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ARROW 1 SERVICE DATA

SECTION 44

ELECTRONICS

UHF COMMAND RADIO

AN/ARC-34

(This data supersedes previous issue dated 25 Jun 57)

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LIST OF REVISIONS

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ELECTRONICS

UHF COMMAND RADIO AN/ARC-34

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DESCRIPTION

GENERAL

1 The UHF Radio System AN/ARC-34 provides voice and MCW communication within the 225.0 Mc/s to 399.9 Mc/s frequency range. In addition to the main receiver-transmitter, a second receiver, designated the GUARD receiver, is incorporated in the system. The GUARD receiver operates on a predetermined distress frequency between 238.0 Mc/s and 248.0 Mc/s. Provision is made to permit operation of the main receiver-transmitter on the distress frequency.

2 Homing facilities can be obtained by using the main receiver of the system in conjunction with the UHF Homer Adaptor AN/ARA-25.

3 The UHF Radio System comprises the following main component units:

- (a) Receiver-Transmitter RT-263/ARC-34.
- (b) Receiver-Transmitter Mounting MT-1099/U.
- (c) Radio Set Control C1057/ARC-34.
- (d) UHF Antenna System.

RECEIVER-TRANSMITTER RT-263/ARC-34

4 The receiver-transmitter incorporates two receivers and a transmitter. A common audio amplifier circuit handles the output of both receivers. The audio output and input circuits are connected to the Interphone System AN/AIC-10. An additional audio output circuit, which is not required for the normal functioning of the system, supplies a 100 cycle signal to the UHF Homer Adaptor AN/ARA-25 when the ADF function is used.

5 The transmitter and main receiver can be tuned in steps of one tenth of a megacycle over the frequency range of 225.0 to 399.9 Mc/s. Twenty of the 1750 available frequencies can be preset and, in addition, any frequency within the range can be selected without disturbing the preset frequencies.

6 Four crystal controlled oscillators and a tenth harmonic multiplier are used to determine the selected frequency. The first digit of the operating frequency, which must be either 2 or 3, is selected by a relay operated by the preset frequency selector on the radio set control. This relay selects 2 when energized and 3 when de-energized. The second, third and fourth digits are selected by three ratchet motors which are operated by an equalizing circuit controlled by the preset frequency selector on the radio set control.

7 The GUARD receiver operates on a single fixed frequency in the 238.0 Mc/s to 248.0 Mc/s range. A crystal controlled oscillator fixes the operating frequency and to change the frequency it is necessary to change the crystal.

RADIO SET CONTROL C1057/ARC-34

8 The radio set control incorporates a function selector switch, an operational mode selector switch with associated manual and preset frequency selector controls, a volume control and an MCW tone button-switch. In addition, the panel incorporates the transmitter and main receiver frequency-presetting controls.

9 The function selector switch is marked OFF-MAIN-BOTH-ADF. When the switch is selected to the MAIN position, the transmitter and main receiver are operative. Selecting the switch to the BOTH position renders the transmitter, the main receiver and the guard receiver operative. When the ADF position is selected, the main receiver operates in conjunction with the UHF homer adaptor. In this position the transmitter and the guard receiver are inoperative.

10 The operational mode selector switch is marked MANUAL-PRESET-GUARD. When the PRESET position is selected, any preset channel selected on the frequency selector switch will be operative. The channel selected is shown in a window located directly above the control switch.

11 When the operational mode selector switch is selected to MANUAL, four windows across the top of the control panel are opened, exposing the four digits of a manually-set frequency.

