T. O. NO. 00-65-11

UR DIGEST

PERIOD COVERED

20 MAY 1944 to 5 JUNE 1944

Published by authority of the Commanding General, Army Air Forces, and accepted by the Air Council of the United Kingdom.

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5 JUNE 1944

MODEL OR TYPE	NO. OF FAILURES REPORTED	DIFFICULTY	CAUSE	CORRECTIVE ACTION
Adapter MC-385-A	125	Inability to safety wire **Headset Adapter MC-385-B.**	Safety wire fastening **lug is fabricated from metal which is too thin and weak.**	The safety wire lug on Adapters MC-385-C **and D have been adequately strengthened. However, Par. 2 a (3) of technical Order 01-1-90, dated 15 June 1944 states: '"Secure Adapter MC-385-( ) and Filter FL-8-( ) extension cord, if installed, to any adjacent solid support, using tape, six cord, or safety wire." The preceding statement allows sufficient latitude to use the best practical method to safety these items in place, although safetying methods used must not involve mechanical changes to equipment which will affect interchangeability.**
Adapter MC-385-( )	**125**	**Intermittent short circuit of audio outputs of communication equipment when combination of Plug PL-55 (on Headset Adapter MC-385-( ) and Jack JK-26) is used.**	**Sleeve barrel of Jack JK-26 not counterbored sufficiently to clear tip of Plug PL-55. The design of Plug PL-55, used on Adapters MC-285-A and C only, is also at fault in that the insulating ring adjacent to the tip, and the tip are not tapered in accordance with past practice.**	**The unsatisfactory design of Plug PL-55 has been corrected, and the plug on Adapter MC-385-B and D is satisfactory for use with any production run of present production. Jack JK-26 has been extended approximately 1/16", so that further trouble resulting from short circuit occurring between plug tip shoulder and the sleeve barrel portion of the Jack will be eliminated.**
Conductor 23-2 P/O CO-219	**1**	**The inside white insulation is vulcanized to the outer black insulation making it impossible to peel back outer insulation without uncovering the inner wire.**	**Undetermined. Activity originating UR believes this due to chemical composition of the inner white insulation material such that when the outer black insulation is fused into place, the inner white insulation is fused to the black insulation.**	**Action pending investigation by Aircraft Radio Maintenance Division.**
CO-122-A and CD-307 in A-20-D, C, G & J.	**19**	**Cords foul controls in cockpit and gunner's position.**	**Taping of cords, in compliance with Technical Order 01-1-90, results in unwieldy coils which were not positioned in such a manner as to be unable to foul controls.**	**1. Contractors and modification centers have been requested to tape excess lengths of cords in such a manner that they will not foul controls.** **2. Lengths of cords were determined by studying requirements of various theatres of operation and lengths used represent maximums.**
Jack JK-26 P/0 Cord CD-307-	**1**	**Plastic shell cracks when accidentally dropped or hit**	**Becomes brittle in cold weather.**	**Pending - Being investigated by Aircraft Radio Maintenance Division, Wright Field. Any corrective action decided upon will be directed in subsequent issues of Technical Order 00-25-25( ).**
Phenolic Sleeve P/O Jack JK-26 Cord CD-307.	**11**	**Phenolic sleeve on Jack JK-26 shrinks and splits laterally along threads.**	**Possibly drying out and aging of plastic used to fabricate the sleeve.**	**Referred to ARL for investigation and suggested corrective action.**
Switch SW-141, P/O Cord CD-318.	**10**	**The inside upper corner of the Bakelite "Push-to-Talk button is breaking off.**	**Undetermined.**	**Action pending awaiting results of investigation. Replace defective switches with serviceable like items.**

Headset HS-33 P/O RC--36 in BT-13A & BT-15.	1	Allowing sufficient length of headset cord for normal use, and taping in accordance with Technical Order No. 01-1-109, makes it possible for cord to fall over rear control stick when headset is stowed.	Inadequate stowage provisions for Headset HS-33 in rear cockpit.	Action pending.
Headset HS-33 U/W Adapter MC-385.	1	1. After complying with Technical Order 01-1-90 in which Headset HS-33 and Adapter MC-385 were installed in all airplanes the following troubles were reported: a. In flying the beam it was difficult to determine a “build or fade", on course signal appeared to remain wide until at the station, then narrowed down at the station making it difficult to fly directly over the station and very difficult to recognize the "cone of silence".	Undetermined.	Pending report of Aircraft Radio laboratory. Wright Field.
Headset HS-33.		Sets screws of Receiver ANB-H-1, part of Headset HS-33, which enters the unit and furnish electrical contact with the metal tabs of the inner receiving unit were missing.	Faulty workmanship and inspection.	Inspection agencies will be notified to check closely to prevent similar future occurrences.
Headset HS-33.	26	Receivers R-14, P/O Headset HS-33 were found too weak in sound output for satisfactory service.	Some receivers which were manufactured approximately two years ago were so constructed that slight warping of the receiver cases caused air gap between the pole pieces and the diaphragm to become too small. A further cause for failure may be deterioration of the pole piece magnetism.	The fault was discovered a year ago and corrective action applied in production. Replace those headsets which are unsatisfactory in this respect.
Headband HB-7 P/O HS-23 and HS-33	228	Metal Headband HB-7 breaks where indentation is made to control spread of band.	The steel stock originally used in fabrication of these headbands was of a stainless steel alloy which is more serviceable than that used at the present time. Consequently, when using personnel bend fit the bands to secure optimum individual fit of the headsets, the band breaks at the point (s) where the metal is weakened by indentation punches or rivet holes.	Use of the present inferior grade steel headband stock is dictated by non-availability of a better grade steel. However, since experience shows that slight mishandling of the headsets will cause fracture of the headbands, action will be taken to incorporate a band spread stop arrangement which will not weaken the metal as the present stop does. Meanwhile exercise care in handling and bending the headbands to prevent undue strain or tending at the points of punch indentation.

