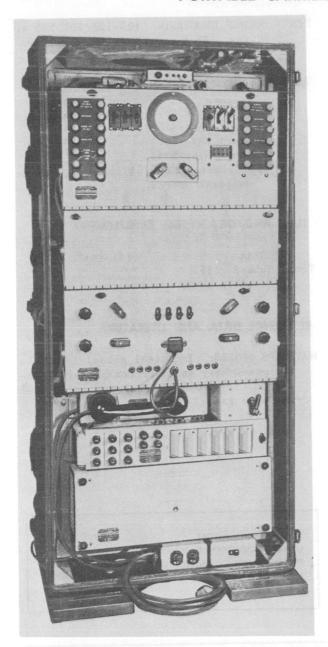
PORTABLE CARRIER CONTROL SYSTEM

UF



Line Terminal Equipment Model UG

FUNCTIONAL DESCRIPTION

The Navy Model UF is a multichannel carrier telegraph system using eight frequencies in the voice range. The UF consists of four Line Terminal Equipments UG, and two Radio-Line Terminal Equipments UH. The UG is the carrier-telegraph terminal equipment for the system, and the UH is control and line amplifier equipment for the radio link. The equip-



Radio Line Terminal Equipment Model UH

ment, with associated radio transmitters and receivers for two, two-way voice channels, provide four two-way telegraph circuits. DC telegraph or teletype pulses are converted to on/off carrier tones for transmission and are then converted from received carrier tones back to DC pulses at the other end of the circuit. Either duplex or half-duplex operation is possible and either is capable of handling manual telegraph, teletype, or automatic tape recorded transmissions. Operation is possible on either a neutral or polar basis, depending upon the kind of communication gear utilized.

Typical radio transmitter and receiver equipments used with the UF are Radio Set AN/TRC-1; Radio Transmitter BC-640-B and Radio Receiver BC-639-A; Radio Transmitter TDQ and Radio Receiver RCK; or High Frequency Radio Telephone Transmitting Equipment TDG and High Frequency Radio Receiving Equipment RBQ. The antennas for these systems may be either vertically or horizontally polarized.

No field changes in effect at time of preparation (28 April 1958).

UF

PORTABLE CARRIER CONTROL SYSTEM

RELATION TO OTHER EQUIPMENT

Equipment Required but not Supplied: A complete radio transmitting and receiving system.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

RADIO LINK RANGE: 15 to 40 mi.

LOAD CIRCUIT RANGES: 1/4 mi max length of field wire.

LINE CIRCUIT BANGES

BETWEEN TWO UG LINE TERMINALS: 6 to 16

BETWEEN UG AND UH LINE TERMINALS: 5 mi.
BETWEEN UH LINE TERMINAL AND TRANSMITTER
OR RECEIVER: 500 ft.

RADIO FREQUENCY RANGE: 30 to 300 mc.

TELEGRAPH CARRIER FREQUENCY BAND: 500 to 2050 cps.

CIRCUIT FREQUENCIES

LOWER: 595, 765, 935, 1105.

HIGHER: 1445, 1615, 1785, 1955.

SPEED OF TRANSMISSION

TELETYPEWRITER: 60 wpm.

TAPE KEYER AND RECORDER: 100 wpm.

OUTPUT LEVEL OF MODEL UG LINE TERMINAL: 0
dbm per telegraph circuit.

INPUT LEVEL TO TRANSMITTER: -25 dbm and +10 dbm for a single telegraph carrier frequency.

OUTPUT LEVEL FROM RADIO RECEIVER: -10 dbm and +10 dbm for single telegraph carrier frequency.

TERMINATING IMPEDANCES

UG AND UH: 600 ohms.

RADIO TRANSMITTER: 50, 200, or 600 ohms.

RADIO RECEIVER: 600 ohms.

POWER SOURCE REQUIRED: 103-126/207-253 v, 50-60 cps, 135 W per UG and 15 W per UH.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co, Inc, New York, N.Y. Contract NXsr-41001. Contract NXsr-85031.

Contract N5sr-5945.

Approximate Cost: \$13000.00 with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 39 4A

(13) 6SJ7

Total Tubes: (15)
No Crystals used.

REFERENCE DATA AND LITERATURE

NAVSHIPS 900223: Technical Manual for Radio Equipment Navy Model UF Consisting of Model UG Line Terminal Equipment and Model UH Radio Line Terminal Equipment.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

198 016	SHIPPING DATA				
OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)	
00T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Model UG Line Terminals (4 equipments) Model UH Radio Line Terminals (2 Equipments) Equipment Spares	22.5 13.5	57-1/2 X 31-3/8 X 21-1/2 29-1/2 X 32 X 20	710 373	
	Box 1 Box 2 Box 3		40 X 28 X 20 40 X 28 X 20 40 X 28 X 20	331 290 302	

PORTABLE CARRIER CONTROL SYSTEM

UF

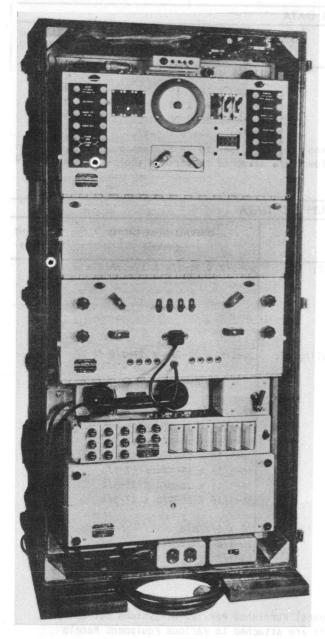
	SHIPPING	DATA		
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
A Financial	Box 4 - seronsupart to anold	13	40 X 28 X 20	261
	Box 5 gub redfie rol gollasanes	13	40 X 28 X 20	273
	Box 6 sidages at bes gootstage	13	40 X 28 X 20	296
	BOX 7 redirective dayseles daysales	13	40 X 28 X 20	314
91 44 8 8 6	Ground Rods Data for 1 Box	1.75	52 X 9-3/4 X 5-3/4	120
NOTES:	*Only One set of equipment Spares (7 box spare tubes, relays, fuses, and fusehol	ders are att	ed per 10 UF systems but tached to various equip—	