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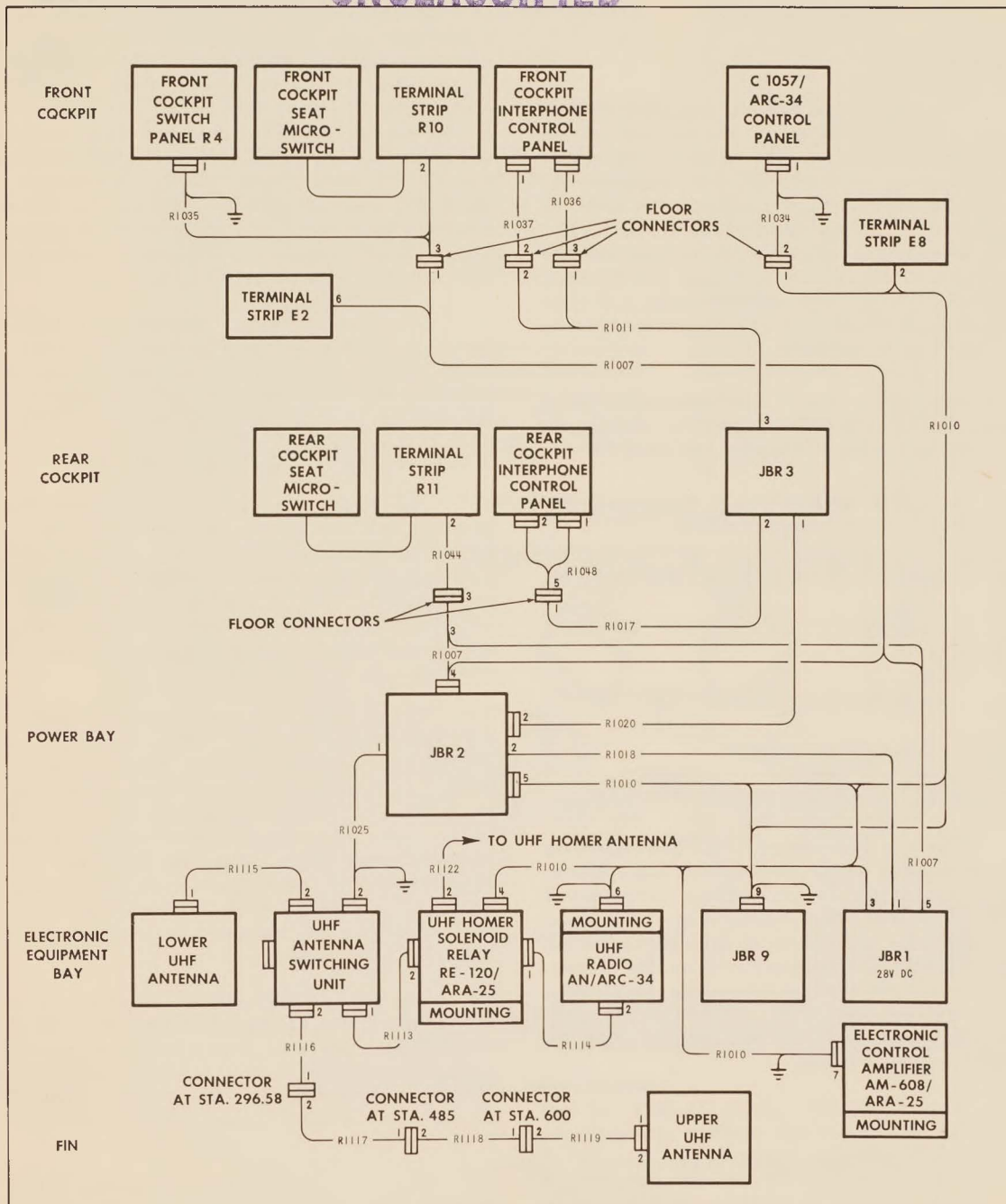


FIG. 1 UHF COMMAND RADIO AN/ARC-34 - GENERAL ARRANGEMENT

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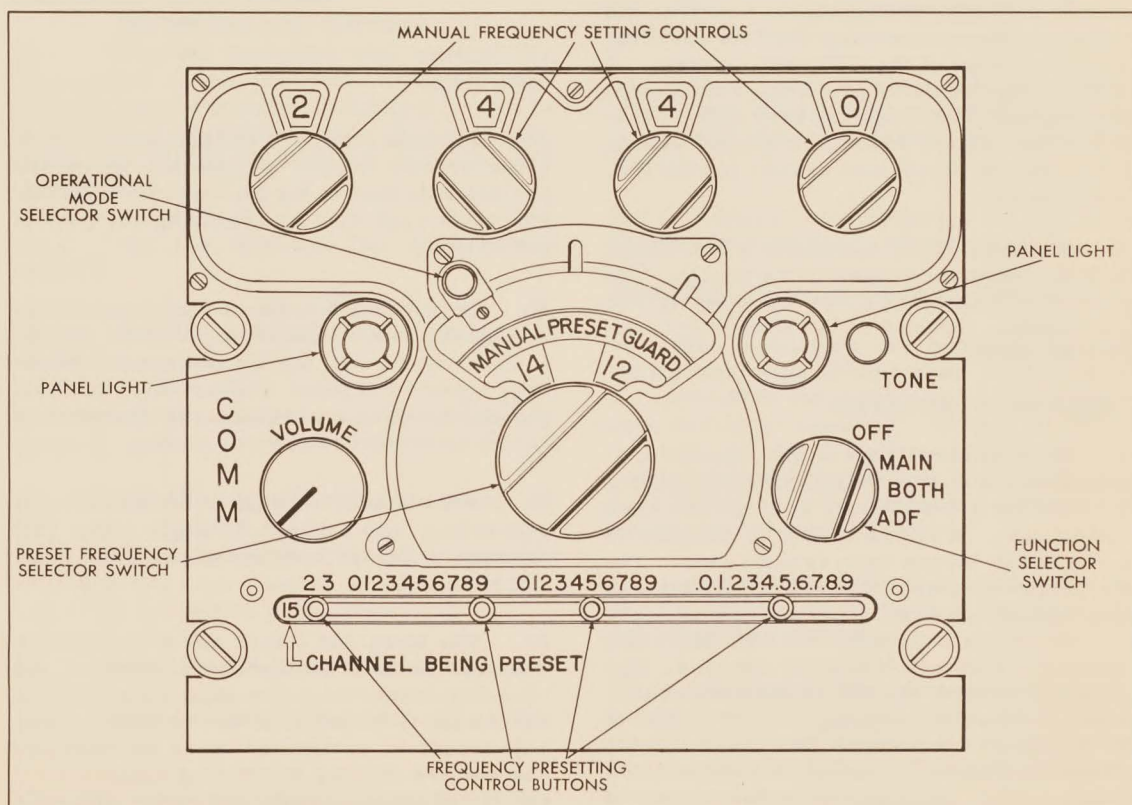
The operating frequency is indicated directly by the digits which are selected by four controls located directly below the windows.

