS: Substitute Standard CLASSIFICATION OF EQUIPMENT: Restricted USING SERVICE: Air Force DATE OF THIS SHEET: 7 Jun 52	**AN/ARC-21** RADIO SET



Radio Set AN/ARC-21 and AN/ARC-21X are normally used in aircraft for air-to-ground and air-to-air communication and are designed primarily for long range aircraft communication at high altitudes. The transmitter and receiver are in a pressurized container to insure full power output at altitudes up to 50,000 feet.

This equipment operates on any 20 preset channels spaced 500 kc apart in the frequency range 2 to 24 mc.

The transmitter normally operates on cw or voice; when operated with Radio Teletypewriter TT-30/AGA-1 (and ancillary equipment) frequency shift keying is provided.

When operated with Antenna Coupler CU-145/ARC-21, it will load into a fixed wire or flush-mounted aircraft antenna.

Remote control is provided by means of Radio Set Control C-451/ARC-21.

Power supplies are available for operation from 115 v, ac at 380-1000 cyc or 27.5 v, dc.

These sets are substantially the same except that AN/ARC-21X has a 115-v, ac, 380-1,000 cyc Power Supply PP-298/ARC-21 instead of dc Dynamotor Assembly DY-50/ARC-21 used by the AN/ARC-21.

AN/ARC-21

RADIO SET

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Air Force
DATE OF THIS SHEET : 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver-Transmitter RT-128/ARC-21	18 x 18 x 26-1/2	128.00
1*	Dynamotor DY-50/ARC-21	7 x 8-1/2 x 14	31.25
1**	Power Supply PP-298/ARC-21	7 x 9 x 14	25.75
1	Radio Set Control C-451/ARC-21	7 x 6 x 5	5.25
1	Power Supply PP-297/ARC-21	17-1/2 x 10-1/2 x 20-1/2	27.75

* Supplied with AN/ARC-21. ** Supplied with AN/ARC-21X.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to light, medium, heavy bombers and cargo aircraft.

INSTALLATION: Aircraft, shock mounted in pressurized container.

APPROXIMATE RANGE (IN MILES): (Nominal) Long.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28, -32; AN/FRT-5, -6, -15, -17, -18; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7; AN/SRR-3, -8, -12, -13; AN/SRT-4; AN/TRQ-1; AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; AN/VRR-2; BC-191, -312, -339, -342, -348, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -608/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, 281, -399, -499, -506, -536, -543, -585, -593, -607, -694, -704; T-4/FRC, -83/SR, -158/FRT, -159/FRT, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, —180/FR; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBX; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCZ; TDE; TDF; TDH; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 44,000 channels spaced 0.5mc apart in the frequency range 2 - 24.
Crystal control is provided for any one of 20 preset channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Cw, voice and frequency shift keying.

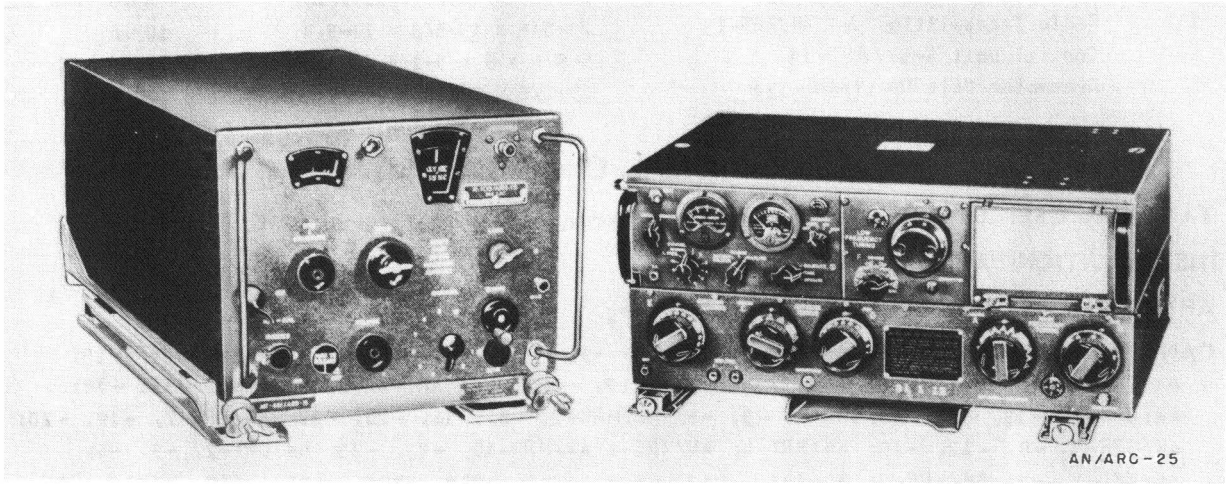
POWER OUTPUT: Transmitter: 100 w (Nominal).
Receiver: 900 mw into 200 ohm impedance.

POWER REQUIREMENTS: DY-50/ARC-21: 1050 w, 27.5v,(60 amp) dc.
PP-298/ARC-21: 1650 w, 115 v, 380-1000 cyc, 1 phase, ac.
PP-297/ARC-21: 1680 w, 115v, 60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC 21 measures 56 x 52 x 26-1/2 inches, net weight 218 pounds, volume 6.2 cu ft. Packed for either domestic or export shipment: total weight 250.7 pounds, total volume 6.8 cu ft. Shipped in 4 packages.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 7 Jun 52	**AN/ARC-25** RADIO SET



Radio Set AN/ARC-25 is a liaison, airborne, two-way high power, long range, a-m, h-f radio transmitting and receiving equipment for air-to-ground and air-to-air communication. The transmitter and receiver will operate on voice, tone or cw signals.

This set consists of one radio transmitting set (AN/ART-13), a control unit, one radio receiving set (AN/ARR-15), a mounting base, and interconnecting cables.

Radio Transmitting Set AN/ART-13 normally covers the frequency range 2 to 18 mc, however, a l-f unit is available (on special order) to cover the 200 to 500 kc ranges.

It operates on 10 preset channels which can be crystal calibrated but not crystal-controlled.

Radio Set AN/ARR-15 is essentially a superheterodyne receiving equipment having a crystal-calibrated oscillator operating on any one of 10 preset channels in the 1.5 mc range. It can be operated locally, or from a remote position using Radio Set Control C-733/ARR-15 (not supplied).

Radio Set AN/ARC-25 has an antenna matching network which permits operation with a wide variety of antennas. Normally fore and aft, inverted L-or T-type antennas are used, however, a trailing wire is excellent if available.

AN/ARC-25

RADIO SET

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1 *	Radio Receiver R-105-A/ARR-15	Not Available	Not Available
1 *	Dynamotor DY-34/ARR-15	" "	" "
1 *	Mounting Base MT-461/ARR-15	10-7/8 x 9-3/8 x 21-9/16	43.0
1	Radio Transmitting Set AN/ART-13	23-5/8 x 13-5/8 x 10-3/4	103.6
1	Control Unit C-87/ART-13	3-3/5 x 8 x 3-1/5	1.5
1	Dynamotor Unit DY-17/ART-13A	13-1/5 x 8-4/5 x 7-1/5	28.0

* One Unit

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in all bombers, air sea rescue, trainer and cargo aircraft.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): Medium-long.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28, -32; AN/FRT-5, -6, -15, -17, -18; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRR-3, -8, -12, -13; AN/SRT-4; AN/TRQ-1 AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; AN/VRR-2; BC-191, -312, -339, -342, -348, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -608/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -536, -543, -585, -593, -607, -694, -704; T-4/FRC, -83/SR, -158/FRT, -159/FRT, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCZ; TDE; TDF; TDH; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: Transmitter: 10 preset channels 2 - 18 (crystal calibrated).
Receiver: 10 preset channels 1.5 - 18.5.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone, cw.

POWER OUTPUT: Transmitter: 30 w at 2 mc to 65w at 18 mc.
Receiver: 500 mw (maximum).

POWER REQUIREMENTS: 1,150 w, 28.5 v,(40.3 amp) dc .

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-25 measures 51-1/3 x 13-5/8 x 21-9/16 inches, net weight 176.1 pounds, volume 3.26 cu ft. Packed for either domestic or export shipment: total weight 229 pounds, total volume 3.56 cu ft. Shipped in 3 packages.

STATUS: Std

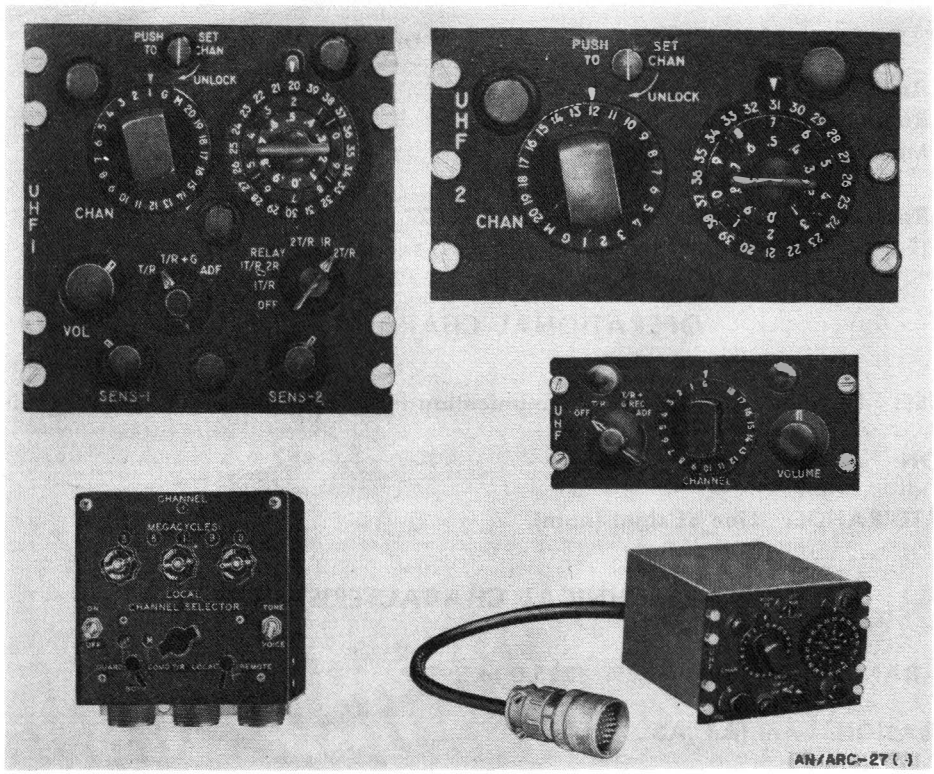
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

AN/ARC-27( )

RADIO SET



Radio Set AN/ARC-27( ) is an airborne, two-way, uhf command radio equipment for voice or tone signals. It is used in navigation and voice communication for air-to-air, air-to-ship, and ground-to-air communication in all types of fighters, bombers, and cargo aircraft. The AN/ARC-27 must be operated in conjunction with Radio Set Control C-626/ARC-27 (master unit) plus, if desired, any one of several remote control units.

This equipment operates on any one of 18 preset, crystal-controlled frequencies of 1,750 available channels, spaced 100 kc apart. It consists of a triple-conversion, superheterodyne receiver with three crystal oscillators, and a double-conversion superheterodyne auxiliary guard channel receiver; both working into a common audio output circuit. The triple-conversion receiver operates with Direction Finder Group AN/ARA-25 for navigation purposes, as well as for voice communication. Any aircraft antenna with a 52-ohm coaxial transmission line, such as Radio Frequency Cable RG-8/U or RG-58/U, may be used.

The AN/ARC-27 is similar to Radio Set AN/ARC-55 except that the latter has no external blower and it is smaller, lighter, and is not pressurized. Radio Set AN/ARC-27A is identical with the AN/ARC-27 except that the former does not use the same master control unit. Radio Set Control C-1015/ARC-27A, C-1024/ARC-27A, C-1025/ARC-27A, C-1703/ARC-27A, C-1704/ARC-27A, or C-1705/ARC-27A is used with the A model.

AN/ARC-27( )

RADIO SET

INSTRUCTION LITERATURE: AN 16-30ARC27-2, -3

USING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Radio Set Control C-626/ARC-27	6⅜ x 9⁹⁄₁₆ x 5½	9
1	Radio Set Control C-628/ARC-27	3⅝ x 2⅝ x 5¾	1
1	Mounting MT-822/ARC-27 or MT-822A/ARC-27	11⅛ x 2⅜ x 19¾	4
1	Radio Receiver-Transmitter RT-178/ARC-27	11¼ x 12⅜ x 27⅞	70.5

(For a complete list of major components, see instruction literature.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Navigation and voice communication in fighters, bombers, and cargo aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE: Line of sight (nom).

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 225.0 to 399.9.

TYPE MODULATION: Am (A1, A3).

TYPE OF SIGNAL: Voice or tone.

POWER OUTPUT: 2 w (rcvr); 9 w (xmtr).

POWER REQUIREMENTS: 700 w, 24 to 28 v, 25 amp (max) dc.

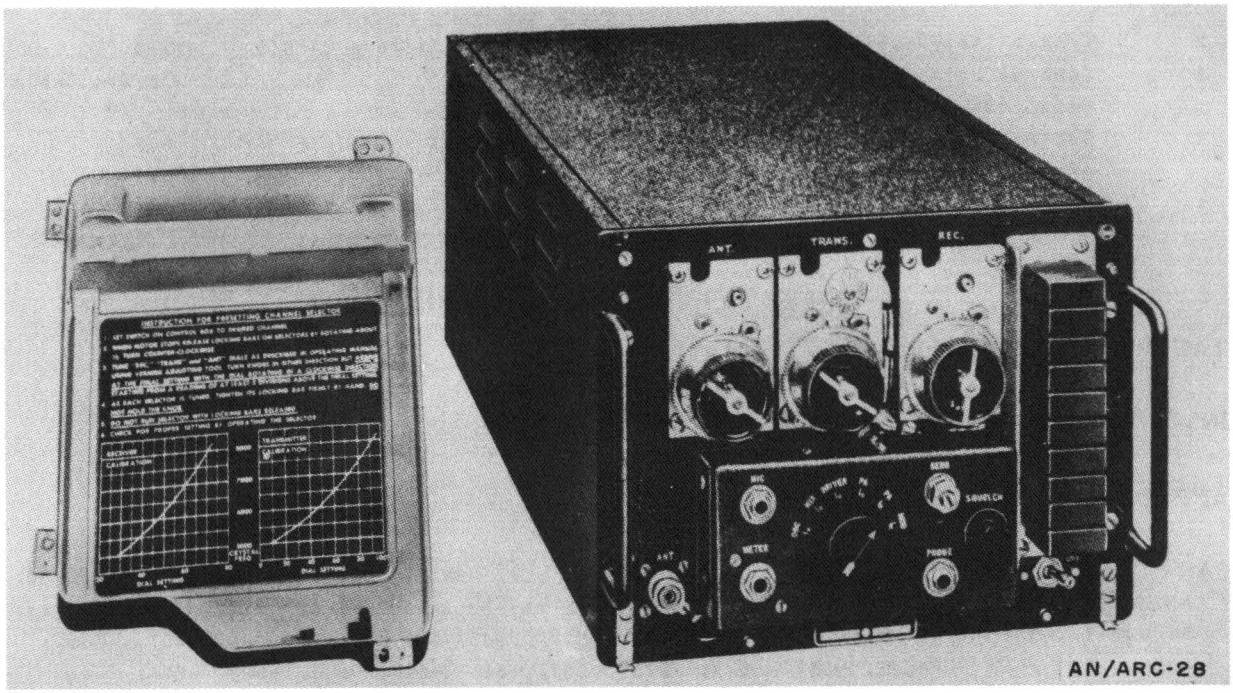
PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	11¼ x 12⅜ x 27⅝	81.8	1.15		
DOMESTIC PACK:		87.1	2.72		
EXPORT PACK:		87.1	2.72		

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE: Navy
DATE OF THIS SHEET: 2 Jun 52

AN/ARC-28

RADIO SET



Radio Set AN/ARC-28 is an airborne v-h-f automatic relay station equipment for extending the range of a-m (voice) radio communication between a shore station, or ship, and other aircraft. A transmitted signal from a ship or shore station is received by one transceiver, and applied through a relay unit to the second transceiver for relaying to the aircraft with which contact is desired.

This equipment consists essentially of two Radio Sets AN/ARC-1 interconnected by a relay unit. Each transceiver provides 10 preset crystal-controlled channels, one of which is used as a guard - channel. The signal received on one frequency by either of the two transceivers is transmitted on a second frequency by the opposite transceiver; a certain minimum separation between receiving and transmitting frequencies is necessary to prevent interference, and allows the operator to monitor both sides of the conversation.

Remote controls are employed to permit individual transceiver operation as well as the control of the automatic relay system.

AN/ARC-28

RADIO SET

INSTRUCTION LITERATURE: AN 16-30ARC28-3
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Navy
DATE OF THIS SHEET : 2 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
2	Transmitter-Receiver RT-18/ARC-1	9-1/32 x 11-11/16 x 24-3/8	47.0
2	Control Unit C-45/ARC-1 or C-115/ARC-1	Not Available "	Not Available "
1	Control Unit C-333/ARC-28	4-1/4 x 4-1/4 x 2-15/16	0.7
	or C-390/ARC-28	6 x 2-1/4 x 5-1/8	0.9
1	Relay Unit RE-51/ARC-28	10-1/2 x 6-5/16 x 7-1/8	5.5

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Medium.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156 mc, 9 main channels and 1 guard channel.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

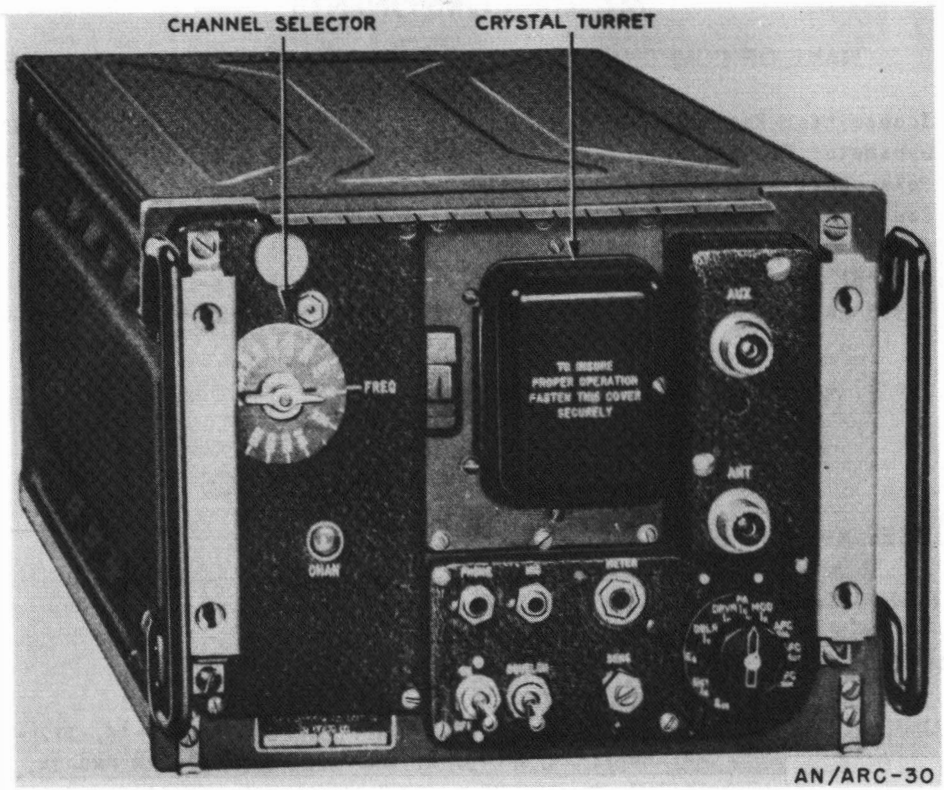
POWER OUTPUT: Transmitter: 8 w.
Receiver: Dual output, 400 mw into each 300 ohm load.

POWER REQUIREMENTS: 504 w, 28 v d-c.

PHYSICAL CHARACTERISTICS

Information on Radio Set AN/ARC-28 not available.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Restricted USING SERVICE: Navy DATE OF THIS SHEET: 29 May 52	AN/ARC-30 RADIO SET



Radio Set AN/ARC-30 is an airborne v-h-f and u-h-f automatic relay station equipment for extending the range of a-m (voice) radio communication between a ship or shore station and a second aircraft in flight. The transmitted signal from a ship or shore station is received by one transceiver, and applied through a relay unit to the second transceiver for relaying to the aircraft with which contact is desired.

The equipment consists basically of two Radio Sets AN/ARC-12 interconnected by a relay unit. Each transceiver employs 10 preset crystal-controlled channels, one of which is a guard channel.

The signal received on one frequency by either of the two transceivers is transmitted on a second frequency by the opposite transceiver, and a certain minimum separation between receiving and transmitting frequencies is necessary to prevent interference. The operator or pilot can monitor both sides of the conversation.

Remote controls are employed to permit individual transceiver operation as well as control of the automatic relay system.

AN/ARC-30

RADIO SET

INSTRUCTION LITERATURE: AN 16-30A RC30-3
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Navy
DATE OF THIS SHEET : 29 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
2	Transmitter-Receiver RT-58/ARC-12	9-1/32 x 10-7/8 x 24-1/2	45.3
2	Dynamotor DY-9B/ARC-1 *	3-1/2 x 5-1/4 x 9-3/16	5.7
1	Relay Unit RE-63/ARC-30	10-1/2 x 6-5/16 x 7-1/8	5.5
2	Control Unit C-45/ARC-1 or C-115/ARC-1	Not Available "	Not Available "
1	Control Unit C-333/ARC-28 or C-390A/ARC-28	4-1/4 x 4-1/4 x 2-15/16 6 x 2-1/4 x 4-1/8	0.7 0.9

* Installed within transmitter-receiver

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Medium.

CAN COMMUNICATE WITH: AN/ARC-12, -19, -27, -30, -33, -34; AN/GRC-16,-27, -29, -30, -32; AN/GRR-7; AN/GRT-3; AN/MRC-12, -20, -22; AN/PRC-14, -17, -20; AN/TRC-32; AN/URC-4; AN/URR-9, -12, -13; AN/URT-10; MAR; MAY; R-278/GR; RDR; RDZ; SCR-616; TED.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 225 - 350 in 9 main channels and 1 guard channel.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

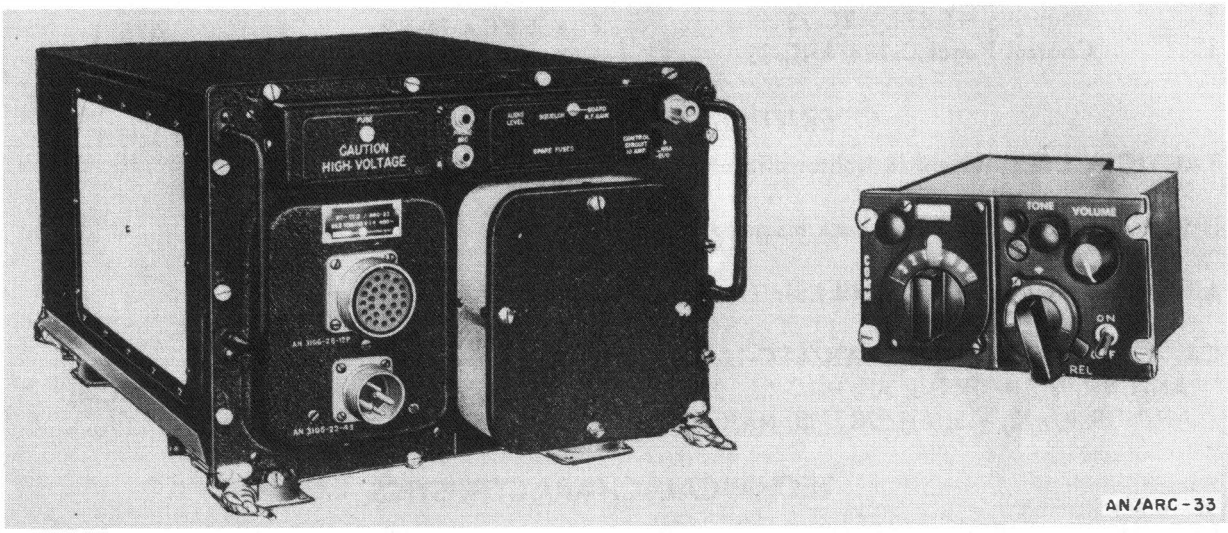
POWER OUTPUT: Transmitter: 6 w.
Receiver: 500 mw into a 300 ohm resistive load.

POWER REQUIREMENTS: 363 w, 26.5 v dc.

PHYSICAL CHARACTERISTICS

Information on Radio Set AN/ARC-30 not available.

STATUS: Substitute Standard CLASSIFICATION OF EQUIPMENT: ~~Restricted~~ USING SERVICE: Air Force DATE OF THIS SHEET: 9 Jun 52	**AN/ARC-33** RADIO SET



AN/ARC-33

Radio Set AN/ARC-33 is an airborne command set, combination receiver-transmitter unit for two-way air-to-air and air-to-ground communication in the u-h-f range. It is designed for aircraft use at altitudes as high as 50,000 feet, and is normally operated with remote Control Panel C-784/ARC-33 which automatically increases the gain of the modulator speech amplifier with increasing altitudes.

Both the transmitter and receiver in Radio Set AN/ARC-33 operate on any one of 20 preset crystal-controlled channels (of 1,750 available channels) spaced 100 kc apart in the u-h-f range 225.0 to 399.9 mc. One guard channel in the 238 to 248 mc range can, also, be simultaneously monitored while equipment is in normal operation.

It can use u-h-f type antennas such as are already installed in aircraft, e.g.; the flush-tail cap-type arrays having 52-ohm coaxial transmission lines, RG-8/U, and similar systems.

The AN/ARC-33 is interchangeable with the AN/ARC-27 communication wise and the physical characteristics are similar.

AN/ARC-33

RADIO SET

INSTRUCTION LITERATURE: TO 16-30 ARC-33-2
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Air Force
DATE OF THIS SHEET : 9 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver-Transmitter RT-173/ARC-33	15-3/16 x 10-3/8 x 21-1/2	83.36
1	Mounting MT-611/ARC-33	21 x 2-3/8 x 14-3/4	2.75
1	Control Panel C-784/ARC-33	5-3/4 x 3-3/8 x 7-5/8	3.43

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Issued to fighter aircraft only.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-12, -19, -27, -30, -33, -34; AN/GRC-16, -27, -29, -30, -32; AN/GRR-7; AN/GRT-3; AN/MRC-12, -20, -22; AN/PRC-14, -17, -20; AN/TRC-32; AN/URC-4; AN/URR-9, -12, -13; AN/URT-10; MAR; MAY; R-278/GR; RDR; RDZ; SCR-616; TED.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 1,750 channels (spaced 100 kc apart) in the frequency range 225.0 to 399.9.
Designed to operate on any 20 preset crystal controlled channels, and one guard channel, in the range 238 to 248.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone.

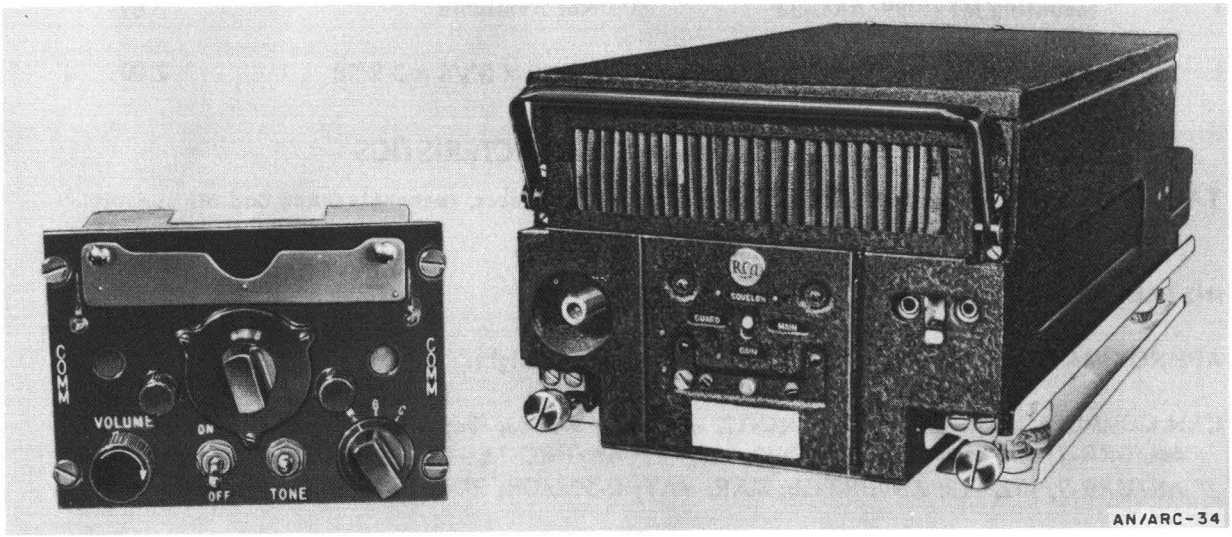
POWER OUTPUT: Transmitter: 10 w (Nominal).
Receiver: 500 mw into a 600 ohm resistive load.

POWER REQUIREMENTS: 27.5 v, dc, at the following power levels:
Receiver operation: 350 w,(12.5 amp).
Transmitter operation: 434 w,(15.5 amp).
Peak operation: 602 w,(20.5 amp).

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-33 measures 26-3/4 x 10-3/8 x 21-1/2 inches, net weight 107.5 pounds, volume 2.25 cu ft. Packed for either domestic or export shipment: total weight 120 pounds, total volume 3 cu ft. Shipped in 2 packages.

STATUS: Substitute Standard CLASSIFICATION OF EQUIPMENT: ~~Restricted~~ USING SERVICE: Air Force DATE OF THIS SHEET: 26 May 52	**AN/ARC-34** RADIO SET



Radio Set AN/ARC-34 is a miniaturized version of Radio Set AN/ARC-33. It is an airborne, combination transmitter-receiver unit for two-way, air-to-air, and air-to-ground communication in the u-h-f range 225.0 to 399.9 mc.

The transmitter and receiver both operate on any one of 20 preset, crystal-controlled channels (of a total of 1,750) which are spaced 100 kc in the u-h-f band. One guard channel can also be monitored simultaneously with normal operation of the equipment.

The equipment is designed to operate with antennas already installed in aircraft which operate with 52-ohm coaxial cable, such as RG-8/U.

AN/ARC-34

RADIO SET

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE: Air Force
DATE OF THIS SHEET: 26 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver-Transmitter RT-263/ARC-34	7-9/10 x 10-3/5 x 21-1/2	45.87
1	Mounting MT-1099/ARC-34 (Included in Rec-Trans.)	Not Available	2.69
1	Radio Set Control C-1057/ARC-34	4-3/10 x 5-3/4 x 3-9/10	2.00

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used in fighter interceptor, bomber, reconnaissance and air support aircraft.

INSTALLATION: Airborne, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-12, -19, -27, -30, -33, -34; AN/GRC-16, -27, -29, -30, -32; AN/GRR-7; AN/GRT-3; AN/MRC-12, -20, -22; AN/PRC-14, -17, -20; AN/TRC-32; AN/URC-4; AN/URR-9, -12, -13; AN/URT-10; MAR; MAY; R-278/GR; RDR; RDZ; SCR-616; TED.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: A total of 1,750 channels, spaced 100 kc apart, in the frequency range 225.0 to 399.9 mc are available. It is designed to operate on any 20 preset crystal-controlled channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice or tone.

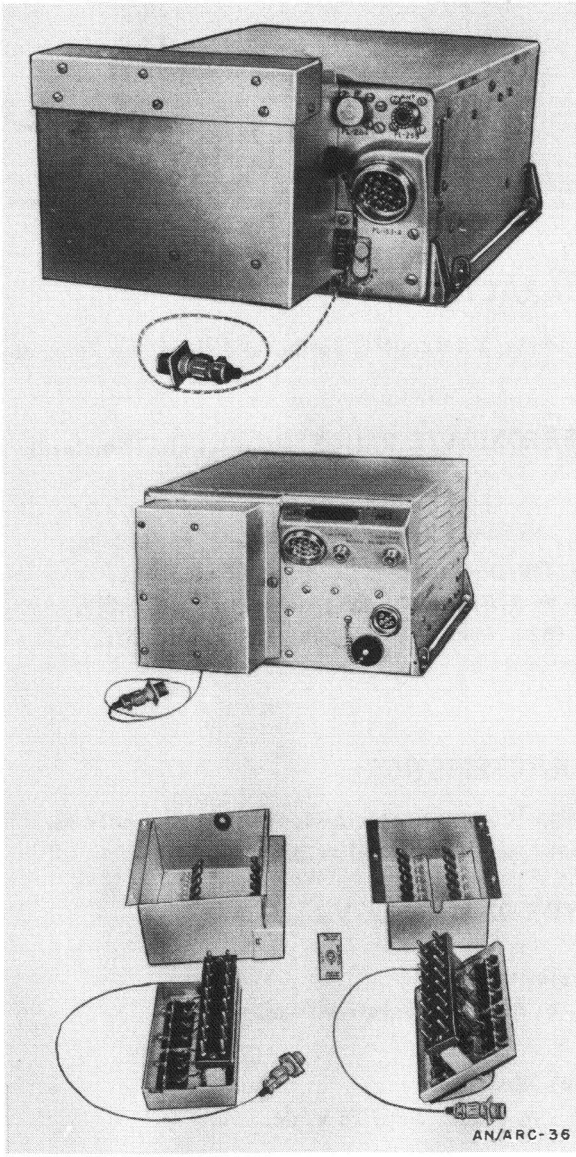
POWER OUTPUT: Transmitter: 10 w.
Receiver: 750 mw into 200 ohm impedance.

POWER REQUIREMENTS: 400 w, 27.5 v,(15 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-34 measures 8 x 10-1/2 x 21-1/2 inches, net weight 50.56 pounds, volume 1.05 cu ft. Packed for either domestic or export shipment: total weight 55 pounds, total volume 1.1 cu ft. Shipped in 1 package.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 7 Jun 52	**AN/ARC-36** RADIO SET



Radio Set AN/ARC-36 is an airborne v-h-f command, two-way, radiotelephone set, for air-to-air and air-to-ground communication. This set is similar to Radio Set AN/ARC-3 except for Modification Kit MX-1131/ARC used to provide 16 channels for the AN/ARC-36 as compared to 8 channels for the AN/ARC-3. Set consists of a radio transmitter, radio receiver, two dynamotors, control box, antenna, and interconnecting cables.

The transmitter and receiver each operate on 16 independent crystal-controlled, preset channels in the v-h-f range 100 to 156 mc. Thirty-two crystals are required for operation of both transmitter and receiver on these 16 channels. Channel selection may be made locally by push buttons on the equipment, or remotely by push buttons on remote Control Box C-118/ARC-3. Crystals are capable of operating under conditions of high humidity and temperature.

The transmitter has an output impedance of 52 ohms matching low-impedance transmission lines such as RG-8/U. It normally operates with Antenna Mast AN-104-B. Radio Receiver R-428-A/ARC-36 has an external i-f receptacle which permits injection of a 12-mc signal from a guard channel converter (not supplied), when desired.

AN/ARC-36

RADIO SET

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter T-312-A/ARC-36 (w/mtg)	7-1/2 x 12-1/8 x 16-1/4	22.0
1	Radio Receiver R-428-A/ARC-36 (w/mtg)	6-5/8 x 11 x 17-1/8	23.0
1	Dynamotor Unit DY-22/ARC-3	4 x 3-7/16 x 7-3/16	4.8
1	Dynamotor Unit DY-21/ARC-3	4 x 3-7/16 x 7-1/2	8.4
1	Power Junction Box J-68/ARC-3	5-3/16 x 8-7/16 x 10-11/32	6.7
1	Control Box C-118/ARC-3	6 x 2-5/8 x 6-7/8	2.1
1	Antenna Mast AN-104-B	31 long	Not Available

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used in fighter, reconnaissance, interceptor, cargo, and light, medium, and heavy bombers.

INSTALLATION: Airborne, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156 mc, 16 preset, crystal-controlled channels for the transmitter and 16 for the receiver; equipment requires a total of 32 crystals.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone.

POWER OUTPUT: Transmitter: 8 w into a 50 ohm resistive load.
Receiver: 600 mw into 50 ohm, or 600 ohm resistive load.

POWER REQUIREMENTS: Starting: 3,324 w, (118 amp) 28 v, dc.
Continuous operation: 385 w, (13.75 amp) 28 v, dc.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARC-36 measures 32-5/16 x 12-1/8 x 17-1/8 inches, net weight 68.1 pounds, volume 3 cu ft. Packed for either domestic or export shipment: total weight 96 pounds, total volume 3.5 cu ft. Shipped in 4 packages.

AN/ARC–44

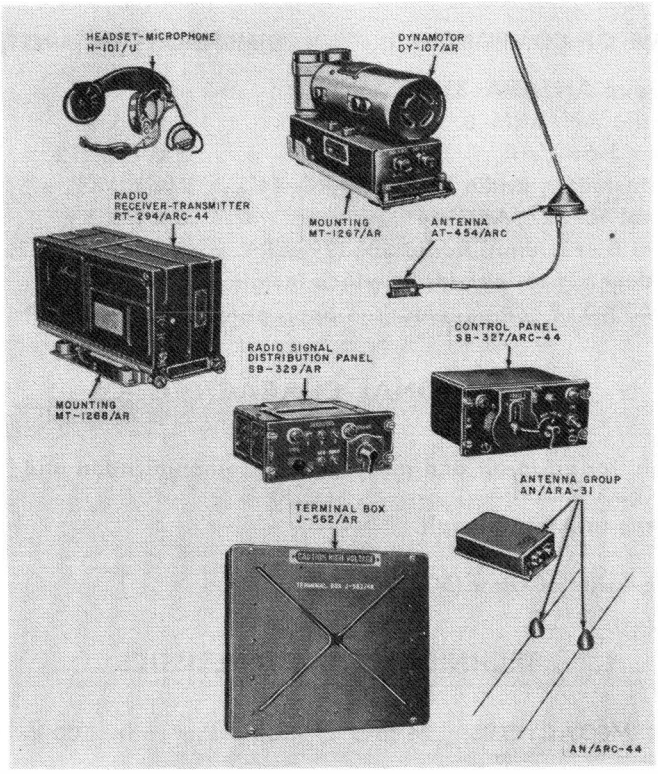
RADIO SET

STATUS: Std

CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USA

DATE OF THIS SHEET: 5 June 1956



Radio Set AN/ARC–44 is a compact fm, radio equipment that operates in the vhf range and can be used for communication, retransmission, and homing in Army aircraft.

It consists essentially of a receiver-transmitter that is operated from remote-control panel equipment, and a radio distribution panel that enables the selection and operation of as many as six receivers (singly or in combination), three transmitters, or the aircraft interphone channel.

This equipment is capable of functioning as an airborne radio relay station between two stations that cannot communicate with each other because of distance. In such applications, an additional transmitter is required and different receive and transmit channels are used.