**Eight boxes per ten UF systems.

	EQUIPMENT SUPPLIED I	DATA	
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
913740 9	Model UG Line Terminal Each Consisting of: 1 Line Control Unit CW-23426	49-1/2 X 24-1/4 X 17-1/8	373
	1 Load Control Unit CW-50177		
	1 Fuse Panel Unit CW-28016 1 Rectifier Power Unit CW-20290		THE PART
2 2	1 Telephone Unit CW-51068 Model UH Radio Line Terminal Each Consisting of: 1 Control Unit CW-23427	24-1/4 X 23-7/8 X 17-1/8	163
	1 Telephone Unit CW-51068		THE WHITE
*	Set of Equipment Spares	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	0.76
	CHANNELS: 2, polsr or seuf xod ey	36-3/16 X 25-3/4 X 17-3/4	276
	Box 2	36-3/16 X 25-3/4 X 17-3/4	228
	Box 3 00 HOMAGRAMI DWITAKIMHIT	36-3/16 X 25-3/4 X 17-3/4	239
		36-3/16 X 25-3/4 X 17-3/4	199
	eveBox 5ed eddamodus) mgw 001	36-3/16 X 25-3/4 X 17-3/4	208
	Box 6 . (1ebros	36-3/16 X 25-3/4 X 17-3/4	236
	Box 7 Idam John Mondol Marror	36-3/16 X 25-3/4 X 17-3/4	252
**	Ground Rod Set Consisting of:		
	0 0000 (0 000 110)	20 x 1/2 dia	ata atan
	8 Rods (2 per ug)	20-1/4 X 1/2 dia	GE GWDI
	8 Rods (4 per UH)	46-1/2 X 1/2 dia	0.5
	8 Rods (4 per UH)	46-1/2 X 1/2 dia	
ATAG	Set of Accessories		1

NOTES: *Only One Set of Equipment Spares (7 boxes) Furnished Per Ten UF Systems but Spare Tubes, Relays, Fuses, and Fuseholders Are Attached to Various Equipment Panels In the Cabinets.

^{**}Eight Boxes Per Ten UF Systems.



Line Terminal Equipment UG

FUNCTIONAL DESCRIPTION

The UG is used for carrier telegraphic transmission over a land line or radio link. The system consists of two, two-way telegraph circuits. By means of two switches, one of which selects the operating frequencies for

two oscillators while the other selects the two corresponding filters for each circuit, the two circuits of a terminal unit may be set to operate on any one of four combinations of frequencies. The system permits connection for either duplex or half-duplex operation, and is capable of handling manual telegraph, teletypewriter and automatic tape. Neutral or polar operation is possible. Either a 2- or 4- wire system may be used provided its loss is not greater than 25 db.

No field changes in effect at time of preparation (5 November 1957).

RELATION TO OTHER EQUIPMENT

The UG is used with Radio-Line Terminal Equipment UH as part of the Portable Carrier Control System Model UF.

Equipment Required but not Supplied: Teletypewriters or other Keying devices, land lines or suitable radio circuits.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OPERATING FREQ: 595, 765, 935, 1105, 1445, 1615, 1785, and 1955 cps.

CHANNELS: 2, polar or neutral keying.

MODULATION: AM.

TERMINATING IMPEDANCE: 600 ohms.

TRANSMISSION SPEED: 60 wpm (teletypewriter). 100 wpm (automatic tape keyer and re-

corder).

POWER SOURCE REQUIRED: 103-126/207-253 v.
50 to 60 cps, 135 W.

MOUNTING DATA: Panel mounted in wooden cabinets or carrying cases.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co Inc, New York, N.Y. Contract NXsr-41001, dated 25 October 1945.

Contract NXsr, Contract N5sr-5945.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 394A

(11) 6SJ7

Total Tubes: (13)

No Crystals

UG

LINE TERMINAL EQUIPMENT

April 1958

REFERENCE DATA AND LITERATURE

NAVSHIPS 900223, Technical Manual for Radio Equip Navy Model UF. TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

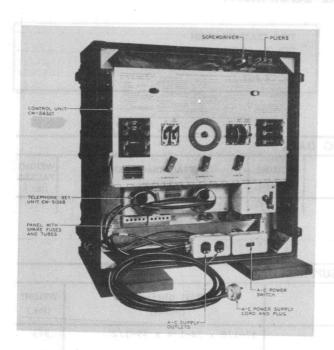
	shipping	G DATA		
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Line Terminal Equipment	22-1/2	21-1/2 × 31-3/8 × 57-1/2	710

	EQUIPMENT SUPPLIED DATA					
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)			
1	Line Terminal Equip UG c/o	17-1/8 × 24-1/4 × 49-1/2	373			
	(1) Line Control Unit -23426	W. Radio Line Terminal Southment	1 30%			
4.00	(1) Load Control Unit -50177	distribution and an end and an experience				
ATA	(1) Fuse Panel Unit -28016					
	(1) Rectifier Power Unit -20290	, All Fig. 19 there are				
X	(1) Telephone Set Unit -51068	VI. DESCRIPTION	имстібых			

UNCLASSIFIED

RADIO LINE TERMINAL EQUIPMENT

UH



Model UH Radio Line Terminal Equipment

FUNCTIONAL DESCRIPTION

The Navy Model UH is control and line Amplifier equipment for the radio link in Navy Model UF Communication terminal equipment. It is designed to perform the functions of seperating the transmitting and receiving paths to the radio transmitter and receiver when a 2-wire line is used for the connection to the line terminal, and to provide means of adjusting the signal levels to the required values in either 2 or 4-wire operation. Facilities are also provided for talking over the line wires or over the radio link.

No field changes in effect at time of preparation (18 September 1958).

RELATION TO OTHER EQUIPMENT

The UH Radio Line Terminal Equipment is used with Line Terminal Equipment UG as part of Portable Carrier Control System UF.

EQUIPMENT REQUIRED BUT NOT SUPPLIED

Associated Radio Communication equipment.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

AMPLIFIER

TYPE: Audio, negative feedback.
FREQUENCY RANGE: 50 to 20,000 cps.
FREQUENCY RESPONSE: Flat from 595 to 1955 cps.
INPUT IMPEDANCE: 600 ohms.
OUTPUT IMPEDANCE: 600 ohms.

GAIN: 35 db max.

RECTIFIER UNIT

TYPE: Dry Metal, copper-oxide.

LOW VOLTAGE: 6.3 v (filament).

HIGH VOLTAGE: 130 v, dc (plate).

TEMPERATURE RANGE: -20 to +120° F.

PRIMARY POWER REQUIREMENT: 115 v (103 to 126) or 230 v (207 to 253), 60 cps, single ph, 15 W.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co., New York, N.Y.
Contract N5sr-5945 dated 25 October
1945.
Contract N8sr-85031

Contract NXsr-85031.
Contract NXsr-41001.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 6SJ7 Total Tubes: (2)

No Crystal Utilized.

REFERENCE DATA AND LITERATURE

Technical Manual for Radio Equipment Navy Model UF NAVSHIPS 900, 223.

TYPE CLASSIFICATION

DESIGN COGNIZANCE BUSHIPS

PROCUREMENT COGNIZANCE

STOCK NO.