12 When the operational mode selector switch is selected to GUARD, the transmitter and the main receiver are selected to operate on the guard frequency. Consequently, when the function switch is selected to the BOTH position and the operational mode selector switch set to the GUARD position, the transmitter and both receivers will be operative on the guard frequency.

13 The TONE button on the radio set control provides MCW transmission when depressed. This facility is used to enable ground stations to fix the position of the aircraft. The TONE button may also be used to transmit in international morse code.

14 The control marked VOL, on the radio set control, permits adjustment of the audio output level of the receivers. The circuit arrangement is such that the audio output cannot be reduced to zero.

15 The frequency presetting control buttons for the transmitter and the main receiver are located in a horizontal slot under a cover on the front panel. The channel to be preset is selected by rotating the preset frequency control in the centre of the control panel, until the channel number appears in the slot just above the arrow labelled CHANNEL BEING PRESET. This will bring into view the presetting control buttons for that particular channel. Engraved above the slot are four sets of digits, one set for each presetting button. The first set comprises digits 2 and 3, while the digits of the second and third



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FIG. 2 RADIO SET CONTROL C1057/ARC-34

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sets range in each case from 0 through 9, and of the fourth set from .0 to .9. The left hand button is set to 2 or 3 to correspond with the first digit of the frequency being preset and the remaining buttons are set to correspond with the second, third and fourth digits respectively.

16 The GUARD frequency is preset on the main receiver-transmitter by plugging three leads into pin sockets located in the radio set control. The first digit of the guard frequency is always 2 and is permanently set up in the control. The three leads are plugged into pin sockets corresponding to the second, third and fourth digits of the guard frequency.

UHF ANTENNA SYSTEM

17 Two antennas, designated the upper UHF antenna and lower UHF antenna, are provided to give satisfactory coverage over the operating frequency range of the UHF radio system. A switch located on the front cockpit switch panel R4 energizes the antenna transfer relay. This enables the operator to switch from one antenna to the other to obtain best results for the frequency in use.

18 The upper UHF antenna is a fan shaped vertical radiator, located in the fin tip. The lower UHF antenna is a downward facing slot type radiator, mounted on the electronic equipment bay door.

EMERGENCY OPERATION

19 MCW transmission on the distress frequency is obtained automatically upon ejection of either the front cockpit seat or the rear cockpit seat. A micro-switch is mounted on the bulkhead behind each cockpit seat. The two micro-switches are wired in parallel and, upon ejection of either seat, operate to energize two relays in junction box R9. One relay connects a distress frequency network, also located in junction box R9, to the transmitter-receiver circuits, causing the set to tune to the distress frequency. The second relay energizes control circuits to initiate MCW transmission, irrespective of the setting of the function switch on the radio set control, provided that the equipment is switched on.

20 A UHF/IFF emergency press-to-test switch, located on the front cockpit switch panel R4, overrides the micro-switches to facilitate testing the distress function of the system.

SYSTEM POWER REQUIREMENTS

21 The system operates on 27.5 volts DC. The current consumption for reception is 13.5 amps and for transmission is 18 amps. A dynamotor in the receiver-transmitter assembly provides 320 volts DC for the plate supply to the transmitter and 120 volts DC for the receiver plate supply. The tube heaters are connected in a series-parallel arrangement across the aircraft 27.5 volts DC supply. The power output of the transmitter is approximately 10 watts.

TESTING AND SERVICING

GENERAL

22 Function testing of the AN/ARC-34 UHF radio system should be carried out at the periods specified in the Maintenance Schedule and after replacing or repairing any part of the system.

23 Periodically the transmitted output should be checked with a field strength meter and the readings noted. If, during successive checks over a period of time, a noticeable reduction in field strength is observed, the transmitter should be removed for bench testing.