AN/ARC-44

RADIO SET

INSTRUCTION LITERATURE: TM 11-517

USING SERVICE: USA

DATE OF THIS SHEET: 5 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Antenna Group AN/ARA-31		3.38
1	Test Set, Radio AN/ARM-8	6 x 9 x 9 5/32	8.69
1	Terminal Box J-562/AR	2 x 11 x 12	4.25
1	Receiver-Transmitter, Radio RT-294/ARC-44	7 1/4 x 13 7/8 x 5 1/8	14
	Panel, Control SB-327/ARC-44[a]	3 x 6 x 5 3/4	2.19
	Panel, Signal Distribution, Radio SB-329/AR[a]	2 5/8 x 5 5/16 x 5 3/4	1.63

([a]Quantity depends on aircraft in which installed.)
(For complete list of components, see appropriate supply manuals.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: In flight for air-to-air and air-to-ground communication and homing.

INSTALLATION: Airborne in Army aircraft.

APPROXIMATE RANGE: Line of sight (50 mi, nom).

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 24 to 51.9 (280 preset chan, 100 kc apart).

TYPE MODULATION: Fm (F1, F2, F3).

TYPE OF SIGNAL: Voice; keyed fm (modulated or unmodulated), keyed cw for homing.

POWER OUTPUT: 50 mw (rcvr); 8 w (xmtr).

POWER REQUIREMENTS: Dynamotor DY-107/AR: 27 v, 4.75 amp dc.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	(Components distributed in aircraft.)	48.50			
DOMESTIC PACK:					
EXPORT PACK:		92.75	5.2		9

AN/ARC-49

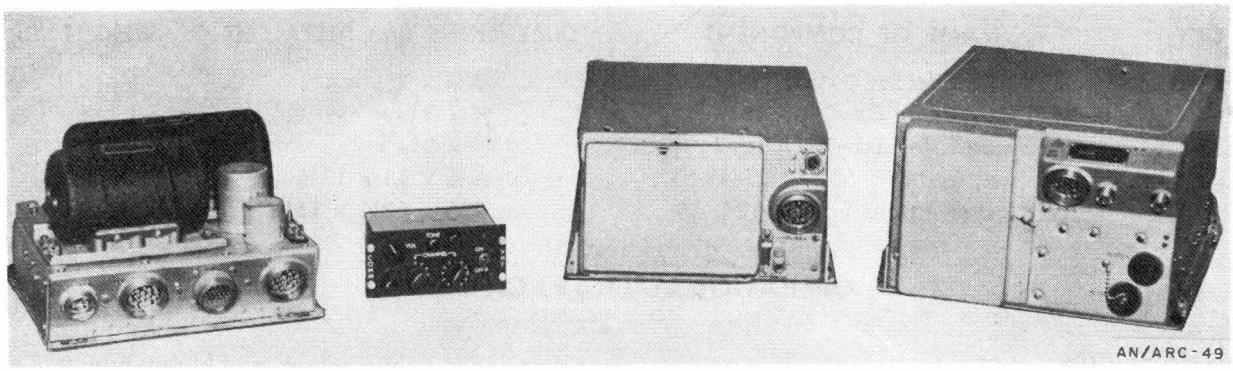
RADIO SE

STATUS: Std

CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USAF

DATE OF THIS SHEET: 14 June 1956



Radio Set AN/ARC–49 is an airborne command, two-way, vhf radiotelephone set for air-to-air and air-to-ground communication. It is similar to Radio Sets AN/ARC–3 and AN/ARC–36; the major differences being that the AN/ARC–3 has 8, the AN/ARC–36 has 16, and the AN/ARC–49 has 48 channels.

This equipment consists of a radio transmitter, a radio receiver, two dynamotors, a control box, and an antenna.

The transmitter has an output impedance of 52 ohms matching low-impedance transmission lines, such as Radio Frequency Cable RG–8/U. It normally operates with Antenna Mast AN–104–B.

Remote operation of the equipment on any frequency channel is accomplished by selecting the desired channel at the control box or control panel.

AN/ARC–49

RADIO SET

INSTRUCTION LITERATURE: 12R2–2ARC–2

USING SERVICE: USAF

DATE OF THIS SHEET: 14 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Control, Radio Set C–1400/ARC–49	5¾ x 2⅝ x 4⅝	2.1
1	Dynamotor Unit DY–21/ARC–3	4 x 3 7/16 x 7½	8.4
1	Dynamotor Unit DY–22/ARC–3	4 x 3 7/16 x 7 3/16	4.8
1	Receiver, Radio R–608/ARC–49	6⅝ x 11 x 17⅛	23
1	Transmitter, Radio T–452/ARC–49	7½ x 12⅛ x 15¼	22

OPERATIONAL CHARACTERISTICS

TACTICAL USE: In fighter, reconnaissance, interceptor, cargo, and light medium, and heavy bombers.

INSTALLATION: Airborne.

APPROXIMATE RANGE: Line of sight (nom).

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 to 156 (48 preset, xtal-cont chan for xmtr and rcvr).

TYPE MODULATION: Am (A2, A3).

TYPE OF SIGNAL: Voice, tone.

POWER OUTPUT: 600 mw into 50- or 600-ohm resistive load (rcvr); 8 w into a 50-ohm resistive load (xmtr).

POWER REQUIREMENTS: 385 w, 28 v, 13.75 amp dc (continuous operation); 3,324 w, 28 v, 118 amp dc (starting).

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:		96	3.5		
DOMESTIC PACK:					4
EXPORT PACK:					

STATUS: Std

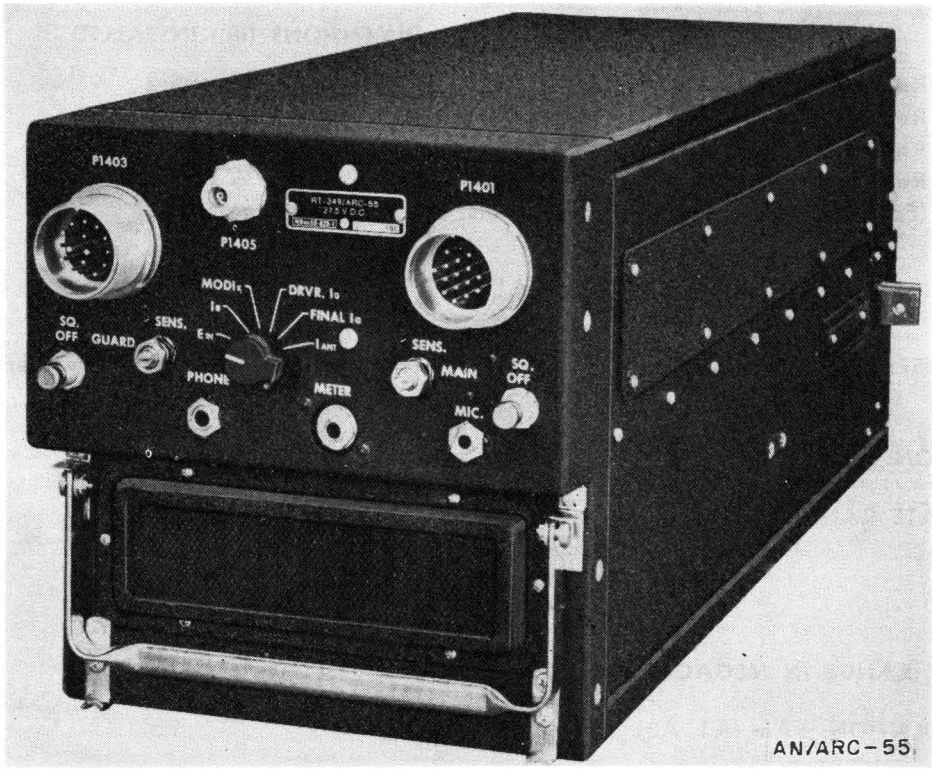
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

AN/ARC–55

RADIO SET



Radio Set AN/ARC–55 is an airborne, two-way, point-to-point equipment used for air-to-air, air-to-ship, and ground-to-air communication in all types of fighters, bombers, helicopters, and cargo aircraft.

This equipment operates on any one of 18 preset, crystal-controlled frequencies of 1,750 available channels. It consists of a triple-conversion superheterodyne receiver with three crystal oscillators and a double-conversion superheterodyne auxiliary guard channel, both working into a common audio output circuit.

This equipment is similar to Radio Set AN/ARC–27 except that the former has no external blower and it is smaller, lighter, and not pressurized. The case and mounting rack are different.

AN/ARC-55

RADIO SET

INSTRUCTION LITERATURE: AN 16-30ARC27-2, -502

USING SERVICE: USA, USN

DATE OF THIS SHEET: 8 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Radio Set Control C-626/ARC-27	6 3/8 x 9 9/16 x 5 1/2	9
1	Radio Set Control C-628/ARC-27	3 5/8 x 2 5/8 x 5 3/4	1
1	Radio Set Control C-1827/ARC-55	5 3/4 x 3 x 2 1/4	1.7
1	Receiver-Transmitter, Radio RT-349/ARC-55	11 x 9 5/8 x 25 1/16	57.5

(For complete list of major components, see instruction literature.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Point-to-point communication in aircraft, fighters, bombers, helicopters, and cargo aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE: Short.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 225 to 399.9.

TYPE MODULATION: Am (A1, A3).

TYPE OF SIGNAL: Voice or tone.

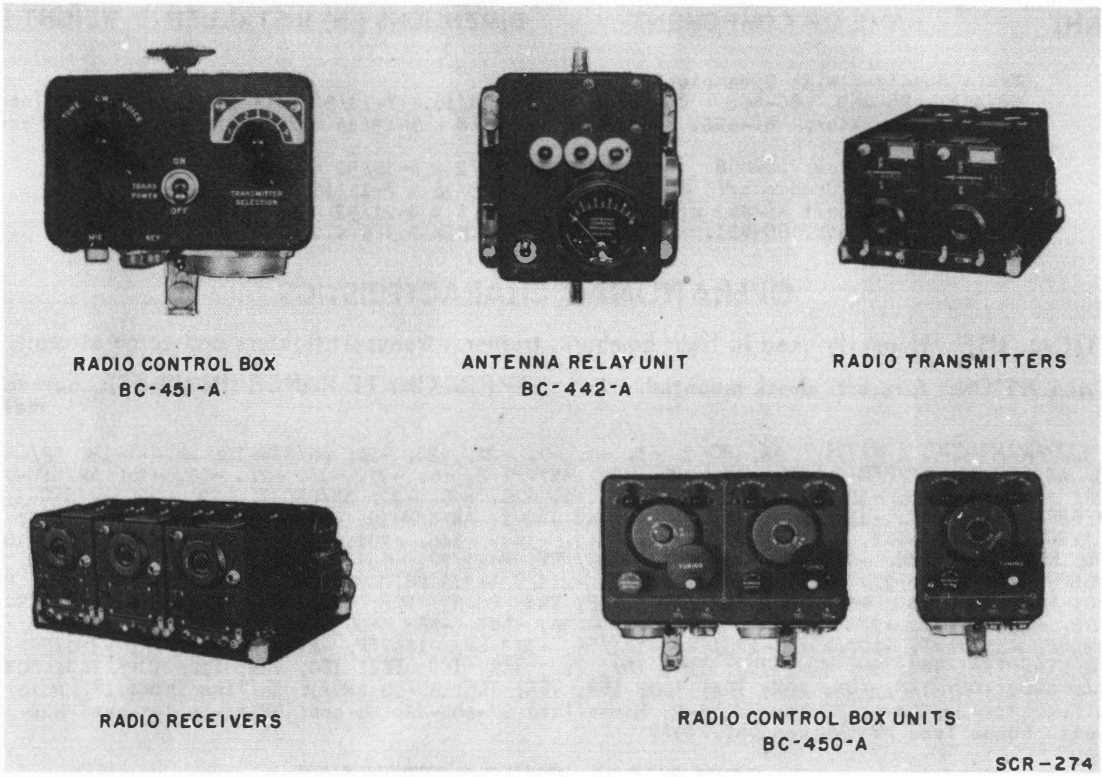
POWER OUTPUT: 2 w (rcvr); 9 w (xmtr).

POWER REQUIREMENTS: 700 w, 24 to 28 v, 25 amp (max) dc.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	11 1/8 x 11 1/16 x 25 1/16	57.5			
DOMESTIC PACK:		61	1.6		
EXPORT PACK:					

STATUS: Standard	AN/ARC-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	SERVICE TYPE NUMBER: SCR-274
USING SERVICE: Air Force, Navy	RADIO SET
DATE OF THIS SHEET: 7 Jun 52	



Radio Set SCR-274 is an airborne air-to-air and air-to-ground, two-way h-f radio communication equipment. All transmitters and receivers have continuous tuning. Each transmitter is provided with a crystal for calibration of the oscillator on one frequency. The transmitters cover the range 3.0 to 9.1 mc; receivers cover 0.19 to 1.5 mc and 3.0 to 9.1 mc. All transmitters and receivers operate on voice, tone, or cw.

This radio set consists of a maximum of four transmitters, four receivers with dynamotors, and four modulators with dynamotors. Minimum installation requirements are: one transmitter, one receiver (dynamotor included), one modulator (dynamotor included for modulator and transmitter) plus necessary cables, and related items.

Transmitters and receivers may be locally tuned or flexible tuning cables are available for remote operation up to six or eight feet away.

Transmitters and receivers are designed to operate into a fore-and-aft, inverted L, or normal T-type antenna. A variable loading coil is provided in each transmitter to feed antennas of various lengths.

AN/ARC-TYPE

SCR-274 :SERVICE TYPE NUMBER

RADIO SET

INSTRUCTION LITERATURE: TO 16-40BC-224-2

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE : Air Force, Navy

DATE OF THIS SHEET : 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
4	Radio Receiver with Dynamotor: BC-454 BC-453, BC-455, BC-946	6-11/16 x 7-11/32 x 13-1/8	11.2 (each)
4	Radio Transmitter: BC-696, BC-457, BC-459, BC-459	7-1/4 x 9-13/16 x 15-1/32	10.5 (each)
1	Radio Control Box: BC-450	9-1/2 x 5-15/32 x 2-15/16	2.7
1	Modulator Unit/Dynamotor: BC-456	10-3/16 x 7-11/16 x 8-7/8	18.0
1	Antenna Relay Unit BC-442 w/MTG	5-5/8 x 4-21/32 x 6-9/16	2.2
1	Radio Control Box, BC-451, w/MTG FT-228	4-1/8 x 4-3/8 x 2-3/4	0.9

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used in light bombers, trainers, transport fighters and cargo aircraft.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): Short to medium.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3, -5, AN/FRC-10; AN/FRR-3, -4, -12, -28, -32; AN/FRT-5, -6, -10, -15, -17, -18, -19; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/GRT-2; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRC-3; AN/SRR-3, -8, -12, -13; AN/SRT-1, -3, -4; AN/TRQ-1, AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; BC-191, -312, -329, -339, -342, -348, -365, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-59/FRC, -59/FRC, -60A/FRT, -60B/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, -399, -499, -506, -536, -543, -585, -593, -694, -704; T-4/FRC, -5/FRC, -83/SR, -158/FRT, -159/FRT, -171/FR, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TAB; TAJ; TAQ; TBA; TBK; TBL; TBM; TBN; TBO; TBW; TBX; TCB; TCC; TCE; TCG; TCH; TCK; TCP; TCS; TCY; TCZ; TDD; TDE; TDF; TDH; TDK; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES:

Transmitting		Receiving	
BC-696:	3 - 4	BC-454:	3 - 6
BC-457:	4 - 5.3	BC-455:	6 - 9.1
BC-458:	5.3 - 7.0	BC-453:	0.19 - 0.55
BC-459:	7.0 - 9.1	BC-946:	0.52 - 1.5.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone, cw.

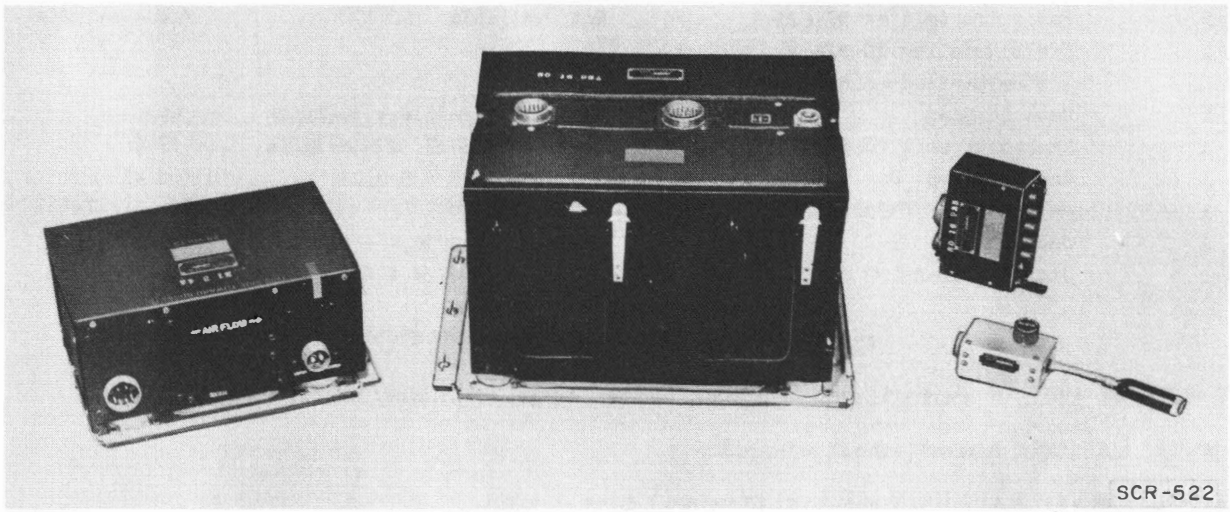
POWER OUTPUT: Per Transmitter: 40 w (maximum)
Per Receiver: 10 mw (Nominal) into 4,000 ohm resistive load.

POWER REQUIREMENTS:
Standby: (Per transmitter) 35 w, 24 - 28 v, (1.25 amp) dc;
Transmitting: (Per transmitter) 126 w, 24 - 28 v, (4.5 amp), dc;
Receiving: (Per receiver) 44.8 w, 24 - 28 v, (1.6 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Set SCR-274 measures 10-3/16 x 15-1/32 x 56-1/4 inches, net weight 110.4 pounds, volume 3.4 cu ft. Packed for either domestic or export shipment: total weight 135.7 pounds, total volume 4.6 cu ft. Shipped in 3 packages both domestic and export.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force, Navy DATE OF THIS SHEET: 7 Jun 52	**AN/ARC-TYPE** SERVICE TYPE NUMBER: SCR-522 RADIO SET



Radio Set SCR-522 is a two-way radiotelephone, v-h-f, airborne command set. Normally it is airborne for air-to-ground and air-to-air communication, but components of this equipment may be ground-operated for ground-to-air, or point-to-point communication. It is designed for remote operation only, using Radio Control Box BC-602-B.

This radio set consists of a radio transmitter, radio receiver (housed together in a case), a dynamotor unit antenna, remote control unit, jack boxes, and interconnecting cables.

The transmitter and receiver each use four separate crystals (total eight crystals) to provide four preset operating channels for each unit in the v-h-f band.

An antenna change-over relay is incorporated in the set which permits use of one Antenna Mast AN-104 for both transmitting and receiving.

The transmitter provides 9 w output on either voice or tone modulation; the receiver provides 10 mw output into a 300- or 4,000-ohm resistive load.

Radio Sets SCR-522-A, SCR-624-B, and SCR-542-A are identical in purpose and all similar units are mechanically interchangeable; the major differences are in the power supply requirements and method of installation.

Required power sources are: SCR-522-A; 336 w of 28-v, dc, SCR-624-B; 325 w of 100-130/200-260-v, ac, SCR-542-A; 322 w of 14-v dc.

AN/ARC-TYPE	INSTRUCTION LITERATURE: TO 16-40SCR-522-2
SCR-522 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
RADIO SET	USING SERVICE: Air Force, Navy
	DATE OF THIS SHEET: 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter BC-625-A	Not Available	Not Available
1	Radio Receiver BC-624-A	" "	" "
	BC-624-A and -625-A mounted in:		
1	Case CS-30-A	16-5/32 x 12-9/16 x 10-11/16	49.0
1	Dynamotor Unit PE-94-A	12-25/32 x 8-27/32 x 6-15/64	37.0
1	Radio Control Box BC-602-B	2-1/2 x 7-5/9 x 5-9/16	2.41
1	Antenna Mast AM-104-A	Not Available	Not Available
1	Jack Box BC-629-B	2-29/64 x 4-1/16 x 1-61/64	0.6
1	Jack Box BC-631-B	1-1/64 x 2-49/64 x 1-19/64	0.6

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to fighter, bomber, cargo, and trainer aircraft.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -29, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156.
Receiver: 4 preset crystal-controlled channels.
Transmitter: 4 preset crystal-controlled channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice or tone.

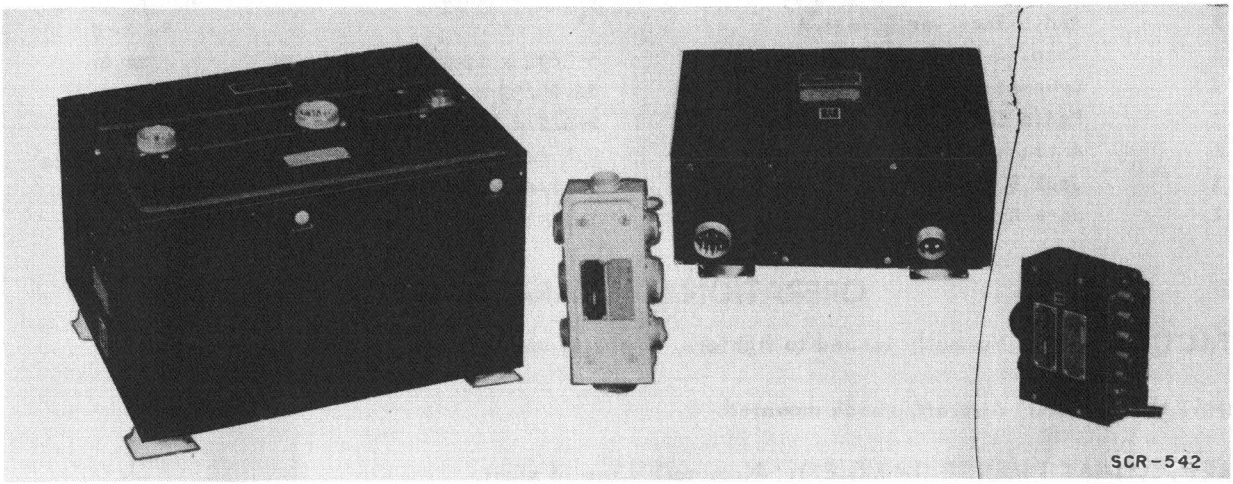
POWER OUTPUT: Transmitter: 9 w.
Receiver: 10 mw into 300 or 4,000 ohm resistive load.

POWER REQUIREMENTS: 336 w, 28 v, (12 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Set SCR-522 measures 30 x 15 x 21 inches, net weight 89.61 pounds, volume 3.8 cu ft.
Packed for either domestic or export shipment: total weight 118.26 pounds, total volume 4.07 cu ft.
Shipped in 2 packages both domestic and export.

STATUS: Standard	AN/ARC-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	SERVICE TYPE NUMBER: SCR-542
USING SERVICE: Air Force	RADIO SET
DATE OF THIS SHEET: 7 Jun 52	



Radio Set SCR-542 is a two-way radiotelephone, v-h-f airborne receiver-transmitter for air-to-air and air-to-ground communication. However, it may be ground-operated for point-to-point and ground-to-air communication by adding Antenna AN-94, or equivalent. It is designed for remote operation only, with Radio Control Box BC-602.

This radio set consists of a radio transmitter and radio receiver housed together in a case.

The necessary power unit, antenna, remote control unit, jack boxes, and interconnecting cables are also supplied.

The transmitter and receiver each use four separate crystals (total eight crystals) to provide four preset operating channels for each unit in the v-h-f band.

An antenna change-over relay is incorporated in the set which permits using one antenna for both transmitting and receiving.

The transmitter provides 9 w output on either voice or tone modulation; the receiver provides 10 mw output into a 300- or 4,000-ohm resistive load.

Radio Sets SCR-542-A, SCR-522-A and SCR-624-B, are all identical in purpose and all similar units are mechanically interchangeable; the major differences are in the power supply requirements and method of installation.

Required power sources are: SCR-542-A; 322 w of 14-v dc. SCR-522-A; 336 w of 28-v dc. SCR-624-B; 325 w of 100-130/200-260-v, ac.

AN/ARC-TYPE	INSTRUCTION LITERATURE: TO 16-40SCR-522-2
SCR-542 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
RADIO SET	USING SERVICE : Air Force
	DATE OF THIS SHEET : 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter BC-625-A	Not Available	Not Available
1	Radio Receiver BC-624-A	" "	" "
1	Case CS-80-A	6-5/32 x 12-9/16 x 10-11/16	49.0
1	Dynamotor Unit PE-98-A	12-25/32 x 9-27/32 x 6-15/64	37.0
1	Radio Control Box BC-602-B	2-1/2 x 7-5/8 x 5-9/16	2.41
1	Antenna Mast AN-104-A	Not Available	Not Available
1	Jack Box BC-629-B	2-29/64 x 4-1/16 x 1-61/64	0.6
1	Jack Box BC-631-B	1-1/64 x 2-49/64 x 1-19/64	0.6

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to fighters, bombers, and trainers.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10, AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156.
Receiver: 4 preset crystal-controlled channels.
Transmitter: 4 preset crystal-controlled channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice or tone.

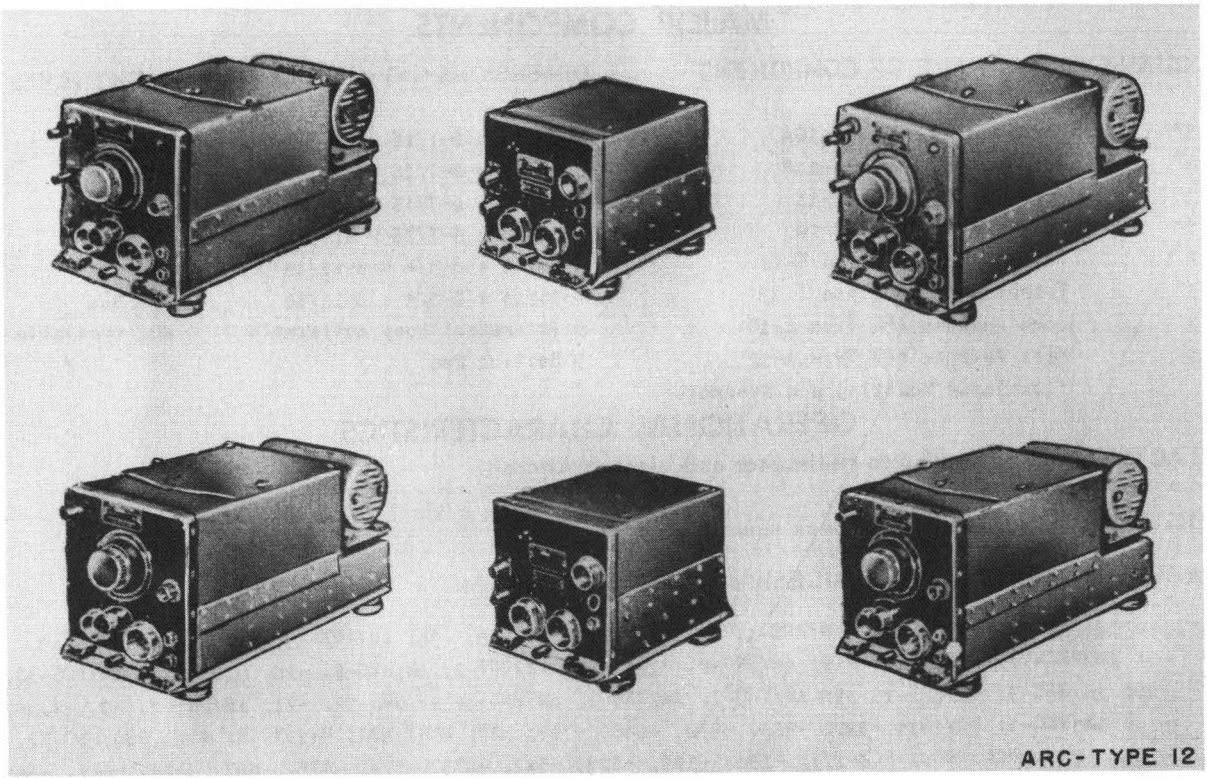
POWER OUTPUT: Transmitter: 9 w.
Receiver: 10 mw into 300 or 4,000 ohm resistive load.

POWER REQUIREMENTS: 322 w, 14 v (23 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Set SCR-542 measures 30 x 15 x 21 inches, net weight 89.61 pounds, volume 3.8 cu ft.
Packed for either domestic or export shipment: total weight 118.26 pounds, total volume 4.07 cu ft.
Shipped in 2 packages both domestic and export.

STATUS: Commercial CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 10 Jun 52	**AN/ARC-TYPE** COMMERCIAL TYPE NUMBER: ARC TYPE 12 RADIO SET



Radio Set ARC Type 12 is a group of radio equipments used in various combinations to form a variety of communication and/or navigation systems for use in aircraft flying at speeds normally not exceeding 200 miles per hour. All transmitters are am, crystal-controlled on preset frequencies in the v-h-f band. Receivers are manually tuned, continuous coverage superheterodyne. This equipment is used for air-to-air and air-to-ground communication.

MODEL: H-13 B HELICOPTER INSTALLATION 28 v, dc.

Transmitters: 2 ARC Type T-11A; 122.1, 122.3, 122.5, 122.7 and 126.18 mc.
Receiver: ARC Type R-11A; 0.19 to 0.55 mc.
Antenna: ARC Type A-12.

MODEL: L-15 AIRCRAFT INSTALLATION (28 v, dc), same as H-13B except the following have been added:

Receiver R-15; 108 to 135 mc.
Loop Antenna ARC Type L-10, (manually rotated).

MODEL: L-17-A-B-C AIRCRAFT INSTALLATION (14 v, dc), same as H-13B and L-15 except the following have been added:

Receiver: ARC Type R-10-A (520 to 1,500 kc).

MODEL: L-19A AIRCRAFT INSTALLATION (28 v, dc).

Transmitter: 1 ARC Type T-11A, 121.5, 121.7, 121.9, 122.1, 122.5 mc.
1 ARC Type T-13, 126.18 mc.
Receiver: ARC Type R-19, 118 to 148 mc.

AN/ARC-TYPE

ARC TYPE 12 :COMMERCIAL TYPE NUMBER
RADIO SET

INSTRUCTION LITERATURE: Inst. Book & TO 16-45-121
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 10 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1*	Receiver ARC Type R-10A	4-15/16 x 6-7/16 x 11-3/8	8.8
1*	Receiver ARC Type R-11A	4-15/16 x 6-7/16 x 11-3/8	8.8
1*	Receiver ARC Type R-15	4-15/16 x 6-7/16 x 11-3/8	8.8
1*	Receiver ARC Type R-19	4-15/16 x 6-7/16 x 11-3/8	8.8
2	Transmitter ARC Type T-11	4-15/16 x 5-3/4 x 6-11/16	3.4
1	Transmitter ARC Type T-13	4-15/16 x 5-3/4 x 6-11/16	3.4
1	Loop Antenna ARC Type L-10	9 (diameter) Loop Antistatic	Not available
1	Mast Antenna ARC Type A-12	3 Section Rod	" "

*(Includes Mounting and Dynamotor)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Issued to Helicopter and Liaison Aircraft.

INSTALLATION: Airborne, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -8, -18, -28, -36; AN/ART-13; AN/CRC-2; AN/CRT-3, -5; AN/FRC-7; AN/FRT-10, -19; AN/GRC-9, -26, -30; AN/GRT-2; AN/MRC-6, -16, -20, -22; AN/PRC-17, -20; AN/SRC-3; AN/SRT-1, -3; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-12, -21; AN/URT-2, -3, -4, -7, -10; AN/VRC-1; BC-191, -329, -365, -639, -640, -787; MAR; MAW; MBS; R-137/GR; RBK; RBQ; RC-52, -256, -257; RCK; RCO; SCR-177, -188, -193, -522, -542, -573, -574, -575, -607, -624, -641, -643, -644; T-5/FRC, -159/FRT, -171/FR; TAB; TAJ; TAQ; TBL; TBN; TBU; TBW; TCB; TCE; TCG; TCS; TCY; TCZ; TDD; TDE; TDG; TDK; TDQ; TDT: ARC Type 12; Marconi TH-41-B; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES:
Transmission: Six crystal-controlled channels from 116 - 132.
Reception: Continuously tuneable: 0.19 - 0.55, 0.52 - 1.5, and 108 - 135.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone.

POWER OUTPUT: Transmitters: ARC Type T-11 - 1.2 w
ARC Type T-13 - 1.2 w
Receivers: ARC Type R-15 - 400 mw into 300 ohm line
ARC Type R-10 - 800 mw into 300 ohm line
ARC Type R-11A - 800 mw into 300 ohm line.

POWER REQUIREMENTS: 100 w, (3.6 amp) 28 v, dc, smallest installation
210 w, (7.5 amp) 28 v, dc, largest installation.

PHYSICAL CHARACTERISTICS

Information on Radio Set ARC Type 12 can be determined from components for specific aircraft.

STATUS: Commercial CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 19 May 52	**AN/ARC-TYPE** COMMERCIAL TYPE NO: COLLINS 18S-4 (AF MODEL) RADIO SET

Radio Set Collins 18S-4 (AF Model) is a modified, commercial aircraft transmitter-receiver for air-to-air, and air-to-ground, a-m (voice or cw) communication. It is normally used for long range communication in aircraft operating at altitudes under 31,000 feet and consists of a transmitter-receiver with self-contained dynamotor, an antenna matching network, and a remote control unit.

This equipment operates on 20 crystal-controlled frequencies in 10 tuned channels, each of which can be used for two frequencies (which differ by not more than 1% in the frequency range 2 to 18.15 mc). Nominal power output is 100 w up to 31,000 feet altitude.

The antenna matching network is designed to match the 52-ohm coaxial Radio Frequency Cable RG-8/U, which is used to connect the transmitter-receiver to antennas of 45 feet or more in length.

Frequency selection, as well as audio input and output, may be remotely controlled by an autotune system consisting of the remote control unit and interconnecting cables.

Requires 1,000-w (maximum) of 24-v, dc.

AN/ARC-TYPE	INSTRUCTION LITERATURE: Collins Instruction Manual 18S-4
COLLINS 18S-4 (AF MODEL) :COMMERCIAL TYPE NO.	CLASSIFICATION OF EQUIPMENT: Unclassified
RADIO SET	USING SERVICE : Air Force
	DATE OF THIS SHEET : 19 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Set 18S-4 (AF Model) with mounting	24-1/2 x 9-1/2 x 16-3/8	59.0
1	Antenna Matching Network 180L-2 with mounting	10-3/8 x 5-7/8 x 9	13.0
1	Remote Control Unit 314S-6	5-3/4 x 2-5/8 x 6	3.5

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in cargo and transport aircraft for MATS. It may also be substituted for Radio Set AN/ARC-21 in Liaison Aircraft.

INSTALLATION: Airborne, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Medium, long.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28, -32; AN/FRT-5, -6, -15, -17, -18; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRR-3, -8, -12, -13; AN/SRT-4; AN/TRQ-1; AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; AN/VRR-2; BC-191, -312, -339, -342, -348, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -608/FRT; R-62/PR, -80/PR, R-96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR, RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -536, -543, -585, -593, -607, -694, -704; T-4/FRC, -83/SR, -158/FRT, -159/FRT, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR, TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCZ; TDE; TDF; TDH; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-8; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 2.0 - 18.5 mc, up to 20 frequencies, 10 preset crystal-controlled channels each of which can be used for two frequencies differing by not more than 1%.

TYPE MODULATION: Am. **TYPE OF SIGNAL:** Voice, cw.

POWER OUTPUT: Transmitter: 100 w nominal
Receiver: 100 mw into a 500 ohm line.

POWER REQUIREMENTS: Standby: 192 w (8 amp) 24 v, dc.
Transmitting: 912 w nominal, (38 amp) 24 v, dc.

PHYSICAL CHARACTERISTICS

Radio Set COLLINS 18S-4 (AF Model) measures 16-3/8 x 15 x 24-1/2 inches, net weight 75.5 pounds, volume 3.5 cu ft. Packed for domestic shipment: total weight 83 pounds, total volume 4 cu ft. Shipped in 3 packages.

STATUS: Coml

CLASSIFICATION OF EQUIPMENT: Unclassified

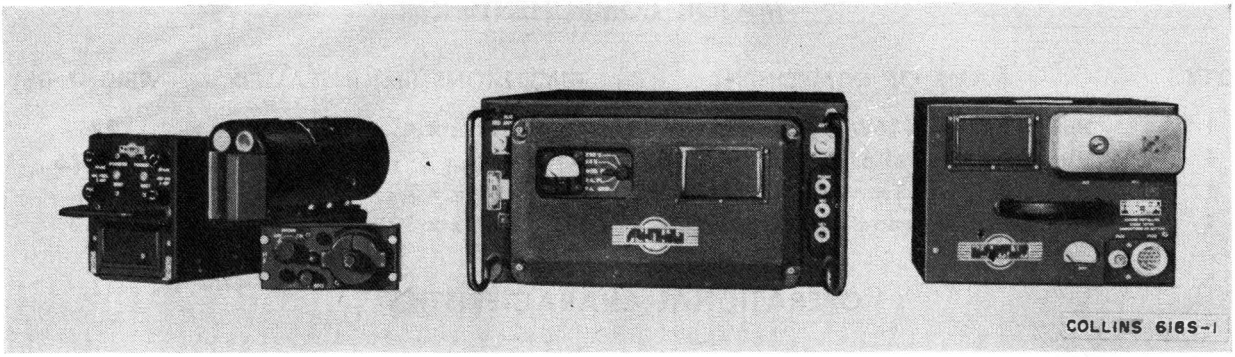
PREPARING SERVICE: USAF

DATE OF THIS SHEET: 6 June 1956

AN/ARC-TYPE

COMMERCIAL TYPE NUMBER: COLLINS 618S-1 (AF MODEL)

RADIO SET



Radio Set Collins AF model 618S-1 provides am (voice or cw) transmitting and receiving facilities between aircraft and ground stations, or between aircraft. This equipment is inclosed in a single case and is mounted on a single main chassis. It permits the selection of 144 crystal-controlled frequencies by means of a common crystal for transmitting and receiving on any one channel.

This set is normally used with an automatic antenna tuner, providing automatic tuning of open, fixed wire antennas between 25 and 100 feet in length.

The class of service and frequency desired are selected by means of a radio set control; tuning and matching are entirely automatic.

AN/ARC–TYPE

INSTRUCTION LITERATURE: 12R2–4–6–2

USING SERVICE: USAF

DATE OF THIS SHEET: 6 June 1956

COLLINS 618S–1 (AF MODEL): COMMERCIAL TYPE NUMBER

RADIO SET

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Power Supply 416W–1	$18\frac{1}{16} \times 4\frac{7}{8} \times 6\frac{3}{4}$	22
1	Radio Set Control 614C–2	$4\frac{9}{16} \times 5\frac{3}{4} \times 2\frac{19}{32}$	1.75
1	Radio Receiver Transmitter 618S–1	$23\frac{7}{16} \times 7\frac{25}{32}$	55
1	Automatic Antenna Tuner 1806–3	$13\frac{3}{8} \times 10\frac{5}{16} \times 2\frac{19}{32}$	18.3

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in cargo and transport aircraft for MATS.