UH

RADIO LINE TERMINAL EQUIPMENT

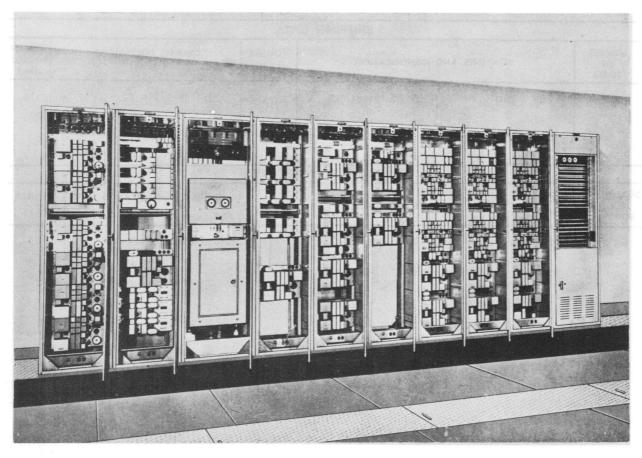
	SHIPPING	DATA		
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	UH Radio Line Terminal Equipment	13-1/2	20 X 29-1/2 X 32	373

EQUIPMENT SUPPLIED DATA					
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)		
1	Radio Line Terminal Equipment Model UH	17-1/8 X 23-7/8 X 24-1/4	163		

April 1958

CARRIER CONTROL SYSTEM

UN



Carrier Control System, Navy Model UN

FUNCTIONAL DESCRIPTION

The Model UN is a multichannel carrier communication system for shore use, capable of furnishing a variety of narrow and wide band telegraph channels, as well as voice channels, simultaneously over one radio carrier or a two-or four-wire metallic circuit. It is arranged to key along haul radio transmitter, repeat cw signals from a long haul radio receiver to a communication center, transmit and receive half-duplex or fullduplex transmission teletypewriter telegraph signals, transmit telegraph signals from a tape keyer and to a tape recorder, provide a telephone order wire circuit from terminal to terminal using hand-set telephones, and provide telephone circuits terminating at either end of the system in a telephone switchboard to provide service over the UN system from local telephone exchange or PBX lines in the area.

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

Data on this sheet reflects the following field changes: FC-1, FC-2 (8 November 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 300 to 10150 cps.

MODULATION: AM. CHANNEL SPACING

NARROW BAND: 170 cps. MEDIUM BAND: 340 cps.

WIDE BAND: 850 cps.
OSCILLATOR FREQUENCY: 85 cps.

SIGNAL SPEEDS (MAX)

NARROW BAND: 40 dot cycles. WIDE BAND: 175 dot cycles.

POWER REQUIREMENTS: 105 to 125 v, 50 to 60 cps, single ph.

UN

CARRIER CONTROL SYSTEM

April 1958

MANUFACTURER'S OR CONTRACTOR'S DATA	NT-20364
	(2) 393A
Western Electric Company, Inc., New York, N.Y.	Total Tubes: (2)
Contract NXsr-83392, dated 13 February	NT-35089
1045	(1) 352A (1) 272A
Approximate Cost: \$97,000.00 with equipment spares.	Total Tubes: (2)
	NT-20387
TUBE AND/OR CRYSTAL COMPLEMENT	Total Tubes: (1)
NT-50101	NT-60036
(3) $6V6GT/G$ (1) $5R4GY$	(1) $6J7$ (1) $25L6GT$ (1) $25Z6GT$
(3) 6V6GT/G (1) 5R4GY Total Tubes: (4)	Total Tubes: (3)
MD-117/FC	NT-35010
(1) 310A	thru
Total Tubes: (1)	NT-35021, NT-35024,NT-35025,
NT-50103 and MD-115/FC	NT-35026
(2) $6V6GT/G$ (2) 807	(1) 101D WEEK-FM SETTING SALE
(1) 5R4GY	Total Tubes: (1)
Total Tubes: (5)	AM-351/FC
MD-116/FC	(2) 6SN7CT
(2) 6SJ7 (1) 6SK7	Total Tubes: (2)
Total Tubes: (3) 98 x 241-55 X 15 1 595	MD-115/FC
2000 (NT) 2000 ((1) 1N44
NT-23295/NT-23296 (4) 328A (1) 274A	Total Crystals: (1)
(4) 328A Total Tubes: (5)	coses - In Teal soas enodes (e) the 1980
NT-23522	REFERENCE DATA AND LITERATURE
(3) 310A Total Tubes: (3)	NAVSHIPS 900840: Technical Manual for Carrier Control System Navy Model UN.
NT-35023	
(1) 101D	
Total Tubes: (1)	1 [Carlier Supply Chidel, Crannels I to w
20 X 27 X 27 X 13 X 89	The state of the s
NT-50100	TYPE CLASSIFICATION
(2) 311A	DESIGN COGNIZANCE BUSHIPS
Total Tubes: (2)	PROCLIPEMENT COGNIZANCE
NT-20140	all arthur to If Lago voice and I 19 106 (7) 1 1
(2) 323A	STOCK NO.
Total Tubes: (2)	ACORPINE ARGRESTS
26	

90	SHIPPING DATA					
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)		
1	System Terminal Cabinet, Send Telegraph—24NB	29.7	21 X 27-1/2 X 89	790		
1	System Terminal Cabinet, Receive Telegraph—12NB and 3WB	29.7	21 X 27-1/2 X 89	600		
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	System Terminal Cabinet, Send and Receive Voice and 3WB—2 Send and 2 Rec	1.8	7 X 18 X 24	40		