24 A Termaline Wattmeter Model 6154, or equivalent, and a Field Strength meter (TD drawing 13-74) are required to carry out function tests.

25 The Main and Guard receiver squelch controls located on the front panel of the receiver-transmitter are adjusted before the equipment is installed in the aircraft. Final adjustment is performed when the aircraft engines are running at cruising speed and all electrical and electronic equipment operating normally. (The procedure for performing this adjustment will be issued later).

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FREQUENCY PRESETTING

26 The procedure for setting up the preset frequencies on the transmitter and main receiver is as follows:

(a) Open the cover on the front panel of the radio set control by unscrewing two knurled screws, to expose the frequency presetting buttons. Unclip the presetting tool from inside the cover.

(b) Turn the function selector switch to OFF and the operational mode selector switch to MANUAL or GUARD.

(c) Turn the preset frequency selector switch until the desired channel number appears in the slot just above the arrow marked CHANNEL BEING PRESET.

(d) Using the presetting tool, position the four buttons so that the numbers under which they are located indicate, reading from left to right, the required frequency. For example, to set up a frequency of 369.5 Mc/s proceed as follows:

(1) Set the extreme left hand button under 3.

(2) Set the second button from the left under 6.

(3) Set the third button from the left under 9.

(4) Set the right hand button under .5.

(e) Select the preset frequency selector switch to the next channel to be preset and repeat the procedure given in step (d).

(f) Repeat this procedure for all channels.

(g) Refit the presetting tool and secure the cover.

27 To set up the GUARD frequency on the transmitter and main receiver proceed as follows:

(a) Remove the rear cover of the radio set control by turning the knurled screw in the centre of the cover.

(b) Locate three leads clipped to pin sockets mounted under the frequency setting resistors. Each pin socket is engraved with the frequency digit it represents.

(c) Plug the three leads into the appropriate pin sockets to correspond with the second, third and fourth digits respectively of the guard frequency, reading from left to right. The first digit is always 2 and is permanently set up in the radio set control.

(d) Refit the rear cover.

PREPARATION FOR TESTING

28 Prior to carrying out function tests proceed as follows:

(a) Position the aircraft in an area sufficiently clear of screening to permit communication with the local control tower or other stations.

(b) Connect an external 115V AC three phase power supply to the aircraft.

FUNCTION TESTING PROCEDURE

29 Two operators are required to carry out function testing of the system, one to operate the controls in the cockpit and one to observe external meter readings. Testing is carried out from controls in the front cockpit, the rear cockpit controls being adequately covered during function testing of the interphone system. The testing procedure is as follows:

(a) Open the electronic equipment bay centre access door to gain access to the AN/ARC-34 radio set.

(b) Disconnect the antenna from the radio set and substitute an RF output meter, Ter-maline Wattmeter Model 6154 or equivalent, as a dummy load to avoid antenna radiation.

(c) Select to ON the master electrical switch in the front cockpit.

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(d) Select the controls on the radio set control C1057/ARC-34 as follows:

(1) Function selector switch to MAIN.

(2) Operational mode selector switch to PRESET.

(3) VOLUME control fully clockwise.

(e) Select the controls on the interphone control panel as follows:

(1) COMM mixing switch on (up).

(2) Rotary selector switch to COMM.

(3) VOL control to the 12 o'clock position.

(f) Plug a headset type H-70/AIC and microphone type M-33/AIC, or equivalent, into the quick release connector on the front cockpit seat.

(g) Allow not less than three minutes for the equipment to warm up.

(h) Set the preset frequency selector switch on the radio set control to each preset frequency channel in turn and at each selection depress the press-to-transmit (PTT) switch on the throttle box. Check that the wattmeter indicates a reading of 10 ± 2 watts output for each channel.

(j) Select the operational mode control to MANUAL.

(k) Set up a manual frequency at the lower end of the frequency range and depress the PTT switch. Check that the wattmeter indicates a reading of 10 ± 2 watts output.

(m) Repeat operation (k) selecting a frequency about the middle and then at the upper end of the frequency range.

(n) Select the operational mode selector to GUARD, depress the PTT switch and check that the wattmeter indicates a reading of 10 ± 2 watts output.

30 Check the distress function of the equipment proceeding as follows:

(a) Ensure that the IFF system is inoperative by selecting to OFF the selector switch on the IFF control panel in the front cockpit.

(b) Depress the UHF/IFF emergency press-to-test switch on switch panel R4 in the front cockpit and check that the wattmeter indicates a reading of 10 ± 2 watts output. Check also that a 1000 cps note is heard in the headset.

(c) Check operation (b) with the function selector switch selected to each position in turn, excepting the OFF position.

(d) Check that when the UHF/IFF emergency press-to-test switch is released, the system returns to the normal operating condition.