INSTALLATION: Airborne.

APPROXIMATE RANGE: Medium, long (nom).

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 2 to 25 in four bands:

Band 1: 2 to 3.75
Band 2: 3.75 to 7.25
Band 3: 7.25 to 14.25
Band 4: 14.25 to 25

TYPE MODULATION: Am (A1, A3).

TYPE OF SIGNAL: Cw, voice.

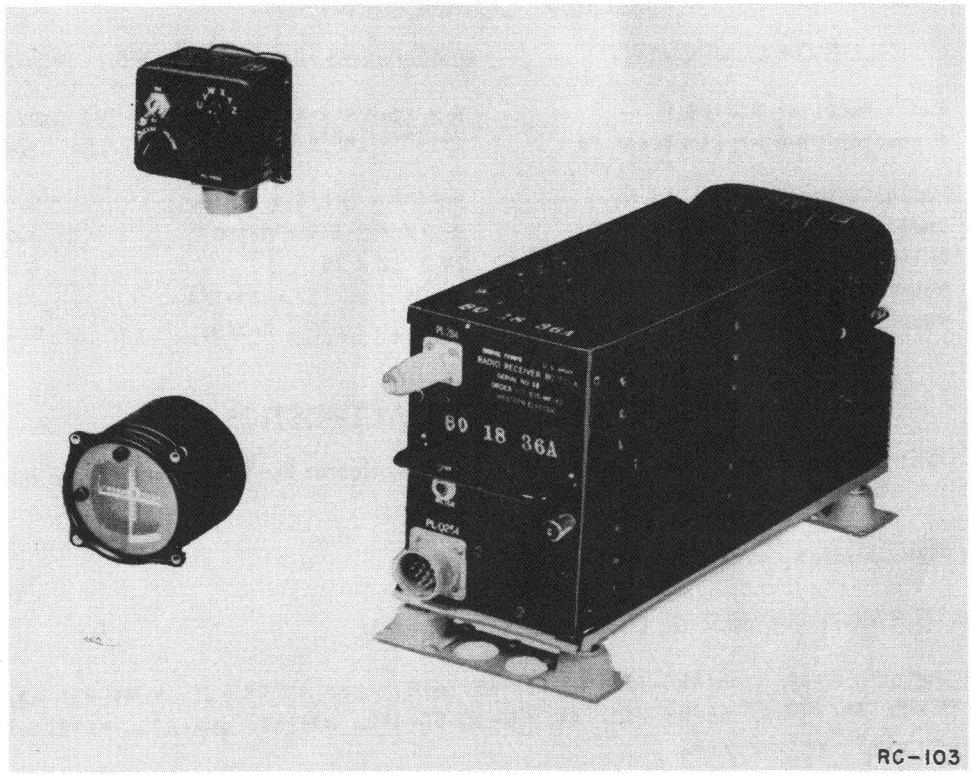
POWER OUTPUT: 300 mw into 300-ohm load (rcvr); 100 w (xmtr).

POWER REQUIREMENTS: 770 w, 27.5 v, 28 amp dc.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:					
DOMESTIC PACK:					
EXPORT PACK:					

STATUS: Substitute Standard	AN/ARN-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	SERVICE TYPE NUMBER: RC-103
USING SERVICE: Air Force	RADIO RECEIVING EQUIPMENT
DATE OF THIS SHEET: 7 Jun 52	



Radio Receiving Equipment RC-103 consists of an airborne receiver with six preset crystal-controlled channels, used for receiving signals transmitted by Army Air Force Instrument Approach System (formerly known as Instrument Landing System SCS-51). It is normally operated by means of a radio control box which provides ON/OFF, volume control, and frequency selection.

Receiver output is usually used to indicate lateral guidance by the vertical pointer of Indicator I-101; however, audio output (at 300 and 4,000 ohm) for voice or tone signals is also provided.

It is used in conjunction with associated (but not supplied) airborne equipment AN/ARN-5, which indicates vertical guidance for aircraft landing operations, in emergency, or under conditions of poor visibility.

Antenna Equipments AN-100 or AN-100-A should be used only for Radio Receiving Equipment RC-103-D; Antenna System AS-27/ARN-5 is used when Radio Receiving Equipment RC-103-D and AN/ARN-5 are used for both horizontal and vertical guidance.

Except for the power requirements Radio Receiving Equipment RC-103-D is interchangeable with RC-103-AZ, RC-103-D requires 72 w of 28-v dc and uses Dynamotor DM-53-A; RC-103-AZ requires 4.5 amp of 14-v, dc, and uses DM-53-AZ. Replacing one dynamotor with the other automatically sets up all the required power connections for the proper functioning of either the RC-103-D or RC-103-AZ.

AN/ARN-TYPE

RC-103 :SERVICE TYPE NUMBER

RADIO RECEIVING EQUIPMENT

INSTRUCTION LITERATURE: TO AN-16-40RC-103-2

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE : Air Force

DATE OF THIS SHEET : 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver BC-733-D	5 x 13-3/8 x 7-3/32	19.2
1	Dynamotor DM-53-A (Included in receiver)	Not Available	2.9
1	Radio Control Box BC-732-A	3-9/32 x 3-1/4 x 2-5/8	0.56
1 or 2	Indicators I-101-C or I-101-D	3-1/4 x 3-1/4 x 3-3/9	2.06 (each)
1	Antenna Equipment AN-100 or AN-100-A	24 x 12 x 10	4.0
1	Mounting FT-293-A	5-7/8 x 1-7/32 x 13-1/4	1.75
1	Mounting FT-292-A	3-1/16 x 1/16 x 4-1/32	0.07

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally issued to fighters, interceptors, fighter bombers, medium and heavy bombers, and cargo planes.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -8, -28, -36; AN/CRC-2; AN/GRC-9; AN/MRC-20, -22; AN/TRC-7; AN/TRQ-1; AN/URT-10; AN/VRC-1; BC-640; RC-257; SCR-522, -542, -573, -575, -624, -643; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 6 preset crystal-controlled channels: 108.5, 108.7, 109.1, 109.5, 109.9, and 110.3.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice or tone.

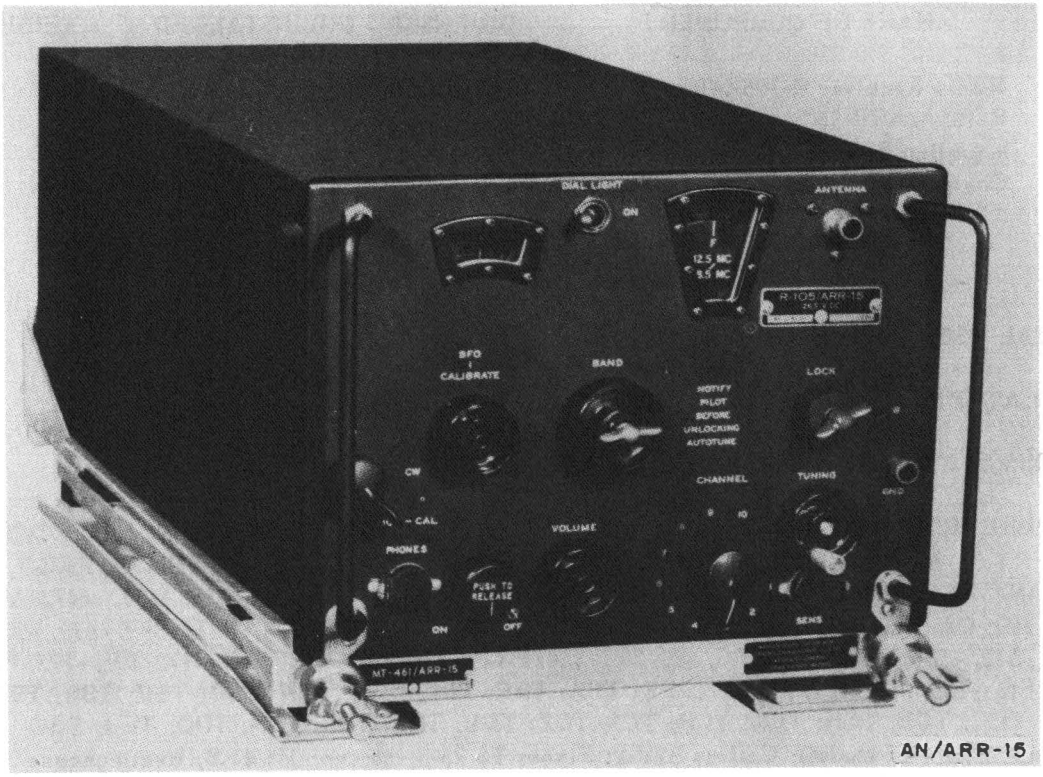
POWER OUTPUT: Audio: 500 mw into a 300 or 4,000 ohm resistive load
Visual: Indicator I-101-C or I-101-D.

POWER REQUIREMENTS: RC-103-D; 72 w, 28 v (2.6 amp) dc (from Dynamotor DM-53-A)
RC-103-AZ;(4.5 amp) 14 v, dc (from Dynamotor DM-53-AZ).

PHYSICAL CHARACTERISTICS

Radio Receiving Equipment RC-103 measures 24 x 12 x 19 inches, net weight 29.54 pounds, volume 2.09 cu ft. Packed for either domestic or export shipment: total weight 38.40 pounds, total volume 2.31 cu ft. Shipped in 3 packages both domestic and export.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 29 May 52	**AN/ARR-15** RADIO SET



Radio Sets AN/ARR-15 and -15A are general purpose, a-m (voice, cw, and mcw) receivers which provide reliable, preset, multichannel, pilot- or radio-operator-controlled, h-f reception.

This equipment may be controlled from the receiver panel or from a remote position.

An autotune system permits the selecting of any one of 10 channels and may be adjusted to select any 10 frequencies within the range 1.5 to 18.5 mc.

The AN/ARR-15 and -15A are functionally similar. The AN/ARR-15A incorporates an improved autotune unit and minor component changes. The AN/ARR-15 is essentially the Collins Model 51H-1. The AN/ARR-15A is the Collins Model 51H-4.

AN/ARR-15

RADIO SET

INSTRUCTION LITERATURE: AN 16-30ARR15-3
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 29 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver R-105/ARR-15 or R-105A/ARR-15	7-7/8 x 10-3/8 x 21-9/16	39.5
1	Mounting Base MT-461/ARR-15	3-15/16 x 10-7/8 x 23-27/32	3.3
1	Control Box C-428/ARR-15	Not available	1.5

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Long.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -21, -25; AN/ART-13; AN/CRT-3; AN/FRC-10; AN/FRT-5, -6, -15, -17, -18; AN/GRC-9, -13, -26; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRT-4; AN/TRQ-1; AN/URT-2, -3, -4; AN/VRC-1, -4; BC-191, -339, -401, -447, -610; MBS; MQ; OA-60A/FRT, -60B/FRT; RC-52; SCR-177, -188, -193, -274, -281, -399, -499, -506, -536, -543, -585, -694; T-4/FRC, -83/SR, -158/FRT, -159/FRT, -171/FR, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TBA; TBC; TBK; TBL; TBN; TBO; TBU; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCZ; TDE; TDF; TDH; TDN; TDO; TEB; TEC; TEF; Collins 18S-4 (AF Model); Collins 32V-2; Fisher TS 25-3; Marconi TH-41-B; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 1.5 - 18.5 on any of the 10 preset channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Cw, mcw, voice.

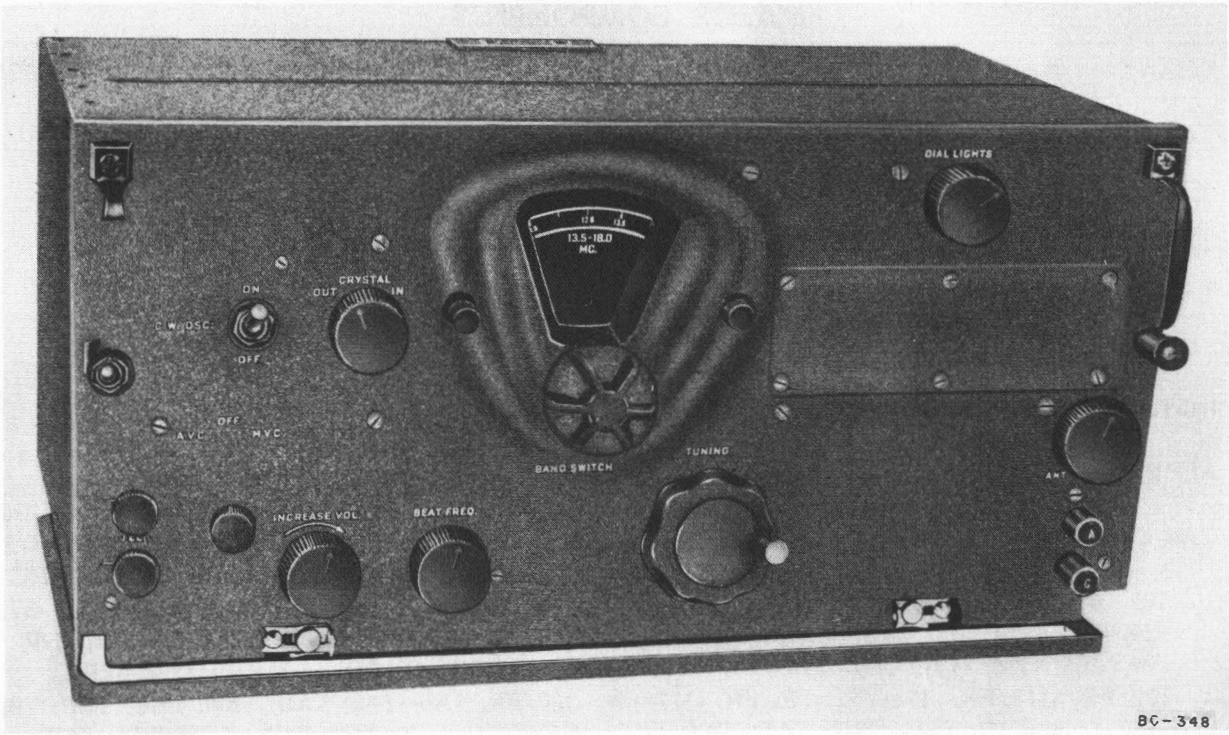
POWER OUTPUT: 500-mw audio output.

POWER REQUIREMENTS: 95 w, 26.5 v($\pm$ 10%)dc.

PHYSICAL CHARACTERISTICS

Radio Set AN/ARR-15 or -15A measures 9-3/8 x 10-7/8 x 23-27/32 inches, net weight 44.3 pounds.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 19 May 52	AN/ ARR-TYPE SERVICE TYPE NUMBER: BC-348 RADIO RECEIVER



Radio Receiver BC-348 is an a-m (voice and cw) equipment used in air-to-ground and air-to-air radio communication over the frequency range 0.2 to 0.5 and 1.5 to 18 mc.

It is continuously tunable and its frequency range is covered in 6 bands which can be selected by a rotary switch located on the equipment's front panel.

The intermediate frequency of this receiver is 915 kc. It has an adjustable beat-frequency oscillator, crystal band-pass filter, and either a manual or automatic volume control.

The antenna is coupled to the receiver through a variable capacitor, permitting use of single wire antennas of various lengths.

Audio power output is 3 w (maximum) into either a 300- or 4,000-ohm load to match high- or low-impedance headphones.

This receiver is powered by a built-in 28-v d-c dynamotor.

When necessary to operate from 14-v d-c power sources, the electrically equivalent Radio Receivers BC-224-F and BC-224-K may be used.

AN/ARR-TYPE	INSTRUCTION LITERATURE: TO 16-40BC-348
BC-348 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
RADIO RECEIVER	USING SERVICE : Air Force
	DATE OF THIS SHEET : 19 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in light, medium, and heavy bombers and in air-sea rescue, trainer, and cargo aircraft.

INSTALLATION: Airborne, shock mounted.

APPROXIMATE RANGE (IN MILES): Short to medium.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25; AN/ART-13; AN/CRT-3, -5; AN/FRT-5, -6, -10, -15, -17, -18, -19; AN/GRC-9, -13, -26; AN/GRT-2; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRC-3; AN/SRT-1, -3, -4; AN/TRQ-1; AN/URT-2, -3, -4; AN/VRC-1, -4; BC-191, -329, -339, -365, -401, -447, -610; MBS; MQ; OA-60/FRT; RC-52; SCR-177, -188, -193, -274, -281, -399, -499, -506, -536, -543, -585, -694; T-4/FRC, -5/FRC, -83/SR, -158/FRT, -159/FRT, -171/FR, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TAB; TAJ; TAQ; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBW; TBX; TBY; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCY; TCZ; TDD; TDE; TDF; TDH; TDK; TDN; TDO; TEB; TEC; TEF; Collins 18S-4 (AF Model); Collins 32V-2; Fisher TS 25-3; Marconi TH-41-B; Westinghouse Type MW; Wilcox 96D, 99 A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 0.2 - 0.5and 1.5 - 18.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, cw, mcw.

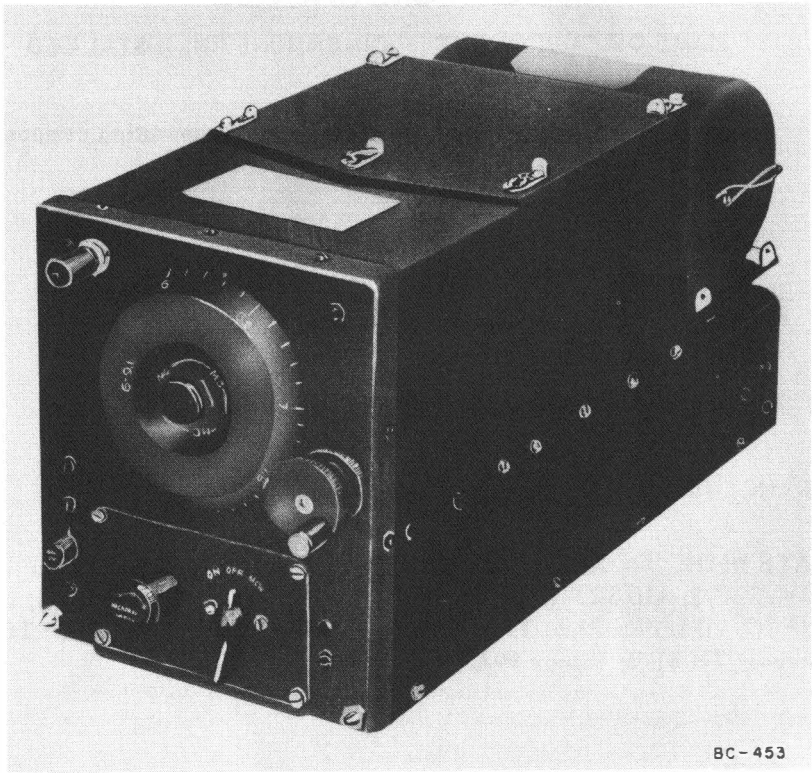
POWER OUTPUT: 3 w (maximum) into either 300 - or 4,000-ohm impedance load.

POWER REQUIREMENTS: BC-348: 56 w, 28 v (2 amp) dc.
BC-224: 56 w, 14 v (4 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Receiver BC-348 measures 18 x 10-1/2 x 9-1/2 inches, net weight 35.5 pounds, volume 1.1 cu ft. Packed for domestic or export shipment: total weight 45 pounds, total volume 1.25 cu ft. Shipped in 1 package.

STATUS: Standard	AN/ARR-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	SERVICE TYPE NUMBER: BC-453
USING SERVICE: Air Force	RADIO RECEIVER
DATE OF THIS SHEET: 10 Jun 52	



Radio Receiver BC-453 is an airborne a-m and c-w receiver for continuous coverage of the l-f band (short to medium). It is used for ground-to-air and air-to-air reception. There are two models of this receiver (BC-453-A and BC-453-B); the only difference between the two models is that the BC-453-B has a tapped audio output transformer for 8,000-ohm and 600-ohm output impedances and the BC-453-A has only an 8,000-ohm output.

The intermediate frequency is 85 kc.

The recommended type of antenna for this receiver is a long fore-and-aft inverted L or T type aircraft antenna.

The receiver may be either locally or remotely controlled.

It is equipped with a dynamotor power supply operating from 44.8 w, 28 v dc. Radio Receiver BC-453-A is normally part of Radio Set SCR-274-N.

AN/ARR-TYPE	INSTRUCTION LITERATURE: TO 16-40SCR-274-5
BC-453 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
RADIO RECEIVER	USING SERVICE : Air Force
	DATE OF THIS SHEET : 10 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used in light bomber and trainer aircraft.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): (Nominal) short to medium.

CAN COMMUNICATE WITH: AN/ARC-8; AN/ART-13; AN/CRT-3, -5; AN/FRT-10, -19; AN/GRT-2; AN/MRC-20; AN/SRC-3; AN/SRT-1, -3; AN/TRQ-1; AN/URT-2, -3, -4; BC-191, -329, -365; SCR-177; T-5/FRC, -171/FR; TAB; TAJ; TAQ; TBL; TBN; TBU; TBW; TCE; TCY; TCZ; TDD; TDE; TDK; Marconi TH-41-B; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 0.19 - 0.55.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Tone, cw, voice.

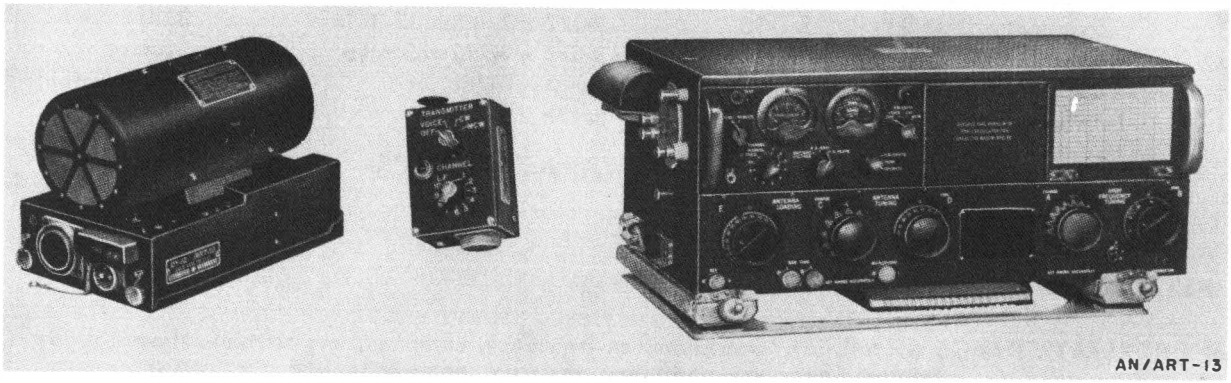
POWER OUTPUT: 10 mw (nominal).

POWER REQUIREMENTS: 44.8 w, 24/28 v, (1.6 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Receiver BC-453 measures 6-11/16 x 7-11/32 x 13-1/8 inches, net weight 11.2 pounds, volume 0.35 cu ft. Packed for domestic or export shipment: total weight 13 pounds, total volume 0.4 cu ft. Shipped in 1 package.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 May 52	**AN/ART-13** RADIO TRANSMITTING SET



AN/ART-13

Radio Transmitting Set AN/ART-13 is a compact, lightweight, radio transmitter for air-ground communication in aircraft. An autotune system permits rapid selection of 10 preset channels within the h-f range and either c-w, m-c-w, or voice-modulated operation. These operating methods are selected through a local remote switch by radio operator or pilot.

The danger of allowing antenna radiated power to cover a longer range than is necessary has been eliminated by the use of a pressure operated relay.

This equipment includes a set of connectors and adapters but not the necessary interconnecting wires and cables.

Microphones, a table-type key, throttle switch, headphones, and the antenna system are not supplied.

This set does not include the l-f oscillator (which extends the range of the transmitter from 0.2 to 1.5 mc). Space for mounting this additional equipment is provided within the transmitter.

Either a trailing long wire antenna or a fixed antenna with the shunt capacitor can be used. A transmitter-to-receiver antenna transfer relay switch is included.

Sidetone monitoring is provided and frequency calibration is accomplished by the use of the CFI unit. This equipment formerly designated Aircraft Radio Transmitting Equipment ATC.

AN/ART-13

RADIO TRANSMITTING SET

INSTRUCTION LITERATURE: AN-08-30ART13-5
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter T-47/ART-13	11-11/32 x 15-15/32 x 23-9/16	67.0
1	Mounting Base MT-284/ART-13	2-1/2 x15-15/32 x 20-33/64	1.88
1	Dynamotor Unit DY-12/ART-13	8-1/2 x 7-1/8 x 12-3/16	30.0
1	Control Unit C-87/ART-13	3-1/4 x 3-1/2 x 6-3/16	1.4
1	Antenna Switching Unit SA-22/ART-13	Not Available	Not Available
1	Antenna Shunt Capacitor CU-24/ART-13	3-7/8 x 4-1/8 x 5	1.68

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Dependent on frequency, antennas, and altitude. Nominal power reduced automatically to 50% at altitude of 25,000 ft.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25; AN/ARR-15; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRC-3; AN/SRR-3, -8, -11, -12, -13; AN/TRQ-1; AN/URR-10, -22, -23; AN/VRC-1, -4; AN/VRR-2; BC-312, -314, -342, -344, -348, -453, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -212/SR, -213/SR, -215/SR, -247/URR, -274/FRR, -320/FRC, -388/URR; RAK; RAL; RAO; RAS; RBA; RBB; RBC; RBG; RBH; RBL; RBM; RBO; RBP; RBS; RCF; RCG; RCH; RDE; RDF; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -536, -543, -585, -593, -614, -694, -704; TBO; TBX; TCH; TCP; TCS; AR-88 (RCA); ARC Type 12; Collins 18S-4 (AF Model); Collins 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; National HRO-50.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 2 - 18 (10 h-f channels only).
Use of a l-f oscillator provides an additional channel in the frequency band, 0.2 - 1.5.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Cw, mcw, voice.

POWER OUTPUT: 31 - 90 w on the h-f range.
5 - 80 w on the optional l-f range.

POWER REQUIREMENTS: 770 - 896 w, 28 v dc.

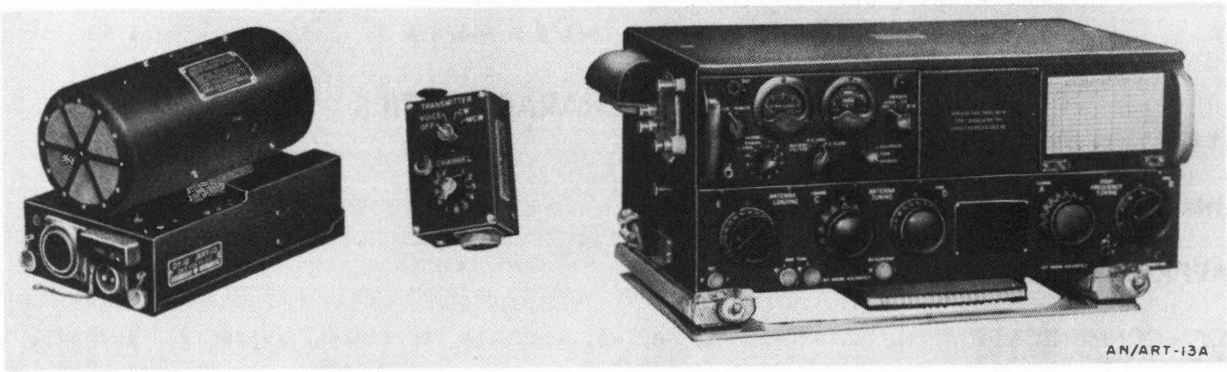
PHYSICAL CHARACTERISTICS

Information on Radio Transmitting Set AN/ART-13 not available.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 May 52

AN/ART-13A

RADIO TRANSMITTING SET



Radio Transmitting Set AN/ART-13A is designed for use in aircraft and air-ground communication. It employs an autotune system which permits rapid selection of any one of 11 channels, and choice of type of emission.

The autotune system can be controlled either by the radio operator or by the pilot.

A pressure operated relay, automatically reduces the power output by 50% whenever the aircraft reaches an altitude of 25,000 feet.

This equipment is essentially similar to Radio Transmitting Set AN/ART-13 and Aircraft Radio Transmitting Equipment ATC, but is lighter in weight and provides 1-f channel operation in the 0.2 to 1.5 mc range.

AN/ART-13A

RADIO TRANSMITTING SET

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter T-47A/ART-13	11-11/32 x 15-15/32 x 23-9/16	67.0
1	Oscillator O-17/ART-13A	Not Available	Not Available
1	Dynamotor Unit DY-17/ART-13A	8-13/16 x 7-3/16 x 11-15/16	28.0
1	Control Unit C-87/ART-13	3-1/4 x 3-1/2 x 6-3/16	1.4
1	Antenna Loading Unit CU-32/ART-13A	Not Available	Not Available
1	Antenna Shunt Capacitor CU-24/ART-13	3-7/8 x 4-1/8 x 5	1.68

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

APPROXIMATE RANGE (IN MILES): Medium.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25; AN/ARR-15; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRC-3; AN/SRR-3, -8, -11, -12, -13; AN/TRQ-1; AN/URR-10, -22, -23; AN/VRC-1, -4; AN/VRR-2; BC-312, -314, -342, -344, -348, -453, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -212/SR, -213/SR, -215/SR, -247/URR, -274/FRR, -320/FRC, -388/URR; RAK; RAL; RAO; RAS: RBA; RBB; RBC; RBG; RBH; RBL; RBM; RBO: RBP; RBS; RCF; RCG; RCH; RDE; RDF; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -536, -543, -585, -593, -614, -694, -704; TBO; TBX; TCH; TCP; TCS; AR-88 (RCA); ARC Type 12; Collins 18S-4 (AF Model); Collins 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; National HRO-50.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: L-f range (one channel) 0.2 - 1.5.
H-f range (ten channels) 2.0 - 18.0.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Cw, mcw, voice.

POWER OUTPUT: 5 - 80 w on the l-f range.
31 - 90 w on the h-f range.

POWER REQUIREMENTS: 770 - 896 w, 28 v dc.

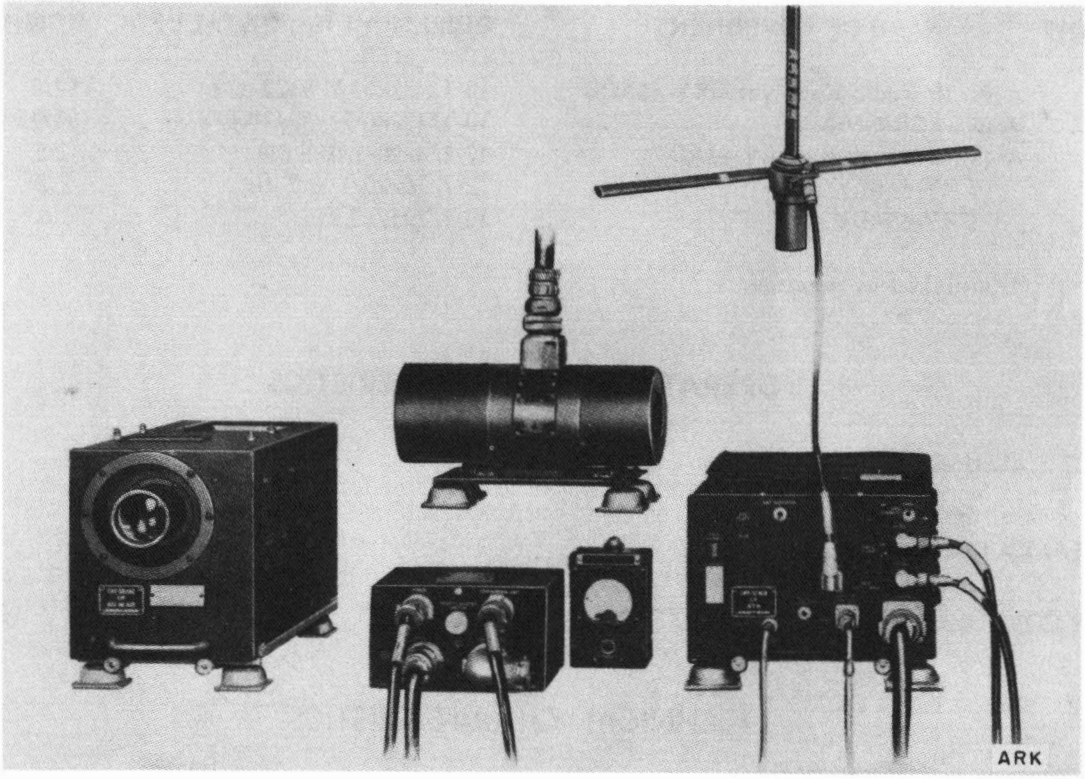
PHYSICAL CHARACTERISTICS

Information on Radio Transmitting Set AN/ART-13A not available.

STATUS: Limited Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 May 52

AN/AXR-TYPE

SERVICE TYPE NUMBER: ARK
AIRCRAFT RADIO RECEIVING EQUIPMENT



The ARK Aircraft Radio Receiving Equipment is a uhf receiver for use in and by aircraft in conjunction with ATK Aircraft Radio Transmitting Equipment to comprise a complete system used for plane-to-plane radio television reception. Scenes visible from an aircraft using the ATK may be reproduced in another aircraft using the ARK, at a distance of about 10 miles.

The equipment can operate on any one of 10 frequency channels, and up to 10 separate sets of equipments may be operated simultaneously within the same general area. The equipment will operate under severe conditions of vibration, temperature, humidity, and altitude.
Either the cylindrical or elliptical type antenna is supplied for frequency channels 1 to 5; elliptical type only for channels 6 to 10.

AN/AXR-TYPE

ARK :SERVICE TYPE NUMBER
AIRCRAFT RADIO RECEIVING EQUIPMENT

INSTRUCTION LITERATURE: AN 16-45-69, 08-5S-79
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Aircraft Radio Receiver CRV-46ACD	10-13/32x17-7/8x22-3/8	57.0
*1	Monitor CRV-60ABK	10-17/32x8-21/32x19-5/8	31.25
1	Antenna Assembly CRV-66ADT	12-1/4x20-1/2x5 dia	2.5
	CRV-66AFW or	12-7/16x20-1/2x2 dia	1.8
	CRV-66ADU	10-1/2x17x2 dia	1.6

*Furnished as required.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

CAN COMMUNICATE WITH: ATK

TECHNICAL CHARACTERISTICS

FREQUENCY: 264 - 372 mc, in 10 channels.

SCREEN SIZE: 7 in. crt.

ASPECT RATIO: 4:3.

FRAMES PER SECOND: 40.

LINES: 350 scanning lines.

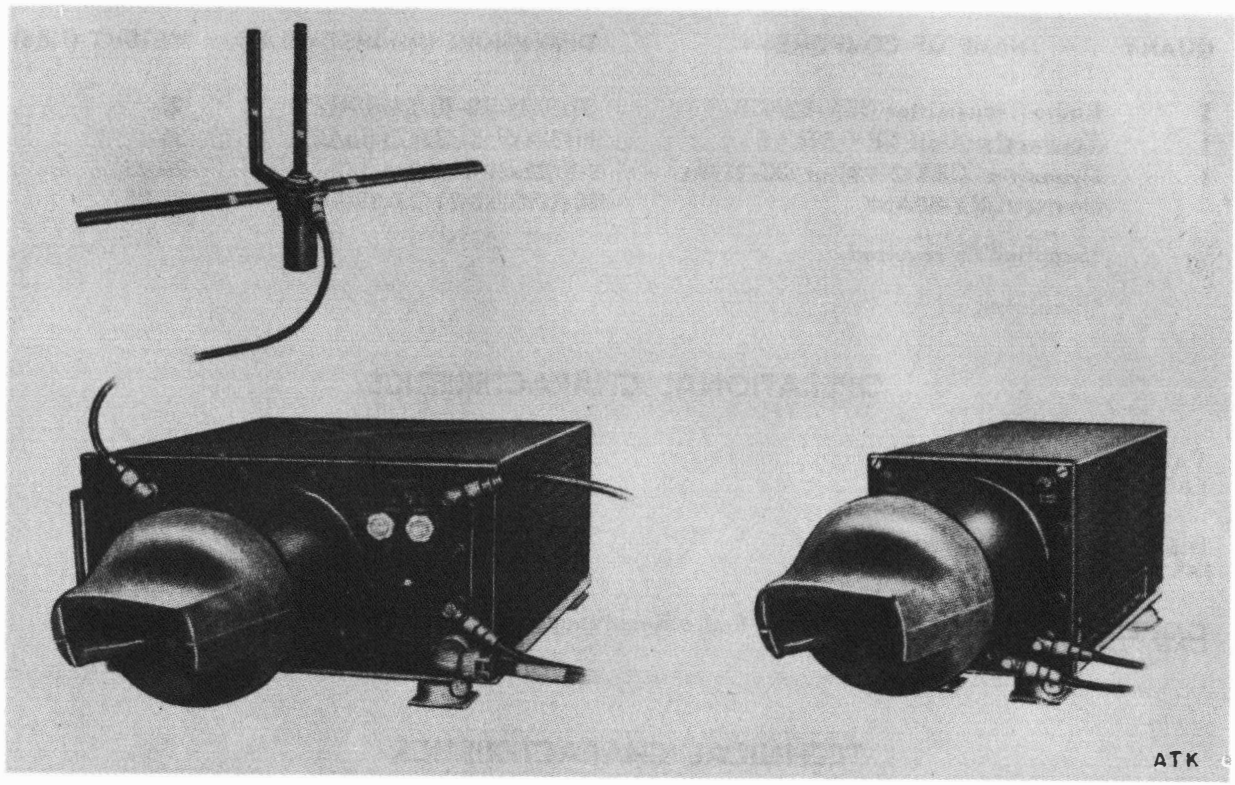
SYNCHRONIZING SIGNALS: Pulses.

POWER REQUIREMENTS: Receiver with monitor; 400 w, 27-31 v dc.

PHYSICAL CHARACTERISTICS

Aircraft Radio Receiving Equipment ARK measures 10-13/32 x 26-17/32 x 22-3/8 inches, net weight 88-1/4 pounds, volume 3.58 cu ft.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 May 52	**AN/AXT-TYPE** SERVICE TYPE NUMBER: ATK AIRCRAFT RADIO TRANSMITTING EQUIPMENT



The ATK Aircraft Radio Transmitting Equipment is a uhf transmitter for use in and by aircraft, in conjunction with ARK Aircraft Radio Receiving Equipment, to comprise a complete system used for plane-to-plane radio television transmission. Scenes visible from an aircraft using the ATK may be reproduced in another aircraft using the ARK, at a distance of about 10 miles.

The equipment can operate on any one of 10 frequency channels, and up to 10 separate sets of equipments may be operated simultaneously within the same general area. The equipment will operate under severe conditions of vibration, temperature, humidity, and altitude. The power output of the transmitter is 19 w.