April 1958

CARRIER CONTROL SYSTEM

UN

Sending 3-Channel Terminal Panels NH-52056, 53097, 53098, 53099, 53100, 53101	NUMBER	SHIPPING	T		
NI-53096, 53097, 53098, 53099, 53100, 53101	OF			STATE SIME TOTAL	WEIGH PACKED (lbs.)
Sending Voice Channel Terminal Panel NT-50112	1	NT-53096, 53097, 53098, 53099, 53100.	1.8	7 X 18 X 24	40
Receiving 3-channel Terminal Panels N-53102 thru NT-53107 Receiving 3-channel Terminal Panel NT-53107 Receiving Voice Channel Terminal Panel NT-53107 Receiving Voice Channel Terminal Panel NT-53107 Receiving Woice Channel Terminal Panel (without Line Filter) NT-23297 Sending Line Terminal Panel (without Line Filter) NT-23298 Receiving Line Terminal Panel (without Line Filter) NT-23300 Receiving Line Terminal Panel (without Line Filter) NT-23301 Receiving Line Filter Panel NT-23406 Receiving Line Filter Panel NT-23528 Receiving Line Panel MD-116/FC Receiving Line Panel MD-115/FC Receiving Line Panel MD-11	1	Sending Voice Channel Terminal Panel		20%C (8 1) 10 10 10 10 10 10 10 10 10 10 10 10 10	
1 Receiving 3-Channel Terminal Panel NT-53107 1 Receiving Voice Channel Terminal Panel NT-2303 2 Sending Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (with Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Receiving Line Terminal Panel (without Line Filter) NT-23298 1 Modulator Panel MD-117/FC 1 Modulator Panel MD-117/FC 2 Modulator Panel MD-117/FC 2 Modulator Panel MD-115/FC 3 Modulator Panel MD-115/FC 3 Modulator Panel MD-115/FC 4 Modulator Panel MD-115/FC 4 Modulator Panel MD-115/FC 4 Modulator Panel MD-115/FC 4 Modulator Panel MD-115/FC 5 Modulator Panel MD-115/FC 6 X 18 X 24 1 X 18 X 24 2 M X 1 X	1	Receiving 3-Channel Terminal Panels	1.8		35
Receiving Voice Channel Terminal	1	Receiving 3-Channel Terminal Panel	3.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	55.5
Sending Line Terminal Panel (without Line Filter) NT-23297	1	Receiving Voice Channel Terminal	3.0	No. 10 Sept. 1	50
Sending Line Terminal Panel (with Line Filter) NT-23298 Receiving Line Terminal Panel (without Line Filter) NT-23301 Adulator Cabinet Line Filter) NT-23301 Modulator Panel MD-117/FC Modulator Panel MD-116/FC Demodulator Panel MD-116/FC Demodulator Panel MD-116/FC Demodulator Panel MD-115/FC Demodulator Panel MD-115/FC Line Amplifier Panel NT-25122 Larrier Telephone Panel EAST NT-23296 Carrier Telephone Panel EAST NT-23296 Carrier Telephone Panel EAST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel NT-25328 Carrier Telephone Panel NT-25222 Carrier Telephone Panel NT-25222 Carrier Telephone Panel NT-25222 Carrier Telephone Panel NT-25101 Carrier Supply Cabinet, Channels 1 to 6 and Hamonic Control Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 Carrier Supply Cabi	1	Sending Line Terminal Panel (without	1.5	# 1 / / /	30
Receiving Line Terminal Panel (without Line Filter) NT-23900	1	Sending Line Terminal Panel (with Line	1.5	6 X 18 X 24	30
Receiving Line Terminal Panel (with Line Filter) NT-23010	1	Receiving Line Terminal Panel (without	2.8	11 X 18 X 24	48
Modulator Cabinet	1	Receiving Line Terminal Panel (with Line	1.5	6 X 18 X 24	30
Modulator Panel MD-117/FC	4	Filter) NT-23301	2.8	11 X 18 X 24	45
Modulator Panel MD-117/FC 2.0 8-1/2 x 17 x 24		Modulator Cabinet	29.7	21 X 27-1/2 X 89	450
Demodulator Cabinet Demodulator Panel NT-50103 Demodulator Panel MD-115/FC Carrier Telephone Cabinet (Early Model) Carrier Telephone Panel EAST NT-23295 Carrier Telephone Panel EAST NT-23295 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel NT-23522 Carrier Telephone Panel NT-23522 Carrier Telephone Line Filter Panel NT-53365 Line Amplifier Panel NT-50101 Carrier Supply Cabinet, Channels 1 to 6 and Hammonic Control Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35025, NT-35026 Base Frequency Amplifier Panel NT-35002 Harmonic Generator Panel NT-20140 Rectifier, 130 volt NT-20140 Rectifier, 130 volt NT-20141 Rectifier, 24 volt NT-20141 Rectifier, 24 volt NT-20142 Rectifier, 130 volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446		Modulator Panel MD-117/FC	2.0	8-1/2 X 17 X 24	60
Demodulator Panel NT-50103 N-50103 N-50103 N-50105 N-50105 N-50105 N-50105 N-50105 N-50105 N-750105		Domodulator Panel MD-116/FC		8-1/2 X 17 X 24	70
1 Demodulator Panel MD-115/FC 1 Carrier Telephone Cabinet (Early Model) 1 Carrier Telephone Panel EAST NT-23295 1 Carrier Telephone Panel EAST NT-23295 1 Carrier Telephone Cabinet (Late Model) 1 NT-23528 1 Carrier Telephone Panel NT-23522 1 Carrier Telephone Panel NT-23522 1 Carrier Telephone Line Filter Panel 1 NT-53365 1 Line Amplifier Panel NT-50101 1 Carrier Supply Cabinet, Channels 1 to 6		Demodulator Capinet	29.7	21 X 27-1/2 X 89	450
Carrier Telephone Cabinet (Early Model) Carrier Telephone Panel EAST NT-23295 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Cabinet (Late Model) NT-23528 Carrier Telephone Panel NT-23522 Carrier Telephone Line Filter Panel NT-53365 Line Amplifier Panel NT-50101 Carrier Supply Cabinet, Channels 1 to 6 and Harmonic Control Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 Carrier Supply Cabinet, Channels NT-35021, NT-35021, NT-35021, NT-35021, NT-35021, NT-35021, NT-35025, NT-35026 Base Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35022, NT-35026 Base Frequency Amplifier Panel NT-50100 Harmonic Generator Panel NT-35002 Harmonic Generator Panel NT-35002 Harmonic Generator Panel NT-35002 Harmonic Generator Alarm Panel NT-10094 Voltmeter Test Panel NT-20141 Rectifier, 130 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446 Teletypewriter		Demodulator Panel NI-50103	4.6	16 X 20 X 25	125