NOTE

To check the distress function by operating the ejection seat micro-switches it is necessary to remove the ejection seats from the aircraft.

31 Switch off the equipment, disconnect the wattmeter and reconnect the UHF antenna to the radio set, then carry out communication tests proceeding as follows:

(a) Select the controls on the radio set control panel as follows:

(1) Function selector switch to MAIN.

(2) Operational mode selector switch to PRESET.

(3) Preset frequency selector switch to the channel number of the local control tower.

(4) VOLUME control fully clockwise.

(b) Select the controls on the interphone control panel as follows:

(1) Rotary selector switch to COMM.

(2) COMM mixing switch on (up).

(3) VOL control to the 12 o'clock position.

(c) Allow not less than three minutes for the equipment to warm up.

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(d) Select the UHF antenna selector switch on switch panel R4 in the front cockpit to UPPER UHF ANTENNA.

(e) Establish two way voice communication with the local control tower using the PTT switch on the throttle box.

(f) Check that sidetone is heard in the headset and that strong and undistorted signals are received.

(g) Check that manipulation of the inter-phone volume control produces variation of the signal level.

(h) Check that manipulation of the volume control on the radio set control panel produces variation of the signal level.

NOTE

Manipulation of the volume control on the radio set control panel must not at any point render the signal inaudible.

(j) Select the UHF antenna selector switch to LOWER UHF ANTENNA and repeat operation (e).

(k) Depress the TONE button on the radio set control and check that an MCW tone is transmitted and a 1000 cps note is heard in the headset as sidetone.

(m) Check the transmitted output from each antenna with a field strength meter.

(n) Select the operational mode selector switch to GUARD and establish two-way communication on the GUARD frequency.

(p) Select the function selector switch to BOTH and the operational mode selector switch to PRESET.

(q) Establish communication with the local tower and arrange for a simultaneous transmission on the GUARD frequency.

(r) Check that both GUARD frequency and preset frequency signals are received.

(s) Select the operational mode selector switch to MANUAL and manually set up the frequency of the local control tower or other convenient frequency.

(t) Establish two-way voice communication on this manually set frequency.

(u) Switch off the equipment.