Either cylindrical or elliptical type antenna is supplied for channels 1 through 5; elliptical type only for channels 6 through 10.

Antennas used are as follows: CRV-66AED, -66AEE, -66AEF, -66AEG, -66AEH, -66AFX, -66AFY, -66AFZ, -66AGA, -66AGB, -66AEJ, -66AEK, -66AEL, -66AEM, or -66AEN.

AN/AXT-TYPE	INSTRUCTION LITERATURE: AN 16-45-69, 08-5S-79
ATK :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
AIRCRAFT RADIO TRANSMITTING EQUIPMENT	USING SERVICE: Navy
	DATE OF THIS SHEET: 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter CRV-52ACB	31-9/32x12-13/64x18-1/32	26
1	Conversion Unit CRV-59AAE	11-3/4x9-13/32x23-15/32	36
1	Dynamotor CEK-21981 or CC-21981	9-9/32x13-13/32x6-1/2	26.25
* 1	Monitor CRV-60ABK	10-17/32x8-21/32x19-5/8	31.25

*Supplied as required.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Aircraft.

INSTALLATION: Airborne.

CAN COMMUNICATE WITH: Aircraft Radio Receiving Equipment ARK.

TECHNICAL CHARACTERISTICS

FREQUENCY: 264 - 372 mc, in 10 channels.

SCREEN SIZE: 7 in. crt (monitor unit).

ASPECT RATIO: 4:3.

FRAMES PER SECOND: 40.

LINES/INTERLACE: 350 scanning lines.

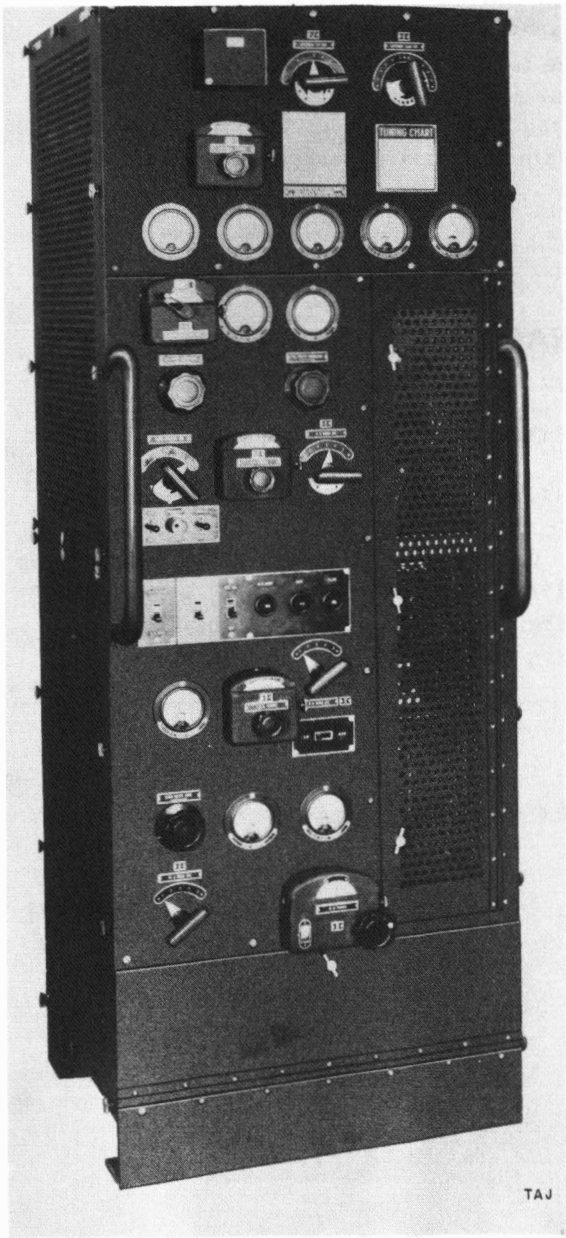
SYNCHRONIZING SIGNALS: Pulses.

POWER REQUIREMENTS: Transmitter with monitor; 850 w, 27-31 v dc.

PHYSICAL CHARACTERISTICS

Aircraft Radio Transmitting Equipment ATK weighs 130.25 pounds net.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 29 May 52	**AN/BRT-TYPE** SERVICE TYPE NUMBER: TAJ 500 WATT TRANSMITTING EQUIPMENT



500 Watt Transmitting Equipment TAJ is a general service, m-f, medium power a-m (cw, mcw) radiotelegraph transmitter for use on submarines. The transmitter may be operated locally, or remotely over a standard four- or six-wire control system, and employs crystal oscillator frequency control.

Motor generators and starters are available which permit operation of the equipment from either 115-v, or 230-v, d-c power source.

AN/BRT-TYPE

TAJ :SERVICE TYPE NUMBER

500 WATT TRANSMITTING EQUIPMENT

INSTRUCTION LITERATURE: Not Available

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE : Navy

DATE OF THIS SHEET : 29 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter Unit CAY-3334A	46 x 26-1/8 x 17	425
1	Motor-Generator *CAY-3689 or **CAY-3690	20-5/16 x 36 x 18 20-5/16 x 36 x 18	1,200 1,200
1	Filter Unit CAY-3335A	27-7/8 x 14 x 12-1/8	100
1	Starter *CAY-3415, or **CAY-3416 *115-v dc. **230-v dc.	25-3/8 x 21-1/8 x 13-11/16	135

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Submarines.

INSTALLATION: Submarine.

APPROXIMATE RANGE (IN MILES): Medium.

CAN COMMUNICATE WITH: AN/FRR-4, -28; AN/GRR-2, -3; AN/MRC-5, -8, -20; AN/SRC-3; AN/SRR-3, -11, -12; AN/TRQ-1; AN/URR-10, -22, -23; AN/VRC-4; BC-314, -344, -348, -453, -779, -1004; MBS; OA-58/FRC; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -210/U, -211/U, -212/SR, -213/SR, -215/SR, -247/URR, -274/FRR, -320/FRC, -388/URR; RAK; RAL; RAO; RAS; RBA; RBB; RBG; RBH; RBL; RBM; RBO; RCF; RCG; RCH; RDF; RDM; SCR-177, -244, -274, -614; AR-88 (RCA); ARC Type 12; Fisher TS 25-3; Hammarlund SP-600-JX; National HRO-50.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 0.195- 0.60.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Cw, mcw.

POWER OUTPUT: 300 w.

POWER REQUIREMENTS: 3 kw, 115/230 v, dc.

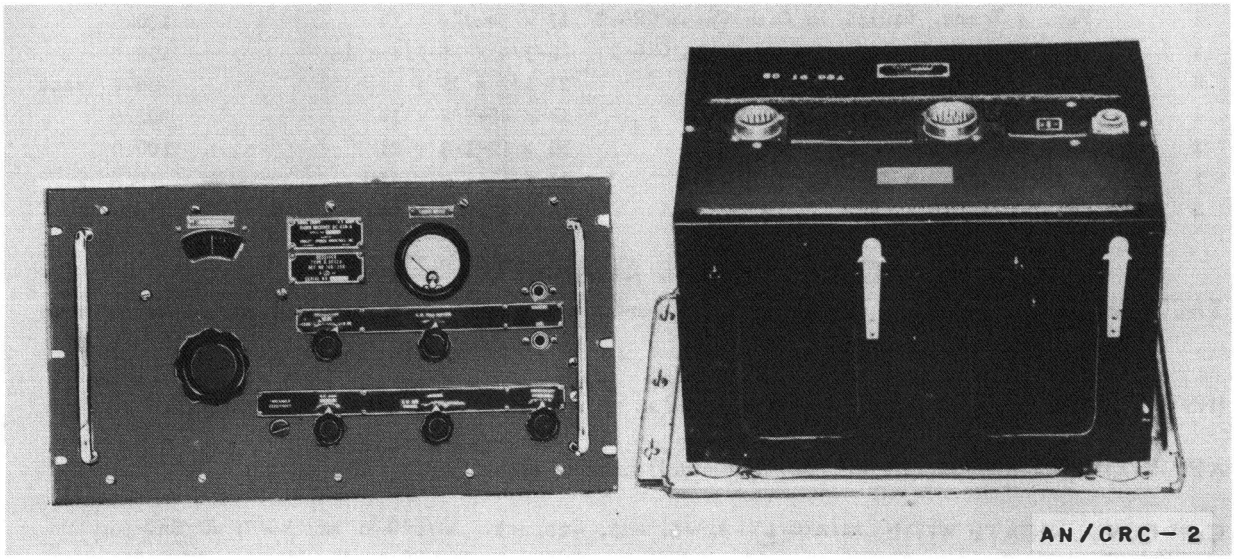
PHYSICAL CHARACTERISTICS

500 Watt Transmitting Equipment TAJ measures 46 x 26-1/8 x 17 inches.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force
DATE OF THIS SHEET: 10 Jun 52

AN/CRC-2

RADIO SET



Radio Set AN/CRC-2 is used as a v-h-f, air-to-ground, advanced air base traffic control system. The set is designed and packaged for air transportation for use in combat areas, where it can be easily set up and knocked down, repackaged, and transported to a new location, by air or motor vehicle.

Radio Set AN/CRC-2 consists essentially of the following major items: 6 Radio Receivers BC-639-A (illustrated above), Radio Receiver BC-624-A, Radio Transmitter BC-625-A (illustrated above), Frequency Meter BC-638-A, 4 Power Units PE-214-A, 8 Antenna Equipments RC-81-A, 4 Antenna Masts AB-7/CRC-2, and accessory items.

The following facilities are provided by Radio Set AN/CRC-2 two-way ground-to-air radio communication on four preset, crystal-controlled channels in the v-h-f band for air base traffic control, continuous monitoring of six radio channels, two spare receiving channels, presetting of the receivers to the desired channels.

AN/CRC-2

RADIO SET

INSTRUCTION LITERATURE: TO 16-30CRC-2
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 10 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
3	Receiving Equip. in Case CY-32/CRC-2	15-1/2 x 39-1/2 x 22-5/16	181.0 (each)
1	Monitoring Equip. in Case CY-33/CRC-2	15 x 22-1/2 x 21-23/32	101.5
1	Rec. & Trans. Equip. in Case CY-34/CRC-2	17 x 34-1/4 x 14	130.3
1	Power Supply Equip. in Case CY-55/CRC-2	20-3/4 x 15-3/4 x 15	102.0
4	Power Unit PE-214-A with Case	23-1/2 x 16 x 20	86.0 (each
1	Cable Equip. in Case CY-165/CRC-2	19 x 45-3/4 x 19	302.0
1	Ant. Equip. in Case CY-_5/CRC-2	31 x 12-1/4 x 21	100.0
1	Misc. Equip. in Case CY-36/CRC-2	21 x 12-1/4 x 21	18.5
4	Mast AB-7/CRC-2 in 2 Chests	16 x 9 x 25 & 135 x 9 x 9	315.0

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used in advanced combat areas at newly captured air strips for air base traffic control.

INSTALLATION: Ground-fixed (shockmounted in cases designed for air transportation).

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156.

6 Receivers BC-639-A: 100 - 156 continuous tuning.
1 Receiver BC-624-A: 4 preset crystal-controlled channels from 100 - 156.
1 Transmitter BC-625-A: 4 preset crystal-controlled channels from 100 - 156.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

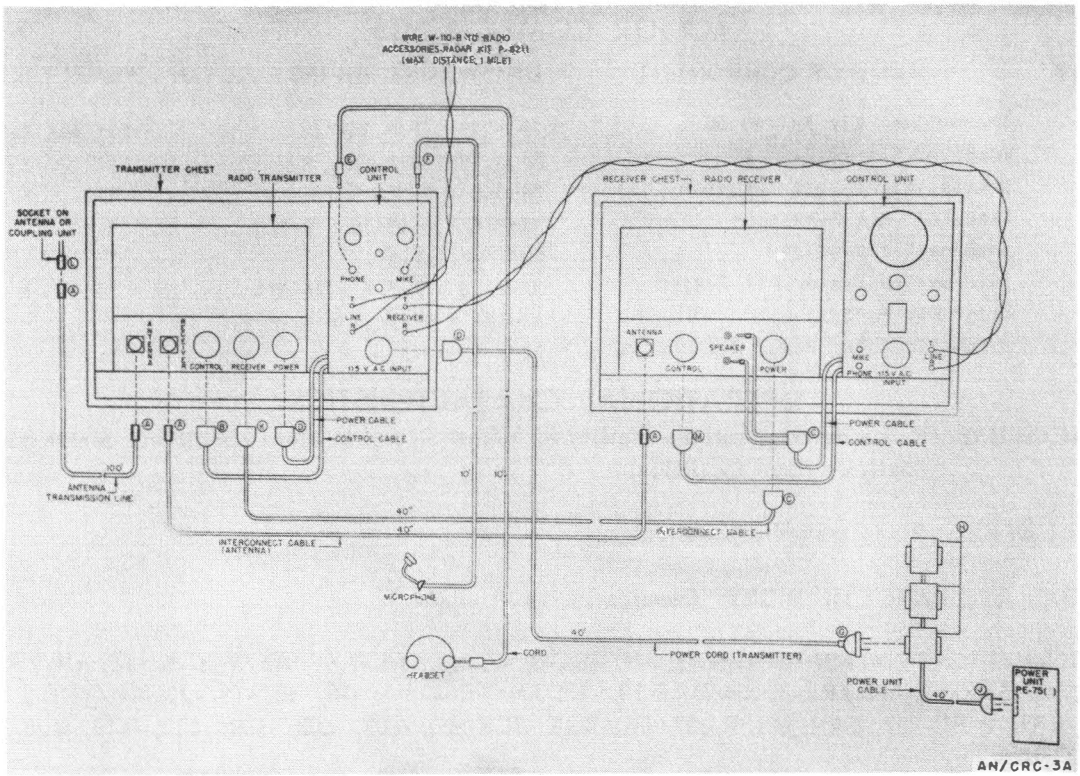
POWER OUTPUT: 6-9 w (Nominal).

POWER REQUIREMENTS: 600 w, 110 v, 50/60 cyc, 1 phase, ac. Power is normally furnished by two Power Units PE-214-A. Four power units are supplied; two are spares.

PHYSICAL CHARACTERISTICS

Radio Set AN/CRC-2 measures 172.5 x 40 x 23 inches, net weight 3,878 pounds, volume 164.34 cu ft. Packed for domestic or export shipment: total weight 4,268 pounds, total volume 182 cu ft, 4.55 ship tons. Shipped in 21 packages.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Air Force DATE OF THIS SHEET: 10 Jun 52	AN/CRC-3A RADIO SET



Radio Set AN/CRC-3A consists of a commercial type, Galvin Mfg. Co., Transmitter PA- 8244 (Motorola Transmitter Kit FMT-50 BD) and radio receiver, Galvin Mfg. Co., PA-8245 (Receiver Kit FSKR-15BD) plus control units, antenna components and accessory items as are required for two-way operation with other similar installations. It can be used for point-to-point communication from a fixed ground or mobile installation.

Several of these sets are normally used to form a single channel communications net in an Aircraft Warning System.

Necessary cables and connectors for local or remote operation over telephone lines up to a distance of two miles are included.

The receiver is a double conversion, crystal-controlled, superheterodyne, employing 4.3 mc and 455 kc for conversion. The transmitter is crystal-controlled on any one of 61 channels in the v-h-f frequency range 30 to 40 mc and capable of fm, voice transmission.

The squelch circuit of the receiver actuates a relay to turn the transmitter ON and OFF after it has been placed in "stand-by" operation. This mode of operation is used when transmitter and receiver are employed as an automatic relay station. The receiver will detect an incoming signal on one frequency and automatically place the transmitter on the air re-transmitting the original signal on another frequency.

AN/CRC-3A

RADIO SET

INSTRUCTION LITERATURE: TO 16-30CRC3-2 Book 241 A
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 10 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter Kit FMT-50 BD	24 x 16-1/2 x 14-7/8	Not Available
1	Receiver Kit FSKR-15 BD	24 x 16-1/2 x 14-7/8	" "
1	Crystal Kit P-8214 P-8214-A	18-5/8 x 5-3/4 x 12-1/4	" "
1	Tank Coil Kit P-8215	12-3/8 x 5-13/16 x 9-7/8	" "
1	Antenna Kit P-8212-B	Not Available	" "
1	Information Center Kit P-8210	37-1/16 x 7-3/4 x 15-3/4	" "
1	Radar Kit P-8211	17-1/2 x 8-29/32 x 10-5/8	" "
1	Automatic Relay Power Kit P-8213	22 x 23 x 13	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Radio communications facility for point-to-point between operations center and auxiliary radar facilities.

INSTALLATION: Fixed ground or mobile.

APPROXIMATE RANGE (IN MILES: (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/CRC-3; AN/FRC-6, -9; AN/GRC-7, -8; AN/MRC-5, -16; AN/PRC-9, -10; AN/SRR-13; AN/TRQ-1; AN/URR-10, -12; AN/VRC-2, -3, -10, -15, -18, -22; AN/VRQ-2, -3; AN/VRR-4; BC-787; MAN; MN; R-137/GR; RBK; SCR-300, -607, -608, -609, -610, -619, -628, -678, -808, -828.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 61 crystal-controlled, preset channels in the frequency range 30 - 40.

TYPE MODULATION: Fm.

TYPE OF SIGNAL: Voice.

POWER OUTPUT: Transmitter: 50 w.
Receiver: 500 mw into 600 ohm line.

POWER REQUIREMENTS: Transmitter: 290 w maximum, 105 - 125 v, 60 cyc, 1 phase, ac.
Receiver: 75 w maximum, 105 - 125 v, 60 cyc, 1 phase, ac.

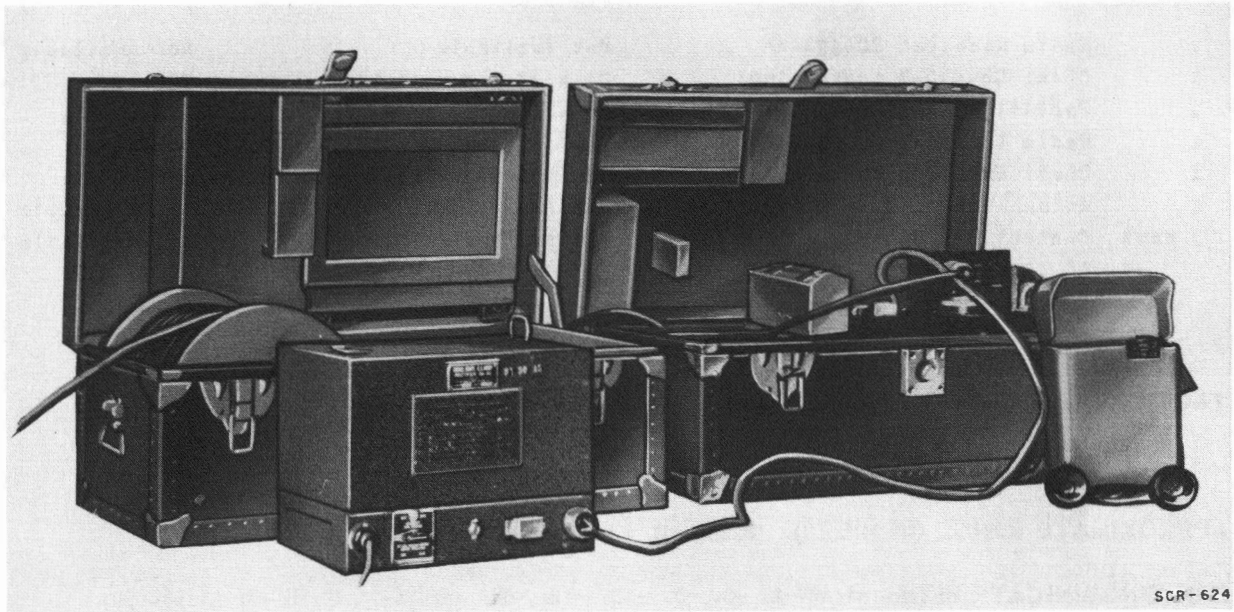
PHYSICAL CHARACTERISTICS

Radio Set AN/CRC-3A measures 24 x 52 x 15 inches, net weight 331 pounds, volume 18.5 cu ft. Packed for domestic or export shipment: total weight 400 pounds, total volume 20 cu ft, 0.5 ship ton. Shipped in 2 packages.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force, Navy
DATE OF THIS SHEET: 26 May 52

AN/CRC-TYPE

SERVICE TYPE NUMBER: SCR-624 RADIO SET



Radio Set SCR-624 is a complete radio ground station consisting of a transmitter and receiver designed for two-way, v-h-f communication. It is especially constructed for transportation by air. Radio Control Box BC-602-B may be used at the transmitter or from a remote position up to 500 feet away for channel selection, as well as send-receive communications; it may also be used up to two miles for send-receive control only.

This radio set consists of Radio Transmitter BC-625-A and Radio Receiver BC-624-A housed together in one case.

A separate power unit, antenna, remote control unit, jack boxes, and interconnecting cables are also supplied.

The transmitter and receiver each use four separate crystals (total 8 crystals) to provide 4 preset operating channels.

An antenna change-over relay is incorporated in the set, which permits using one Antenna AN-94-A, -B, or -C, mounted on Antenna Mast MA-7-A for both transmitting and receiving.

The transmitter provides 6-8 w output on either voice or tone modulation; the receiver output is 10 mw into a 300 ohm or 4,000 ohm resistive load.

Requires 325-w, 100-130/200-260-v ac.

Radio Sets SCR-624-B, SCR-542-A and SCR-522-A, are all identical operationally, and all similar units are mechanically interchangeable; the major differences are in the power supply requirements and method of installation.

AN/CRC-TYPE	INSTRUCTION LITERATURE: TO 16-40SCR624-2
SCR-624 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
RADIO SET	USING SERVICE : Air Force, Navy
	DATE OF THIS SHEET : 26 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver BC-624-AM	Not Available	Not Available
1	Cheat CH-172-B containing:	34 x 16-3/4 x 15-3/4	205
1	Rectifier RA-62-B	16 x 11-5/32 x 10-5/8	75
1	Radio Transmitter BC-625-AM	16-5/32 x 12-9/16 x 10-11/16	49
1	Cheat CH-173-B containing:	34 x 16-3/4 x 15-3/4	205
1	Antenna AN-94-B	Not Available	Not Available
1 each	Control Box BC-1312, BC-1313, BC-1314	Not Available	Not Available

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Issued as project material in accordance with AFR 100-17.

INSTALLATION: Ground, fixed.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDQ; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156.
Receiver: 4 preset crystal-controlled channels.
Transmitter: 4 preset crystal-controlled channels.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

POWER OUTPUT: 6-8 w (Nominal).

POWER REQUIREMENTS: 325 w, 100-130/200-260 v, 50/60 cyc, 1 phase, ac.

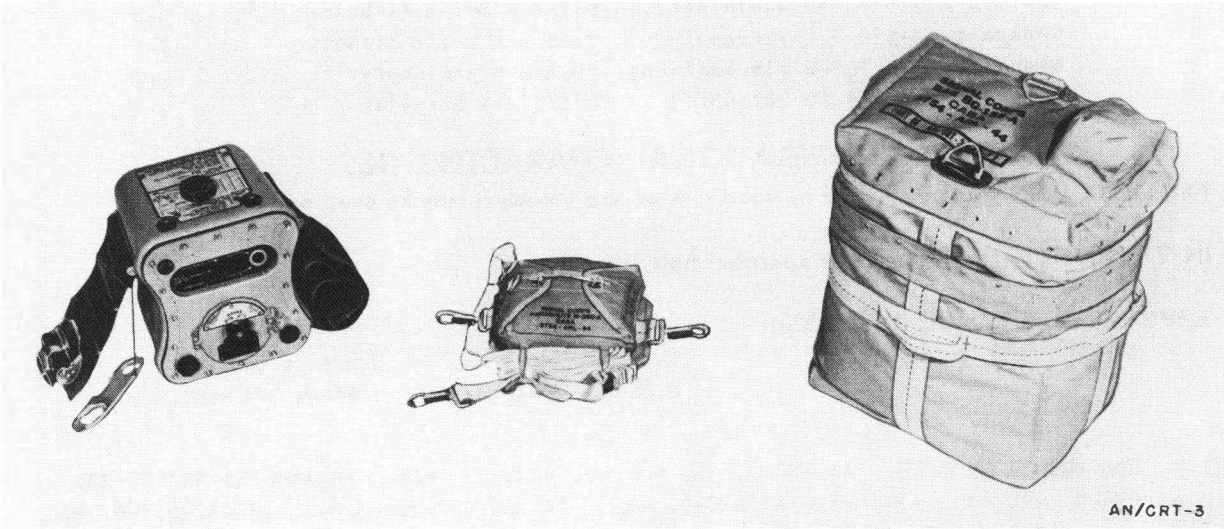
PHYSICAL CHARACTERISTICS

Radio Set SCR-624 measures 72 x 84 x 84 inches, net weight 669 pounds, volume 50 cu ft. Packed for either domestic or export shipment: total weight 773 pounds, total volume 62 cu ft. Shipped in 5packages both domestic and export.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force, Navy
DATE OF THIS SHEET: 7 Jun 52

AN/CRT-3

RADIO SET



Radio Set AN/CRT-3 is a small, rugged, hand powered emergency radio transmitter, designed for use from raft or life boat by survivors, for sea rescue work. The equipment is air transportable and dropped by parachute. It operates at 0.5 mc and 8.28 mc for ground-to-air and point-to-point communication.

This set is capable of three types of signaling: hand keyed signal light; automatic transmission of SOS on 0.5 mc tone modulated, and SOS on 8.28 mc unmodulated, automatically shifting from one frequency to the other every 40 to 50 seconds; and hand-keyed, tone-modulated transmission on 0.5 mc.

One kite and two balloons are supplied to support a single long wire antenna.

All power for operation of the equipment is supplied by a hand cranked generator.

AN/CRT-3

RADIO SET

INSTRUCTION LITERATURE: TO AN 16-30CRT3-2
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force, Navy
DATE OF THIS SHEET: 7 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter T-74/CRT-3	10-1/2 x 10 x 9	16.0
1	Kite M-357-A	19 x 4 diameter	0.8
2	Balloon M-278-A (in container)	5-1/8 x 4-1/4 diameter	1.3
2	Generator M-315-B (hydrogen)	11-5/8 x 4-1/4 diameter	3.3
1	Signal Lamp M-308-B (in container)	3-1/8 x 3 diameter	0.3
2	Antenna Assembly AS-207/CRT-3	2-1/2 x 3 diameter	0.7

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used by survivors at sea though it may be used on land.

INSTALLATION: Man-carried or operated from life raft.

APPROXIMATE RANGE (IN MILES):

	Day	Night
0.5 mc:	Short	Short to Medium
8.28 mc:	Medium	Medium to Long

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/FRC-10; AN/FRR-3, -4, -12, -28, -32; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19; AN/SRC-3; AN/SRR-3, -8, -11, -12, -13; AN/TRQ-1; AN/URR-10, -22, -23; AN/VRC-1, -4; BC-312, -314, -342, -344, -348, -453, -779, -794, -1004; MBS; OA-58/FRC, -59/FRC; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209FR, -210/U, -212/SR, -213/SR, -215/SR, -247/URR, -274/FRR, -320/FRC, -388/URR; RAK; RAL; RAO; RAS; RBA; RBB; RBC; RBG; RBH; RBL; RBM; RBO; RBP; RBS; RCF; RCG; RCH; RDF; RDM; REA; SCR-177, -188, -193, -244, -274, -399, -499, -704; TBO; TCH; TCS; AR-88 (RCA); ARC Type 12; Collins 18S-4 (AF Model); Collins 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; National HRO-50.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: Fixed frequencies 0.5 and 8.28.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Mcw on 0.5 mc with 1,000-cyc tone; cw only on 8.28 mc.

POWER OUTPUT: Approximately 2-1/2 w on 0.5 mc and approximately 2 w on 8.28 mc.

POWER REQUIREMENTS: Hand operated generator, crank speed should be 80 to 100 rpm. Output 28 v (.175 amp) and 300 v (.04 amp) dc.

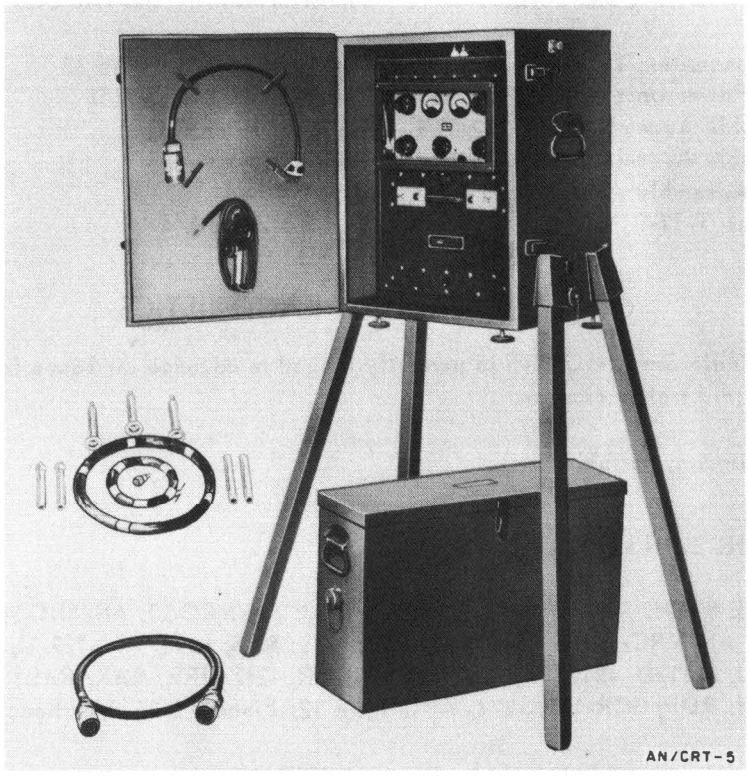
PHYSICAL CHARACTERISTICS

Radio Set AN/CRT-3 measures 10-1/2 x 10 x 9 inches, net weight 40 pounds, volume 1.1 cu ft. Packed for either domestic or export shipment: total weight 40 pounds, total volume 1.1 cu ft. Shipped in 1 package.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force
DATE OF THIS SHEET: 28 Apr 52

AN/CRT-5

RADIO SET



Radio Set AN/CRT-5 is a portable, 10-w, short-range, a-m (voice) radio transmitting equipment used in airfield traffic control applications or as a stand-by or supplementary transmitter for ground-to-air and point-to-point communication.

Because of the low frequency operation of this equipment a long antenna (Antenna Assembly AS-326/CRT-5, 350 to 450 ft) at least 20 ft off the ground should be used where practicable.

Normally uses 110-v, single-phase ac. Can use 12 v dc in emergencies by utilizing Vibrator Power Unit PP-203/CRT-5, which contains a 12-v Battery BB-46 or BB-50.

AN/CRT-5

RADIO SET

INSTRUCTION LITERATURE: T.O. 16-30CRT5-4
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Air Force
DATE OF THIS SHEET : 28 Apr 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter T-151/CRT-5	12-7/16 x 18-3/8 x 23-5/32	140.0
1	Vibrator Power Unit PP-203/CRT-5	24-1/4 x 7-3/8 x 15-9/16	54.0
1	Power Cable Assembly CX-1172/U	1-3/4 diameter x 72	Not Available
1	Power Cable Assembly CX-1173/U	1-3/4 diameter x 24	.5
1	Antenna Assembly AS-326/CRT-5	Not Available	7.0
1	Microphone T-17-D	69 x 2-3/4 x 2-1/4	1.0

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Radio Set AN/CRT-5 is normally issued to advance air bases for emergency air field traffic control.

INSTALLATION: Ground, portable.

APPROXIMATE RANGE (IN MILES): 10 - 15.

CAN COMMUNICATE WITH: AN/ARC-5, -8; AN/GRR-3; AN/MRC-20; AN/SRC-3; AN/SRR-3, -11, -12; AN/TRQ-1; AN/VRC-4; BC-344, -348, -453, -779; MBS; R-96/SR, -129/U, -203/SR, -206/PR, -210/U, -211/U, -212/SR, -213/SR, -215/SR, -247/URR; RAK; RAL; RAS; RBA; RBH; RBL; RBM; RCH; RDF; SCR-177, -274; ARC Type 12; Fisher TS 25-3; National HRO-50.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 0.2 - 0.4 continuous tuning.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice.

POWER OUTPUT: 10 w.

POWER REQUIREMENTS: 350 w, 110/125 v, 50/60 cyc 1 phase, ac, or (144 w full load), 12 v (12 amp) dc supplied by Vibrator Power Unit PP-203/CRT-5.

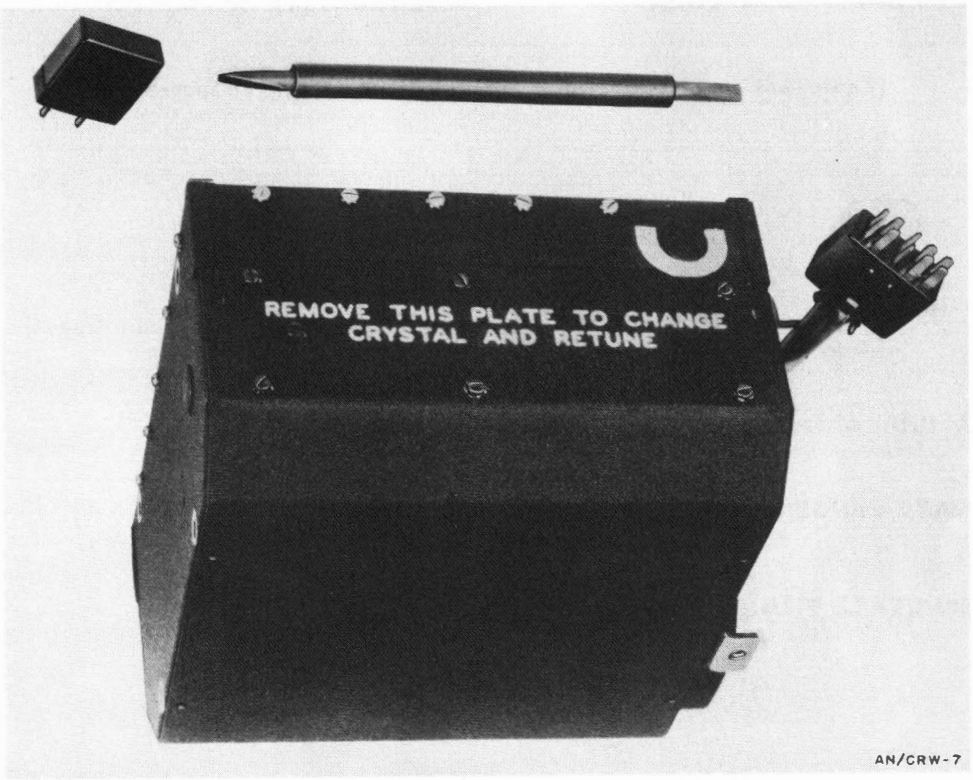
PHYSICAL CHARACTERISTICS

Radio Set AN/CRT-5 measures 19 x 13 x 53 inches, net weight 250 pounds, volume 10 cu ft, Packed for domestic or export shipment: total weight 340 pounds, total volume 17.51 cu ft. Shipped in 1 package.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Air Force
DATE OF THIS SHEET: 19 May 52

AN/CRW-7

RADIO RECEIVING SET



Radio Receiving Set AN/CRW-7 is a compact, battery-operated, superheterodyne receiving unit of a remote control radio system. Crystals are available to preset the receiver to any one of 47 channels in the frequency range 65.94 to 92.85 mc. Once a channel is selected various relays may be operated by audio signals on the following frequencies 475, 755, 1,900, and 3,000 cps. When audio signals are received on these channels relays are operated affording a means of controlling other equipment.

This radio control system is normally operated by signals transmitted from Radio Transmitting Equipment RC-186. However, any other transmitting equipment may be used which is capable of audio tone modulation in the same frequency range.

This receiver normally uses the Razon type antenna, however, the Azon antenna may also be used.

AN/CRW-7	INSTRUCTION LITERATURE: TO 16-30CRW7-11, 13 CLASSIFICATION OF EQUIPMENT: Unclassified
	USING SERVICE : Air Force
RADIO RECEIVING SET	DATE OF THIS SHEET : 19 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component).

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Remote control applications by receiving and transforming radio frequency energy into mechanical energy.

INSTALLATION: Airborne or ground.

APPROXIMATE RANGE (IN MILES): (Nominal) Line of sight.

CAN COMMUNICATE WITH: MBF; TBS; TBY.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: Any one of 47 crystal-controlled preset channels in the v-h-f range 65.94 - 92.85.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Tone.

POWER REQUIREMENTS: 60 w (maximum) 19 - 23 v,(3 amp) dc.

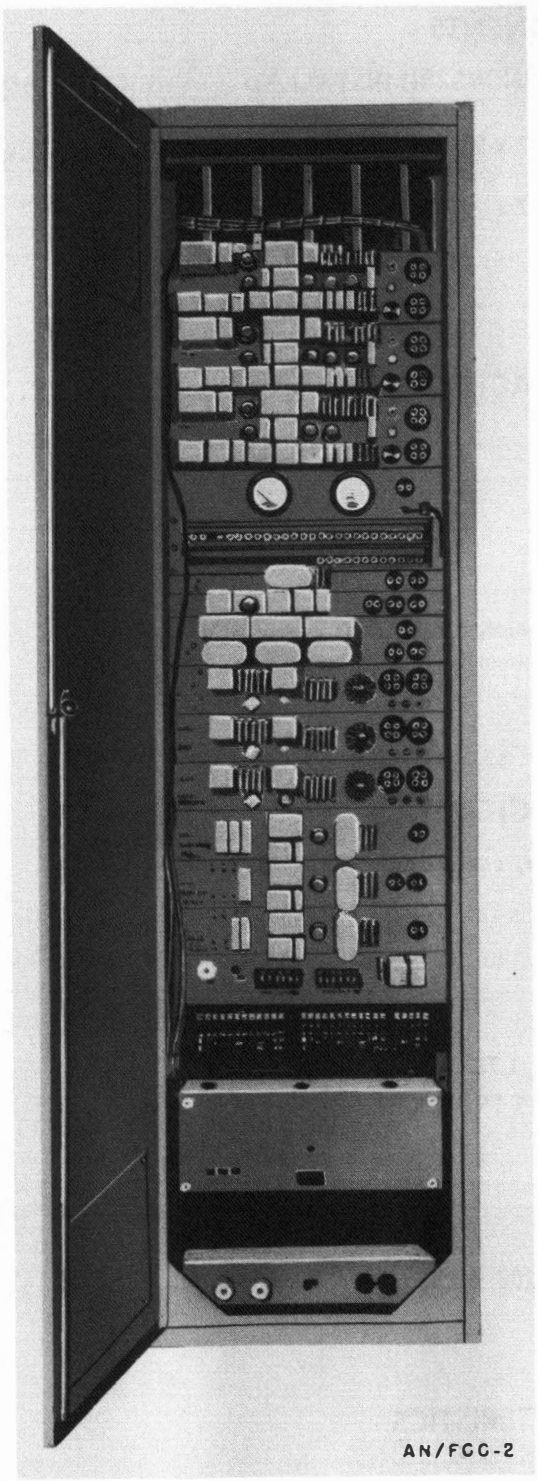
PHYSICAL CHARACTERISTICS

Radio Receiving Set AN/CRW-7 measures 8 x 8-1/2 x 4-1/2 inches, net weight 15 pounds, volume 0.18 cu ft. Packed for either domestic or export shipment: total weight 18 pounds, total volume 0.2 cu ft. Shipped in 1 package.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Army
DATE OF THIS SHEET: 30 Jun 52

AN/FCC-2

CARRIER TERMINAL SET



Carrier Terminal Set AN/FCC-2 is a six-channel, voice-frequency d-c telegraph, and teletypewriter terminal equipment which can be used in long distance communication over landlines or radio channels which serve army and higher headquarters.