Carrier Telephone Panel EAST NT-23295 Carrier Telephone Panel EAST NT-23296 Carrier Telephone Panel WEST NT-23296 Carrier Telephone Cabinet (Late Model) NT-25528 S.0 18 X 20 X 24 29.7 21 X 27-1/2 X 89 S.0 18 X 20 X 24 29.7 21 X 27-1/2 X 89 S.0 S.		Carrier Telephone Oct.	4.6	16 X 20 X 25	125
Carrier Telephone Panel WEST NT-23296 Carrier Telephone Cabinet (Late Model) NT-23528 Carrier Telephone Cabinet (Late Model) NT-23528 Carrier Telephone Line Filter Panel NT-53365 Carrier Telephone Line Filter Panel NT-53365 NT-53365 NT-53365 NT-63365 NT-63365 NT-63365 NT-63365 NT-63365 NT-63365 NT-63365 NT-63365 NT-63365 NT-63361		Carrier Telephone Capinet (Early Model)	29.7	21 X 27-1/2 X 89	800
1 Carrier Telephone Cabinet (Late Model) NT-23528 1 Carrier Telephone Panel NT-23522 1 Carrier Telephone Panel NT-23522 1 Carrier Telephone Line Filter Panel NT-53365 1 Line Amplifier Panel NT-50101 1 Carrier Supply Cabinet, Channels 1 to 6 and Harmonic Control 1 Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 1 Carrier Supply Cabinet, Channels 7, 3, 5 or 22, 23, 24 1 Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35025, NT-35026 1 Base Frequency Oscillator Panel NT-35023 1 Base Frequency Oscillator Panel NT-50100 1 Harmonic Generator Panel NT-35002 1 Harmonic Generator Alarm Panel NT-50100 1 Harmonic Generator Alarm Panel NT-10094 1 Voltmeter Test Panel NT-60035 1 Power Cabinet (Early Model) 1 Rectifier, 130 Volt NT-20140 1 Rectifier, 24 Volt NT-20142 1 Rectifier, 29 Volt NT-20142 1 Rectifier, 29 Volt NT-20364 1 Control Cabinet 1 Teletypewriter Repeater Cabinet Model PM 1 Teletypewriter Repeater Panel NT-23886		Carrier Telephone Panel EAST NT-23295	5.0	18 X 20 X 24	140
1 Carrier Telephone Panel NT-23522 Carrier Telephone Line Filter Panel NT-53365 Line Amplifier Panel NT-50101 Carrier Supply Cabinet, Channels 1 to 6 and Harmonic Control Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 Carrier Supply Cabinet, Channels, 1, 3, 5 or 22, 23, 24 Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35025, NT-35026 Base Frequency Oscillator Panel NT-50100 Harmonic Generator Panel NT-50100 Harmonic Generator Panel NT-50100 Harmonic Generator Alarm Panel NT-10094 Voltmeter Test Panel NT-60035 Power Cabinet (Early Model) Rectifier, 130 Volt NT-20140 Rectifier, 24 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Model PM Teletypewriter Repeater Panel NT-23886 17 X 18 X 24 17 X 17 X 24 19 X 27 X 27 X 28 29.7 21 X 27-1/2 X 89 21 X		Carrier Telephone Cabinet (Late Model)		18 X 20 X 24 21 X 27-1/2 X 89	140 775
NT-53365		Carrier Telephone Panel NT-23522	4.3	17 X 18 X 24	85
1 Carrier Supply Cabinet, Channels 1 to 6 and Harmonic Control 1 Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 1 Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 1 Carrier Supply Cabinet, Channels, 1, 3, 5 or 22, 23, 24 1 Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35010 thru NT-35021, NT-35024, NT-35010 thru NT-35021, NT-35024, NT-35010 thru NT-35020, Rase Frequency Oscillator Panel NT-35023 1 Base Frequency Amplifier Panel NT-50100 1 Harmonic Generator Panel NT-50100 1 Harmonic Generator Panel NT-50100 1 Harmonic Generator Alarm Panel NT-10094 1 Voltmeter Test Panel NT-60035 1 Power Cabinet (Early Model) 1 Rectifier, 130 Volt NT-20140 1 Rectifier, 24 Volt NT-20141 1 Power Cabinet (Late Model) 1 Rectifier, 130 Volt NT-20364 1 Control Cabinet 1 Teletypewriter Repeater Cabinet Model PM 1 Teletypewriter Repeater Panel NT-23886 1 Carrier Supply Cabinet, Channels 1 to 6 29.7 21 X 27-1/2 X 89 22 X 27-1/2 X 89 24 X 27-1/2 X 89 25 X 27-1/2 X 89 26 X 11 X 18 X 24 28 X 11 X 18 X 24 29.7 21 X 27-1/2 X 89 21 X 27-1/2 X 89 22 X 15 X 15 X 18 23 X 27-1/2 X 89 24 X 27-1/2 X 89 25 X 27-1/2 X 89 26 X 17 X 18 X 24 27 Y X 17 X 24 28 X 11 X 18 X 24 29.7 21 X 27-1/2 X 89 21 X 27-1/2 X 89 22 X 15 X 15 X 15 33.0 21 X 30-1/2 X 89 23 X 23 24 X 27-1/2 X 89 25 X 15 X 15 X 15 27 Y X 17 X 24 28 X 11 X 18 X 24 29 X 17 X 27-1/2 X 89 20 X 17 X 27-1/2 X 89 21 X 30-1/2 X 89 22 X 17 X 27-1/2 X 89 23 X 27-1/2 X 89 24 X 17 X 27-1/2 X 89 25 X 17 X 27-1/2 X 89 27 X 17 X 27 X 27 X 27 X 27 X 27 X 27 X		NT-53365	1.7	7 X 17 X 24	25
1 Carrier Supply Cabinet, Channels 1 to 6 and Harmonic Control 1 Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 1 Carrier Supply Cabinet, Channels, 1, 3, 5 or 22, 23, 24 1 Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35025, NT-35026 1 Base Frequency Oscillator Panel NT-35023 1 Base Frequency Amplifier Panel NT-50100 1 Harmonic Generator Panel NT-50100 1 Harmonic Generator Panel NT-50100 2.8 1 Harmonic Generator Panel NT-50100 2.8 1 Harmonic Generator Alarm Panel NT-10094 1 Voltmeter Test Panel NT-60035 1 Power Cabinet (Early Model) 2 Rectifier, 130 Volt NT-20140 1 Rectifier, 49.5 Volt NT-20142 1 Power Cabinet (Late Model) 2 Rectifier, 130 Volt NT-20364 1 Control Cabinet 2 Control Cabinet 2 NT-23446 2 NT X 22 X 28 3 NT-35026 3 NT-35026 3 NT-35026 3 NT-35026 3 NT-35026 3 NT-35027 3 NT-35028 3 NT-35028 3 NT-35028 3 NT-35028 3 NT-35029 3 NT-35029 3 NT-35021 3 NT-35029 3 NT-35021 3 NT-35024 3 NT-35024 3 NT-35024 3 NT-35024 3 NT-35024 3 NT-35024 3 NT-35025 3 NT-35026 3 NT-35024 3 NT-35024 3 NT-35024 3 NT-35026 3 NT-35024 3 NT-35026 3 N		Line Amplifier Panel NT-50101	1	19 X 23 X 23	35