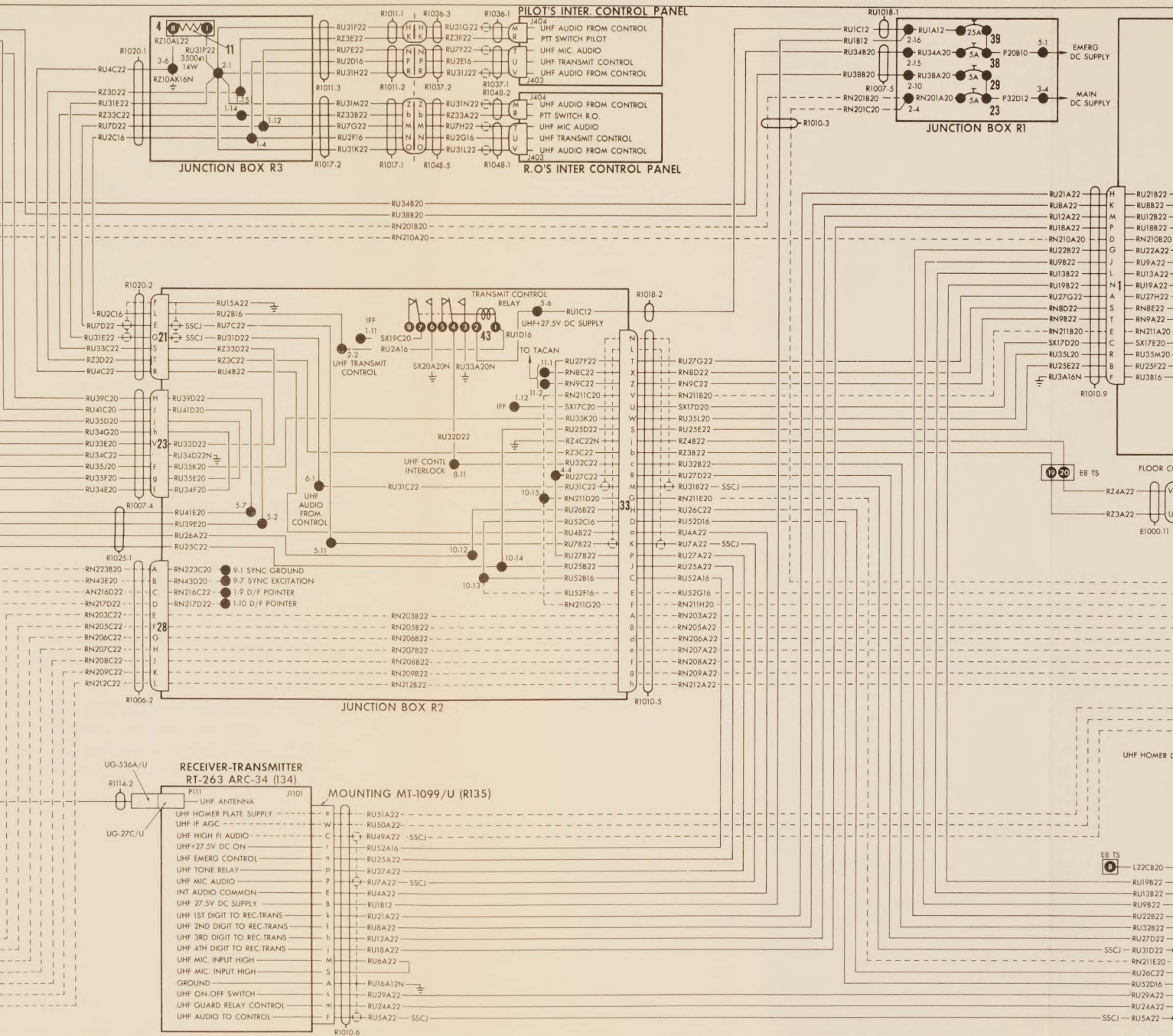


FIG. 3 UHF COMM

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COMPONENT DATA SHEET

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SYSTEM ELECTRONICS	SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34	COMPONENT Radio Set Control	REF. NO. 44		
AVRO PART NO.	MANUFACTURER RCAF Supply (10EA/44178)	MAN'F'R'S PART NO. C1057/ARC-34	AIRCRAFT EFFECTIVITY 25201		
OVERHAUL LIFE: KNOWN- ESTIMATED- 1000 hours					
FUNCTION Houses the operating controls for the UHF radio system. Also houses the frequency presetting controls for the transmitter and main receiver.					
LOCATION Mounted on the LH console - Front cockpit.					
ACCESS Unobstructed when the unit is released from the console.			MEN X MINUTES <table border="1"> <tr><td></td><td></td></tr> </table>		
REPLACEMENT PROCEDURE Fit and secure cable assembly R1034-1. Secure the ground lead. Fit and secure the control box to the console - four quick-release fasteners.			MEN X MINUTES <table border="1"> <tr><td></td><td></td></tr> </table>		

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<p>INSPECTION</p> <p>Check that the unit is securely mounted. Check that the connector is securely and properly fitted. Check that the ground lead is secure and making good electrical contact. Check switches and controls for smooth operation.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p> <p>Check the panel light filaments for serviceability.</p>	MEN X MINUTES	
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. Field strength meter (TD Dwg. 13-74). RF output meter, Termaline Wattmeter Model 6154 or equivalent.</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		

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COMPONENT DATA SHEET

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SYSTEM ELECTRONICS	SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34	COMPONENT Receiver-Transmitter	REF. NO. 44		
AVRO PART NO.	MANUFACTURER RCAF Supply (10EU/44176)	MAN'FR'S PART NO. RT-263/ARC-34	AIRCRAFT EFFECTIVITY 25201		
OVERHAUL LIFE:	KNOWN-	ESTIMATED- 1000 hours			
FUNCTION	<p>Voice or MCW communication in the 225.0 to 399.9 Mc/s frequency range. Signals to the UHF Homer Adaptor AN/ARA-25 for automatic direction finding purposes.</p> <p>By means of an additional receiver, monitoring of a distress frequency. Automatic transmission of MCW signals on the distress frequency upon the ejection of either cockpit seat.</p>				
LOCATION	<p>Mounted on the LH side of the electronic equipment bay centre access door.</p>				
ACCESS	<p>Release the electronics equipment bay centre access door - 33 camlocs.</p> <p>Release the motor actuator switch access flap on the RH underside of the electronic equipment bay - two camlocs.</p> <p>Select the motor actuator switch DOWN and lower the electronic equipment bay centre access door.</p>	<p>MEN X MINUTES</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>			
REPLACEMENT PROCEDURE	<p>Fit and secure the Receiver-Transmitter to its mounting - two quick-release fasteners.</p> <p>Fit and secure the antenna cable assembly (R1114-2).</p> <p>Secure the ground lead.</p> <p>Select the motor actuator switch UP and raise the electronic equipment bay centre access door.</p> <p>Secure the access door - 33 camlocs.</p> <p>Secure the motor actuator switch access flap - two camlocs.</p>	<p>MEN X MINUTES</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>			

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<p>INSPECTION</p> <p>Check that the unit is securely mounted. Check the cables and connectors for damage and security of attachment. Check that the ground lead is secure and making good electrical contact.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p>		
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. Field strength meter (TD Dwg. 13-74). RF output meter, Termaline Wattmeter Model 6154 or equivalent.</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		