This equipment consists essentially of a commercial (Western Electric Co 42B1) carrier telegraph equipment and includes four cabinets of panel-mounted apparatus. Each cabinet accommodates apparatus for three channels; two sending cabinets (one of which is shown here) and two receiving cabinets comprising a complete six-channel terminal. It operates on an equivalent four-wire basis and can be used in conjunction with teletypewriter equipment, a remotely keyed radio transmitter, Boehme detector and recorder units, and IBM receiver apparatus.

It operates on 115/230 v, 50/60 cyc, ac.

AN/FCC-2

CARRIER TERMINAL SET

INSTRUCTION LITERATURE: None
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Army
DATE OF THIS SHEET: 30 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
2	Sending Terminal Cabinets WECO No X-61848A and X-61848B	84 x 17 x 22-1/4 (each)	Not Available
2	Receiving Terminal Cabinets WECO No X-61848C and X-61848D	84 x 17 x 22-1/4 (each)	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Army and higher headquarters.

INSTALLATION Ground, fixed station.

MAXIMUM SYSTEM LENGTH: Extended.

CAN COMMUNICATE WITH: Repeater, terminal, and associated equipment operating in the same facility, or composing the system.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Open wire, cable, radio channels.

FACILITIES AFFORDED: 6-channel, 2-way operation.

FREQUENCY: Channel-spacing: 340 cps apart.
Midchannel-freq: 425, 765, 1,105, 1,445, 1,785, 2,125 cps.
Tone freq 1,785 cps (for Boehme and similar equipment).

TYPE OF MODULATION: Am.

POWER REQUIREMENTS: 180 to 200 w of 103 – 126, or 203 – 253 v, 50/60 cyc, ac.

PHYSICAL CHARACTERISTICS

Carrier Terminal Set AN/FCC-2 measures 84 x 17 x 90 inches.

STATUS: Std

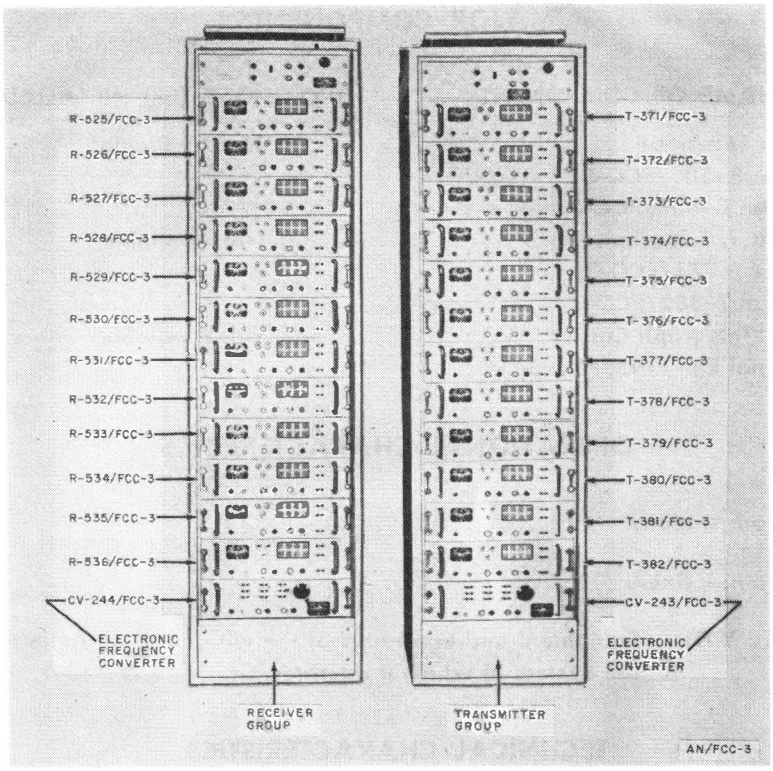
CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE: USN

DATE OF THIS SHEET: 9 June 1952

AN/FCC–3

CARRIER TELEGRAPH TERMINAL



Carrier Telegraph Terminal AN/FCC–3 is a shore-based system providing one-way multichannel telegraph or teletypewriter communications over wire lines or radio link. It combines eight low-speed channels (40 dot cps) and four high-speed channels (100 dot cps) into one v-f carrier signal.

The equipment accepts neutral, polar, or tone input signals and furnishes neutral or polar signal outputs. It consists of two cabinets, one containing the transmitting equipment and the other containing the receiving equipment.

Any two receivers may be operated in frequency diversity to improve the quality of the transmission.

The AN/FCC–3 can be used for remote controlled keying of c-w or voice radio transmitting equipment. Line current for the polar or neutral loops can be supplied either externally or by the equipment.

AN/FCC-3

CARRIER TELEGRAPH TERMINAL

INSTRUCTION LITERATURE: Not available

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE: USN

DATE OF THIS SHEET: 9 June 1952

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
12	Receiver Telegraph Carrier R-525/FCC-3 through R-536/FCC-3	Not Available	Not Available
12	Transmitter, Telegraph Carrier T-371/FCC-3 through T-382/FCC-3	Not Available	Not Available
2	Cabinet, Telegraph Carrier Terminal CY-1195/FCC-3	Not Available	Not Available

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground; fixed.

CAN COMMUNICATE WITH: Equipment and apparatus of the wire, cable, or radio facilities composing the system in which it operates.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Radio link or two-wire line.

FACILITIES AFFORDED: Eight 40 dot cps and four 100 dot cps channels suitable for polar or neutral telegraph or teletypewriter operation.

FREQUENCY: 300 to 3,500 cps.

TYPE OF MODULATION: Frequency shift.

POWER REQUIREMENTS: 115/230 v, 50/60 cyc, 1 phase.

PHYSICAL CHARACTERISTICS

Carrier Telegraph Terminal AN/FCC-3 measures 93 3/16 x 44 3/4 x 24 inches.

STATUS: Std

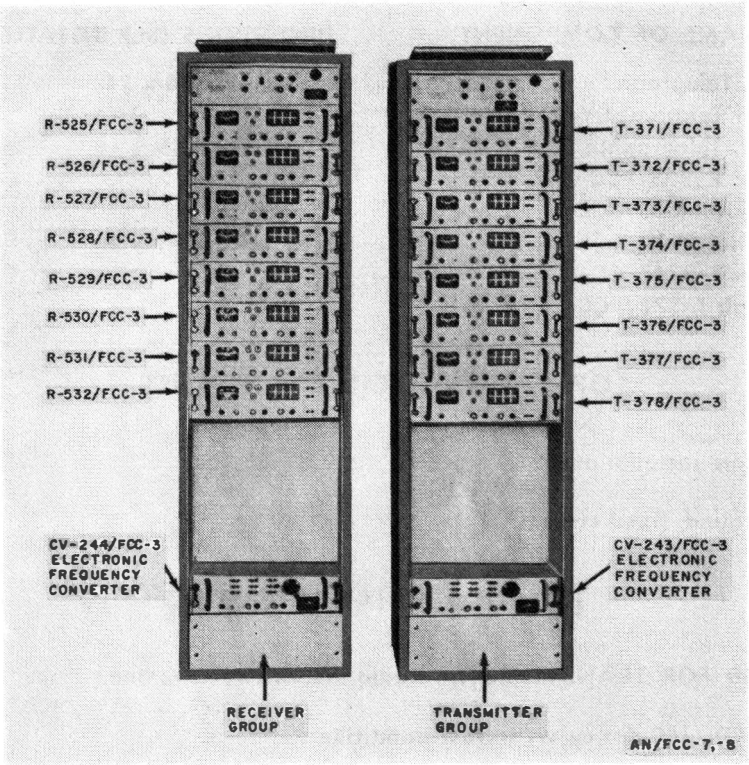
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USN

DATE OF THIS SHEET: 30 April 1956

AN/FCC-7, -8

TERMINAL, TELEGRAPH CARRIER



Telegraph Carrier Terminal AN/FCC-7 or AN/FCC-8 is a transmitting and receiving terminal for eight channels of voice-frequency carrier telegraph that can be operated over radio or wire facilities.

The AN/FCC-7 consists of the first eight channels of Telegraph Carrier Terminal AN/FCC-3 and two electronic frequency converters, housed in two floor-mounted cabinets. The AN/FCC-8 is identical with the AN/FCC-7, less the two electronic frequency converters.

AN/FCC-7, -8

TERMINAL, TELEGRAPH CARRIER

INSTRUCTION LITERATURE: NAVSHIPS 91901

USING SERVICE: USN

DATE OF THIS SHEET: 30 April 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
2	Cabinet, Telegraph Carrier Terminal CY-1195/FCC-3	93 x 24 x 24	
1 ea	Receiver, Telegraph, Carrier R-525/FCC-3 through R-532/FCC-3	5¼ x 19 x 16	
1 ea	Transmitter, Telegraph Carrier T-371/FCC-3 through T-378/FCC-3	5¼ x 19 x 16	

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore installations.

INSTALLATION: Ground, fixed station.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Radio link or two-wire line.

FACILITIES AFFORDED: 40 dot cy w/narrow-band filters.

FREQUENCY: 425 to 1,615 cy.

TYPE MODULATION: Fm (F1).

TYPE RINGING:

POWER REQUIREMENTS: 1,125 w (xmtr gr), 1,645 w (rcvr gr), 115/230 v, 50/60 cy, 1 ph ac.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:		1,820	62	1.6	
DOMESTIC PACK:		2,975	95	2.4	3
EXPORT PACK:					

STATUS: L/Std

CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

AN/FCC–9

TERMINAL, TELEPHONE

NO PHOTOGRAPH AVAILABLE

Telephone Terminal AN/FCC–9 is a four-channel carrier terminal equipment used at shore fixed stations.

This equipment is functionally similar to Telephone Terminal AN/TCC–3 except for absence of ringing facilities; they are not, however, physically interchangeable.

In addition to the four carrier channels, there is one order-wire channel (two-way). Each channel includes a voice-frequency ringing circuit. The circuit operates with 20-, 50- or 60-cycle ringing signal of 25 volts or more from the two-wire switchboard loop and transmits a 1,600-cycle tone over its channel at a level of +2 to —3 dbm. Attenuators are provided on each channel, and test oscillators and meters for operating and trouble locating purposes are included.

AN/FCC–9

TERMINAL, TELEPHONE

INSTRUCTION LITERATURE: NAVSHIPS 92338

USING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Handset H–61/U		
1	Terminal, Telephone TA–292/FCC–9	19 x 14 x 5¼	

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore communication terminal.

INSTALLATION: Shore, fixed station.

MAXIMUM SYSTEM LENGTH:

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Any four-wire line or equiv four-wire facility.

FACILITIES AFFORDED: Four carrier chan, one order-wire chan.

FREQUENCY: 300 to 20,000 cy (xmtg and rcvg).

TYPE OF MODULATION: Am (A3).

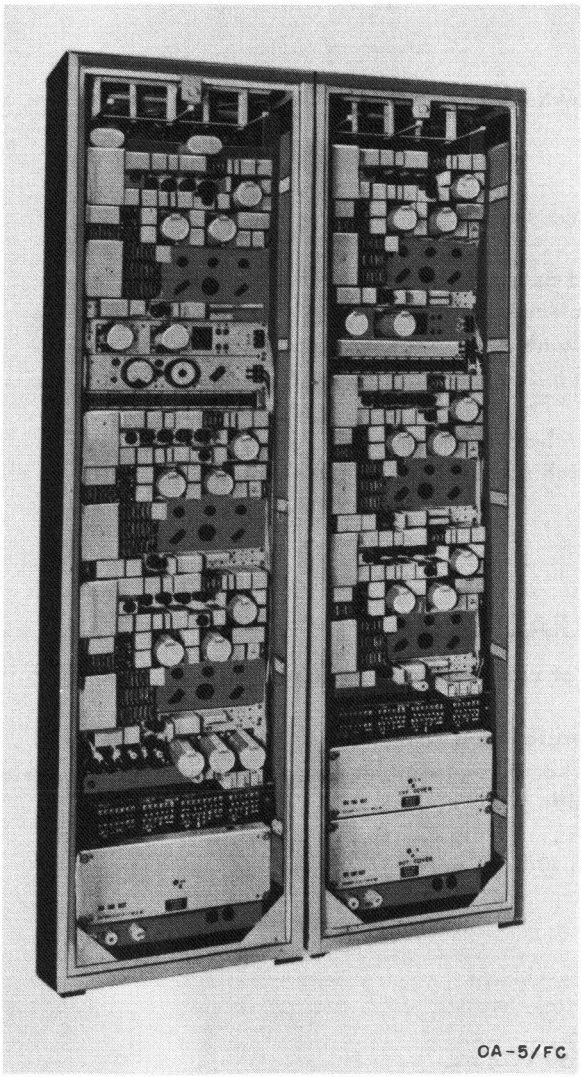
TYPE RINGING: Voice freq.

POWER REQUIREMENTS: 35 w, 115/230 v, 50/60 cy, 1 ph ac.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:					
DOMESTIC PACK:					
EXPORT PACK:					

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army DATE OF THIS SHEET: 13 Feb 52	**AN/FCC-TYPE** AN/COMP TYPE NUMBER: OA-5/FC CARRIER TERMINAL



OA-5/FC

Carrier Terminal OA-5/FC is a six-channel carrier terminal equipment used to provide a maximum of 12 two-way, telegraph circuits on a four-wire basis, over type C or type H carrier facilities serving army and higher headquarters.

This equipment consists of two bays of apparatus contained in individual steel floor type cabinets. Each bay provides three channel terminations.

This terminal equipment is designed to be used in conjunction with Carrier Terminal OA-4/FC to provide 12 carrier channels over a single telephone channel.

It may be used separately, or with Carrier Terminal OA-4/FC, and can be operated in channel two of a three-channel carrier telephone system which is derived through carrier Terminal OA-11/FC, or OA-12/FC; or on the v-f channel, or the carrier channel, of Carrier Terminal OA-13/FC.

This terminal requires v-f ringing and operates from a 700-w source of 115 or 230-v ac.

AN/FCC-TYPE	
OA-5/FC	:AN/COMP TYPE NUMBER
CARRIER TERMINAL	

INSTRUCTION LITERATURE: TM 11-2024, and -2029
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Army
DATE OF THIS SHEET : 13 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Cabinet No. 3, Channels 7, 8, 9	84 x 22-1/4 x 17	600
1	Cabinet No. 4, Channels 10, 11, 12	84 x 22-1/4 x 17	600

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Army or higher headquarters.

INSTALLATION: In fixed plant telephone and telegraph terminals.

MAXIMUM SYSTEM LENGTH: Type H (normally used as single-section systems); 145 miles over 104 copper-steel wire circuits at 6-db net loss. Type C, 1,000 miles or more, circuits of 6-db net loss. Repeater spacings on 104 copper-steel wire of about 155 miles or more.

CAN COMMUNICATE WITH: Repeater, terminal, central-office and related station equipment and subsidiary apparatus which operates in the same connecting facility in fixed plant systems.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Wire of cable having a maximum loss of -30 dbm.

FACILITIES AFFORDED: Six-channel, two-way operation on a 4-wire basis; separate sending and receiving paths using the same frequency for each direction of transmission; with monitoring of local side of all channels.

FREQUENCY: 1,445 to 2,295 cps; 6 channels spaced 170 cps apart.

TYPE OF MODULATION: Am.

TYPE RINGING: Vf.

POWER REQUIREMENTS: 700 w of 115 / 230 v, 50/60 cyc, ac.

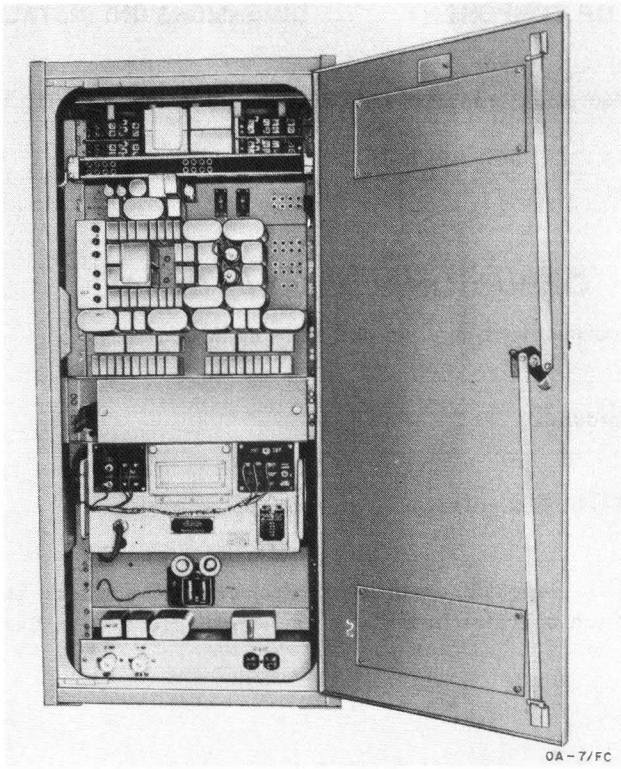
PHYSICAL CHARACTERISTICS

Carrier Terminal OA-5/FC weighs 1,200 pounds net, volume 36.7 cu ft. Packed for export shipment: total weight 1,520 pounds, total volume 66 cu ft, 1.65 ship tons. Shipped in 3 packages.

STATUS: Limited Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Army
DATE OF THIS SHEET: 15 Feb 52

AN/FCC-TYPE

AN/COMP TYPE NUMBER: OA-7/FC
TELEPHONE REPEATER



Telephone Repeater OA-7/FC is a v-f telephone equipment used to extend the operating range of 2- or 4-wire telephone systems operating over open wire or cable and serving army or equivalent headquarters.

This equipment consists of two composite sets, monitoring and power apparatus, a balancing network, and v-f ringing equipment of 500 - 1,000 cyc.

It is contained in a floor-type steel cabinet and provides for v-f telegraph on a 4-wire basis, and a bridging circuit to enable talking with other repeaters, or to the circuit terminals.

It can be used as a terminal or an intermediate repeater and is powered by 115-v ac.

AN/FCC-TYPE	INSTRUCTION LITERATURE: TM 11-2028
OA-7/FC :AN/COMP TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
TELEPHONE REPEATER	USING SERVICE : Army
	DATE OF THIS SHEET : 15 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Army, communication zone and zone of interior.

INSTALLATION: Fixed ground.

MAXIMUM SYSTEM LENGTH: 500 miles.

CAN COMMUNICATE WITH: Repeater, terminal, central office and related station equipment and subsidiary apparatus which operates in the same connecting facility in fixed plant systems.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: 2-wire, or 4-wire lines.

FACILITIES AFFORDED: 2- and 4-wire phantom circuit; 2- and 4-wire physical circuit.

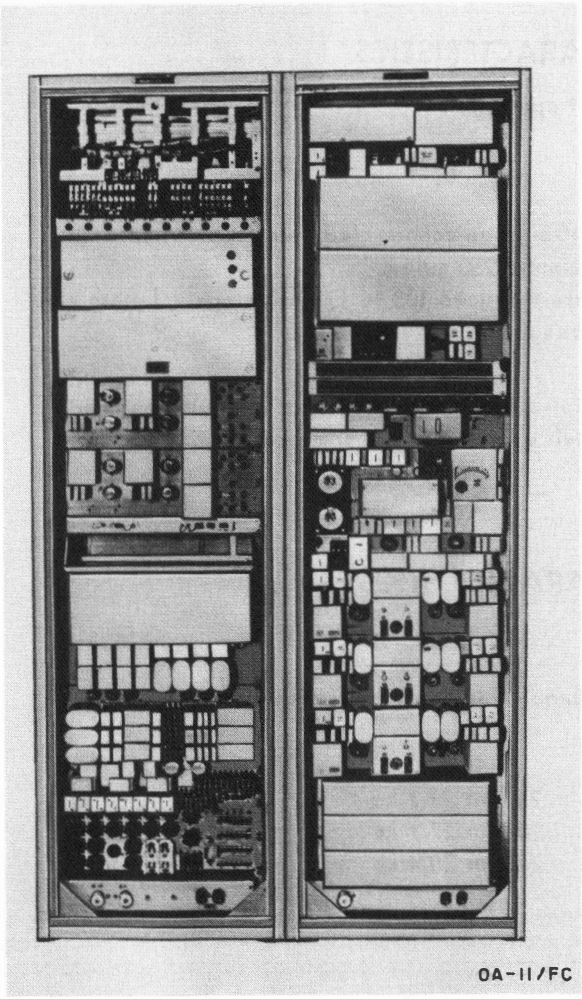
FREQUENCY: 200 to 2,500 cyc.

POWER REQUIREMENTS: 115 v, 50/60 cyc, ac.

PHYSICAL CHARACTERISTICS

Telephone Repeater OA-7/FC measures 49 x 22-1/2 x 17 inches, net weight 300 pounds, volume 10.7 cu ft. Packed for export shipment: total weight 440 pounds, total volume 25 cu ft, 0.6 ship ton.

STATUS: Limited Standard	AN/FCC-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	AN/COMP TYPE NUMBER: OA-11/FC
USING SERVICE: Army	CARRIER TERMINAL
DATE OF THIS SHEET: 29 Feb 52	



OA-11/FC

Carrier Terminal OA-11/FC is a wire communication terminal equipment used in conjunction with Carrier Terminal OA-12/FC to provide a means of superimposing three additional two-way telephone circuits on an existing open wire facility operated in the communications zone of a theater of operations.

This equipment consists of panel-mounted apparatus, inclosed in two steel floor type cabinets, comprising a self contained operating unit, which includes power supply equipment. This terminal is arbitrarily designated EAST the other OA-12/FC WEST.

To increase the operating range of a system using this equipment Carrier Repeater OA-9/FC is used.

Composite sets may be used to furnish two ground-return telegraph circuits and any channel of the system may be used for v-f telegraph communication.

It operates on 105 / 250-v ac.

AN/FCC-TYPE	INSTRUCTION LITERATURE: TM 11-2023
OA-11/FC :AN/COMP TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
CARRIER TERMINAL	USING SERVICE : Army
	DATE OF THIS SHEET : 29 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Line and Power Bay	22-1/4 x 17 x 84	600
1	Terminal Bay	22-1/4 x 17 x 84	600

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Communications zone of a theater of operations.

INSTALLATION: Fixed station.

MAXIMUM SYSTEM LENGTH: Without repeaters: on 104-gauge copper-clad steel-approximate 175 miles; on copper-approximate 250 miles.
With intermediate repeaters spaced 100 to 175 miles apart, length can be extended several thousand miles.

CAN COMMUNICATE WITH: Repeater, terminal, central-office and related station equipment and subsidiary apparatus which operates in the same connecting facility in fixed plant systems.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Wire.

FACILITIES AFFORDED: Two-wire, 3 circuits (6 channels for 2-way transmission).

FREQUENCY:

	Sending	Receiving
Channel 1:	12.9 kc	24.4 or 21.4 kc
2:	9.4 kc	20.7 or 17.7 kc
3:	6.3 kc	28.4 or 25.4 kc

TYPE OF MODULATION: Am.

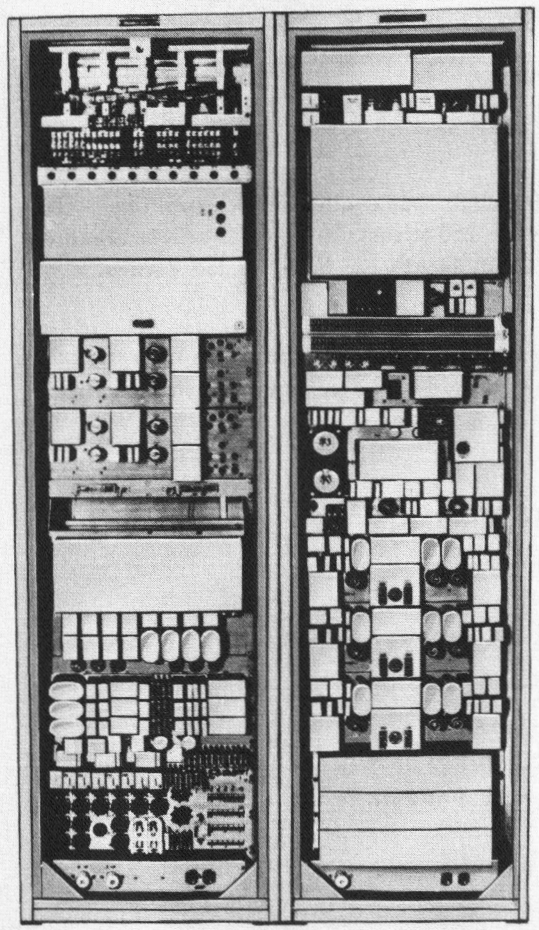
TYPE RINGING: 1,000 cyc.

POWER REQUIREMENTS: Approximate 250 w from a 105 - 125 v, 50/60 cyc source.

PHYSICAL CHARACTERISTICS

Carrier Terminal OA-11/FC weighs 1,200 pounds net, volume 36.8 cu ft. Packed for export shipment: total weight 1,680 pounds, total volume 75 cu ft, 1.9 ship tons. Shipped in 3 packages.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army DATE OF THIS SHEET: 29 Feb 52	**AN/FCC-TYPE** AN/COMP TYPE NUMBER: OA-12/FC CARRIER TERMINAL



OA-12/FC

Carrier Terminal OA-12/FC is a wire communication terminal equipment used in conjunction with Carrier Terminal OA-11/FC to form a means for superimposing three additional two-way telephone circuits to an existing open wire facility in the communications zone of a theater of operations.

This equipment consists of panel-mounted apparatus mounted in a pair of floor mounted steel cabinets, the pair constituting a self contained operating unit including power supply equipment.

This terminal is arbitrarily designated WEST, the other, composed of Carrier Terminal OA-11/FC is designated EAST.

Carrier Repeater OA-9/FC may be used in the system when necessary to increase the operating range, and composite sets may be used to furnish two ground-return telegraph circuits.

Any channel of the system can be used for v-f carrier telegraph communication.

Operates from 105 to 125-v ac.

AN/FCC-TYPE	INSTRUCTION LITERATURE: TM 11-2023
	CLASSIFICATION OF EQUIPMENT: Unclassified
OA-12/FC :AN/COMP TYPE NUMBER	USING SERVICE : Army
CARRIER TERMINAL	DATE OF THIS SHEET: 29 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Line and Power Bay	22-1/4 x 17 x 84	600
1	Terminal Bay	22-1/4 x 17 x 84	600

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Communications zone of a theater of operations.

INSTALLATION: Fixed station.

MAXIMUM SYSTEM LENGTH: Without repeaters: On 104-gauge copper-clad steel-approximate 175 miles; on copper-approximate 250 miles. With intermediate repeaters spaced 100 to 175 miles apart, length can be extended several thousand miles.

CAN COMMUNICATE WITH: Repeater, terminal, central-office and related station equipment and subsidiary apparatus which operates in the same connecting facility in fixed plant systems.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Wire.

FACILITIES AFFORDED: Two-wire, 3 circuits (6 channels for 2-way transmission).

FREQUENCY:	Sending	Receiving
Channel 1:	12.9 kc	24.4 or 21.4 kc
Channel 2:	9.4 kc	20.7 or 17.7 kc
Channel 3:	6.3 kc	28.4 or 25.4 kc.

TYPE OF MODULATION: Am.

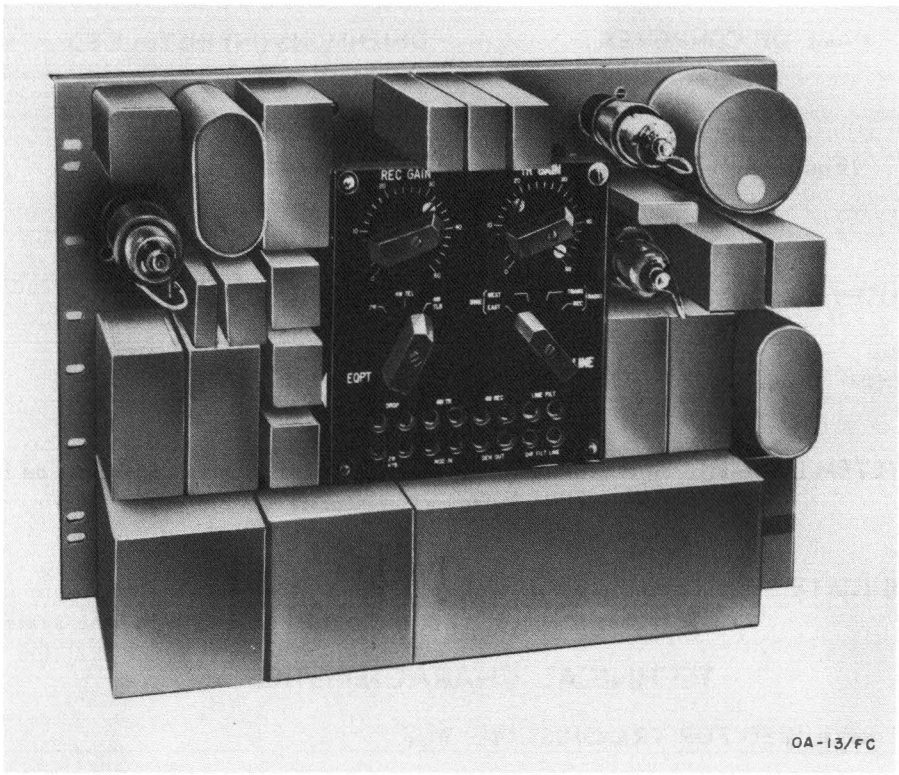
TYPE RINGING: 1,000 cyc.

POWER REQUIREMENTS: Approximate 250 w from a 105 - 125 v, 50/60 cyc source.

PHYSICAL CHARACTERISTICS

Carrier Terminal OA-12/FC weighs 1,200 pounds net, volume 36.8 cu ft. Packed for export shipment: total weight 1,680 pounds, total volume 75 cu ft, 1.9 ship tons. Shipped in 3 packages.

STATUS: Limited Standard	AN/FCC-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	AN/COMP TYPE NUMBER: OA-13/FC
USING SERVICE: Army	CARRIER TERMINAL
DATE OF THIS SHEET: 29 Feb 52	



Carrier Terminal OA-13/FC is type H carrier terminal equipment designed to be used with Carrier Repeater OA-10/FC and Carrier Filter F-36/FC to provide a means of superposing one additional telephone channel on an existing open-wire, v-f circuit, or two additional telephone channels on a circuit involving radio facilities. It is used in the communications zone of a theater of operations as fixed station equipment.

This equipment consists essentially of panel-mounted apparatus which can be installed on a standard relay rack. It converts v-f signals to carrier frequencies for transmission, and carrier frequencies to voice frequencies for reception, with amplification in both directions.

The carrier channel can be used for a v-f telegraph system, within certain limitations. V-f ringing equipment is not included.

Operates on 105-125 v ac.

AN/FCC- TYPE	INSTRUCTION LITERATURE: TM 11-2025
	CLASSIFICATION OF EQUIPMENT: Unclassified
OA-13/FC :AN/COMP TYPE NUMBER	USING SERVICE : Army
CARRIER TERMINAL	DATE OF THIS SHEET : 29 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Communications zone of a theater of operations.

INSTALLATION: Ground.

MAXIMUM SYSTEM LENGTH: Approximately 100 to 1,000 miles or more, depending on line facility, permissible loss, and number of repeaters.

CAN COMMUNICATE WITH: Fixed plant or tactical repeater, terminal, central office or carrier equipment operating in the facility or composing the system.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Wire.

FACILITIES AFFORDED: Provides for superposing one additional telephone channel on an existing open-wire v-f circuit.

	East		West	
FREQUENCY:	Sending	Receiving	Sending	Receiving
	7.4 - 10.15 kc	4.15 - 6.9 kc	4.15 - 6.9 kc	7.4 - 10.15 kc

TYPE OF MODULATION: Am.

TYPE RINGING: 1,000 cps.

POWER REQUIREMENTS: 20 w, 105-125 v, 50/60 cyc, ac.

PHYSICAL CHARACTERISTICS

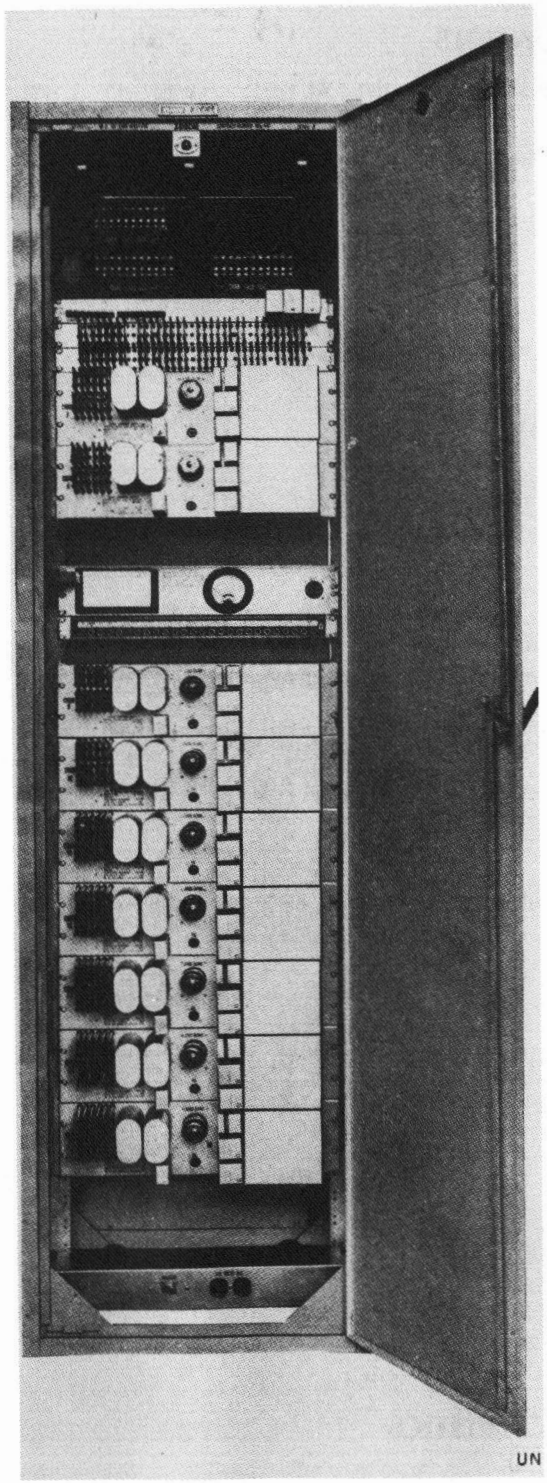
Carrier Terminal OA-13/FC weighs 50 pounds net, volume 1.25 cu ft. Packed for export shipment: total weight 125 pounds, total volume 6 cu ft. Shipped in 1 package both domestic and export.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 29 May 52

AN/FCC-TYPE

SERVICE TYPE NUMBER: UN

CARRIER CONTROL SYSTEM



Carrier Control System UN is a multi-channel carrier communications equipment capable of furnishing a variety of narrow and wide band a-f telegraph channels as well as voice channels, simultaneously, over one radio carrier circuit or a two- or four-wire line.

This system consists of a number of panel units, which may be ordered as required, to provide different combinations of telegraph and telephone terminal facilities.

When the v-f telegraph equipment and the telephone carrier equipment are used together, operation is possible on three voice-telephone channels.

One or more of these may be used for three wide band or 12 narrow band v-f telegraph carriers.

The narrow band channels are capable of keying speeds up to 100 wpm; the wide band channels can be keyed at speeds up to 300 wpm.

AN/FCC-TYPE	INSTRUCTION LITERATURE: NavShips 95591; 900,201; 900,840
UN :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
CARRIER CONTROL SYSTEM	USING SERVICE: Navy
	DATE OF THIS SHEET: 29 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Four Wire Terminating and Signaling Bay CW-50250	84 x 26-1/4 x 17	Not Available
1	Power Supply Cabinet includes Rectifier Power Unit CW-20140 through -20142	84 x 26-1/4 x 17	" "

(Other components will vary with the number of narrow and wide telegraph and voice channels required.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground, fixed.

CAN COMMUNICATE WITH: Terminal, repeater, and modifying equipment operating in the connecting facility or composing the primary communicating system.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Radio or wire line capable of 200 to 10,300 cps operation.

FACILITIES AFFORDED: Without telephone terminal equipment: 12 narrow or 3 wide band telegraph channels, or single voice channel. With telephone terminal, 3 voice channels.

FREQUENCY: 300 to 10,150 cps.

TYPE OF MODULATION: Am.

TYPE RINGING: 1,000/20 cps.

POWER REQUIREMENTS: 105-125 v. Wattage dependent on components used. The carrier equipment will operate from a 50/60 cyc power source, except that ringing will be satisfactory only with a 60 cyc power source.

PHYSICAL CHARACTERISTICS

Information on Carrier Control System UN not available.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Restricted USING SERVICE: Navy DATE OF THIS SHEET: 2 Jun 52	**AN/FCC-TYPE** SERVICE TYPE NUMBER: UP TWO-TONE CARRIER CONTROL SYSTEM

Two-Tone Carrier Control System UP provides for six two-way telegraph circuits over one radio-telephone circuit. Four one-way regenerative repeaters are provided to improve the quality of transmission by restoring distorted teletypewriter signals to almost perfect form and timing. This equipment is designed primarily for use with single side band radio transmission.

In order to obtain better transmission in teletypewriter operation where there is selective fading of the radio signals, two tones are usually transmitted for each mark and two for each space, thus forming a frequency-diversity circuit.

A telegraph adapter unit is furnished which provides proper coupling and equalization of the wire line connecting the radio receiver to the telegraph terminal equipment.

Visual and aural indications of signal deterioration are provided by a monitoring bay.

AN/FCC-TYPE

UP :SERVICE TYPE NUMBER

TWO-TONE CARRIER CONTROL SYSTEM

INSTRUCTION LITERATURE: WE Co. IB No. X-75058
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE : Navy
DATE OF THIS SHEET : 2 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1 ea	Power Supply Bay CW-20ADS, -20ADT	84 x 26-1/4 x 17	700
1 ea	Carrier Supply Bay CW-35ABW, -35ABX	84 x 22-1/4 x 17	490
1 ea	Channel Terminal Bay CW-50AFW, -50AFX, -50AFY	84 x 22-1/4 x 17	460
1	Common Bay CW-50AFV	84 x 22-1/4 x 17	515
1	Adapter Unit, Telegraph CW-49AAA	84 x 22-1/4 x 17	Not Available

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground, fixed.

MAXIMUM SYSTEM LENGTH: Between carrier equipment and radio receiver or transmitter:
128-mil copper open wire, 200 miles.
19 gauge loaded cable, 20 miles.
19 gauge nonloaded cable, 12 miles.