and Harmonic Control Carrier Supply Cabinet, Channels 7 to 12 and 22 to 24 1 Carrier Supply Cabinet, Channels, 1, 3, 5 or 22, 23, 24 1 Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35025, NT-35026 1 Base Frequency Oscillator Panel NT-35023 1 Base Frequency Oscillator Panel NT-50100 1 Harmonic Generator Panel NT-35002 1 Harmonic Generator Alarm Panel NT-10094 1 Voltmeter Test Panel NT-60035 1 Power Cabinet (Early Model) 1 Rectifier, 130 Volt NT-20140 1 Rectifier, 24 Volt NT-20141 1 Rectifier, 24 Volt NT-20142 1 Power Cabinet (Late Model) 1 Rectifier, 130 Volt NT-20141 1 Rectifier, 130 Volt NT-20364 1 Control Cabinet 1 Teletypewriter Repeater Cabinet Model PM 1 Teletypewriter Repeater Panel NT-23486 29.7 21 X 27-1/2 X 89 21 X 27-1/2 X 89 21 X 27-1/2 X 89 22 X 15 X 28 23 X 11 X 18 X 24 24 X 18 X 19 25 X 17 X 17 X 24 27 X 17 X 24 29.7 21 X 27-1/2 X 89 20 X 12 X 27-1/2 X 89 21 X 27-1/2 X 89 22 X 15 X 28 23 X 27-1/2 X 89 24 X 18 X 19 25 X 17 X 17 X 24 27 X 17 X 24 29.7 21 X 27-1/2 X 89	1	Carrier Supply Cabinet, Channels 1 to 6	"	5 × 2) × 2)	130
Carrier Supply Cabinet, Channels, 1, 3, 5 or 22, 23, 24 Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35025, NT-35026 Base Frequency Oscillator Panel NT-35023 Base Frequency Amplifier Panel NT-50100 Harmonic Generator Panel NT-50100 Harmonic Generator Alarm Panel NT-10094 Voltmeter Test Panel NT-60035 Power Cabinet (Early Model) Rectifier, 130 Volt NT-20140 Rectifier, 24 Volt NT-20141 Rectifier, 24 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Tel etypewriter Repeater Cabinet Model PM Tel etypewriter Repeater Panel NT-23446	1	and Harmonic Control Carrier Supply Cabinet, Channels 7 to 12	29.7	21 X 27-1/2 X 89	710
Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024, NT-35025, NT-35026 Base Frequency Oscillator Panel NT-35023 Base Frequency Amplifier Panel NT-50100 Harmonic Generator Panel NT-35002 Harmonic Generator Panel NT-35002 Voltmeter Test Panel NT-60035 Power Cabinet (Early Model) Rectifier, 130 Volt NT-20140 Rectifier, 49.5 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446	1	Carrier Supply Cabinet, Channels, 1, 3, 5	29.7	21 X 27-1/2 X 89	660
Base Frequency Oscillator Panel NT-35023 Base Frequency Amplifier Panel NT-50100 Harmonic Generator Panel NT-35002 Harmonic Generator Alarm Panel NT-10094 Voltmeter Test Panel NT-60035 Power Cabinet (Early Model) Rectifier, 130 Volt NT-20140 Rectifier, 24 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446 2.8 14 X 18 X 19 11 X 18 X 24 11 X	1	Channel Frequency Oscillator Panels NT-35010 thru NT-35021, NT-35024.	29.7	21 X 27-1/2 X 89	575
Base Frequency Oscillator Panel NT-35023 Base Frequency Amplifier Panel NT-50100 Harmonic Generator Panel NT-35002 Harmonic Generator Alarm Panel NT-10094 Voltmeter Test Panel NT-60035 Power Cabinet (Early Model) Rectifier, 130 Volt NT-20140 Rectifier, 49.5 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446 14 X 18 X 19 11 X 18 X 24 7 X 17 X 24 7 X 17 X 24 1.7 X 17 X 22 21 X 30-1/2 X 89 11 X 18 X 19 11 X 18 X 19 11 X 18 X 19 11 X 18 X 24 7 X 17 X 22 21 X 30-1/2 X 89 12 X 15 X 15 21 X 30-1/2 X 89 13 X 30-1/2 X 89 14 X 18 X 19 11 X 18 X 19 11 X 18 X 19 11 X 18 X 24 7 X 17 X 24 7 X 17 X 24 7 X 17 X 22 8 I1 X 18 X 19 11 X 18 X 19 11 X 18 X 24 7 X 17 X 24 7 X 17 X 24 7 X 17 X 22 8 I1 X 30-1/2 X 89 8 I1 X 18 X 19 11 X 18 X 24 7 X 17 X 22 8 I1 X 30-1/2 X 89 8 I1 X 18 X 19 11 X 18 X 24 7 X 17 X		NT-35025, NT-35026	2.8	11 X 18 X 24	45
Base Frequency Amplifier Panel NT-50100	1	Base Frequency Oscillator Panel NT-35023			75
Harmonic Generator Panel NT-35002 Harmonic Generator Alarm Panel NT-10094 Voltmeter Test Panel NT-60035 Power Cabinet (Early Model) Rectifier, 130 Volt NT-20140 Rectifier, 49.5 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446 11 X 18 X 24 7 X 17 X 24 7 X 17 X 24 21 X 30-1/2 X 89 81 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.		Base Frequency Amplifier Panel NT-50100			45
Tarmonic Generator Alarm Panel NT-10094 1.7 7 x 17 x 24 7 x 17 x 27 7 x 17 x 24 7 x 17 x 27 7 x 17 x 17 x 27 7 x 17		Harmonic Generator Panel NT-35002			40
Tower Cabinet (Early Model) 1.7 33.0 21 x 30-1/2 x 89 1.7 33.0 1.7 21 x 22 x 28 1.7	1 1	Harmonic Generator Alarm Panel NT-10094	1.7		30
Power Cabinet (Early Model) 33.0 21 x 30-1/2 x 89 80 17 x 22 x 28 17 x 22 x 28 17 x 22 x 28 18 x 15 x 15 18 x 15 x 15 19 x 16 x	1	Voltmeter Test Panel NT-60035	1.7		30
Rectifier, 49.5 Volt NT-20141 Rectifier, 24 Volt NT-20141 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446 1 Rectifier, 49.5 Volt NT-20141 2.9 1.6 1.7 X 22 X 28 12 X 15 X 25 12 X 15 X 15 21 X 30-1/2 X 89 21 X 30-1/2 X 89 22 X 28 21 X 30-1/2 X 89 23.0 24 X 27-1/2 X 89 25.0 26 X 27-1/2 X 89 27.0 28 X 27-1/2 X 89 28 X 27-1/2 X 89 29.7 21 X 27-1/2 X 89 29.7 21 X 27-1/2 X 89	- 1	Power Cabinet (Early Model)	33.0		840
Rectifier, 49.5 Volt NT-20141 Rectifier, 24 Volt NT-20142 Power Cabinet (Late Model) Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446 Rectifier, 24 Volt NT-20142 1.6 12 X 15 X 28 12 X 15 X 15 21 X 30-1/2 X 89 1.7 X 22 X 28 21 X 30-1/2 X 89 25 27 21 X 27-1/2 X 89 28 29.7 21 X 27-1/2 X 89 29.7 21 X 27-1/2 X 89	1	Recuirier, 130 Volt NT-20140			250
Rectifier, 24 Voit NT-20142 1.6 12 X 15 X 15 12 X 30-1/2 X 89 13	1	Postifier, 49.5 Volt NT-20141	2.9		75
Rectifier, 130 Volt NT-20364 Control Cabinet Teletypewriter Repeater Cabinet Model PM Teletypewriter Repeater Panel NT-23446 Rectifier, 130 Volt NT-20364 6.1 33.0 6.1 33.0 21 X 30-1/2 X 89 17 X 22 X 28 21 X 30-1/2 X 89 75 77 21 X 27-1/2 X 89	T	Recuirier, 24 Voit NT-20142	1.6		40
1 Control Cabinet 17 x 22 x 28 21 x 30-1/2 x 89 1 Teletypewriter Repeater Cabinet 33.0 29.7 21 x 27-1/2 x 89 75 27 x 21 x 27-1/2 x 89 27 x 27	1	Power Cabinet (Late Model)	33.0	21 X 30-1/2 X 89	850
1 Tel etypewriter Repeater Cabinet Model PM	1	Control Cobinet	6.1	17 X 22 X 28	250
1 Teletypewriter Repeater Panel NT-234146 29.7 21 x 2/-1/2 x 89		Teletypewriter Repeater Cabinet	33.0	21 X 30-1/2 X 89	550
- I	1				750
1 Test Unit NT-60603 2.6 11 X 17 X 24	i	Test Unit NT-60602		7 X 21 X 24	40