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SYSTEM ELECTRONICS		SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34		COMPONENT Receiver-Transmitter Mounting		REF. NO. 44	
AVRO PART NO.		MANUFACTURER RCAF Supply (10EP/44177)		MAN'FR'S PART NO. MT-1099/U		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		1500 hours	
FUNCTION To support and cushion the AN/ARC-34 Receiver-Transmitter and to facilitate interconnection between Receiver-Transmitter and aircraft cabling.							
LOCATION Mounted on the LH side of the electronic equipment bay centre access door.							
ACCESS		Release the electronics equipment bay centre access door - 33 camlocs. Release the motor actuator switch access flap on the RH underside of the electronic equipment bay - two camlocs. Select the motor actuator switch DOWN and lower the electronic equipment bay centre access door.				MEN X MINUTES	
REPLACEMENT PROCEDURE		Fit and secure the mounting to the access door - 16 screws. Fit and secure cable assembly R1010-6. Secure the ground lead. Select the motor actuator switch UP and raise the electronic equipment bay centre access door. Secure the access door - 33 camlocs. Secure the motor actuator switch access flap - two camlocs.				MEN X MINUTES	

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<p>INSPECTION</p> <p>Check for security of attachment. Check plugs and cabling for damage. Check that the ground lead is secure and making good electrical contact. Check shockmounts for damage.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p>	MEN X MINUTES	
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. RF output meter, Termaline Wattmeter Model 6154 or equivalent. Field strength meter (TD Dwg. 13-74).</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		

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SYSTEM ELECTRONICS		SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34		COMPONENT Upper UHF Antenna		REF. NO. 44	
AVRO PART NO. 7-1383-55		MANUFACTURER Sinclair Radio Lab.		MAN'FR'S PART NO. 308-UL		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		1000 hours	
FUNCTION To transmit and receive signals in the UHF band.							
LOCATION Fin tip - Combined with upper L-Band Antenna.							
ACCESS Remove fin tip - 56 screws.						MEN X MINUTES	
REPLACEMENT PROCEDURE Fit and secure the antenna to the fin tip - 12 screws. Fit and secure the antenna coaxial connectors. Lift fin tip on to structure. Secure fin tip to fin - 56 screws.						MEN X MINUTES	

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<p>INSPECTION</p> <p>Check antenna for security, damage, cracks and corrosion. Check connectors for security and corrosion.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p>		
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. Field strength meter (TD Dwg. 13-74).</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		

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SYSTEM ELECTRONICS		SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34		COMPONENT Lower UHF Antenna		REF. NO. 44	
AVRO PART NO. 7-1354-11		MANUFACTURER Sinclair Radio Lab.		MAN'FR'S PART NO. U-ASA-236		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		1000 hours	
FUNCTION To transmit and receive signals in the UHF Band.							
LOCATION RH side lower fuselage between stations 265 and 292.							
ACCESS		Release the electronics equipment bay centre access door - 33 camlocs. Release the motor actuator switch access flap on the RH underside of the electronic equipment bay - two camlocs. Select the motor actuator switch DOWN and lower the electronic equipment bay centre access door.					MEN X MINUTES
REPLACEMENT PROCEDURE		Fit and secure one coaxial connector. Fit and secure the antenna to the fuselage - 64 screws. Select the motor actuator switch UP and raise and secure the electronic equipment bay centre access door - 33 camlocs. Secure the motor actuator switch access flap - two camlocs.					MEN X MINUTES

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<p>INSPECTION</p> <p>Check antenna for security of mounting. Check connector for security. Check external surface of antenna for cracks.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p>		
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. Field strength meter (TD Dwg. 13-74).</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		

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SYSTEM ELECTRONICS		SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34		COMPONENT Antenna Switching Unit		REF. NO. 44		
AVRO PART NO. 7-1354-13		MANUFACTURER Aircraft Appliances and Equipment		MAN'FR'S PART NO. CS-115-A		AIRCRAFT EFFECTIVITY 25201		
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		200 hours		
<p>FUNCTION</p> <p>To facilitate switching the upper or lower UHF antenna to operate with the UHF Radio system as selected by the antenna selector switch.</p>								
<p>LOCATION</p> <p>On the roof of the electronic equipment bay at station 282 RH side.</p>								
ACCESS		<p>Release the electronic equipment bay centre access door - 33 camlocs.</p> <p>Release the motor actuator switch access flap on the RH underside of the electronic equipment bay - two camlocs.</p> <p>Select the motor actuator switch DOWN and lower the electronic equipment bay centre access door.</p>					MEN X MINUTES	
REPLACEMENT PROCEDURE		<p>Fit and secure the unit to the electronic equipment bay roof - four screws.</p> <p>Fit and secure four cable assemblies (R1025-2, R1115-2, R1116-2, R1113-1).</p> <p>Select the motor actuator switch UP and raise the electronic equipment bay centre access door.</p> <p>Secure the access door - 33 camlocs.</p> <p>Secure the motor actuator switch access flap - two camlocs.</p>					MEN X MINUTES	

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INSPECTION

Check that the unit is securely mounted.
Check that the connectors are securely
and properly fitted.