Headset Cushions MC-162-A P/0 Head-sets HS-23/ *33.*	200	Small cups let in too much external noise, and hard rubber caused discomfort and pain to using personnel.	This cushion is unsuitable for application in airplane installations.	Requisition Cushion MC-162 and install only on those headsets that are used extensively since the supply of this cushion is limited. New cushions which are designed to correct faults inherent to Cushions MC-162-A are being manufactured and will be supplied as soon as sufficient quantities are available. The nomenclature and stock number of this item will be noted in a future issue of Technical Order 00-25-25.
Microphone T-17-( ) in BT-13.	1	Safety of flying personnel endangered when using T-17-( ) Microphone in training flights.	Operation of microphone requires removal of one hand from controls. Students require use of both hands to operate airplane controls at all times.	Action pending. Condition being investigated by ARL, Wright Field.
Snap Fastener on Neckband M-199, P/O Microphone T-30-( ).	100	Glove snap fastener be-comes detached from the neckpiece assembly of Microphone T-30-( ).	Use of a misaligned punching tool was partially fracturing the internal metal shell of the snap assemblies.	The contractor supplying the offending assemblies has affected correction in production. For faulty neckbands already in stock and use, it is recommended that local repair be accomplished if practical and economical. Otherwise, dispose of the items as unserviceable.
Switch, Press-To-Talk B-17C Airplane.	2	Present Press-to-Talk Switch is unsatisfactory for bombardier when making a bombing run. Wants an additional foot operated Press-to-Talk switch.	Needs both hands on the bomb-sight and cannot use one hand to operate the regular Press-to-Talk Switch. One switch is located on the Gun Controller Switch and the other on instrument panel to the left of Bombardier Compartment.	Action pending.
Radio Installation ion in P-51B.	6	Radio Installation not properly bonded.	Non-compliance with Technical Order 08-5-1, "Aircraft Radio Shielding and Bonding of Air-craft", dated 16 March 1942.	Compliance with Section III, Par. 9, sub-paragraphs b (7) and b (8) of Technical Order 09-5-1. "Aircraft Radio Shielding and Bonding of Aircraft", dated 16 March 1942. Action is being taken with Aircraft contractors to see that bonding is properly accomplished.
Equipment Shortage in B-24-H.	6	Shortage of the following equipment: 1 each SCR@578 4 each RS-33 1 each SCR-522 1 each BC-459 4 each T-30 1 each M-299	Not determined.	AAF Form 263 and 263A should be accomplished by the shipping and receiving organizations in accordance with AAF Regulation 15-263 and Par. 13 b of Technical Order 01-1-24 should be complied with in the event of existing equipment shortages.
Canadian Radio Installation (OA-10).	12	No spare parts, instruct-ion books and installation instruction available.	Due to manufacturers back log of work, delivery of instructions and spare parts has been limited.	1. Every effort is being made to expedite delivery of spare parts and necessary instruction books which will be distributed to activities concerned when available. 2. Technical information on the Canadian Radio Equipment installed in OA-10 airplane will be processed into Technical Order Form upon receipt of necessary negatives. 3. Production OA-10 airplanes are being

Compass Receiver CR-2 in OA-10A.	1	Low sensitivity.	Inadequate inspection and inaccurate alignment by manufacturer.	Alignment and check of receivers by using activities. OA-10L airplane delivered to the U.S. AAF in the future will be equipped With standard Signal Corps radio.
AN-l04-A U/W SCR-522-A in P-47.	1	Exterior metal portion of Antenna Mast AN-104-A shorted to skin of aircraft.	Antenna Mast AN-104-A had not been installed in compliance with instructions contained in Technical Order No. 01-1-128.	Strict compliance with Technical Order No. 01-1-129, dated 1 January 1944.
Antenna AN-104-A U/W SCR-522 in P-40N.	13	The metal on radiating section of Antenna AN-104-A is cracking and peeling off from the base of the antenna section.	This condition is caused by insufficient control of the moisture content of the mast blank between the carving and pressing operation during the manufacture.	This unsatisfactory condition has been corrected in recent production of this item by the manufacturer who has set up a carving machine in his own plant in order to eliminate the time lag and consequent moisture absorption between the carving and pressing operations. Replace defective antennas with a serviceable like item.
Command and Liaison Antenna on B-25-J.	6+	Command and Liaison antennas are located in such position that upper turret causes excessive breakage.	Rotation of upper turret and firing of guns.	Relocate Antennas. A. Removals: 1. Disconnect, command and liaison radio antenna from top of fuselage, forward end, looking AFT over turret. 2. Remove screws, nuts, clip, spring and insulator assembly from right side, lower portion of vertical stabilizer. 3. Remove screws, nuts, clip, spring and insulator assembly from left side, lower portion of vertical stabilizer. B. Installation: 1. From top of vertical stabilizer, leading edge, right side, relocate <u>command</u> radio antenna, by removing original recessed screws. 2. Locate and install one bracket No. 43A3394. 3. Locate clip, spring and insulator assembly, install and connect antenna. 4. From top of vertical stabilizer, leading edge, left side, looking to left, relocate liaison radio antenna by removing original two recess screws. 5. Locate and install one bracket No. 43A3994. 6. Locate clip, spring, and insulator assembly, install and connect antenna. 7. From top of fuselage forward end, looking forward, install command and liaison antenna by making appropriate tie-in to insulator assemblies. 8. The above relocation should be accomplished only on those airplanes used for gunnery operations.
Command Antenna U/W SCR-274N on B-25, AT-24.	1	Poor operation of Radio Set SCR-274-N.	Antenna wires and Insulators become covered with oil and burned carbon emitted by the starboard engine and blown back by the air blast from the propeller.	Move the outer end of the antenna for SCR-274N in B-25 and AT-24 aircraft not used for gunnery missions, to the top of the vertical stabilizer. For aircraft used for gunnery missions the antenna mast remain at the bottom of the stabilizer to remove it from the line of fire from the turrets. Frequent cleaning of the antenna and insulators must be accomplished.

Command Antenna on RA-25A.	1	Personnel frequently break Command Antenna Lead-in, necessitating replacement of complete antenna assembly.	Poor location causes personnel to come in contact with the Command Antenna Lead-in during normal maintenance operations and crew functions.	1. Suitable location is not available, on RA-25A airplane, for Command Antenna Lead-in so as to completely eliminate this unsatisfactory condition. 2. Command Antenna lead-in and Insulator can be moved twelve (12) inches forward and seven (7) inches upward from its present location. This action will eliminate most of the breakage that occurs with the Command Set Antenna Lead-in and will not interfere with other equipment within the airplane.
Liaison Antenna U/W SCR-287-( ) in B-24 ( )	6	Under certain conditions of transmission high frequency sparks arc from the liaison antenna lead to the flight deck upholstering fabric, the oxygen service hose, or the radio operator's main oxygen supply hose.	Position of antenna lead and oxygen supply hose.	Action pending.
Liaison and Command Antenna Lead-ins.	1	B-17, B-25, B-24 and A-20 aircraft were delivered lacking insulation on antenna lead-ins. *Replaces 1st entry on page 4R of Technical Order 00-65-9.	Failure of manufacturers and modification centers to install proper insulation on antenna lead-ins.	1. The use of uninsulated antenna leads, when spaced at least 1 ½" from grounded metal, is permissible in aircraft when protected from contact by personnel during operation of the equipment. 2. Install Bead Insulators IN-83 or other adequate insulators on Antenna Leads in unprotected locations to prevent contact with the leads by personnel. The use of bead insulators should be kept to a minimum due to the weight involved. 3. Run Radio Transmitter BC-375 Antenna Leads through phenolic tubing if spaced less than 1 1/2" from grounded metal and other leads. 4. No Bead Insulators are required for antenna lead for Radio Set SCR-274-N installed on B-24 aircraft. However, beads are required for the lead for Radio Transmitter BC-375 installed on the same aircraft provided it does not pass through phenolic tubing. 5. The contractor is furnishing insulation on antenna leads installed on B-17 aircraft which has proven generally satisfactory. 6. No Bead Insulator IN-93 are required on the antenna leads installed in A-20 aircraft. 7. The contractor has taken action to insulate leads on production B-25 and B-26 aircraft as required.
Antenna Mast U/W SCR-274-N and 283 on BT-13-( )	1	When flying under icing conditions, Antenna Mast, Dwg. No. 79-95001 vibrated violently, broke and bent over top of airplane.	Antenna mast too long, weak construction	1. Replace defective mast with improved type antenna mast Vultee Part No. 63-95004-1. 2. Above antenna mast may be obtained through normal supply channels.