UN

CARRIER CONTROL SYSTEM

April 1958

CLANCE OF THE P. S.	SHIPPING	DATA		
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGH PACKET (Ibs.)
1 Rec 1 Fou 1 Sig 1 Rin 1 Sig 1 Rin 1 Os 1 Tr	ctifier, 130 Volt NT-20311 IT-Wire Terminating and Signaling Cabinet NT-50250 UT-Wire Terminating Unit NT-50249 Inaling Applique Unit (20 CPS) NT-23486 Inging Oscillator NT-35089 Inging Power Supply Unit NT-20387 Inging Supply Unit NT-35090 Inging Supply Unit NT-60036 Inging Supply Unit NT-60036 Inging Supply Unit NT-60036 Inging Supply Unit NT-60036 Inging Supply Unit NT-60036	29.7 2.5 1.4 2.8 2.6	21 X 27-1/2 X 89 21 X 27-1/2 X 89 11 X 16 X 24 6 X 17 X 24 12 X 17 X 24 11 X 17 X 24 15 X 17 X 24 15 X 15 X 20 15 X 15 X 15 10 X 10 X 11	700 50 50 70 45 50 45 35 20

	EQUIPMENT SUPPLIED D	DAIA	
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGH (lbs.)
1	System Terminal Cabinet, Send Telegraph—24NB	17 X 22-1/2 X 84	590
i	System Terminal Cabinet, Rec Telegraph—12NB	17 X 22-1/2 X 84	400
1	System Terminal Cabinet, Send and Rec Voice and	17 X 22-1/2 X 84	520
1*	Sending 3-Channel Terminal Panels	3-1/2 X 8 X 19	18.
	Channels 1, 2, 3 NT-53096	3-1/2 X 8 X 19	18.
	Channels 4, 5, 6 NT-53097	0 4/0 V 0 V 10	18.
	Channels 7, 8, 9 NT-53098	3-1/2 X 8 X 19	18.
	Channels 10, 11, 12 NT-53099	2 4/2 V Q Y 10	18.
	Channel s 1, 3, 5 NT-53100	3-1/2 X 8 X 19	16.
	Channel s 22, 23, 24 NT-53101	3-1/2 X 8 X 19	12.
1	Sending Voice Channel Terminal NI-50112)-1/2 × 0 × 2/	
1*	Receiving 3-Channel Terminal Panels	7 X 8 X 19	28.
	Channels 1, 2, 3 NT-53102		28.
	Channels 4, 5, 6 NT-53103	7 X 8 X 19 7 X 8 X 19	28.
	Channels 7, 8, 9 NT-53104	7 X 8 X 19	28.
	Channels 10, 11, 12 NT-53105	7 V 0 V 10	28.
	Channels 1, 3, 5 NT-53106	7 X 8 X 19	25
	Channels 22, 23, 24 NT-53107	7 X 8 X 19	- 1
1	Receiving Voice Channel Terminal Panel	1-3/4 X 8 X 19	4
1.	Sending Line Terminal Panel	1 2/4 Y 2 Y 10	6
	without Line Filter NT-23297	1-3/4 X 8 X 19	24
	with Line Filter NT-23298	5-1/4 X 8 X 19	-7
1*	Receiving Line Terminal Panel	-1 I leucon Lamitor To eniversion.	14
65	without Line Filter NT-23300	1-3/4 X 8 X 19	22
	with Line Filter NT-23301	5-1/4 X 8 X 19	250
1*	Modulator Cabinet including:	17 X 22-1/2 X 84	21
100	Modulator Panel MD-117/FC	5-1/4 X 8 X 19	30
	Modulator Panel MD-116/FC	5-1/4 X 10-1/2 X 19	250
1*	Demodulator Cabinet including:	17 X 22-1/2 X 84	60
10.0	Demodulator Panel NT-50103	10 X 10-1/2 X 19	60
	Demodulator Panel MD-115/FC	10 X 10-1/2 X 19	00

CARRIER CONTROL SYSTEM

UN

QUANTITY	EQUIPMENT SUPPLIED D		
PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGH (lbs.)
071 08 08 1	AF Amplifier AM-351/FC Carrier Telephone Cabinet (Early Model) including: Carrier Telephone Panel EAST NT-23295 Carrier Telephone Panel WEST NT-23296 or Carrier Telephone Cabinet (Late Model) NT-23528 including:	5-1/4 X 6-13/16 X 19 17 X 22-1/2 X 84 9 X 15-3/4 X 19 9 X 15-3/4 X 19 17 X 22-1/2 X 84	600 80 80 575
ар 08 ар 1	Carrier Telephone Panel NT-23522 Carrier Telephone Line Filter Panel NT-53365 Line Amplifier Panel NT-50101 Carrier Supply Cabinet	9 X 12-1/4 X 19 3-1/2 X 8 X 19 10 X 10-1/2 X 19	50 15 65
08	Channels 1 to 6 and Harmonic Control Channels 7 to 12 and 22 to 24 Channels 1, 3, and 5 or 22, 23, and 24 including	17 X 22-1/2 X 84 17 X 22-1/2 X 84 17 X 22-1/2 X 84	510 460 375
	Channel Frequency Oscillator Panels* Channel 1 (425 CPS) NT-35010 Channel 2 (595 CPS) NT-35011 Channel 3 (765 CPS) NT-35012 Channel 4 (935 CPS) NT-35013 Channel 5 (1105 CPS) NT-35014	5-1/4 X 8 X 19	21.5
	Channel 6 (1275 CPS) NT-35015	USC	
HEREIVE	Channel 7 (1445 CPS) NT-35016		THIMAUS
(388)	Channel 8 (1615 CPS) NT-35017 Channel 9 (1785 CPS) NT-35018 Channel 10 (1955 CPS) NT-35019	NAME AND NOMENO	PER EQUIPT
590	Channel 11 (2125 CPS) NT-35019		
004	Channel 12 (2295 CPS) NT-35021 Channel 22 (2975 CPS) NT-35024		1
058 4	Channel 23 (3825 CPS) NT-35025 Channel 24 (4675 CPS) NT-35026 Base Frequency Oscillator Panel NT-35023*	System Terminal Cabinet, Send 3 WB-2 Send and 2 Rec	1
18.5	Base Frequency Amplifier Panel NT-50100*	8 X 10-1/2 X 19 0000000000000000000000000000000000	44.5
18.5	Harmonic Generator Panel NT-35022*	5-1/4 X 8 X 19 5-1/4 X 9 X 19 5-1/4 X 9 X 19	21.5
18.5	Harmonic Generator Alarm Panel NT-10094*	3-1/2 X 9 X 19 \(\tex	16
	Voltmeter Test Panel NT-60035	3-1/2 X 4 X 19 01 a leaned	7.5 5.5
0.81	Power Cabinet (Early Model) including:	17 X 26-1/4 X 84	644
5751	130 Volt Rectifier NT-20140	11 X 15-3/4 X 23	140
v	49.5 Volt Rectifier NT-20141 24 Volt Rectifier NT-20142	2-11/16 X 5 X 9-1/2	40
3-88 7	or	6-1/2 X 7-1/2 X 9-1/4	20
1	Power Cabinet (Late Model) including:	17 X 26-1/4 X 84	
	130 Volt Rectifier NT-20364	11 X 15-3/4 X 23	650
	Control Cabinet	17 X 26-1/4 X 84	140 350
251	Teletypewriter Repeater Cabinet Model PM including:	17 X 22-1/2 X 84	550
	Teletypewriter Repeater Panel NT-23446 Test Unit NT-60603	3-1/2 X 17 X 19	20
05	130 Volt Rectifier NT-20311	5-1/4 X 11 X 19	20
1 1	Four—Wire Terminating and Signaling Cabinet NT—50250 including:	7 X 12 X 29 17 X 22-1/2 X 84	58
	Four-Wire Terminating Unit NT-50249	5-1/4 X 6-1/4 X 19	500
222	Signaling Applique Unit (20 CPS) NT-23486	1-3/4 X 8 X 19	25 10
250	Ringer Oscillator NT-35089	7 X 10 X 19	35
15 1	Ringing Supply Unit NT-20387	5-1/4 X 9-1/2 X 19	22
1 0	scillator Model 100	9-1/16 X 11 X 19	25
1 T	ransmission Moscurias not ut cons	9-1/4 X 9-5/8 X 15-1/8	20
1 1	TTANUATOR NT COMMO	6-1/2 X 8-1/2 X 11	14
00	OTE: *-Supplied as required for each specific inst	4-3/16 X 5 X 6-3/4	4.5