CAN COMMUNICATE WITH: Terminal, repeater, and related apparatus operating in the connecting facility or composing the system.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Radio communications circuit and wire line or radio link circuits between radio equipment and terminal equipment. All circuits must be capable of operation up to 4,900 cps.

FACILITIES AFFORDED: Six two-way telegraph or teletypewriter circuits and four one-way regenerative repeaters.

FREQUENCY: 425 to 2,465 cps and 425 to 4,930 cps when frequency diversity is used.

TYPE OF MODULATION: Am, two-tone and two-tone frequency diversity.

POWER REQUIREMENTS: 3 kw, 105 - 125 v, 50/60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

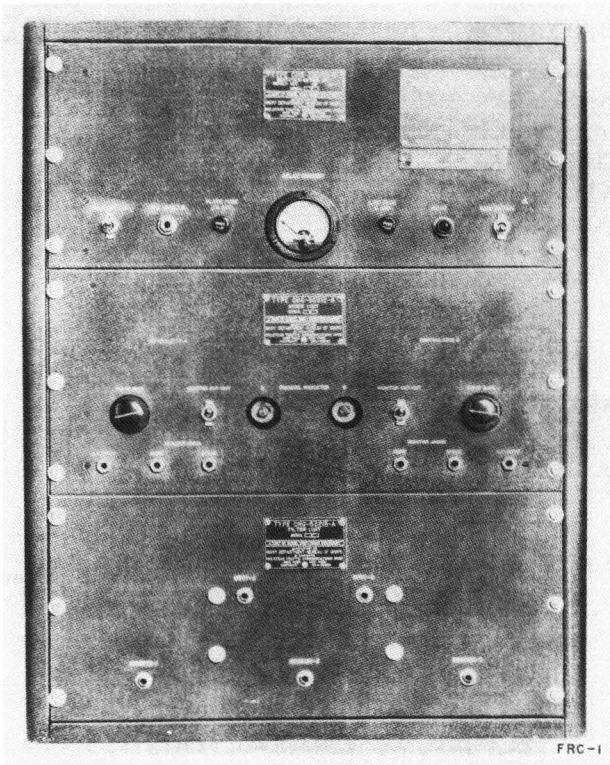
Two-Tone Carrier Control System UP measures 84 x 301-1/4 x 17 inches.

STATUS: Limited Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 14 May 52

AN/FGA-TYPE

SERVICE TYPE NUMBER: FRC-1

FREQUENCY SHIFT RECEIVER EQUIPMENT



Frequency Shift Receiver Equipment FRC-1 is used to demodulate frequency-shift-keyed radioteletype signals by converting a-f signals to polar-keyed teletypewriter impulses. It functions at audio frequencies and therefore may be used with any stable communication receiver equipped with a beat-frequency oscillator.

Three radio receivers can be connected to this equipment, but the stronger of only two receiver outputs is automatically selected, and fed to the associated teletypewriter equipment.

It is designed to be used in conjunction with such equipment as Diversity Radio Receiving Equipment RBP and Teletype Corp Model 15 Page Printers, or equivalent teletypewriter equipment.

If a reperforator is used, a Teletype Corp Model 132B1 Synchronizer Set or equal is usually required.

AN/FGA-TYPE

FRC-1 :SERVICE TYPE NUMBER

FREQUENCY SHIFT RECEIVER EQUIPMENT

INSTRUCTION LITERATURE: NavShips 900,718
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Navy
DATE OF THIS SHEET : 14 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Mixer Unit CHG-50212A)		
1	Rectifier-Keying Unit CHG-20345A)	28 x 21-1/2 x 15	150
1	Filter Panel CHG-53215A)		
1	Cabinet CAZJ-10420)		

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground.

CAN COMMUNICATE WITH: This is signal-modifying equipment used in conjunction with primary communication apparatus.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 1.6 – 3.6 (input from receivers).

TYPE MODULATION: Am.

TYPE OF SIGNAL: Receives voice.
Delivers icw.

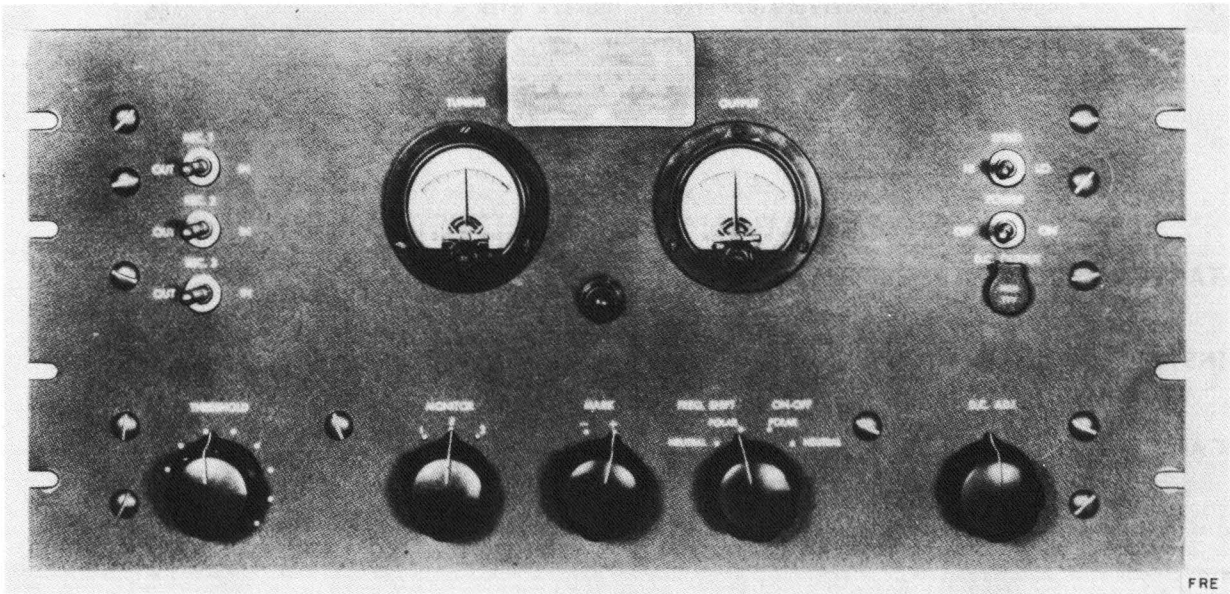
POWER OUTPUT: 15 ma.

POWER REQUIREMENTS: 110 v, 60 cyc, 1 phase ac.

PHYSICAL CHARACTERISTICS

Frequency Shift Receiver Equipment FRC-1 measures 28 x 21-1/2 x 15 inches, net weight 150 pounds.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 8 Apr 52	**AN/FGA-TYPE** SERVICE TYPE NUMBER: FRE FREQUENCY SHIFT RECEIVER CONVERTER EQUIPMENT



Frequency Shift Receiver Converter Equipment FRE is designed to adapt Navy Model Diversity Radio Receiving Equipment RDM for reception of frequency-shift-keyed signals. It is used with associated equipment to provide ship-to-shore and point-to-point radiotelegraph or radioteletype reception.

This equipment combines the output of one, two, or all three radio receiver components of the RDM equipment into a single signal for neutral or polar operation of telegraph or teletypewriter equipment. It accepts any frequency-shift-keyed signal having a mark-to-space frequency shift of 200 to 850 cps.

The first i-f stage of each of the three channels is coupled to the i-f circuit of its associated radio receiver.

It may be operated from 100 to 165 or 190 to 260-v a-c power sources.

AN/FGA-TYPE	INSTRUCTION LITERATURE: NavShips 95100
FRE :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
FREQUENCY SHIFT RECEIVER CONVERTER EQUIPMENT	USING SERVICE : Navy
	DATE OF THIS SHEET : 8 Apr 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Frequency Shift Receiver Converter CRV-35104	8-1/4 x 19 x 16	55

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Used in shore receiver stations.

INSTALLATION: Ground, fixed. Mounts in cabinet rack of associated receiving equipment.

CAN COMMUNICATE WITH: This is signal-modifying equipment used in conjunction with primary communication apparatus.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 0.455

TYPE MODULATION: Fm.

TYPE OF SIGNAL: Frequency-shift keying.

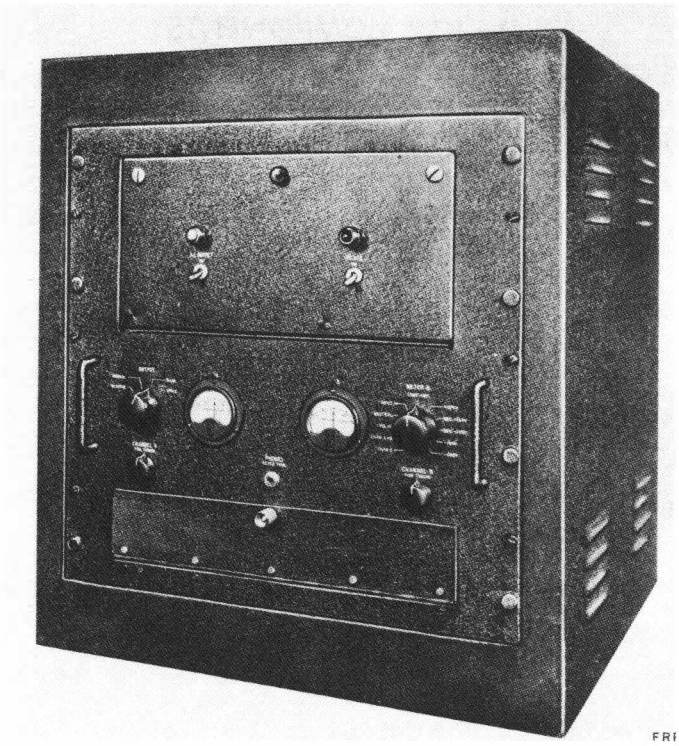
POWER OUTPUT: 60 ma dc for neutral of 25 ma dc for polar telegraph or teletypewriter operation into load impedance of 130 to 1,800 ohms.

POWER REQUIREMENTS: 175 w, 110 – 165 / 190 – 260 v, 50/60 cyc, 1 phase ac.

PHYSICAL CHARACTERISTICS

Frequency Shift Receiver Converter Equipment FRE measures 8-1/4 x 19 x 16 inches, net weight 55 pounds, volume 1.45 cu ft.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 May 52	**AN/FGA-TYPE** SERVICE TYPE NUMBER: FRF FREQUENCY SHIFT RECEIVER CONVERTER EQUIPMENT



Frequency Shift Receiver Converter Equipment FRF is a dual channel i-f type equipment for translating frequency-shift radio telegraph characters into d-c signals. The signals so produced are used in the direct operation of a teletypewriter on neutral or polar signals; or indirect operation of a teletypewriter by keyed tone. Eight preset tone oscillator frequencies, 170 cps apart (in the range from 595 to 1785 cps) are provided. An external tone frequency can be connected and keyed by incoming telegraph signals.

The converter is located at the receiving station of a long distance radio system.

For demodulating frequency shift telegraph signals for teletypewriter operation.

The equipment is used with Diversity Radio Receiving Equipment RDM, and Radio Receiving Equipment RBB or RBC series, or any other receivers having i-f frequencies between 400 and 470 kc.

Features include a drift compensator, automatic mark signal in the output when the carrier shuts off, and a Narrow-Wide bandwidth switch for rejecting noise frequencies and interference from nearby transmitting stations.

The converter may be mounted in the cabinet of an associated receiver, or in a separate cabinet for table mounting.

AN/FGA-TYPE

FRF :SERVICE TYPE NUMBER

FREQUENCY SHIFT RECEIVER CONVERTER EQUIPMENT

INSTRUCTION LITERATURE: NavShips 900,208
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Navy
DATE OF THIS SHEET : 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Frequency Shift Converter CW-35118	19-7/32 x 21-1/16 x 19	Not Available
1	Tone Oscillator Unit CW-35117	8-9/16 x 12-5/16 x 15-1/2	" "
1	Rectifier Power Unit CW-20457	9-3/32 x 15-9/16 x 9-5/16	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground.

CAN COMMUNICATE WITH: This is signal-modifying equipment used in conjunction with primary communication apparatus.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 0.40 - 0.47.

TYPE MODULATION: Fm.

TYPE OF SIGNAL: Frequency shift.

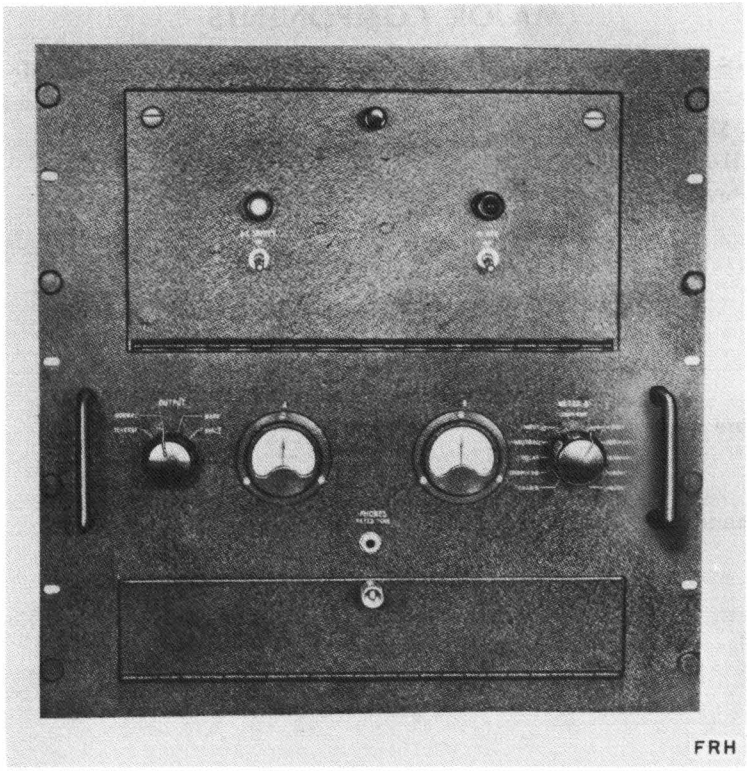
POWER OUTPUT: 25 ma d-c polar output; 60 ma neutral d-c output; and 12 mw, +11 dbm tone output.

POWER REQUIREMENTS: 175 w, 105-125 v, 50/60 cyc, 1 phase.

PHYSICAL CHARACTERISTICS

Frequency Shift Receiver Converter Equipment FRF measures 24-1/2 x 21-1/2 x 17-3/4 inches, net weight 245 pounds. Packed for domestic shipment: total weight 450 pounds, total volume 12.5 cu ft.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 May 52	**AN/FGA-TYPE** SERVICE TYPE NUMBER: FRH FREQUENCY SHIFT RECEIVER CONVERTER EQUIPMENT



FRH

Frequency Shift Receiver Converter Equipment FRH is a dual-channel, i-f type equipment for translating frequency-shift radio telegraph characters into d-c signals. The signals so produced are used in the direct operation of a teletypewriter on neutral, or polar signals; or the indirect operation of a teletypewriter by keyed tone. Eight preset, tone-oscillator frequencies (in the range from 595 to 1,785 cps) are provided. An external tone frequency can be connected in the tone oscillator unit and keyed by incoming telegraph signals.

This equipment is used with Diversity Receiving Equipments RBP or RCP. A modification kit is supplied to provide connection of the 50 kc output from the i-f stages of the diversity receivers.

Additional components are included for installing an automatic gain control circuit.

Features include a drift compensator, automatic mark-signal in the output in the absence of a carrier, and a NARROW-WIDE bandwidth switch for rejecting noise frequencies, and interference from nearby transmitting stations.

The equipment may be mounted in a standard relay cabinet.

AN/FGA-TYPE

FRH :SERVICE TYPE NUMBER

FREQUENCY SHIFT RECEIVER CONVERTER EQUIPMENT

INSTRUCTION LITERATURE: NavShips 900,358
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Frequency Shift Converter CW-35119	19-7/32 x 21-1/16 x 19	125.0
1	Tone Oscillator Unit CW-35117	8-9/16 x 12-5/16 x 15-1/2	Not Available
1	Rectifier Power Unit CW-20457	9-3/32 x 15-9/16 x 9-5/16	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground.

CAN COMMUNICATE WITH: This is signal-modifying equipment used in conjunction with primary communication apparatus.

TECHNICAL CHARACTERISTICS

FREQUENCY: 50 kc.

TYPE MODULATION: Fm.

TYPE OF SIGNAL: Frequency shift.

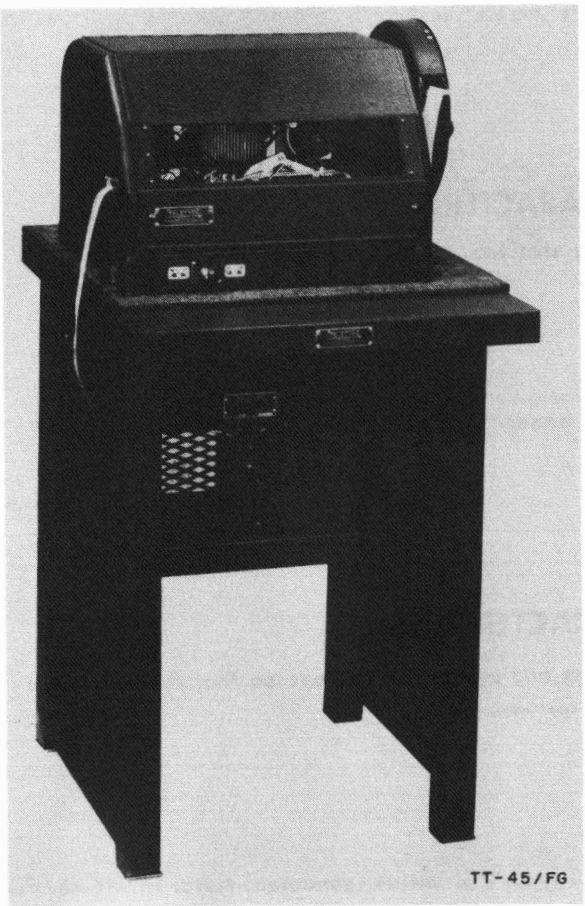
POWER OUTPUT: 25 ma d-c polar output; 60 ma, neutral d-c output; and 12 ma tone output.

POWER REQUIREMENTS: 175 w, 105-125 v, 50/60 cyc, 1 phase.

PHYSICAL CHARACTERISTICS

Information on Frequency Shift Receiver Converter Equipment FRH is not available.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 8 May 52	**AN/FGA-TYPE** AN/COMP TYPE NUMBER: TT-45/FG, TT-46/FG REPERFORATOR



TT-45/FG

Reperforators TT-45/FG and TT-46/FG are automatic, receiving only teletypewriter units which produce perforated tape, with typing, of messages received. It is used in tape-relay, and similar teletypewriter communication applications.

These equipments consist essentially of commercial (Teletype Corp. Model 14), receiving only, typing reperforators.

They include a table to support the reperforator unit.

TT-45/FG is identical with the TT-46/FG, except that the latter has a governed-series motor.

AN/FGA-TYPE

TT-45/FG, TT-46/FG :AN/COMP TYPE NUMBER

REPERFORATOR

INSTRUCTION LITERATURE: NavShips 91241
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Navy
DATE OF THIS SHEET : 8 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Typing Reperforator FPRC23H246	11-1/2 x 15-3/4 x 13	Not Available
1	Rectifier REC29	Not Available	" "
1	Relay RY30	" "	" "
1	Base FB46/15	" "	" "
1	Table XRT200AA	26-1/8 x 18 x 21-5/16	" "
1	Electrical Assembly 105014	Not Available	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Teletype receiving and distributing stations.

INSTALLATION: Ground, fixed or transportable.

CAN COMMUNICATE WITH: Five unit code teletype transmitting equipment, geared for 368 opm.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Prints incoming messages and perforates the tape so that the messages can be relayed to other stations.

OPERATING SPEED: 368 opm.

MOTOR CHARACTERISTICS: Synchronous motor in TT-45/FG, series (governed) motor in TT-46/FG.

POWER REQUIREMENTS: 115 v, 60 cyc, 1 phase, ac.

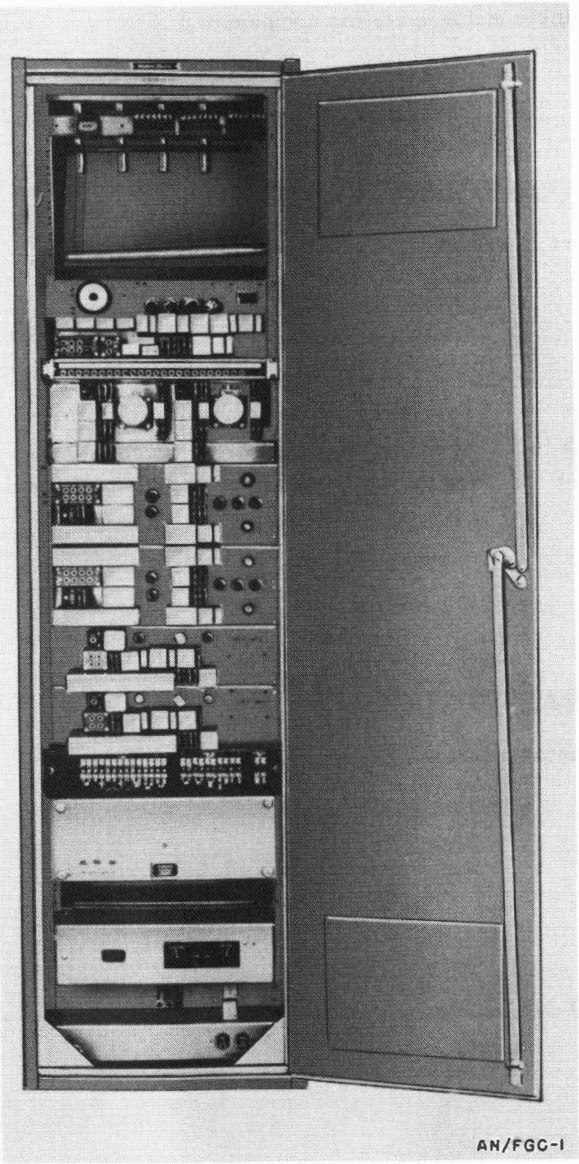
PHYSICAL CHARACTERISTICS

Information on Reperforators TT-45/FG and TT-46/FG not available.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Army, Navy
DATE OF THIS SHEET: 11 Jan 52

AN/FGC-1

RADIOTELETYPE TERMINAL EQUIPMENT



AN/FGC-1

Radioteletype Terminal Equipment AN/FGC-1 is an assemblage of control apparatus designed to be used in conjunction with radio receiving, carrier, switching, teletypewriter, and related equipment to provide space-diversity reception of frequency-shift radioteletype signals on a two-channel basis, at corps and higher headquarters.

This equipment consists essentially of control and transmission apparatus contained in a floor-type steel cabinet. It does not include radio transmitting or receiving components but provides facilities for disabling of receivers during operation of transmitters on the same frequency.

It also permits receiving and transmitting components of a terminal facility to operate independently when operating on different frequencies, thus providing effective two-channel or full-duplex operation.

This equipment can be operated in conjunction with Diversity Receiving Equipment AN/FRR-3, or suitable commercial types of receivers.

Operates on 115/230-v ac.

AN/FGC-1

RADIOTELETYPE TERMINAL EQUIPMENT

INSTRUCTION LITERATURE: TM 11-356
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Army, Navy
DATE OF THIS SHEET: 11 Jan 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Corps, army, and higher headquarters in communications zone of a theater of operations.

INSTALLATION: Ground, fixed station.

CAN COMMUNICATE WITH: Used in conjunction with radio receiving, carrier, switching, teletypewriter and related station and terminal equipment to provide two-channel radioteletype service.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 2 – 26 (characteristic of associated radio equipment).

TYPE MODULATION: Am, frequency shift keying.

TYPE OF SIGNAL: F-s teletypewriter.

POWER REQUIREMENTS: 140 w, 115/230 v, 50/60 cyc, ac.

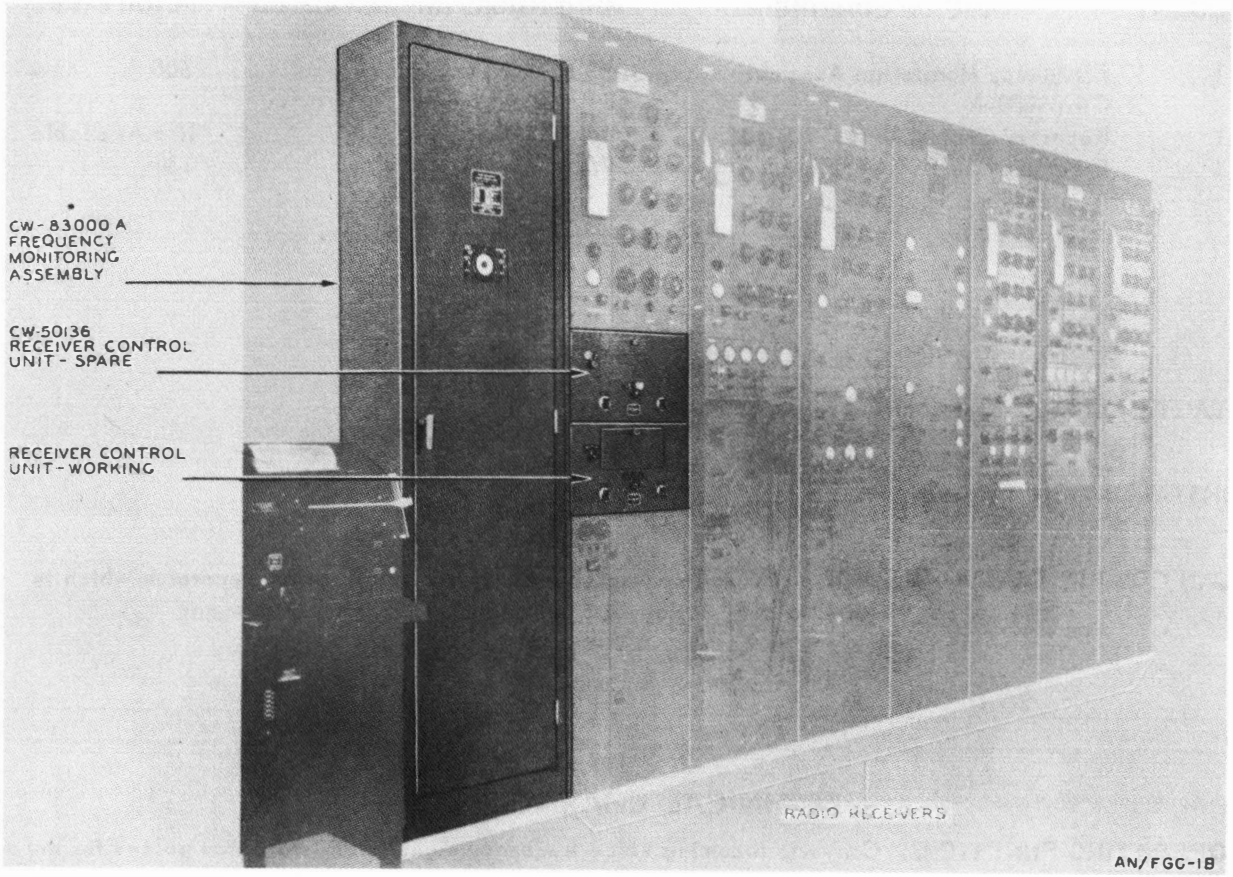
PHYSICAL CHARACTERISTICS

Radioteletype Terminal Equipment AN/FGC-1 weighs 425 pounds net, volume 14 cu ft. Packed for domestic shipment: total weight 425 pounds, total volume 14 cu ft. Packed for export shipment: total weight 680 pounds, total volume 35 cu ft, 0.75 ship ton. Shipped in 1 package both domestic and export.

STATUS: Limited Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 8 May 52

AN/FGC-1B

RADIOTELETYPE TERMINAL EQUIPMENT



Radioteletype Terminal Equipment AN/FGC-1B provides facilities for long distance transmission and diversity reception of radioteletype signals.

This equipment is used in conjunction with Diversity Radio Receiving Equipment RBP (series) or a similar unit and with Radio Transmitting Equipment TBA (series) or TBC (series).

AN/FGC-1B

RADIOTELETYPE TERMINAL EQUIPMENT

INSTRUCTION LITERATURE: Not Available
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Navy
DATE OF THIS SHEET: 8 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Frequency Monitoring Assembly CW-83000-A	83 x 22 x 17	600
1	Receiver Control Unit CW-50136	10-15/32 x 10-1/8 x 19	Not Available
1	Frequency Shift Keyer Equipment FSA	16 x 19 x 18	130

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore, advanced bases communications stations.

INSTALLATION: Ground.

CAN COMMUNICATE WITH: This equipment consists of signal frequency control apparatus which is used in conjunction with primary communication equipment.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Converts incoming voice-frequency signals into start-stop pulses for the operation of teletypewriter equipment and converts outgoing teletypewriter pulses to voice-frequency signals for radio transmission.

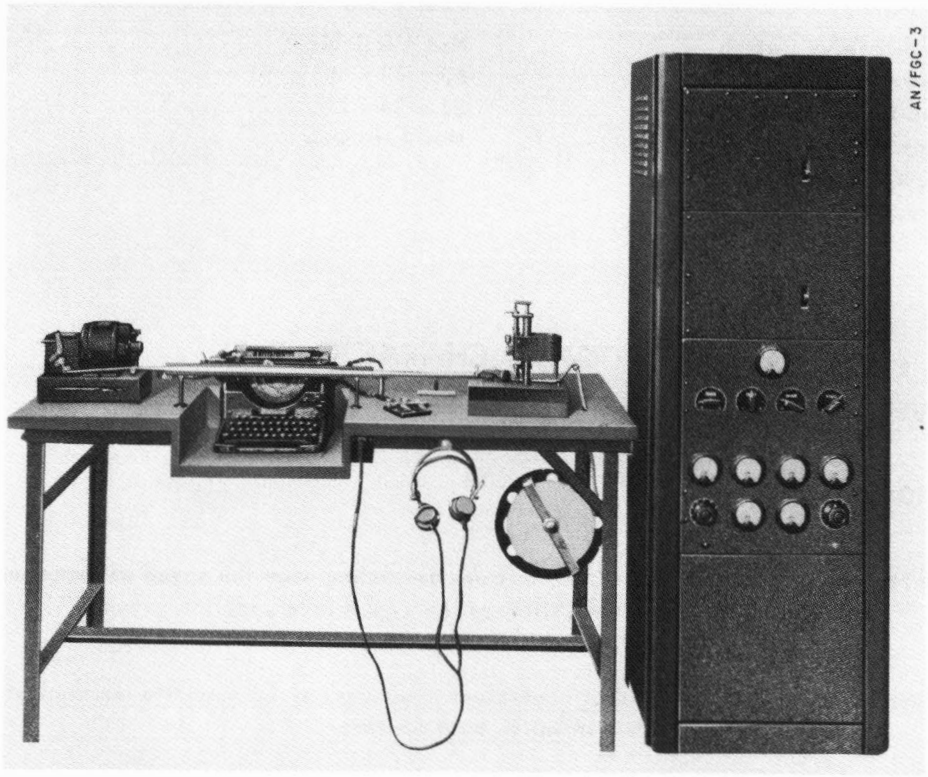
OPERATING SPEED: Teletypewriter station equipment normally associated with this radioteletype terminal is usually designed to operate at 60 wpm but may be modified for 75- or 100-wpm operation.

POWER REQUIREMENTS: 115 v($\pm$10%)50/60, 1 phase,ac.

PHYSICAL CHARACTERISTICS

Information on Radioteletype Terminal Equipment AN/FGC-1B not available.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army, Navy DATE OF THIS SHEET: 28 Dec 51	**AN/FGC-3** OCEAN CABLE TERMINAL SET



Ocean Cable Terminal Set AN/FGC-3 is a complete, fixed, shore ground terminal for transmitting and receiving signals over a submarine cable serving army and higher headquarters.

This equipment consists of a signal-shaping amplifier, operating table, direct writer (inked-tape), and associated keying and recording equipment.

It is used for manually keyed code signals and, with auxiliary equipment, for teletypewriter communication.

AN/FGC-3

OCEAN CABLE TERMINAL SET

INSTRUCTION LITERATURE: TM 11-2213
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Army, Navy
DATE OF THIS SHEET: 28 Dec 51

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Send-receive switch	Not Available	Not Available
1	Operating Table 175-A	60 x 32 x 30	" "
1	Amplifier Unit 560-A	27 x 24 x 72	" "
1	Tape Reel 2-B	Not Available	" "
1	Tape Puller 4-A	" "	" "
1	Direct Writer 4-A	" "	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Army level and higher headquarters.

INSTALLATION: Fixed station.

APPROXIMATE RANGE (IN MILES): 2,000 or more depending upon the speed of signaling and the legibility of the signal received.

CAN COMMUNICATE WITH: Identical or equivalent equipment at the opposite terminal of the facility or system in which both operate.

TECHNICAL CHARACTERISTICS

TYPE OF SIGNAL: Morse code, teletypewriter, direct writer, or similar.

TYPE COMMUNICATION CIRCUITS: D-c telegraph in simplex operation.

CONTROLS: Transmitting: manual key, automatic key, and teletypewriter.
Receiving: direct writer, teletypewriter, headphones, inked-tape.

POWER REQUIREMENTS: 325 w, 115 v, 50/60 cyc ac.

PHYSICAL CHARACTERISTICS

Information on Ocean Cable Terminal Set AN/FGC-3 not available.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Army
DATE OF THIS SHEET: 18 Feb 52

AN/FGC-4

TELETYPEWRITER SET

Teletypewriter Set AN/FGC-4 is a type-bar, tape sending and receiving teletypewriter station equipment. It produces typed tape which is not perforated and which is used for communication and monitoring purposes in facilities serving army and higher headquarters.

This equipment consists of a commercial teletypewriter (Teletype Corp Model 14) having a standard communication keyboard and type pallets. It produces typewritten tape rather than typewritten page copy of messages transmitted or received. It can be operated in circuits serving conventional page-printing teletypewriter equipment and has provision for installation of a line relay unit. It can be operated on a half-duplex or full-duplex basis. This equipment includes a keyboard-transmitter unit and a typing unit which are installed upon a model 14 operating table.

AN/FGC-4

TELETYPEWRITER SET

INSTRUCTION LITERATURE: None
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Army
DATE OF THIS SHEET: 18 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Typing Unit Teletype FT23D275	Not Available	Not Available
1	Base Teletype FK61MG1	" "	" "
1	Cover Teletype C55	" "	" "
1	Copy Holder Teletype 74833	" "	" "
1	Table Teletype XRT82	" "	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Army, communications zone, zone of interior.

INSTALLATION: Fixed plant.

CAN COMMUNICATE WITH: Terminal, repeater, or station apparatus over wire, cable, carrier, or radioteletype standard communication facilities composing the system in which it operates.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: LTRS shift, FIGS shift, BELL on FIG'S "S", BLANK BELL-AND-BREAK mechanism, END-OF-LINE mechanism, STOP on FIG "H" tape-out BELL, and LINE TEST KEY.

OPERATING SPEED: 368.1 opm 60 wpm.

MOTOR CHARACTERISTICS: Series-governed, 110 v, 60 cyc ac, with resistor assembly for operation on 110-v d-c circuit.

POWER REQUIREMENTS: Approximately 110 w on 110 v, 60 cyc ac.

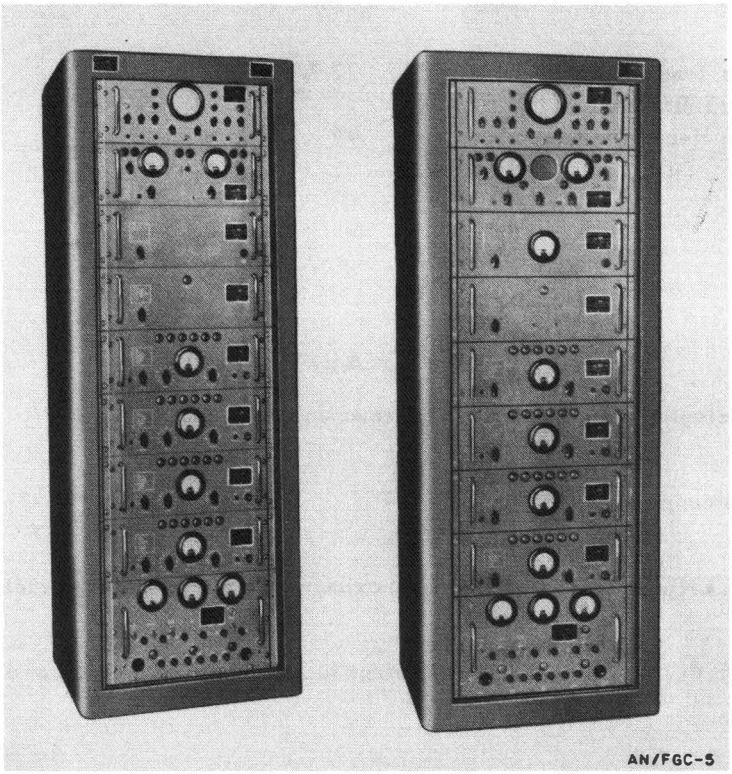
PHYSICAL CHARACTERISTICS

Information on Teletypewriter Set AN/FGC-4 not available.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 8 May 52

AN/FGC-5

TELEGRAPH TERMINAL SET



Telegraph Terminal Set AN/FGC-5 provides two-, three-, or four-channel multiplex teletypewriter operation on a single voice channel on the basis of a time division system.

All components except the power supply are of the tilt-up drawer type; the power supply slides out horizontally on rails.

The equipment, as supplied, is for 60-wpm operation but may be modified by a wiring change to 75 wpm.

The number of channels in which the AN/FGC-5 can be operated depends upon the circuit characteristics. Narrow bands or circuits with excessive distortion may limit operation to three, or even two, multiplex channels.

AN/FGC-5

TELEGRAPH TERMINAL SET

INSTRUCTION LITERATURE: NavShips 91265
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Navy
DATE OF THIS SHEET: 8 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Telegraph Transmitting Group OA-150/FGC-5	72-7/8 x 27 x 24-3/16	720
1	Telegraph Receiving Group OA-151/FGC-5	72-7/8 x 27 x 24-3/16	732

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Telegraph and teletypewriter communication stations.

INSTALLATION: Ground.

MAXIMUM SYSTEM LENGTH: Limited only by maximum range of associated radio equipment.

CAN COMMUNICATE WITH: Identical or equivalent facilities at the distant, or opposite, terminal.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Radio or wire.

FACILITIES AFFORDED: Two, three, or four start-stop channels on a single voice-frequency channel.

POWER REQUIREMENTS: 1,380 w, 115/230-v, 50/60 cyc, 1 phase.

PHYSICAL CHARACTERISTICS

Telegraph Terminal Set AN/FGC-5 measures 72-7/8 x 54 x 24 inches, net weight 1,452 pounds, volume 57 cu ft, 1.4 ship tons. Packed for domestic shipment: total weight 2,622 pounds, total volume 178.8 cu ft, 4.6 ship tons. Shipped in 6 packages.