Fixed Liaison Antenna U/W SCR-287 on B-26	4	Fixed Liaison Antenna has directional properties with weak and distorted signals to the starboard.	1. Liaison Antenna attached to left horizontal stabilizer.	1. Action pending.
Compensator MC-217 P/O LP-21-A, AM, L or LM P/O SM-269-G.	1	Not possible to determine in which loops locking device is installed on pointer for Compensator MC-217.	Locking device installed in loops currently de-delivered by contractor. loop not marked.	Locking device is removed from pointer in accordance with notice on locking device when compensation is accomplished. It will therefore be installed in new loops not marked to indicate compliance with T. 0. 01-1-152 unless loop is installed on air-plane for which correction data has been determined locally.
Loop Dehydrator Assembly LP-21-( ) P/0 SCR-269-G on B-25H-1-NA.	1	Dehydrator cartridge punctured by flying gravel.	Gravel thrown up into nose wheel nacelle by nose wheel during landings and take-offs.	Install a locally fabricated detachable metal cover over the dehydrator assembly.
Motor MO-18 P/O LP-21-A P/O SCR-269-( )	1	Motor Shaft bent.	Insufficient information given to enable determination of cause.	Replace defective shaft.
Loop LP-21-A U/W SCR-269-C on B-17G.	54	No indication of compliance with Technical Order No. 01-1-152 marked on Loop housing or indicator and not recorded on Form 60-A.	Non-compliance with Technical Order No. 01-1-152 by contractor.	Action is being taken to require aircraft contractors to mark loops and indicators on production aircraft in accordance with Technical Order No. 01-1-152. Loops installed in service aircraft will be checked and marked to indicate compliance with Technical Order No. 01-1-152 dated 29 April 1944. All Technical Order compliances will be entered on the Form 60-A for the airplanes concerned.
Loop LP-21-A U/W Radio Compass SCR-269-G in B-29.	1	Removal of loop for maintenance purposes difficult.	Loop mounted on airplane with screws and plain self-locking nuts. Installation of bomb-bay fuel tanks prevents access to nuts.	Action pending.
Repair Kit for LP-21-A 2A1921A/K1 in C-54A.	1	Dehydrator hose furnished in compliance kit for Technical Order No. 08-5-53 too short.	Installation of loop sealing test hose instead of five foot dehydrator hose intended for permanent installation.	Use of five foot vinylite hose cut to correct length supplied in Kit, "Repair for Loop LP-21-A ". Vinylite hose may be obtained in bulk through normal supply channels. Requisition tubing, polyvinyl acetate hose, 5/16" I.D., Signal Corps Stock No. 6Z8727.
Loop LP-21-A P/O SCR-269-G.	1	Markings on loop housing base do not Indicate type of airplane for which loop has been calibrated.	Non-compliance with Par. 3 c (1) of Technical Order No. 01-1-152.	Par. 3 c (1) of Technical Order No. 01-1-152 requires that data line number be marked on loop. Table of data contained in Par. 2 c of this T. 0. lists the airplanes to which the data line number applies. Loops held in stock and marked to indicate compliance with Technical Order No. 01-1-152 may be installed on any airplane listed for the data line indicated.

Marker Beacon Antenna U/W RC-193-( ) in AT-11.	1	Marker Beacon receiving antenna strung across camera opening in belly of airplane sometimes appears in picture.	Location of marker beacon receiving antenna.	Action pending.
Weight U/W RL-42.	1	Loss of antenna wire and Weight WT-9.	Activity reports this unsatisfactory condition due to the location and construction of the swivel screw on Bobbin M-235 which the end of the antenna wire is secured. In reeling in or out the wire catches on the end of the swivel screw and kinks, finally breaking the wire.	Action pending investigation by ARMD.
Weight WT-7A in C-54A	10	Lose of Weight WT-7A.	Believed to be rotation of the weight due to air flow. The cable leader attachment winds up, reaches a point where its twisting force exceed the strain imposed on the leader, then unwinds. This reciprocating action causes crystallization of the strands of the leader which ultimately breaks.	Action pending investigation and service test of a reworked weight which was designed by La Guardia Field Air Depot Detachment with view to provide optimum performance under conditions noted under "CAUSE".
Antenna Reel RL-42 in B-17.	1	Antenna Reel RL-42 damaged by equipment being thrown on it.	Location such that reel is susceptible for damage caused by other loose equipment in air-plane.	Action pending.
Antenna Reel RL-42 in B-24.	1	Antenna Wire If-106-A does not wind onto Reel Bobbin M-235 properly.	Antenna Reel improperly installed and fairlead misaligned.	Action pending.
Indicator ID-6/APN-4 P/O Radio Set AN/APN-4.	1	Indicator FINE and COARSE Control settings are accidentally upset by operator while adjusting other controls.	No means have been pro-vided for locking COARSE and FINE controls.	Action pending. In the interim, warn using personnel to exercise caution while making other adjustments.
Transformer Assembly T-1, T-2, P/O AVT-15A	1	Transformer potting melting and running onto other chassis components.	Possible defective mod-modulation transformer T-2. This item contains two separate transformers in a single case.	Investigation indicates this to be an isolated case. Normal currents drawn by the power amplifier and modulator stages is not of a value to cause the transformer to heat sufficiently that potting melts and flows from the case. Heat tests of the set under operation did not reveal this condition. Request additional UR's if this condition is experienced by other organizations.
Tube Socket BC-347-C P/O RC-36 in B-24	1	Tube socket broken loose from mounting.	Vibration.	Action is being taken to effect replacement of Interphone Amplifier BC-347 with Inter-phone Amplifier AM-26/AIC-2. Until the new Amplifier is available through normal supply channels repair or re-place defective Interphone Amplifiers BC-347-( ) with serviceable like items from stock.