MEN X MINUTES

FUNCTIONAL CHECKS

MEN X MINUTES

GROUND HANDLING AND GROUND TEST EQUIPMENT

External power supply.
Field strength meter (TD Dwg. 13-74).

SPECIAL TOOLS TO REMOVE OR SERVICE

REMARKS

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SYSTEM ELECTRONICS		SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34		COMPONENT Junction Box R9		REF. NO. 44	
AVRO PART NO. 7-1354-61		MANUFACTURER Avro Aircraft Ltd.		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE :		KNOWN-		ESTIMATED- 1500 hours			
FUNCTION		Houses two relays and a resistor network which initiate automatically, the operation of the UHF radio system and the IFF system in their respective distress functions upon the ejection of either cockpit seat.					
LOCATION		Electronic equipment bay centre access door.					
ACCESS Remove access panel on outer face of electronic equipment bay access door - 64 screws.						MEN X MINUTES	
REPLACEMENT PROCEDURE Fit and secure the junction box to the access door - four screws. Refit the access panel on the outer face of the electronic equipment bay access door - 64 screws.						MEN X MINUTES	

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<p>INSPECTION</p> <p>Check that the unit is securely mounted. Check wiring and connectors for security of attachment.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p>	MEN X MINUTES	
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. RF output meter, Termaline Wattmeter Model 6154 or equivalent. Field strength meter (TD Dwg. 13-74).</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		

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COMPONENT DATA SHEET

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SYSTEM ELECTRONICS		SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34		COMPONENT Micro-switch; front cockpit seat		REF. NO. 44	
AVRO PART NO. 7-1352-88		MANUFACTURER Minneapolis-Honeywell		MAN'FR'S PART NO. 9AC4		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED- 1500 hours			
FUNCTION Operates upon ejection of the front cockpit seat to initiate the automatic operation of the UHF radio system on the distress frequency. Also switches the IFF system to transmit the Emergency reply, when interrogated							
LOCATION Front cockpit bulkhead at station 176.							
ACCESS Accessible on the bulkhead at station 176 when the front cockpit ejection seat is removed.						MEN X MINUTES	
REPLACEMENT PROCEDURE Have the ejection seat removed. Fit the micro-switch to the mounting bracket. Connect the circuit wiring to terminal strip R10. Have the ejection seat refitted.						MEN X MINUTES	

CONFIDENTIAL

UNCLASSIFIED

ARROW 1 SERVICE DATA

<p>INSPECTION</p> <p>Check that the unit is securely mounted. Check the wiring for security of attachment.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p>	MEN X MINUTES	
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. RF output meter, Termaline Wattmeter Model 6154 or equivalent. Field strength meter (TD Dwg. 13-74).</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		

NO.
4

ARROW 1 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM ELECTRONICS		SUB-SYSTEM UHF COMMAND RADIO AN/ARC-34		COMPONENT Micro-switch; rear cockpit seat		REF. NO. 44	
AVRO PART NO. 7-1352-89		MANUFACTURER Minneapolis-Honeywell		MAN'FR'S PART NO. 9AC4		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED- 1500 hours			
FUNCTION		Operates upon ejection of the rear cockpit seat to initiate the automatic operation of the UHF radio system on the distress frequency. Also switches the IFF system to transmit the Emergency reply, when interrogated.					
LOCATION		Rear cockpit bulkhead at station 288.					
ACCESS Accessible on the bulkhead at station 288 when the rear cockpit ejection seat is removed.						MEN X MINUTES	
REPLACEMENT PROCEDURE Have the ejection seat removed. Fit the micro-switch to the mounting bracket. Connect the circuit wiring to terminal strip R11. Have the ejection seat refitted.						MEN X MINUTES	

CONFIDENTIAL

ARROW 1 SERVICE DATA

UNCLASSIFIED

<p>INSPECTION</p> <p>Check that the unit is securely mounted. Check the wiring for security of attachment.</p>	MEN X MINUTES	
<p>FUNCTIONAL CHECKS</p>	MEN X MINUTES	
<p>GROUND HANDLING AND GROUND TEST EQUIPMENT</p> <p>External power supply. RF output meter, Termaline Wattmeter Model 6154 or equivalent. Field strength meter (TD Dwg. 13-74)</p>		
<p>SPECIAL TOOLS TO REMOVE OR SERVICE</p>		
<p>REMARKS</p>		