STATUS: S/Std

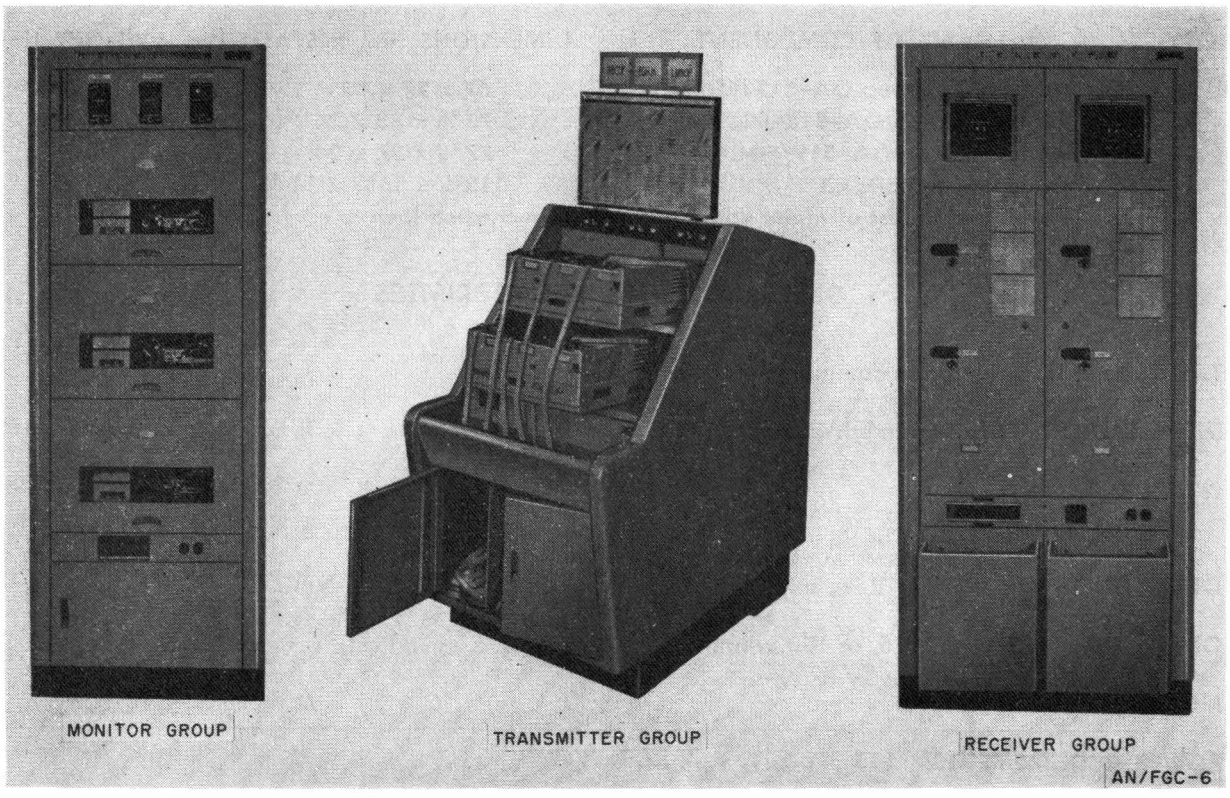
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

AN/FGC–6

TELETYPEWRITER SET



Teletypewriter Set AN/FGC–6 is used at fixed relay stations ashore to receive, transmit, and monitor telegraph messages. A typical station installation may consist of several sets.

This equipment is composed essentially of three major groups: receiver, transmitter, and monitor. The receiver group receives automatic telegraph signals at 60, 75, or 100 words per minute from three incoming lines. The transmitter group transmits from perforated tape to three outgoing signal lines at the same rate that it receives. The monitor group receives messages in the same manner as the receiver and records on tape for storage.

/FGC–6

TELETYPEWRITER SET

INSTRUCTION LITERATURE: NAVSHIPS 91899(A)

USING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Transmitter Group OA–517/FGC–6	67 x 27 x 43	528
1	Receiver Group OA–518/FGC–6	77⅜ x 33 x 24	749
1	Monitor Group OA–519/FGC–6	77⅜ x 27 x 24	619
1	Maintenance parts kit	18¾ x 16¼ x 11	30

(For complete list of major components, see instruction literature.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Telegraph communications at shore stations.

INSTALLATION: Ground, fixed.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Rcvg and xmtg auto tlg sig at 60, 75, or 100 wpm on 7.42 unit code.

OPERATING SPEED: 60, 75, or 100 wpm.

MOTOR CHARACTERISTICS: Syn.

POWER REQUIREMENTS: 115 v, 60 cy, 1 ph ac.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:		1,926	137.3	3.4	
DOMESTIC PACK:		3,020	212.2	5.3	12
EXPORT PACK:					

STATUS: Std

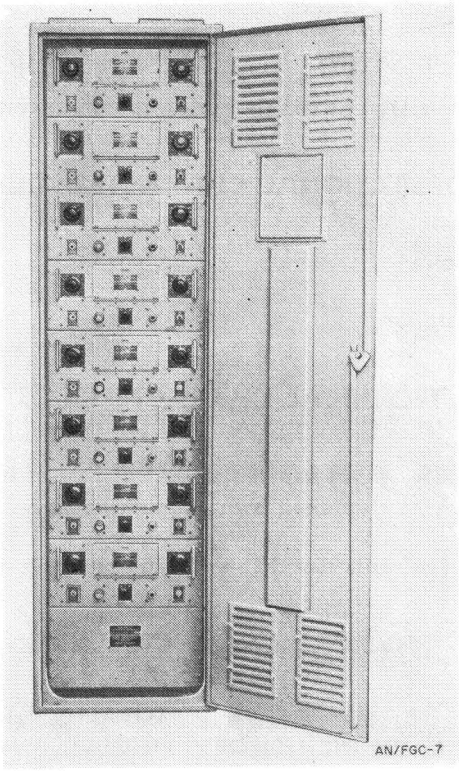
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USN

DATE OF THIS SHEET: 30 April 1956

AN/FGC–7( )

TELETYPEWRITER REPEATER SET



Teletypewriter Repeater Set AN/FGC–7( ) is an electronic regenerative-type repeater used on long-line teletypewriter wire circuits.

The AN/FGC–7, AN/FGC–7A, and AN/FGC–7B are similar mechanically except for the location of the blank panels. Operationally, all are similar except for operating voltages and location of control switches. Circuitwise, there are differences due to arrangement, design, and value of component parts.

The control panel of each of these sets includes facilities for adjusting them to operate with teletypewriter equipment operating at speeds of 60, 75, or 100 wpm.

AN/FGC–7( )

TELETYPEWRITER REPEATER SET

INSTRUCTION LITERATURE:
NAVSHIPS 91247; 91689; 92609

USING SERVICE: USN

DATE OF THIS SHEET: 30 April 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
	(Equipment consists of a single major operating component.)		

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore installations.

INSTALLATION: Ground, fixed station.

TECHNICAL CHARACTERISTICS

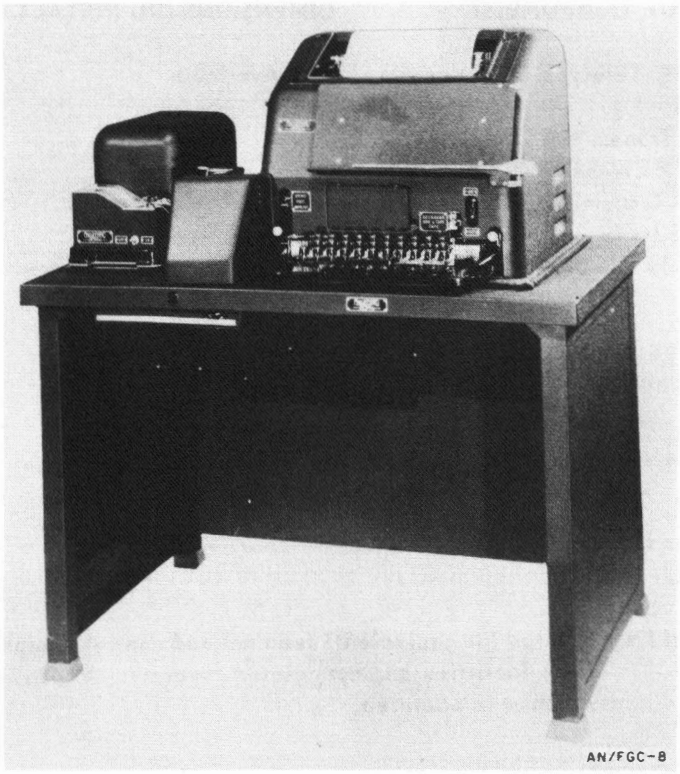
NUMBER AND TYPE OF FACILITIES: Eight sep rep units, capable of handling eight simplexed, or four duplexed chan, simultaneously.

POWER REQUIREMENTS: 85 w (ea rep), 105/125 v, 50/60 cy, 1 ph ac.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:					
AN/FGC–7	87 x 22 x 28	575			
AN/FGC–7A, –7B	87½ x 22⅜ x 24				
DOMESTIC PACK:		1,075	83.9	2.1	1
EXPORT PACK:					

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 Jun 52	**AN/FGC-8** TELETYPEWRITER SET



Teletypewriter Set AN/FGC-8 is general purpose equipment used for the transmission of teletypewriter messages from keyboard or tape and the reception of incoming messages in printed page form. The typing unit and keyboard have standard English characters.

This equipment provides for direct interchange of typewritten telegraph messages, perforation of tape for subsequent transmission, and automatic transmission of printing-telegraph messages under control of perforated tape.

The perforator transmitter keyboard, used in direct sending, may also be operated independently (whether or not receiving an incoming message) as a high speed perforator in the preparation of tape for subsequent transmission.

AN/FGC-8

TELETYPEWRITER SET

INSTRUCTION LITERATURE: Teletype Corp Bulletin 4,D1-1
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 9 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Typing Unit, Teletype Corp Model BP119/210	Not Available	Not Available
1	Perforator Transmitter, Teletype Corp Model PEX25JX	" "	" "
1	Distributor-Transmitter, Teletype-writer TT-52/FG	" "	" "
1	Power Supply PP-315/GGA-1	15 x 25-1/2 x 9-3/4	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground, fixed.

CAN COMMUNICATE WITH: Related (or equivalent) terminal and control equipment over wire or radio facilities and associated apparatus composing the system in which it is operated.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Standard keyboard operation, friction feed, automatic transmission over line circuits using perforated tape.

OPERATING SPEED: 72 English characters per line, 368 opm.

MOTOR CHARACTERISTICS: 2,102 rpm, 115 v a-c series-governed.

POWER REQUIREMENTS: 420 w, 115 v, 50/60 cyc, 1 phase ac.

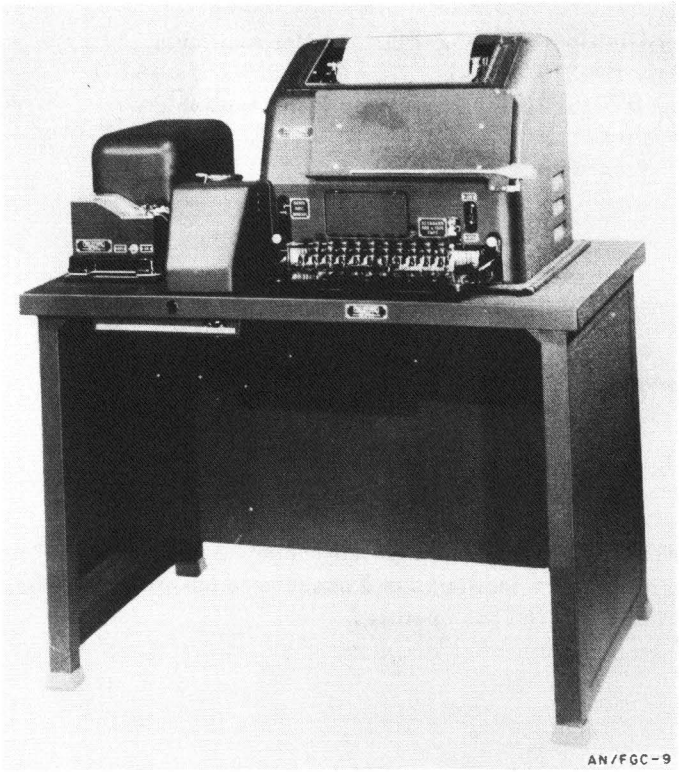
PHYSICAL CHARACTERISTICS

Teletypewriter Set AN/FGC-8 measures 42 x 36 x 23-1/2 inches, net weight 286 pounds, volume 20.6 cu ft, 0.5 ship ton. Packed for domestic shipment: total weight 447 pounds.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 8 May 52

AN/FGC-9

TELETYPEWRITER SET



AN/FGC-9

Teletypewriter Set AN/FGC-9 is used far ship-to-ship and ship-to-shore radioteletype communication. Provides either direct keyboard or tape transmission.

This is a commercial (Teletype Corp Model 19) page printer set adapted for shipboard use.

Resilient shock mounts are provided between the mounting table and the printer and on the transmitter-distributor to reduce vibration. The table is bolted to the deck.

AN/FGC-9

TELETYPEWRITER SET

INSTRUCTION LITERATURE: NavShips 91239
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 8 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter-Distributor TT-57/FG	Not Available	Not Available
1	Power Supply PP-315/GGA-1	15 x 9-3/4 x 25-1/2	" "
1	Typing Unit BP119/210	Not Available	" "
1	Motor Unit MU-4	" "	" "
1	Perforator Transmitter PEX25JX	" "	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Teletypewriter communication stations.

INSTALLATION: Shipborne, ground.

CAN COMMUNICATE WITH: Related (or equivalent) terminal and control equipment over wire or radio facilities and associated apparatus composing the system in which it is operated.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Page printing of incoming messages, keyboard or perforated tape transmission of outgoing messages.

OPERATING SPEED: 368 opm, approximately 60 wpm.

MOTOR CHARACTERISTICS: Synchronous, capacitor start, motor.

POWER REQUIREMENTS: 110 - 115v, 60 cyc ($\pm$ 0.5)1 phase, ac.

PHYSICAL CHARACTERISTICS

Teletypewriter Set AN/FGC-9 measures 41-5/8 x 36 x 23-1/2 inches.

STATUS: Limited Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 23 May 52

AN/FGC-10

TELETYPEWRITER SET

AN/FGC-10

Teletypewriter Set AN/FGC-10 is used for the transmission and reception of teletypewriter messages over wire or radio communication circuits.

It is similar to commercial send-receive teletypewriter equipment (Teletype Corp Model 15).

This equipment is identical to Teletypewriter TT-5/FG, except that the latter has a series-governed motor which must be used when the equipment is connected to sources of unregulated power.

AN/FGC-10

TELETYPEWRITER SET

INSTRUCTION LITERATURE: NavShips 91240
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 23 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Typing Unit BP128/247	Not Available	Not Available
1	Keyboard BK22LD	" "	" "
1	Base BB-44	" "	" "
1	Motor Unit MU-4	" "	" "
1	Power Supply PP-424/U (REC29)	" "	" "
1	Table XRT200AA	" "	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Teletypewriter communication stations.

INSTALLATION: Ground.

CAN COMMUNICATE WITH: Related (or equivalent) terminal and control equipment over wire or radio facilities and associated apparatus composing the system in which it is operated.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Page printing of incoming messages, keyboard transmission of outgoing messages.

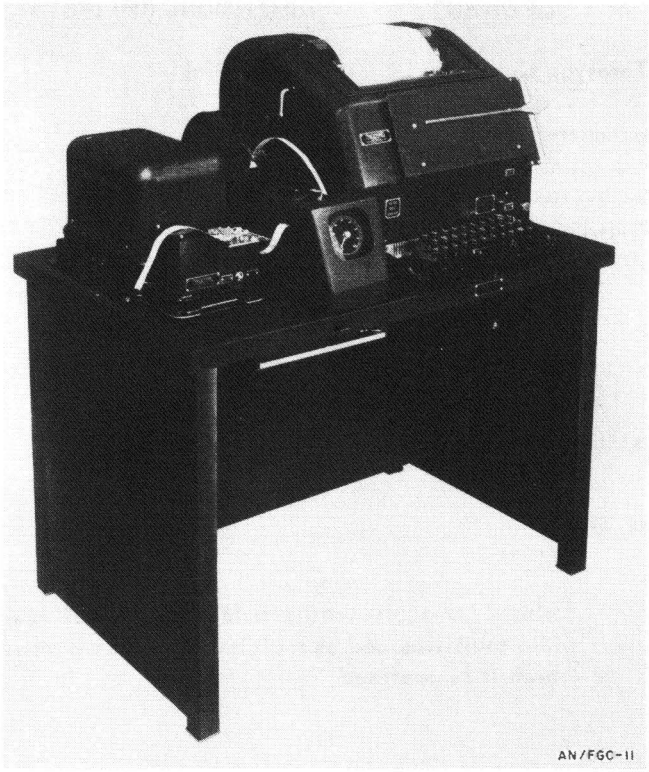
OPERATING SPEED: 368 opm, approximately 60 wpm.

POWER REQUIREMENTS: 115 v, 60 cyc, 1 phase regulated ac.

PHYSICAL CHARACTERISTICS

Information on Teletypewriter Set AN/FGC-10 not available.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 13 Jun 52	**AN/FGC-11** TELETYPEWRITER SET



Teletypewriter Set AN/FGC-11 is a general purpose teletypewriter used for the transmission of messages from keyboard or tape and the reception of incoming messages in printed page form. The typing unit and keyboard have standard English characters.

This equipment provides for direct interchange of typewritten telegraph messages, perforation of tape for subsequent transmission, and automatic transmission of printing-telegraph messages under control of perforated tape.

The perforator transmitter keyboard, used in direct sending, may also be operated independently (whether or not an incoming message is being received) as a high speed perforator in the preparation of tape for subsequent transmission.

AN/FGC-11

TELETYPEWRITER SET

INSTRUCTION LITERATURE: Teletype Corp Bulletin 4,D1-1
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Navy
DATE OF THIS SHEET : 13 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Typing Unit Teletype Corp Model BP22/247	Not Available	Not Available
1	Perforator Transmitter, Teletype Corp Model PEX25LE	" "	" "
1	Motor Unit PU-109/GG	" "	" "
1	Transmitter-Distributor, Teletype Corp Model XD76FR	" "	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground, fixed.

CAN COMMUNICATE WITH: Related (or equivalent) terminal and control equipment over wire or radio facilities and associated apparatus composing the system in which it is operated.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Standard keyboard operation, friction feed, transmission and reception over line circuits in perforated tape.

OPERATING SPEED: 72 English characters per line, 368 opm, 7.42 unit code.

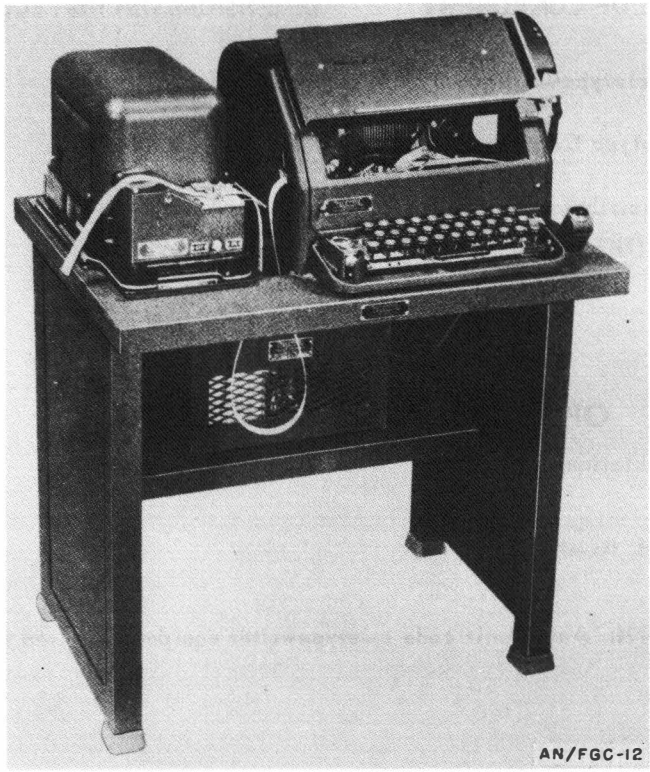
MOTOR CHARACTERISTICS: 115 v, 60 cyc, 1 phase series-governed.

POWER REQUIREMENTS: 420 w, 115 v, 60 cyc, 1 phase ac.

PHYSICAL CHARACTERISTICS

Teletypewriter Set AN/FGC-11 measures 41-5/8 x 36 x 23-1/2 inches, net weight 286 pounds. Packed for domestic shipment: total weight 447 pounds.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Navy DATE OF THIS SHEET: 9 Jun 52	**AN/FGC-12** TELETYPEWRITER SET



Teletypewriter Set AN/FGC-12 is fixed-plant or shore-based teletypewriter station equipment which can be used for communication with two or more stations and in teletypewriter relay, monitoring, and torn-tape switching applications. It has a standard communication keyboard and type pallets with English characters. This equipment transmits directly to the line from the manually operated keyboard, with or without simultaneous production of typed and perforated paper tape. Reception also is in the form of typed and perforated tape, automatically produced by the typing unit. Such tape can be fed to the transmitter-distributor for automatic transmission to the line.

It has a holding magnet, a polar-neutral switch, an end-of-line indicator, and a line circuit radio noise filter.

AN/FGC-12

TELETYPEWRITER SET

INSTRUCTION LITERATURE: Teletype Corp Bulletin 11,D4-1
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Navy
DATE OF THIS SHEET : 9 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Typing Unit Teletype Corp Model FPR23H246	Not Available	Not Available
1	Keyboard Teletype Corp Model FK110LD 15	" "	" "
1	Transmitter-Distributor TT-57/FG	" "	" "
1	Rectifier Teletype Corp Model REC-10	8 x 11-7/8 x 6-3/4	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground, fixed.

CAN COMMUNICATE WITH: Any 5 unit code teletypewriter equipment geared for 368 opm.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Keyboard operation and automatic transmission to line circuits from perforated tape.

OPERATING SPEED: 368 opm, 7.42 unit code.

MOTOR CHARACTERISTICS: Synchronous motors 1,800 rpm, 115 v, 60 cyc, 1 phase.

POWER REQUIREMENTS: 230 w, 115 v, 60 cyc, 1 phase.

PHYSICAL CHARACTERISTICS

Teletypewriter Set AN/FGC-12 measures 36-3/4 x 27 x 21-5/16 inches, net weight 164 pounds, volume 12.3 cu ft. Packed for domestic shipment: total weight 242 pounds.

STATUS: Std

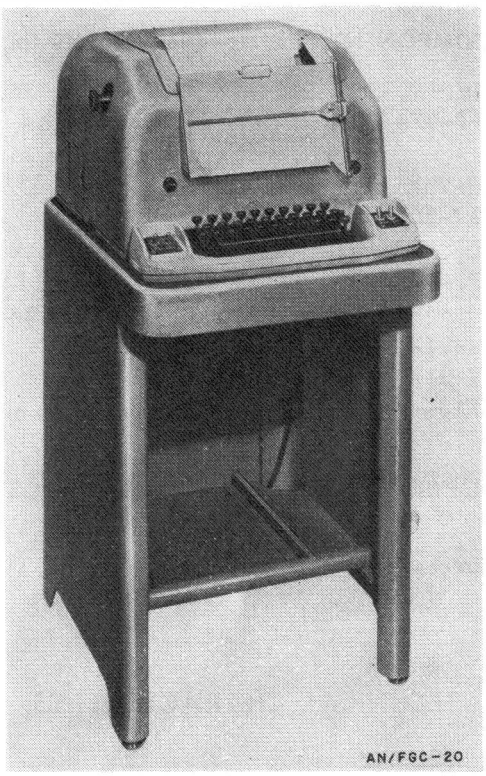
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USA

DATE OF THIS SHEET: 11 June 1956

AN/FGC–20( ), –21( )

TELETYPEWRITER SET



Teletypewriter Sets AN/FGC–20( ) and AN/FGC–21( ) are page-printing equipments used for the transmission, monitoring, and reception of messages in fixed communication centers and weather stations, respectively.

These sets are mechanically and electrically similar, and each consists essentially of a teletypewriter, a table, and a power supply.

The AN/FGC–20 and AN/FGC–21 are equipped with ac synchronous motors; the AN/FGC–20X and AN/FGC–21X, with ac or dc series-governed motors.

AN/FGC–20( ), –21( )

TELETYPEWRITER SET

INSTRUCTION LITERATURE: TM 11–2230

USING SERVICE: USA, USAF

DATE OF THIS SHEET: 11 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
	For AN/FGC–20( ):		
1	Power Supply PP–978/FG	9 x 4 x 4	7
1	Teletypewriter TT–98/FG (–20X) or TT–100/FG (–20)	20⅝ x 24 x 13½	54
	For AN/FGC–21( ):		
1	Power Supply PP–978/FG	9 x 4 x 4	7
1	Teletypewriter TT–97/FG (–21X) or TT–99/FG (–21)	20⅝ x 24 x 13½	54

(For complete list of components, see appropriate supply manuals.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed plant; direct wire or radioteletype.

INSTALLATION: Fixed station.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: CAR. RET., LINE FEED, FIGS, LTRS keys; motor stop, signal bell, space.

OPERATING SPEED: 368.1, 404, 600 opm (approx 60, 66, 100 wpm, respectively).

MOTOR CHARACTERISTICS: Syn (–20, –21); series-governed (–20X, –21X).

POWER REQUIREMENTS: 105 to 125 v, 60 cy, 1 ph ac; 105 to 125 v dc (series-governed motors only).

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	21 x 24 x 40½	86.9	20.7	.52	
DOMESTIC PACK:		115	11		2
EXPORT PACK:		125	18		2

STATUS:

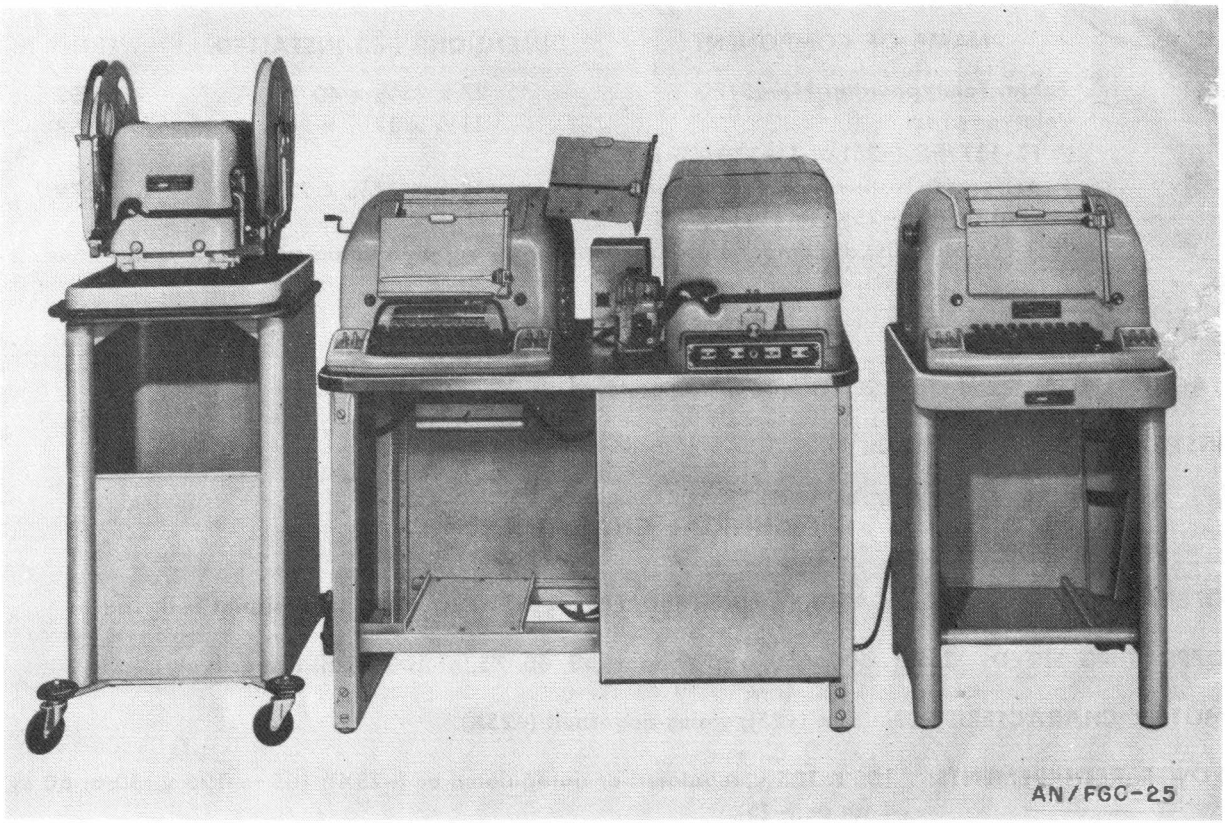
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USA

DATE OF THIS SHEET: 11 June 1956

AN/FGC–25( )

TELETYPEWRITER SET



Teletypewriter Set AN/FGC–25( ), a typical installation of which is shown above, is a fixed-station equipment used for transmitting, receiving, or monitoring at higher headquarters.

This equipment includes a teleprinter, a perforator having a transmitter distributor, power, and accessory components. A patch panel provides for the selection of a variety of operating circuit arrangements.

This equipment may be operated on a half- or full-duplex basis. It can produce printed page copy and/or perforated-and-printed tape of messages transmitted or received, or it can transmit from such tape.

The AN/FGC–25 has a synchronous motor; the AN/FGC–25X, a series-governed motor.

AN/FGC-25( )

TELETYPEWRITER SET

INSTRUCTION LITERATURE: TM 11-2246

USING SERVICE: USA, USAF

DATE OF THIS SHEET: 11 June 1956

MAJOR COMPONENTS

Q	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Table, Teletypewriter FN-65/FG	27 x 23½ x 40	52
1	Teletypewriter TT-117/FG (-25) or TT-119/FG (-25X)	11¼ x 17⅛ x 20⁹⁄₁₆	58
1	Reperforator-Transmitter, Teletypewriter TT-178/FG (-25X) or TT-179/FG (-25)	13³⁄₃₂ x 17⅛ x 22³⁄₁₆	79

(For complete list of components, see appropriate supply manuals.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed plant; direct wire or radioteletype.

INSTALLATION: Fixed station.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: CAR. RET, LINE FEED, FIGS, LTRS keys; motor stop, signal bell, space.

OPERATING SPEED: 368.1, 404, 460, or 600 opm (60, 66, 75, or 100 wpm, respectively).

MOTOR CHARACTERISTICS: Syn (-25); series-governed (-25X).

POWER REQUIREMENTS: 105 to125 v, regulated or unregulated ac (-25X); 105 to 125 v, 50 or 60 cy, 1 ph ac (-25).

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	40³⁄₃₂ x 23½ x 40	201	19.9		
DOMESTIC PACK:		290	25.4	.64	3
EXPORT PACK:		320	37.8	.95	3

STATUS:

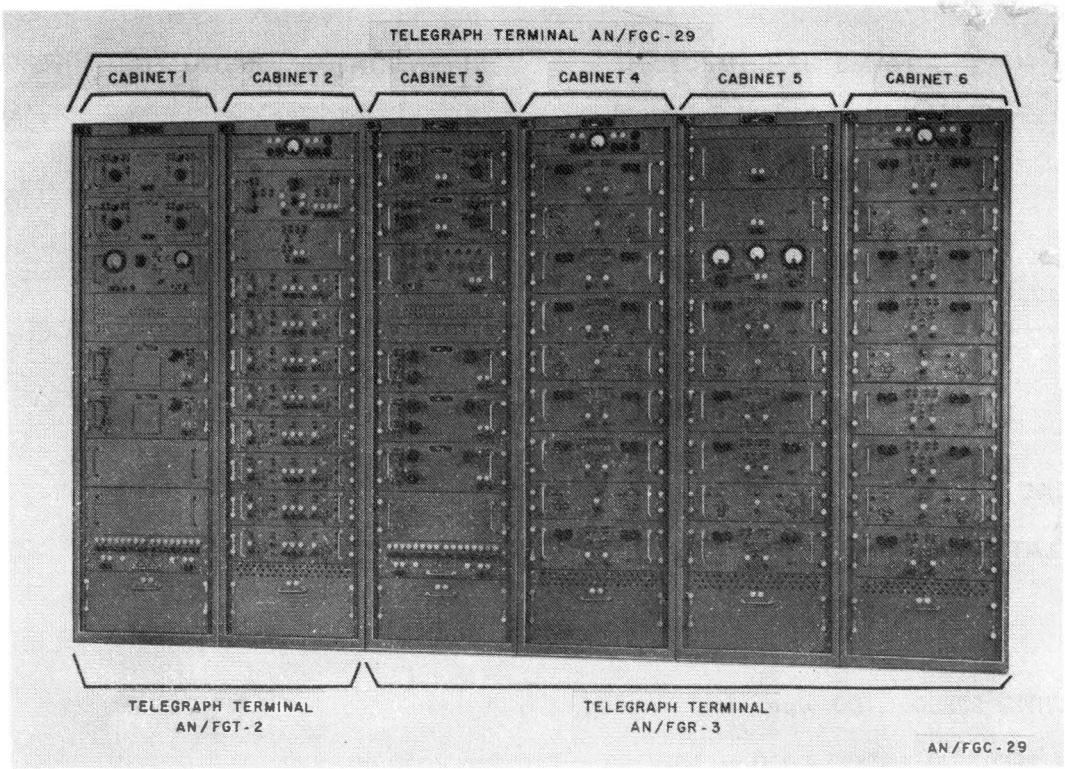
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USA

DATE OF THIS SHEET: 25 June 1956

AN/FGC–29

TERMINAL, TELEGRAPH



Telegraph Terminal AN/FGC–29 is the terminal equipment for a 16-channel carrier telegraph system that provides communication over long-range, twin-channel, single-sideband radio circuits operating in the high-frequency range.

Two Telegraph Terminals AN/FGC–29 are used with hf radio link equipment to establish duplex telegraph communication between points that may be separated by great distances.

The carrier telegraph channels of this equipment are capable of teletypewriter operation at a maximum speed of 100 wpm. The channels are spaced 170 cycles apart, from 425 to 2,795 cycles. Frequency-shift carrier signals with a marking signal 42.5 cycles above and a spacing signal 42.5 cycles below the center frequency of each channel are used.

To overcome the effects of radio fading, facilities are provided for both two-channel and four-channel diversity combining, using frequency diversity, or space diversity, or both. Multiplexing equipment is provided to derive two voice-frequency circuits from each of the radio channels.

The radio bandwidth, from 200 to 6,000 cycles, is divided into two transmission circuits, each with a bandwidth from 375 to 3,025 cycles. Four each voice-frequency circuits, derived from the twin-channel radio, are used to transmit the carrier telegraph signals, or to provide telephone or facsimile service. Equalizer and amplifier equipment are also provided to permit operation of the terminal over line facilities to remote radio stations.

AN/FGC–29

TERMINAL, TELEGRAPH

INSTRUCTION LITERATURE: TM 11–2245

USING SERVICE: USA, USAF

DATE OF THIS SHEET: 25 June 1956

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Cabinet 1 } Terminal, Telegraph	75 x 22½ x 24	662
1	Cabinet 2 } AN/FGT–2 (transmitting group)	75 x 22½ x 24	809
1	Cabinet 3 } Terminal, Telegraph	75 x 22½ x 24	749
1	Cabinet 4 } AN/FGR–3	75 x 22½ x 24	869
1	Cabinet 5 } (receiving group)	75 x 22½ x 24	900
1	Cabinet 6 }	75 x 22½ x 24	874

(For complete list of components, see appropriate supply manuals.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed plant.

INSTALLATION: Ground, fixed station.

TECHNICAL CHARACTERISTICS

OPERATING SPEED: 100 wpm.

POWER REQUIREMENTS: 4,000 w, 107/122 or 210/250 v, 50/60 cy ac.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	75 x 22½ x 24 (ea cab.)	4,925	141	3.53	
DOMESTIC PACK:					
EXPORT PACK:		8,344	665	18.8	7

STATUS: Std

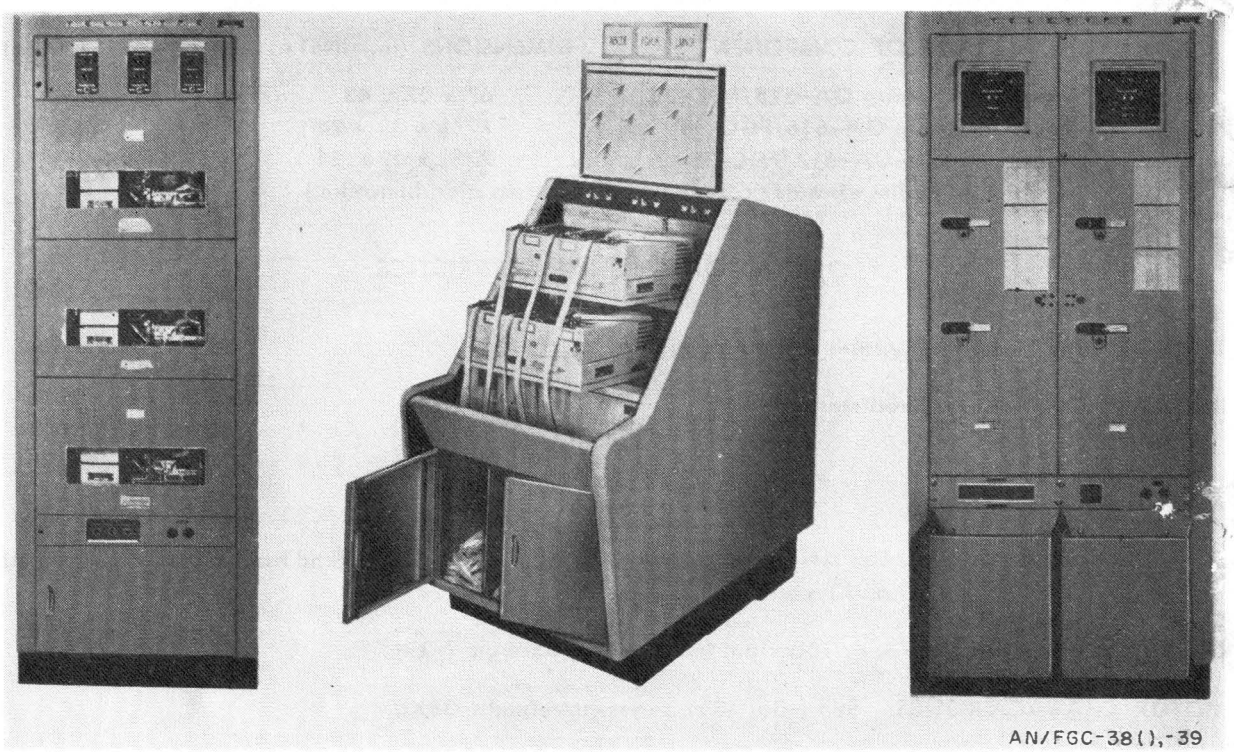
CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USN

DATE OF THIS SHEET: 8 June 1956

AN/FGC–38( ), –39

TELETYPEWRITER SET



Teletypewriter Set AN/FGC–38( ) or AN/FGC–39 is used at relay stations ashore to receive, transmit, and monitor telegraph messages.