Interphone Amplifier BC-347 in B-24	1	Interphone Equipment becomes Intermittent and at times the Amplifier goes out completely at altitudes above 15,000 ft.	Activity believes that the use of Vacuum Tube VT-99 is the cause of this trouble.	Due to the numerous failures reported on this equipment, ARL, Wright Field, has developed a new Interphone Equipment AN/AIC-2 which corrects defects inherent in the RC-36. When sufficient quantities of the new equipment is available, interphone equipment in B-26-( ), B-17-( ), B-24-( ), and B-29-( ) airplanes now in service will be changed with this new item. In the interim, frequent exchange of Vacuum Tube VT-99 is suggested.
Radio Compass MN-26C in RB-34.	2	The following discrepancies noted in T. O. 01-55E-26: 1. Bracket, Part No. 44D2216, short 1/2" at mounting ears. 2. Tuning shaft from control box to compass too short. 3- No position for installation mentioned for Indicator IN-4A. 4. No mention of Antenna Relay Switch, Part No. 3738. 5- Cable harness routed over instrument panel subject to wear due to vibration. 6. Magnetic compass affected by installation and its wiring.	1. Variation in dimensions among RB-24 air-planes. 2. Use of incorrect abaft. 3- Position not specified as it will differ in various airplanes. 4. Switch does not affect new installation. 5- Not practicable to route cable in any other manner. 6. Indicator and associated wiring sets up magnetic field.	1. Fabricate bracket, Part No. 44D2216, adding necessary length to wear. 2. Two tuning shafts are furnished. The 175 inch shaft should connect between the control box and compass and the 168 inch shaft should connect between the loop and azimuth control. 3- Indicator IN-4A Is Intended for installation on instrument panel. 4. No action on switch. Part No. 3738, is necessary, however, for convenience, it may be "jumpered out". 5- Cable Harness should be supported by loop type clips to prevent rubbing and vibration. 6. Reswing magnetic compass and indicate necessary corrections with radio compass on and off.
Azimuth Control MN-52-B U/W MN-26Y in A26-B	all	Difficult for pilot to read azimuth scale accurately between 280 degrees through North to 80 degrees.	Azimuth Control MI-52M is installed vertically on the pilot's control column.	Action pending.
Switch 138, P/0 BC-345 RC-32.	5	Positive contact unreliable on indicated switch positions.	Switch stops not punched deep enough to assure positive cam action.	Action suspended, pending receipt of exhibit.
Switch Box BC-334 P/0 RC-35 in AT-6, BT-13.	1	H. S. phone position of BC-334 in front cockpit inadequate for pilot training.	Output Jacks of BC-334 in front and rear cockpit are not connected so as to allow instructor to monitor volume obtained by student.	Action pending.
Interphone Equipment RC-36	14	Failure of components at high altitudes.	Reported as due to moisture accumulation within components.	a. Disassemble and thoroughly dry interior and component parts of Jack Box BC-366-4. b. Apply two coats of Insulating Varnish, Acme No. 528A, Air Corps Stock No. 7300-957000, Property Class 07, to all parts not requiring an electrical contact after corrosion has been removed by cleaning. c. Drill appropriate size holes adjacent to microphone and headset Jacks to allow drainage of moisture accumulation.

Location of Jackbox and Cord-age U/W BC-366 P/O RC-36 in AT-21.	1+	Microphones and Headset Cords that lead to Pilot's Jackbox BC- 366 foul and jam controls.	T. 0. No. 01-1-109 has not been strictly followed in mounting Jackbox BC-366.	Action pending.
Pin Plug Assembly P/0 BC-366 RC-36.	7	Spring contacts of pin plugs on sub-assembly of Jack Box BC-366 break at tip of *Plug.*	Improper processing of the metal used to fabricate the spring contact portion of the plugs.	Replace the entire sub-assembly. The processing has been improved to the point where pin plugs from recent productions have not shown any indications of failure due to cracks.
Interphone Jackbox BC-366 P/O RO-36	78	Corrosion of microphone jack causes short circuit.	Moisture accumulation in jack box.	Measures to provide protection against moisture will be published in an appropriate Technical Order. Pending receipt of this T. O., disassemble jackbox and dry internal parts thoroughly. Apply two coats of Insulating Varnish, Acme No- 582-A, Air Corps Stock No. 7300-95700, Property Class 07, to all parts not requiring electrical contact after corrosion has been removed by cleaning. Drill adequate drain holes in the fixed and removable parts of the jack box.
Location of Jackbox BC-366 U/W RC-36 In B-17.	120	Jackbox BC-366 inaccessible to pilot and co-pilot.	Oxygen hose blocks vision and operation.	Action pending.
Jack Box BC-366 P/O RC-36 in B-17-( )	1	Information inadvertently transmitted by the pilot or co-pilot over Command Set instead of interphone system.	Selection of wrong position on Jack Box BC-366 because position of Jack Box Switch difficult to observe under combat conditions.	Action pending. Any corrective action determined will be directed in subsequent issue of Technical Order No . 00-65-( ).
Jones Cord Interphone System P/0 BC-366 Jack Box RC-36 Interphone Equipment in B-24.	1	Jones Cord subject to twisting and turning. Stress weakens cables in Plug P-308-CCT and Socket S-308-CCT.	Cord installed in top gun turret in such a manner to cause twisting and turning when turret is operated.	Action pending.
Switch SW-141 P/0 BC-366 U/W RC-36.	1	It is necessary in the navigators position of heavy bombardment air-planes to change Plug PL-69 from the hand switch SW-141 in Jack Box BC-366 to the Plug PL-69 on the keying line from gun buttons when changing from navigator's position to the gun positions.	No parallel wiring provided in microphone circuit of navigator's compartment.	An improved type microphone switch and instructions for incorporating parallel microphone wiring provisions at all gun positions, will be furnished all Air Forces as material becomes available.
Engineer's Jack Box BC-366 P/0 RC-36 in B-17, B-24.	1	Number of crew members exceeds the number of jackbox positions. Engineer has no jack box facilities with which to contact Pilot or Co-Pilot in case of emergency.	No interphone jackbox available to the engineer.	Action pending.