CARRIER CONTROL SYSTEM

UP

FUNCTIONAL DESCRIPTION

The UP is a multi-channel voice frequency carrier telegraph system operating over single side hand short wave radio telephone circuits.

This system provides for six two-way telegraph circuits over one radio telephone circuit. Each circuit employs two frequencies, the lower frequency being used for marks, and a frequency 170 cps high for spaces.

This equipment may be located at a distance from the radio stations if suitable voice frequency circuits are provided for interconnection.

Data on this sheet reflects the following field changes, F.C. 2 (20 August 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

CHANNEL FREQUENCIES

- 1: 425 cps mark, 595 cps space.
- 2: 765 cps mark, 935 cps space.
- 3: 1105 cps mark, 1275 cps space.
- 4: 1445 cps mark, 1615 cps space.
- 5: 1785 cps mark, 1955 cps space.
- 6: 2125 cps mark, 2295 cps space.

POWER SOURCE REQUIRED: 115 v AC, 50 to 60 cps, single ph.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Company Inc., New York, N. Y.

Contract NXsr 60059.

TUBE AND/OR CRYSTAL COMPLEMENT

(1)	5R4WGB	(1)	25Z5	(2)	311A
(6)	6SJ7WGT	(1)	43	(12)	337A
(6)	6SL7WGT	(1)	77	(6)	355A
(3)	6V6GT	(16)	101D	(4)	393A
(14)	12D	(36)	310A		

Total Tubes: (109)

REFERENCE DATA AND LITERATURE

Technical Manual for Two-Tone Carrier Control System UP.

TYPE CLASSIFICATION

DESIGN COGNIZANCE BUSHIPS

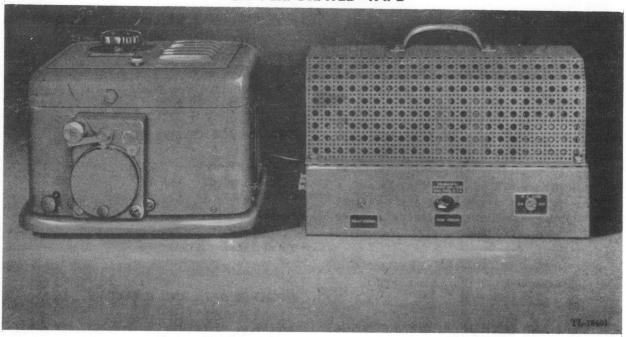
PROCUREMENT COGNIZANCE

STOCK NO.

EQUIPMENT SUPPLIED DATA				
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)	
1	Oscillator 19C	9-1/4 X 9-1/2 X 15	27	
1	Transmission Measuring Set 13A	6-1/2 X 8-1/2 X 11	14	
1	Regulated Rectifier X-63673A (24V)	12-7/32 X 12-7/32 X 23	140	
1	Power Supply Unit KS-15123-L02WA (Mtg. On Plate)	8-3/4 X 10-1/8	65	
1	Test Set 67B	EDUIREMENTS: 115 v. 50 to c	H HEWO	
1	lest set old (ser)		9	
1	Test Set I-181	3 1/0 K 0 1/0 K 0 //		
1	Tube Tester MOD 560 (SPL) (including Case)	6-3/4 X 14-1/2 X 16	23	
1	Vott-Ohm-Milliameter D-166852 (including Case)	3 X 4-1/2 X 7-1/2	3-1/	

AUTOMATIC TRANSMITTER FOR PERFORATED TAPE

XTR-442-C



Automatic Transmitter for Perforated Tape XTR-442-C

FUNCTIONAL DESCRIPTION

The McElroy Type XTR-442-C is an electromechanical device using Wheatstone perforated tape to produce International Morse Characters at continuously variable speeds from 10 to 100 words per minute. Two types of output are available; terminal output of an electronically operated relay and a keyed audio-frequency tone.

No field changes in effect at time of preparation (5 February 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER REQUIREMENTS: 115 v, 50 to 60 cps, single ph.

MANUFACTURER'S OR CONTRACTOR'S DATA

McElroy and Goode Inc. Boston Mass.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 6V6G (1) 89Y (1) 80

Total Tubes: (3)

REFERENCE DATA AND LITERATURE

TM11-2545: Technical Manual for Automatic Transmitter for Perforated Tape (Wheatstone) McElrov Type XTR-442-C.

TYPE CLASSIFICATION DESIGN COGNIZANCE COMMERCIAL PROCUREMENT COGNIZANCE STOCK NO.

Radio-Communication Terminal Equipment

XTR-442-C

AUTOMATIC TRANSMITTER FOR PERFORATED TAPE

SHIPPING DATA					
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	PACKED (lbs.)	
-	Automatic Transmitter for Perforated Tape McElroy Type XTR-442-C	5.7	15 X 20-3/4 X 31-1/2	141	

EQUIPMENT SUPPLIED DATA				
QUANTITY PER	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)	
EQUIPT 1	Auto Head and Drive Unit Electronic Unit	8-1/2 X 12 X 13-3/4 9-1/4 X 10 X 15	30 14	