This equipment consists of three groups: transmitter, receiver, and monitor.

The AN/FGC–38 uses the 7.42 unit code and synchronous motors for all units; the AN/FGC–38X, the 7.42 unit code and series-governed motors; and the AN/FGC–39, the 7.00 unit code and synchronous motors.

AN/FGC-38( ), -39

TELETYPEWRITER SET

INSTRUCTION LITERATURE: NAVSHIPS 92378

USING SERVICE: USA, USN, USAF

DATE OF THIS SHEET: 8 June 1956

MAJOR COMPONENTS

	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Transmitter Group OA-615/FGC-38	67 x 27 x 43	284
1	Receiver Group OA-616/FGC-38	77⅜ x 33 x 24	505
1	Monitor Group OA-617/FGC-38	77⅜ x 27 x 24	420

(For complete list of major components, see instruction literature.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore telegraph communication.

INSTALLATION: Shore, fixed station.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: The AN/FGC-38 and -38X receive auto tlg sig and transmit from perforated and typed tape.

OPERATING SPEED: 60, 75, or 100 wpm (-38, -38X); 65 wpm (-39).

MOTOR CHARACTERISTICS: Syn (-38, -39); series-governed (-38X).

POWER REQUIREMENTS: 115v ±10%, 60 cy ±.5 cy, 1 ph ac (syn motor); 115v ±10%, 50/70 cy, 1 ph ac (series-governed motor).

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	77⅜ x 33 x 24	750	47.34	1.2	
DOMESTIC PACK:					
EXPORT PACK:		3,020	212	5.3	12

STATUS: Std

CLASSIFICATION OF EQUIPMENT: Unclassified

PREPARING SERVICE: USAF

DATE OF THIS SHEET: 12 June 1956

AN/FGC—TYPE

COMMERCIAL TYPE NUMBER: M–28

TELETYPEWRITER

NO PHOTOGRAPH AVAILABLE

Teletypewriter M–28 is a manual fixed station, page-printing equipment that is used to exchange typewritten page messages between two or more stations over radio or wire telegraph facilities.

This equipment consists essentially of a teletypewriter-printer and keyboard and associated compone that can be adjusted to operating speeds of 368 opm (60 wpm), 460 opm (75 wpm), and 600 opm (wpm) as desired.

It is wired at the factory for operation on .06-ampere signal-line current, but by making a wire change in the electrical service unit and by readjusting the selector armature spring, it may be adapted for operation on .02-ampere signal-line current.

AN/FGC–TYPE

INSTRUCTION LITERATURE:

USING SERVICE: USAF

DATE OF THIS SHEET: 12 June 1956

M–28: COMMERCIAL TYPE NUMBER

TELETYPEWRITER

MAJOR COMPONENTS

QTY	NAME OF COMPONENT	DIMENSIONS (in.) INSTALLED	WEIGHT (lb)
1	Cabinet (floor) LAC200AA114	40½ x 20½ x 18¼	81
1	Power Distribution Panel LESUS/110	8⅛ x 4⅝ x 15	5
1	Keyboard LK3RN101	4¾ x 15½ x 17½	11
1	AC Motor (synchronous) LMU3	5¾ x 8½ x 4	9
1	Automatic Typer LP3RN/AC100	9¾ x 10½ x 15½	19

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed plant.

INSTALLATION: Ground, fixed station.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Page printing of incoming messages and manual keyboard typing for transmission of outgoing messages.

OPERATING SPEED: 368 opm (60 wpm) (460 opm (75 wpm) or 600 opm (100 wpm) by substitution of gear sets).

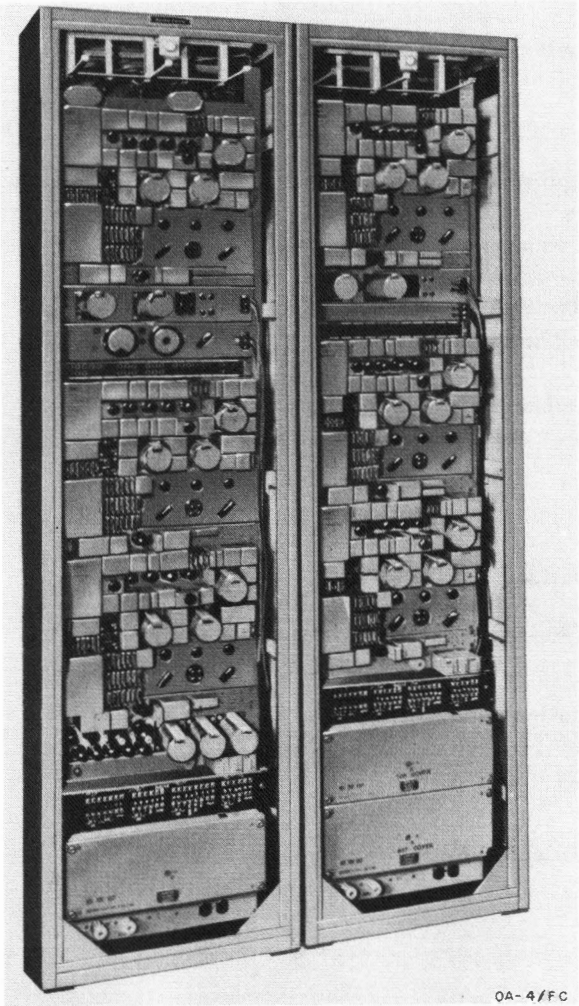
MOTOR CHARACTERISTICS: Syn (cap. start).

POWER REQUIREMENTS: 65 w, 115 v ±10%, 60 cy ±.75%, 1 ph ac.

PHYSICAL CHARACTERISTICS

	DIMENSIONS (IN INCHES) OF EQUIPMENT (INSTALLED)	TOTAL WEIGHT (lb)	TOTAL VOLUME (cu ft)	SHIP TONS	TOTAL NO. PACKAGES
NET:	40½ x 20½ x 18¼	130	12.55		
DOMESTIC PACK:		315	24.09	.6	
EXPORT PACK:					

STATUS: Limited Standard	AN/FGC-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	AN/COMP TYPE NUMBER: OA-4/FC
USING SERVICE: Army	CARRIER TERMINAL
DATE OF THIS SHEET: 29 Dec 51	



OA-4/FC

Carrier Terminal OA-4/FC is a six-channel carrier equipment which operates on a four-wire basis, to provide 12 two-way telegraph circuits over type C or type H carrier facilities, and is used in long distance teletypewriter communication applications at fixed plant installations at army and higher headquarters.

This equipment consists of two cabinet-inclosed units or bays. Each bay provides three-channel terminations (numbered one through six). It is intended to be used with Carrier Terminal OA-5/FC to provide 12 channels of telegraph communication over a single normal telephone channel.

Used separately, or with Carrier Terminal OA-5/FC, it can be operated over channel two of a three-channel carrier telephone system derived through Carrier Terminal OA-11/FC or OA-12/FC, or on the voice-frequency, or the carrier channel of Carrier Terminal OA-13/FC.

Requires 700-w of 115 / 230-v 50/60 cyc, ac.

AN/FGC-TYPE	INSTRUCTION LITERATURE: TM 11-2024; TM 11-2029
OA-4/FC :AN/COMP TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
CARRIER TERMINAL	USING SERVICE : Army
	DATE OF THIS SHEET : 29 Dec 51

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Cabinet No. 1, Channels 1, 2, 3	84 x 22-1/4 x 17	600
1	Cabinet No. 2, Channels 4, 5, 6	84 x 22-1/4 x 17	600

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Army or higher headquarters.

INSTALLATION: In fixed plant telephone and telegraph terminals.

MAXIMUM SYSTEM LENGTH: Type H (normally used as single-section systems); 145 miles over 104 copper-steel wire circuits at 6-db net loss. Type C, 1,000 miles or more, circuits of 6-db net loss. Repeater spacings on 104 copper-steel wire of about 155 miles or more.

CAN COMMUNICATE WITH: Repeater, terminal, central office and related station equipment and subsidiary apparatus which operates in the same connecting facility in fixed plant systems.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Wire or cable having a maximum loss of -30 dbm.

FACILITIES AFFORDED: Six-channel, two-way operation on a 4-wire basis; separate sending and receiving paths using the same frequency for each direction of transmission; with monitoring of local side of all channels.

FREQUENCY: 425 - 1,275 cps; 6 channels spaced 170 cps apart.

TYPE OF MODULATION: Am.

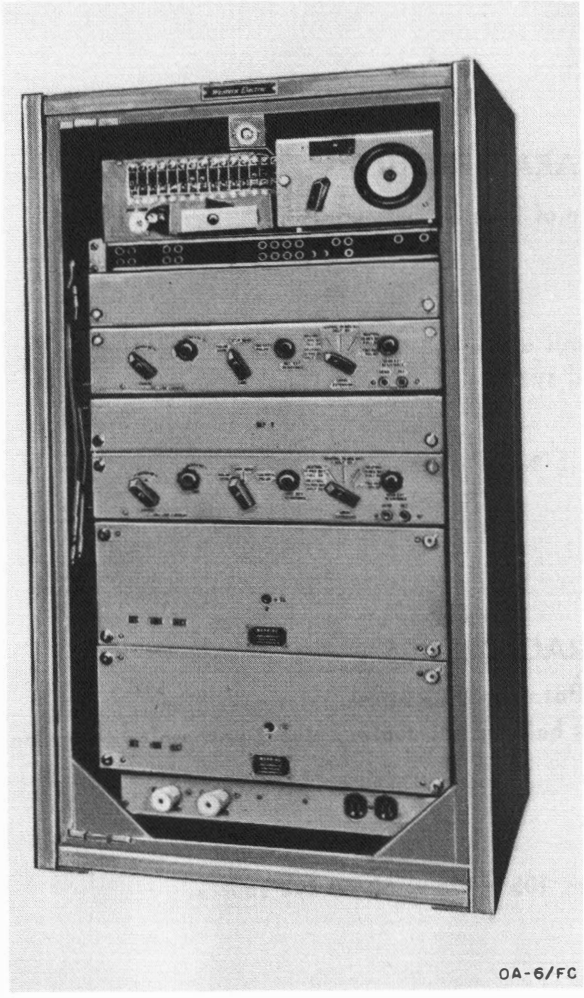
TYPE RINGING: Vf.

POWER REQUIREMENTS: 700 w of 115 / 230 v, 50/60 cyc, ac.

PHYSICAL CHARACTERISTICS

Carrier Terminal OA-4/FC measures 84 x 44-1/2 x 17 inches, net weight 1,200 pounds, volume 36.7 cu ft, 0.917 ship ton.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army DATE OF THIS SHEET: 18 Feb 52	**AN/FGC-TYPE** AN/COMP TYPE NUMBER: OA-6/FC TELEGRAPH REPEATER



OA-6/FC

Telegraph Repeater OA-6/FC is a packaged, d-c repeater equipment, used to extend the operating range of telegraph systems used for teletypewriter communication over composited open wire, or simplexed open wire or cable facilities serving army and higher levels.

This equipment consists of two complete commercial (Western Electric X-61824) d-c telegraph repeaters and associated rectifiers, and may be adapted to various modes of transmission on both line and local sides, and has provision for connection of a monitoring printer.

It may be used as an intermediate, or a terminal repeater, and is used in conjunction with Regenerative Repeater OA-3/FC, Carrier Terminal OA-4/FC, and Carrier Terminal OA-5/FC in long distance telegraph systems.

Requires 420-w of 105 to 125-v ac.

AN/FGC-TYPE	INSTRUCTION LITERATURE: TM 11-2034
	CLASSIFICATION OF EQUIPMENT: Unclassified
OA-6/FC :AN/COMP TYPE NUMBER	USING SERVICE : Army
TELEGRAPH REPEATER	DATE OF THIS SHEET : 18 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Army, communication zone and zone of interior.

INSTALLATION: Fixed station.

CAN COMMUNICATE WITH: Repeater, terminal, central office and related equipment operating in fixed plant facilities and systems.

TECHNICAL CHARACTERISTICS

NUMBER AND TYPE OF FACILITIES: Line side: Polarential or 2-path polar operation.
Local extension (loop or drop) side: Neutral half for full-duplex, plus 2-path polar operation.
Jack for monitoring printer.

POWER REQUIREMENTS: Normal consumption 420 w, 105 ~ 125 v, 50/60 cyc source.

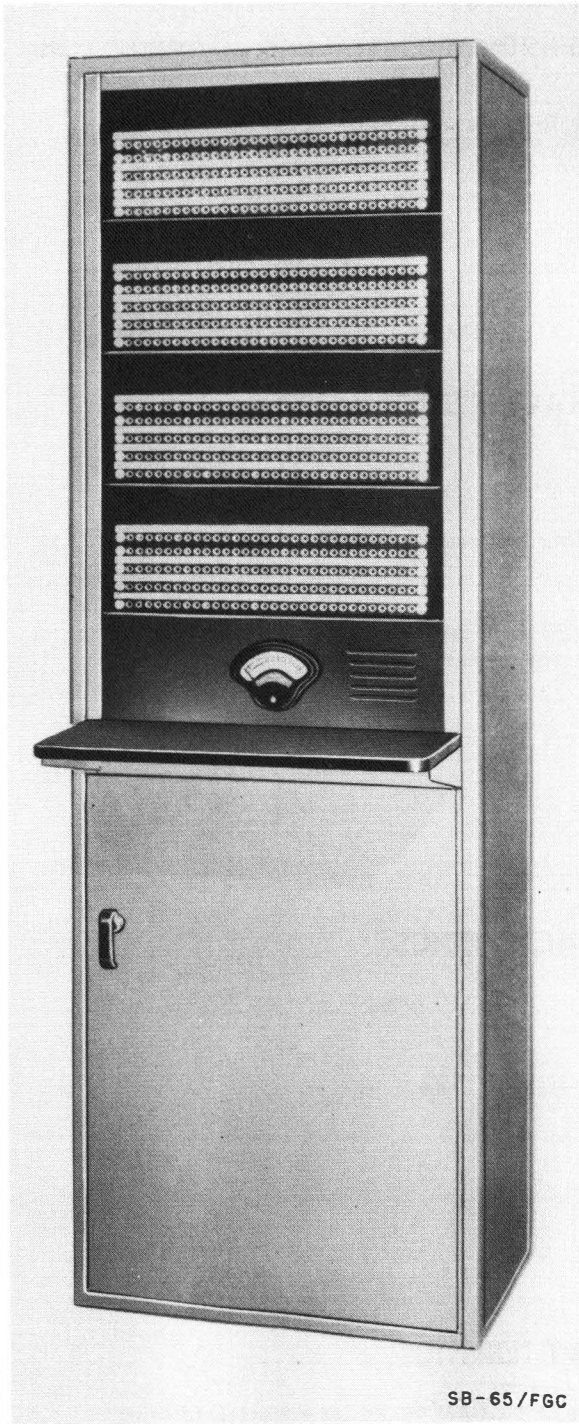
PHYSICAL CHARACTERISTICS

Telegraph Repeater OA-6/FC weighs 400 pounds net, volume 11 cu ft. Packed for export shipment: total weight 550 pounds, total volume 23 cu ft, 0.6 ship ton. Shipped in 1 package.

STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Army
DATE OF THIS SHEET: 25 Jan 52

AN/FGC-TYPE

AN/COMP TYPE NUMBER: SB-65/FGC
SWITCHBOARD



SB-65/FGC

Switchboard SB-65/FGC is a cord-and-jack patching switchboard used for interconnecting loops, extensions, and teletypewriter lines and station equipment, in large communications centers in the communications zone of a theater of operations.

This equipment consists of an upright, desk type, floor mounted switchboard contained in a wooden cabinet. The basic unit of this switchboard is a set of four jacks (two looping jacks and two set jacks) each set having a miscellaneous jack located below each such basic unit. It is equipped with a panel mounted milliammeter for making simple line tests, and can accommodate a telephone set, a telegraph key, and sounder for testing and control purposes.

AN/FGC-TYPE

SB-65/FGC :AN/COMP TYPE NUMBER
SWITCHBOARD

INSTRUCTION LITERATURE: TM 11-2227
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE : Army
DATE OF THIS SHEET : 25 Jan 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed in communications zone.

INSTALLATION: Permanent or semipermanent fixed plant equipment.

CAN COMMUNICATE WITH: Used for interconnecting loops, extensions, and teletypewriter lines, and station equipment at large communications centers.

TECHNICAL CHARACTERISTICS

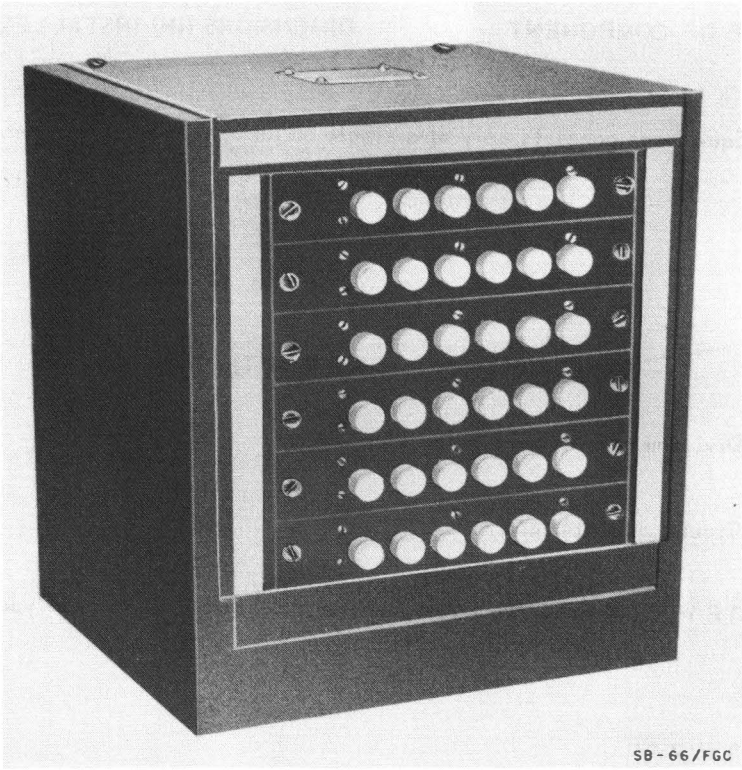
NUMBER OF SWITCHBOARD POSITIONS: 1.

NUMBER AND TYPE OF CIRCUITS: Number of Line Circuits: 120.

PHYSICAL CHARACTERISTICS

Switchboard SB-65/FGC weighs 510 pounds net, volume 24 cu ft. Packed for export shipment: total weight 1,090 pounds, total volume 40 cu ft, 1 ship ton. Shipped in 1 package.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army DATE OF THIS SHEET: 29 Dec 51	AN/FGC- TYPE AN/COMP TYPE NUMBER: SB-66/FGC SWITCHBOARD



Switchboard SB-66/FGC is a PBX-type switchboard for interconnecting up to 6 teletypewriters in a small network, with provision for grouping or conference circuits. It is designed for small fixed station applications.

This equipment consists of a single cordless, manual switchboard unit with a maximum capacity of ~~six~~ teletypewriter lines. All 6 lines may be used simultaneously.

Two Switchboard SB-66/FGC may be connected together to serve 12 teletypewriters, but only 6 lines may be in use at any one time.

No provision is made for signaling the operator, since this equipment usually is used in circuits requiring switching on a prescheduled basis.

AN/FGC-TYPE

SB-66/FGC :AN/COMP TYPE NUMBER	INSTRUCTION LITERATURE: TM 11-2083
SWITCHBOARD	CLASSIFICATION OF EQUIPMENT: Unclassified
	USING SERVICE : Army
	DATE OF THIS SHEET: 29 Dec 51

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Division and higher headquarters .

INSTALLATION: Ground or shipboard.

CAN COMMUNICATE WITH: Provides teletypewriter PBX facilities for teletypewriter equipment of a small network.

TECHNICAL CHARACTERISTICS

NUMBER OF SWITCHBOARD POSITIONS: 1.

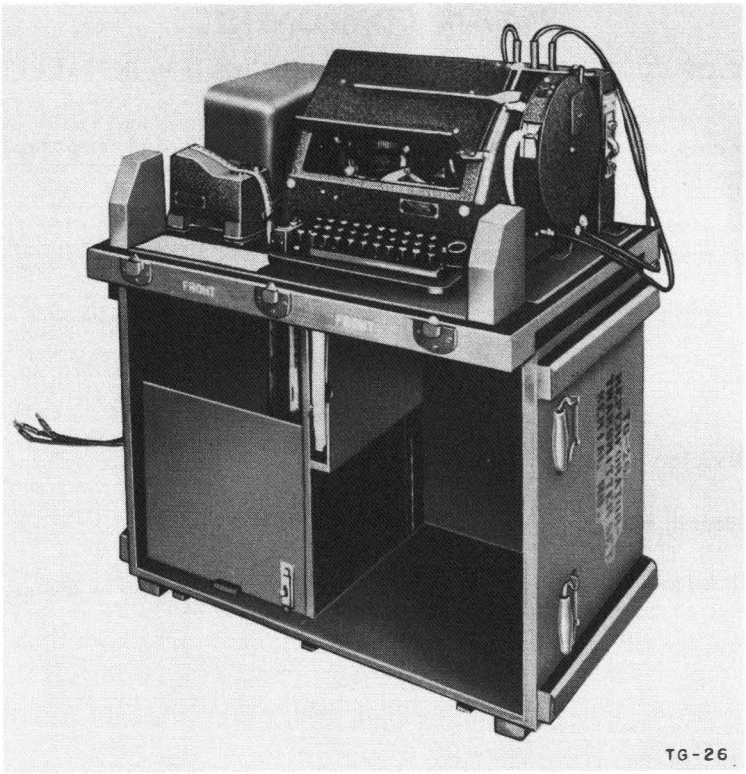
NUMBER AND TYPE OF CIRCUITS:

Number of line circuits: 6.

PHYSICAL CHARACTERISTICS

Switchboard SB-66/FGC measures 7-3/4x9x7 inches, volume 0.28 cu ft. Packed for domestic or export shipment: total weight 40 pounds, total volume 1.4 cu ft. Shipped in 1 package.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army DATE OF THIS SHEET: 13 Feb 52	**AN/FGC-TYPE** SERVICE TYPE NUMBER: TG-26 REPERFORATOR-TRANSMITTER



Reperforator-Transmitter TG-26 is a portable, field, teletypewriter tape relay station equipment used for the automatic (or manual) transmission, and reception of messages in the form of perforated and typed paper tape, in field wire, cable, or open wire systems serving division and higher headquarters.

This equipment consists of a typing reperforator having a perforator-transmitter and keyboard, plus a transmitter-distributor. It includes carrying cases which can be set up to form an operating desk or table.

Messages are received by the reperforator component, automatically, in the form of typed and perforated tape. Sending is performed either by operation of the keyboard (with or without simultaneous production of perforated and typed tape) or by feeding perforated tape to the transmitter-distributor for automatic transmission to the line.

It has a standard communication keyboard and type pallets.

This set can be used for simultaneous transmission and reception, automatic monitoring, automatic transmission, automatic and manual transmission simultaneously, and other modes of operation as may be required.

It is the major operating component of Reperforator-Teletypewriter Set TC-16, and requires 225 w of 115-v ac or dc.

AN/FGC-TYPE	INSTRUCTION LITERATURE: TM 11-2201
TG-26 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
REPERFORATOR-TRANSMITTER	USING SERVICE : Army
	DATE OF THIS SHEET : 13 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (I N) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Division or higher headquarters.

INSTALLATION: Ground, transportable.

CAN COMMUNICATE WITH: Terminal and repeater equipment operating in the same system.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Line-break, Carriage-return, Line-feed, Space-repeat, Bell on Figs S, Ltrs and Figs Shift.

OPERATING SPEED: 368.1 opm - 60 wpm: 404 opm - 66 wpm.

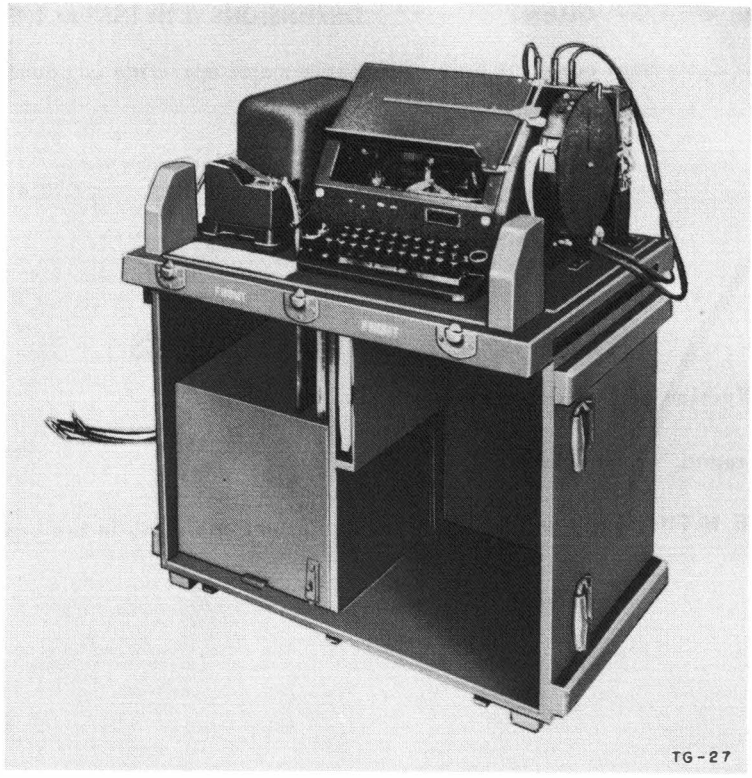
MOTOR CHARACTERISTICS: Governed-series.

POWER REQUIREMENTS: 225 w on 115 v, 50/60 cyc, ac; or 115 v dc.

PHYSICAL CHARACTERISTICS

Reperforator-Transmitter TG-26 measures 19 x 33 x 38 inches, net weight 225 pounds.

STATUS: Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army DATE OF THIS SHEET: 18 Feb 52	**AN/FGC-TYPE** SERVICE TYPE NUMBER: TG-27 REPERFORATOR-TRANSMITTER



Reperforator-Transmitter TG-27 is a transportable standard weather communication teletypewriter station equipment used for sending and receiving weather data by means of perforated paper tape, and can be operated as a tape relay station. It is used at division and higher headquarters.

This equipment consists of a transmitter-distributor and a typing reperforator which has a weather communication keyboard and type pallets, transported in a carrying case which is used as the operating table.

This reperforator-transmitter is the major component of Reperforator Teletypewriter TC-17.

It operates from 115-v ac or dc.

AN/FGC-TYPE	INSTRUCTION LITERATURE: TM 11-2201
TG-27 :SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
REPERFORATOR-TRANSMITTER	USING SERVICE : Army
	DATE OF THIS SHEET : 18 Feb 52

MAJOR COMPONENTS

QUANT NAME OF COMPONENT DIMENSIONS (I N) INSTALLED WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Division or higher headquarters.

INSTALLATION: Ground, transportable.

CAN COMMUNICATE WITH: Terminal and repeater equipment operating in the same system.

TECHNICAL CHARACTERISTICS

OPERATING FUNCTIONS: Line-break, Carriage-return, Line-feed, Space-repeat, Bell on Figs S, Ltrs and Figs Shift.

OPERATING SPEED: 368.1 opm - 60 wpm: 404 opm - 66 wpm.

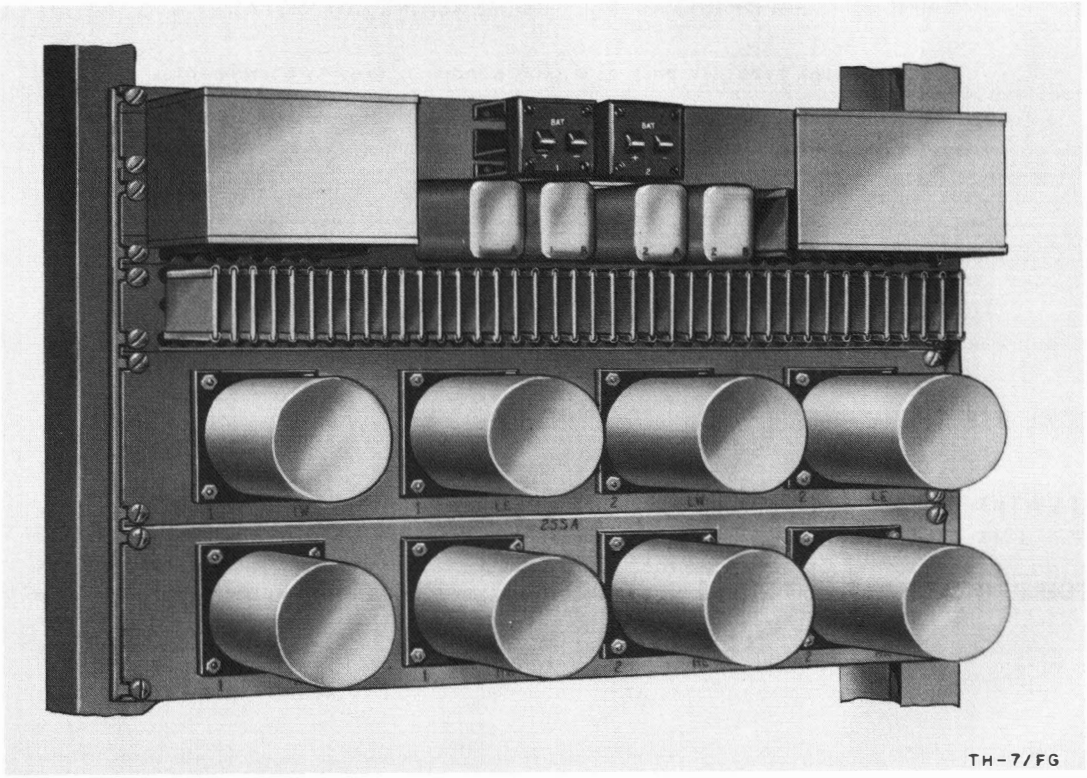
MOTOR CHARACTERISTICS: Governed-series.

POWER REQUIREMENTS: 225 w, 115 v, 50/60 cyc, ac; or 115 v, dc.

PHYSICAL CHARACTERISTICS

Reperforator-Transmitter TG-27 measures 19 x 33 x 38 inches, net weight 225 pounds.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army, Navy DATE OF THIS SHEET: 15 Feb 52	**AN/FGC-TYPE** AN/COMP TYPE NUMBER: TH-7/FG TELEGRAPH REPEATER



Telegraph Repeater TH-7/FG is a single-line, reversible one-way, telegraph repeater equipment which uses open-and-close telegraph signals, and is designed to be used in fixed-plant applications.

This equipment consists essentially of a commercial (Bell Telephone 10E1) single line repeater and is composed of two repeater assemblies mounted on a standard 19-inch panel.

It is used to interconnect two subscriber loop circuits, two line repeater loop circuits, or a subscriber loop and a line repeater loop circuit.

Has battery keys for control of 130-v dc which the equipment requires.

AN/FGC-TYPE	INSTRUCTION LITERATURE: None
TH-7/FG :AN/COMP TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
TELEGRAPH REPEATER	USING SERVICE : Army, Navy
	DATE OF THIS SHEET : 15 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed plant.

INSTALLATION: Fixed station.

CAN COMMUNICATE WITH: Terminal and repeater equipment operating in the same system.

TECHNICAL CHARACTERISTICS

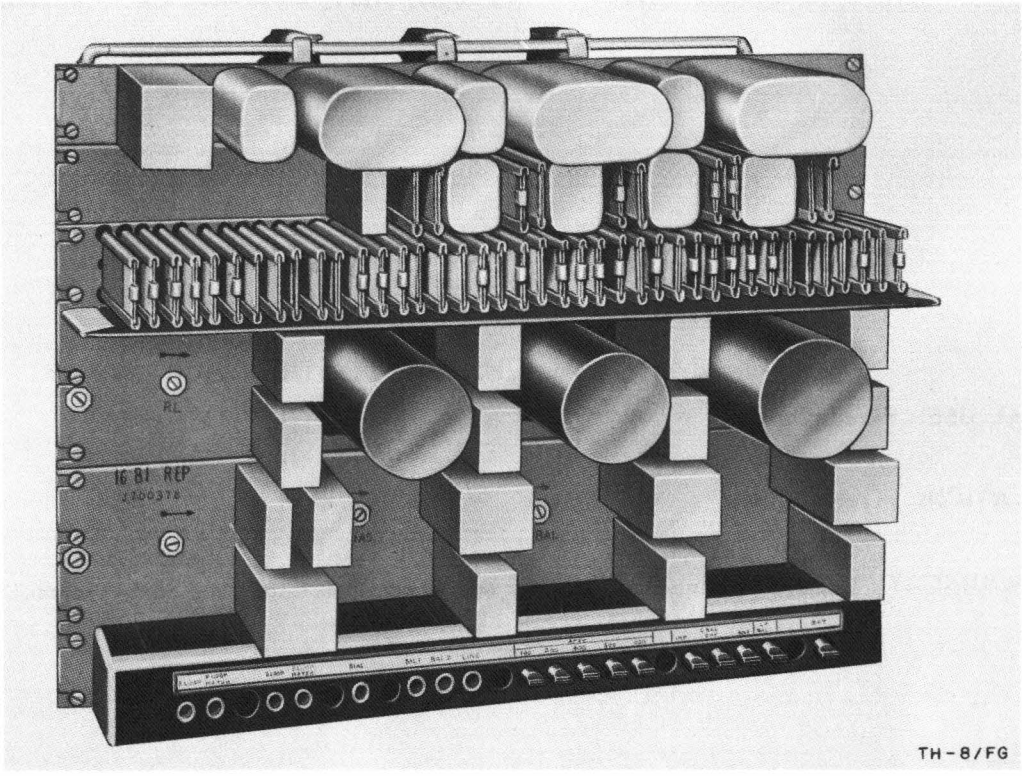
NUMBER AND TYPE OF FACILITIES: Interconnects two loop circuits, two line repeater loops, or a loop circuit and a line repeater loop.

POWER REQUIREMENTS: A 130-v d-c source.

PHYSICAL CHARACTERISTICS

Information on Telegraph Repeater TH-7/FG not available.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army, Navy DATE OF THIS SHEET: 18 Feb 52	AN/FGC-TYPE AN/COMP TYPE NUMBER: TH-8/FG TELEGRAPH REPEATER



Telegraph Repeater TH-8/FG is a repeater equipment designed to be used in single-wire ground-return facilities in fixed-plant applications.

This equipment consists essentially of a commercial (Bell Telephone 16B1 Terminal Repeater) which is mounted on a standard 19-inch panel.

It operates as the polar-sending, or polar-receiving, terminal of a polarential system or as the terminal of a differential-duplex system (with line normal or reversed, and battery normal or reversed).

Requires 130 v of dc.

AN/FGC-TYPE	INSTRUCTION LITERATURE: None
TH-8/FG :AN/COMP TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
TELEGRAPH REPEATER	USING SERVICE: Army, Navy
	DATE OF THIS SHEET: 18 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed plant.

INSTALLATION: Fixed station.

CAN COMMUNICATE WITH: Terminal and repeater equipment operating in the same system.

TECHNICAL CHARACTERISTICS

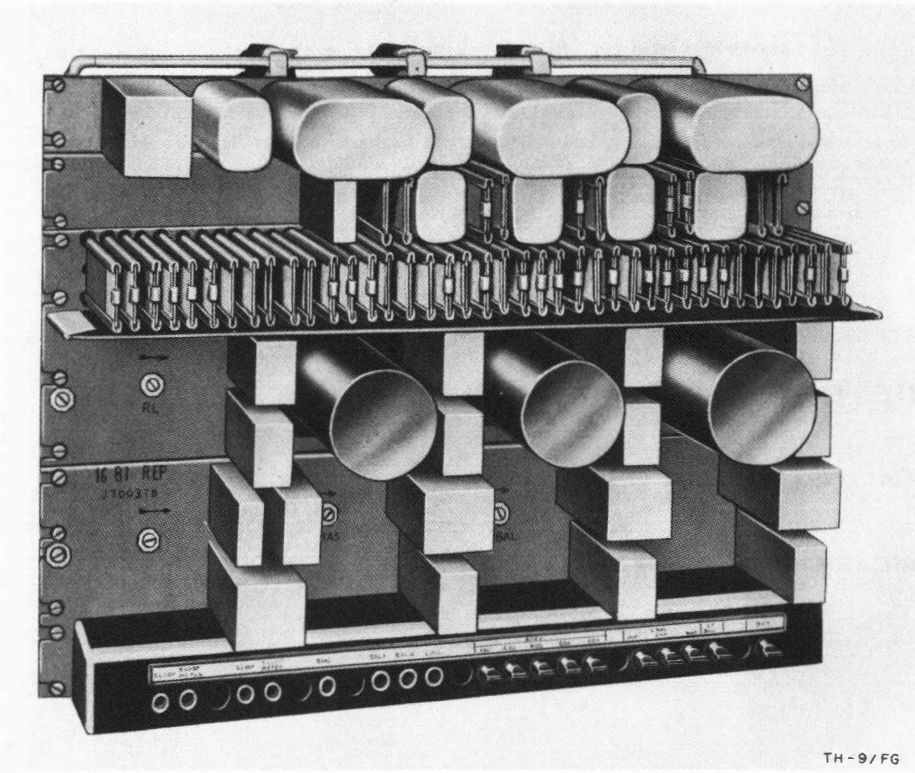
NUMBER AND TYPE OF FACILITIES: Designed for polar sending or receiving or differential duplex systems over a single wire with ground return.

POWER REQUIREMENTS: A 130-v, d-c source.

PHYSICAL CHARACTERISTICS

Information on Telegraph Repeater TH-8/FG not available.

STATUS: Limited Standard CLASSIFICATION OF EQUIPMENT: Unclassified USING SERVICE: Army, Navy DATE OF THIS SHEET: 18 Feb 52	AN/FGC-TYPE AN/COMP TYPE NUMBER: TH-9/FG TELEGRAPH REPEATER



Telegraph Repeater TH-9/FG is a repeater equipment designed to be used in full-metallic facilities in fixed-plant applications.

This equipment consists essentially of a commercial (Bell Telephone 16B1 Terminal Repeater) modified for full metallic operation, and is mounted on a standard 19-inch panel.

It operates as the polar sending, or polar receiving, terminal of a polarential system, or as the terminal of a differential duplex system (with line normal or reversed, and battery normal or reversed).

Requires 130 v of dc.

AN/FGC-TYPE	INSTRUCTION LITERATURE: None
	CLASSIFICATION OF EQUIPMENT: Unclassified
TH-9/FG :AN/COMP TYPE NUMBER	USING SERVICE : Army, Navy
TELEGRAPH REPEATER	DATE OF THIS SHEET : 18 Feb 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)

(Equipment consists only of a single major operating component.)

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Fixed plant.

INSTALLATION: Fixed station.

CAN COMMUNICATE WITH: Terminal and repeater equipment operating in the same system.

TECHNICAL CHARACTERISTICS

NUMBER AND TYPE OF FACILITIES: Designed for polar sending or receiving or differential duplex systems over two wires.

POWER REQUIREMENTS: A 130-v, d-c source.

PHYSICAL CHARACTERISTICS

Telegraph Repeater TH-9/FG measures 14 x 19 x 8 inches.