Location of Jackbox BC-366 U/W RC-36 in B-17.	120	Jackbox BC-366 inaccessible to pilot and co-pilot.	Oxygen hose blocks vision and operation.	Action pending.
Microphone Switch U/W BC-366 P/O RC-36.	1	Difficult to use micro-phone switches at left and right waist gunner's positions.	Microphone switches in-conveniently located.	1. Action has been initiated by this Hq. to supply, when available, an improved gun microphone switch with necessary installation data. 2. This gun microphone switch together with necessary wiring modifications will allow individual control at single and multiple gun positions and will be installed in such a manner as to be readily accessible under all operating conditions. 3. Above switches and data will be avail-able to all Air Forces in the near future.
Jackbox BG-366 in B-24-D.	10+	a. Oil from moving, turret follows along interphone cable into Jackbox BC-366. b. Microphone and head-set plugs are bent and rendered unserviceable.	a. Excess oil from over-head turret follows down interphone cable into Jack Box. b. Due to crowded space and location of Jackbox BC-366, Microphone and Headset plugs are frequently bent by personnel entering or leaving the turret.	Action pending.
Receiver BC-341-F U/W RC-39 in C-47.	2	Marker Beacon Receiver inoperative.	Cannot be determined from information supplied.	Since cause of difficulty was not stated no corrective action, other than replacement of defective receiver, can be pre-scribed. Defective receiver will be re-paired by Radio Repair Shop.
Radio Receiver BC-357-C P/0 RC-43-U/W SCS 51.	18	Operation of Marker Beacon Receivers BC-357-C unsatisfactory with Instrument lending System SCS-51.	Sensitivity of BO-357-( ) poorer than specified in Technical Order No. 08-10-87 titled 'Handbook of Instructions for RC-39-B and RC-43-B Marker Beacon Receiving Equipment."	As sensitivity is too low, a modification of Radio Receiver BC-357-( ) will be directed or a new receiver procured to pro-vide improved sensitivity.
BC-357-( ) P/0 RC-43-B in B-25C or AT-24.	*	Marker Beacon Receiver inoperative.	Damage caused by move - movement of personnel within airplane.	Fabrication and installation of a protective metal cover or guard. Protective cover is installed on current production B-25( ) airplanes. A Technical Order will be published directing this corrective action.
Socket 257F P/0 BC-( ) 229.	228	Carbonization and oxidation of Socket 257F between socket jacks P, SG, K and chassis causing final failure of tube on resistor 88a, b, 61a to f on voltage divider Ref. No.145.	Not fully determined. Activity originating UR believes that moisture forms in flight, condense and flows to socket 257F as this socket is recessed which then retains accumulated moisture causing failure.	Action pending results of investigation being conducted by ARL, Wright Field.
Vacuum Tube VT-38 U/W BC-229 P/O SCR-183.	8	New tubes found defective upon bench testing.	Shorted elements. (All elements except Plate.).	Exhibits requested for purpose of investigation. Results will be made known in future issue of Technical Order 00-65-( ).

Vacuum Tube VT-52 BC-( )-230 P/0 SCR-( )-183	2	Lower section of Vacuum Tube VT-52 separates from black ring which forms upper part of base when upward pull is exerted on glass- envelope to remove tube from socket. Element leads are not properly soldered to tube pins.	Manufacturing deficiency.	Replace those vacuum tubes with service-able like items. The contractor(s) involved will be contacted and required to correct the condition in future production.
Capacitor #119 P/O BC-( )-230 P/0 SCR-( ) 183.	1	Porcelain Insulator on Variable Capacitor Ref. #119 P/0 Radio Receiver BC-( )-230 was found broken.	Cannot be determined. However, excessive tightening of the retaining nut might have caused the. break.	Since there have been no other reports of this fault it is believed faulty installation or maintenance was the cause of breakage, therefore no further investigation or action is deemed necessary.
Tuning Units TU-( ) U/W BC-375-( ) in B-25J.	1	No means available to secure 5 of the 7 tuning units in the airplane.	No permanent stowage pro-visions are provided in production airplanes for more than three tuning units.	Higher authority direct that permanent stowage provisions should be provided for only two tuning units in addition to the one carried in Transmitter Unit BC-375-( ). All other tuning units carried during ferrying operations will be stowed as loose equipment in such a manner as to be readily accessible to the radio operator during flight.
Vacuum Tube VT-4-C P/0 BC-191/375-( ) P/0 SCR 187/287-( )	26	Noise present on the carrier of Radio Transmitter BC-191/375-( ) when the equipment is subject to vibration.	Reported to be caused by loose filament supports in Vacuum Tube VT-4-C. However, vibration of any of the R.F. components of the oscillator stage of this equipment will result in the same difficulty.	Exhibit vacuum tubes will be examined, and if loose elements are found, the contractor will take adequate measures in future production.
BC-375-E, P/O SCR-287-( )	2	Transmitters difficult to neutralize.	Activity reports B+ leads to Power Amplifier and Master Oscillator reversed.	Being investigated by Aircraft Radio laboratory.
Feed through Insulator U/W BC-375 P/0 SCR-287 in B-26.	1	Unable to properly tune BC-375 transmitter.	1. Bolt through feed-through Insulator touches metal skin of airplane. 2. The distance between skin of ship and bolt through insulator is not great enough to prevent arcing.	1. Make certain that the raised flanges on the two halves of Insulator fit the hole in the skin of the airplane through which they pass. 2. Tighten the nuts on the bolt through the Insulator sufficiently to hold insulator securely in place. 3. If there is a possibility that the failure is a consequence of accumulated moisture in the insulator a coating of Zinc Chromate should be applied between the skin of the airplane and the contacting surfaces of the insulator. This action and the proper placement of the lead washer, which is part of Insulator IN-94, will form a water tight seal. Care must be taken to prevent Zinc Chromate from entering the hollow interior of the insulator.
Switch CSW-12 Ref. #1501 P BC-375-( ) P/0 SCR-287-( ).	1	Square ceramic shaft CSW-12 P/0 Radio Transmitter BC-375 badly chipped at point where switch rotor slips in square receptacle at end of metal shaft.	Unknown, but possibly due to wear incurred during normal operation.	Replace the assembly. Since records indicate no other instances of similar failures, a production change is unwarranted at this time.
Radio Receiver BC-224-K P/0 SCR-287	1	Radio Receiver BC-224-K inoperative.	Unknown.	Unknown. Information furnished not suit-able for analysis of failure.

Radio Receiver BC-348-K, P/0 SCR-287-( )	10	Screws, grid clips, trimmer condenser springs, tube socket contacts and plates of tuning condensers are rusting.	Activity originating UR believes defective condition caused by poor quality of plating or by improper plating methods.	Action Pending. Investigation being conducted by ARL, Wright Field, Dayton, Ohio.
Volume Control P/O BC-348Q Ref. No.110	15	Loss of sensitivity. Noise exists when volume adjustments are made.	Reported as defective volume control Ref. No. 110.	Action pending receipt of exhibits. Preliminary investigation has revealed that noise and loss of sensitivity may be due to either a defective Resistor Ref. #94-2 or to an open or shorted condenser Ref. #66. It is suggested that the volume control be thoroughly checked before discarding it.
Socket, Spec. No. 34328 P/0 BC-348-J.	1	Intermittent operation.	Probable cause is poor contact of tube prongs with socket.	Action pending. Any corrective action deemed necessary will be directed in subsequent issues of Technical Order 00-25-25( ).
Antenna Switch CSW-12 P/O BC-306A U/W SCR-187/287.	1	Finger contact ceramic holding ring, P/0 Antenna Tuning Unit BC-306-A found cracked.	Cannot be determined. Might hive been caused by rough handling.	Ceramic parts are liable to damage and/or break through mistreatment. Exercise extra care when handling such items.
Antenna Tuning Unit BC-306-B P/O BC-191/375 P/O SCR-187/287	*	When transmitting on 200-800Kcs, using Antenna Tuning Unit BC-306-B in conjunction with a fixed aircraft antenna, limited range is obtained. "Replaces 3rd entry on page 10R of Technical Order 00-65-9."	The transmitting range of any radio transmitter is greatly decreased by an inefficient antenna system. The fixed antenna systems on service airplanes are, at best, very Inefficient radiators. When excited at low (200-800Kcs) frequencies.	It is preferable and recommended that any time operations do not preclude use of the trailing wire antenna (formation flying, etc), that it be extended full length in conjunction with Antenna Tuning Unit BC-306-A or B when transmission is attempted on low frequency (200-800 Kcs.) It must be realized that the present fixed antenna system is the best compromise available when use of trailing antenna is not possible.
Loading Leads from BC-375-A U/W BC-375-( ) P/O SCR-287 in C-47.	1	Electric arcs between antenna leads and nearby objects.	Insufficient insulation.	Interconnecting leads from loading terminal of Radio Transmitter BC-375-( ) to Antenna Tuning Unit BC-306-A should be insulated similarly to the procedure described in paragraph 1 e (3) of Section II of Technical Order No. AN-08-10-225, dated 1 Nov 43, using Insulators IN-83.
Antenna Tuning unit BC-306-A or B P/0 SCR-287-( ).	24+	Soldering Terminal on bottom of inductance in Tuning Unit BC-306-A B breaking.	Stress and fatigue caused by vibration and long unsupported bus lead between terminal #5 of top switch and soldering terminal inductance.	Action is being taken to procure beryllium copper soldering terminals for maintenance replacement purposes. Pending availability of these items, local repair of the units will be necessary.
Dynamotor PE-73-C P/0 BC-375 P/O SCR-287	1	Direct short circuit from positive lead of dynamotor unit to ground, set fire to low voltage lead feeding dynamotor and adjacent wires.	In replacing fuse radio operator jammed the dynamotor cover across the positive low voltage lead at the dynamotor, shorting it to ground.	Action pending.
Dynamotor PE-73-C BC-375-( ) P/0 SCR-287 in B-17-G.	1	Burning of insulation on lead No. LR-2 running from Box 305 at Station No. 6 to Dynamotor Unit PE-73-G.	In changing Dynamotor PE-73-C in airplane hot lead IR-2 from positive 24 volts connected to ground by maintenance personnel.	Action pending.

Dynamotor PE73-C	84	Failure of armature winding in Dynamotor PE-73-C. *Replaces last entry on Page 10R of Technical Order OO-65-10.	Breaks down armature winding insulation due to excessive heat, resulting in short-circuited and/or open circuited windings. It is not believed that malfunction was due to faulty material or workmanship used in fabrication of the dynamotors. All reports calling attention to excessive number of dynamotor failures were submitted by organizations performing radio maintenance and repair for organizations conducting crew training. It is believed that trainee radio operators, in familiarizing themselves with the BC-375-( ) mistune the equipment so that high current is drawn from the dynamotor resulting in overheating and eventual failure.	Do not hold the key down for long periods of time when preliminary adjustments are made and when the power amplifier plate tank circuit is not tuned to resonance. Check carefully that the total plate current drain does not exceed the recommended .220 amperes when in "CW" position. The matter of dynamotor failure being caused by other factors is under investigation and if findings show that faulty material or manufacturing contribute to failure, action will be taken to correct the condition.
PE-73-C P/O SCR 287-( ) in B-17G.	1	Shorting of Capacitors Ref. 1613 and 1614.	Unknown.	None considered necessary. Voltage rating of these capacitors has been found to be adequate. A Technical Order directing removal of H.V. fuse from positive lead to negative lead In PE-73-C will prevent damage to transmitter components in event of failure of capacitor Ref. 1613. Replace defective capacitor with serviceable like items.
PE-73-( ) P/O BC-375( ) P/O SCR-287-( ) in B-17( ).	8	Dynamotor leads short out causing dynamotor to become inoperative.	Reversal of input power leads by maintenance personnel.	1. Action pending. 2. Modification of the positive power input leads of Dynamotor PE-73-( ) to incorporate circuit breaker provisions is under consideration. 3. Definite corrective action will appear in future issues of Technical Order 00-65-( ), U.R Digest.
Tuning Units TU-( ) U/W BC-375 P/O SCR-287 in B-25-J.	1	No means available to secure 5 of the 7 tuning units in the airplane.	No permanent stowage provisions are provided in production airplanes for more than three tuning units.	HQ AAF directs that permanent stowage provisions should be provided for only two tuning units in addition to the one carried in Transmitter Unit BC-375-( ). All other tuning units carried during ferrying operations will be stowed as loose equipment in such a manner as to be readily accessible to the radio operator during flight.
Socket SO-99 P/0 BC-310-B P/0 SCR-242-B.	I	Socket pins broken.	Improper handling.	Replace socket.
Relay SW-172-A RE-8 P/0 SCR-269-( ) in B-25H.	3	Gun blast damages relay RE-8 during filing.	Relay mounted too near fixed (package) guns on right side of pilot's compartment.	Technical Order No. 01-60GD-9 covering relocation of Relay SW-172 will be published. Relays are being relocated in production airplanes subsequent to AAF Serial No. 43-4410.

Wiring Harness U/W BC-433-G P/O SCR-269-G in B-24 Series.	74	Wires break at soldered terminals in Plugs PL-122.	Cable is clipped to airplane within approximately six inches of Plug PL-122, thus not allowing sufficient slack in wires.	Compliance by using activity with provisions of Par. 9 c (10) (b) of T.O. 09-10-175 which states that cable should be unsupported for a distance of two feet from compass unit BC-433-G and have enough slack to allow shock mounts to move freely. Action has been initiated with contractors to require such compliance on production airplanes.
Plug Pl-108 U/W BC-433 P/O SCR-269-( )	5	Plug PL-108 can be, and often is, inserted into Socket SO-88 incorrectly, burning out Power Transformer Ref. No. 165 and Filter Chokes Ref. #111.	Unsatisfactory design.	Redesign of this plug is contemplated. In the interim, paint alignment marks on plug and socket and attach a tag which states: "Warning, Align Marks on Plug and Socket Before Inserting Plug."
Capacitor C-63 P/O BC-433-G P/O SCR-269-G.	1	Capacitor defective.	Insufficient details given. Believed to be routine failure.	Replace Capacitor with new one from stock.
Tuning Shaft MC-124 U/W SCR-269-G in B-24-( )	108	Tuning Shaft MC-124 breaks at spline and shaft connection.	May be due to one of the following: a. Rust and corrosion on inner shafting or casing at compass unit end. b. Sharp bends in tuning shaft. c. Excessive strain on inner shafting due to turning tuning crack beyond normal stopping point or, d. Damage by personnel moving about in airplanes	a. Prevent rust and corrosion by lubrication at ends of tuning shaft using low temperature oil (AN Spec. No. AN03). b. Eliminate sharp bends by rerouting shaft. Install a Coupling MC-136 between shaft and Radio Compass Unit if necessary. c. Instruct personnel not to turn tuning crank beyond the end calibration marks on control box. d. Secure shaft to airplane structure with loop type cable clamps, routing cable where it will be protected from damage by personnel.
Inverters PE-109-D U/W SCR-269-( ).	1	Center bearing difficult to replace.	No convenient means have been provided for removal of A. C. section.	Removal of d. c. section and fan provides access to bearing. D. C. section and fan may be removed by hammering on the D. C. end of the shaft, using a block of fiber the same diameter as the shaft, with a 2 1/2 pound hammer. Improvements have been incorporated in current production inverters to reduce bearing wear, reducing need for for frequent maintenance.

SCR-274-N in BT-13B	1	Loss of Man-Hours in maintenance of set. Frequent damage to equipment by using personnel.	Location of Set	Action pending results of an investigation being conducted by Aircraft Radio Laboratory Wright Field, Dayton, Ohio
Radio Set SCR-274-N in C-60	1	Difficulty experienced in obtaining proper aerial indication while flying loop type radio range.	Believed to be type of antenna installed.	Action pending.
Radio Set SCR-274-N in C-6O		Radio Installation difficult to maintain, poor tuning qualities, short transmission range.	Poor choice of location for radio installation.	1. SCE-274-N Radio Installation in C-60 airplanes has proven generally satisfactory, therefore no action is contemplated relative to relocation of the above equipment in service or production airplanes. 2. For efficient operation of the radio equipment the SCR-274-N antenna should be installed in accordance with Lockheed Drawing 162142 and a jumper installed around the antenna mast in accordance with Technical Order 01-75CE-18, dated 15 April 1944.
SCR-274-N in RA-25-A	1	Hydraulic fluid and water leaks onto radio set causing corrosion and deterioration of plugs and associated wiring.	Location of radio set is such that hydraulic fluid from the "Turtle Deck Control Valve" and associated equipment and water seeping in through cracks in canopy, falls directly on the radio set.	A protective shield is being designed to protect the radio set from hydraulic fluid and water. When more information is available on this item it will be distributed through routine channels. Pending permanent corrective action sufficient inspections to forestall trouble are recommended. Authorization is given for local fabrication of protective shields if required.
Tuning Shaft MC-215 P/O SCR-274-N	108	Spline not properly assembled on Tuning Shaft MC-215 in accordance with Technical Order 08-10-50	Unknown	Action Pending.
Receivers P/0 SCR-274-N in B-24-( ).	1	Radio Receivers BC-453-B, 454-B and 455-B found with output impedance connected to low impedance tap on output transformer.	Unknown, possibly connected by an activity finding this connection useful and failing to re-place lead to proper tap upon returning set to service.	None considered necessary. "B" series receivers part of SCR-274-N are normally shipped from factory connected for high impedance headsets in order to facilitate compliance with T.O. 01-1-90. Activities finding sets with low impedance tap connected will reconnect output lead to high impedance tap (Term. No. 3 on output transformer, "B" series receivers. No identifying symbol is considered necessary for impedance connection since it is a general understanding that such receivers are connected for high impedance output.
Control Boxes BC-450-A, BC-451-A P/0	1	Tuning of the receiver and transmitter is very difficult.	Inaccessible location of Control Boxes as installed in airplane cockpit.	Action pending results of an investigation being conducted by Aircraft Radio Laboratory, Wright Field, Dayton, Ohio.
Radio Control Boxes BC-450-A in B-24-( )	1	Control Box breaks loose from their mountings.	Vibration set up when top gun turrets are fired in B-24-( ) airplanes.	Suggested shock mounting of control boxes. Contractors are shock mounting control boxes in current production B-24 ( ) airplanes. Technical Order will be published directing shock mounting of control boxes in service B-24 series airplanes.

P/O SCR-274-N Plugs J-2, J-51, & Receptacles J-5, J-50	21	Plugs breaking off in receptacles.	Vibration.	Corrective action pending. In the interim replace defective plugs and receptacles with serviceable like items.
Transformer T-1 P/O BC-455-B P/O SCR-274-N	1	Transformer leaking potting compound.	Internal short-circuit of transformer leads inside the case. Installation did not extend close enough to solder terminals of case. When potting compound in case becomes soft enough in normal heating, the exposed leads short to case. Short circuit increase heating, causing potting to leak.	None required. Replace defective items with good stock. Manufacturer of transformer has corrected unsatisfactory condition by improvement in manufacturing processes.
Mod. Unit BC-456-A P/O SCR-274-N in B-24-H	1	Dynamotor of Modulator Unit BC-456 fails to operate	No. 22 solid copper insulated wire connecting F-50 and F-51 breaks due to vibration.	In all cases where this wire is found to be broken, replace it with a suitable length of No. 18 standard copper insulated wire.
Plug PL-153-A P/O BC-456-A U/W SCR-274-N	23	Plug Pl-153-A difficult to disassemble for repair without causing damage to back plate.	Sticky residue, causing corrosion, reported to hold back plate to housing.	Activity requested to forward exhibits to HQ ASC. An investigation will be conducted to determine cause for presence of foreign matter and prescribe corrective action. Pending such action, replace faulty plugs with serviceable like items and hold removed plugs until instructions for repair or disposition are issued in future issue of T.O. 06-65.
Resistor R-50 P/O BC-456 P/O SCR-274N	4	Heat causing insulating paint to burn off resistor.	Unknown	Under Investigation
P.A. Coil, T-54 p/o BC 458-A & BC-459-A	2	Ceramic coil forms cracking.	Not determined.	Action pending,
Plugs and Sockets FT-220-A U/W SCR-274-N	2	Excessive corrosion accumulates in plugs and sockets.	Accumulation of moisture as a consequence of water seeping through holes in fuselage above center wing section.	1. Application of corrective measures described in Technical Order 08-1-10. 2. Installation of locally designed and manufactured canvas covers on the radio equipment involved. 3. Sealing of the holes in top center fuselage insofar as this action does not interfere with the operation of any essential equipment.
Radio Set SCR-522 in P-61	1	Difficult to accomplish maintenance operation on SCR-522 Radio Installation.	Inaccessible location of radio equipment.	Action pending.

Plugs U/W SCR-522-A in P-39Q	150	Plugs difficult to remove from respective sockets. Frequent breaking of harness wires at plugs.	Activity attributes difficulty to lack of grip on plug causing personnel to grasp wiring in order to effect removal.	None considered necessary. The Bakelite back plate is provided in place of the metal ferrule since conduit wiring has been eliminated. Removal of the plugs may be more easily accomplished if the following steps are followed: (1) Securely tighten collar locking ring with an appropriate size spanner wrench. (2) Unscrew knurled locking ring until it is free of socket threads. During the unscrewing, the plug will be pulled partially free from the socket. (3) Rock plug slightly, pulling upwards on plug not wires at the same time.
SCR-522-A in P-39	6	Excessive heat in Transmitter-Receiver Assembly Failure of supports on which Transmitter-Receiver Assembly is attached. Inaccessibility of transmitter receiver assembly for maintenance and tuning operation.	SCR-522 equipment was relocated on the aft cabin deck of some P-39 series aircraft at the specific request of one using activity. Adequate supports and ventilation facilities for this assembly was not provided. Space provided proved too small for easy accessibility.	1. T.O. 01-11OF-203, currently being published, directs the relocation of Radio Sets SCR-522-A and SCR-695 in P-39 series aircraft in order to improve the weight and balance characteristics. It directs the following improvements: a. Hinging of the canopy to provide easy accessibility to the radio equipment f'or maintenance and tuning. b. Strengthening of the aft cabin deck to support the radio equipment installed thereon. c. In-flight ventilation provisions for radio equipment. d. Adequate ventilation, under conditions of extreme heat, while the plane is not in flight can be obtained by opening of the hinged canopy.
Radio Sets SCR-522 & SCR--695 in P-47-4-RA.	5	Microphone circuit was incorrectly wired so as to impose a load on the battery of the plane at all times.	1. Wire No. 850 was connected to Pin No. 1 of Microphone Adapter M-299. This wire was connected to the positive pole of the battery through a 20 ampere fuse and the radio junction box. 2. The microphone was connected by wires No. 464 and 465. Wire No. 464 was connected to Pin No. 3 of Microphone Adapter M-299. This post was connected to Pin No. 1 through Microphone Adapter M-299. Wire No. 465 was connected to Pin No. 2 of Microphone Adapter M-299, which is ground. The above circuit was complete at all times.	1. Disconnect wires No. 464 and 465 from Microphone Adapter M-299. 2. Install wires No. 853 and 465 from Microphone Adapter M-299 to an unused terminal in Terminal Box (Item No. 35) Connect wires No. 464 to the same terminal. 3. Connect wire No. 465 to the same terminal in the Termina3. Box as is Wire No. 474 4. Wire No. 474 connects through "Push-to-Talk" Button to ground.
Radio Control Box BC-6O2-A in B-24 Airplanes.	2	Improper location. Interferes with rudder and brake control of airplane by co-pilot.	Control Box is mounted on control pedestal adjacent to cowl flap switch, in the way of co-pilot's knees.	A Technical Order will be issued directing relocation of Control Box BC-602-A in all affected B-24 series airplanes. Authority will be granted to relocate control box if difficulty is encountered. Action Pending.

Radio Set SCR-522-A	10	Activity reported the following difficulties: 1. Shorts developing between terminals 14 and 15 of PL-170 and 12 and 8 of PL-169. 2. Heat and humidity altered the tuning adjustment of the transmitter. 3. Crystal unit DC-11-( ) become inactive. 4. Positioning SW Ref. No. 427-A P/O Ratchet motor, freezes. 5. Starting Relay Ref. #321, p/o Dynamotor PE-94-A, freezes. 6. Line of sight transmission afforded by set.	Activity contributed all difficulties to excessive moisture due to climatic condition and/ or to condensation due to rapid changes in temperature at high and low altitudes.	Listed to correspond with difficulties reported. 1. For corrective action refer to page 12R of Technical Order 00-25-25D. 2. Action pending results of investigation by ARL. 3. Action pending results of investigation by ARL. 4.Action pending results of investigation by ARL. 5. Action pending results of investigation b ARL. 6y Transmission and reception is a basic characteristic of the frequencies used.
Capacitor 212 p/o BC-624 p/o SCR-522-A	8	Capacitor exploded.	Undetermined.	Extensive investigation has proved electrolytic capacitor is not suitable for this application. Paper capacitor block has been developed for replacement of this item. Its installation will be directed by a Technical Order when compliance parts become available. Meanwhile a sufficient number of these items have been provided in spare parts kit to cover replacement needs.
Resistor #274-1 P/O BC-624-A P/0 SCR-522-A	1	Resistor Ref. #274-1, P/O Radio Receiver BC-624-A open circuited.	Resistors of high values of resistance sometimes become open circuited due to vibration, aging, etc. as well as overloads.	Since low currents flow in the circuit in which this resistor is employed, except under very unusual circumstances, this isolated failure is attributed to vibration and/or aging.
Vacuum Tube JAN 832 P/O BC-624-A, P/0 SCR-522-A	1	Glass envelope cracking around pin seals.	Activity reports handling of tube during maintenance causes break. Possibly excessive vibration, defective tube.	Vigorous "rocking" of tube is definitely harmful. Pull or push tube straight up or down when inserting or removing tubes. Position flexible plate leads so they exert no strain on pins. Carefully position the mycalex retaining strip so that it is centered between the two plate pins. Compliance with Par. 21 e of T.O. 08-10-105 dated 5 June 43 revised 5 August 1944 is essential for prolonged tube life. Replace defective tubes. Tubes have been redesigned and manufacturing process improved.
Tube VT-199 P/O BC-625-A P/O SCR-522	2	Transmitter BC-625-A, P/O Radio Set SCR-522 inoperative.	Filament of Vacuum Tube VT-199 failed, resulting in open heater circuit of oscillator tube VT-198.	A Technical Order is being prepared directing removal of the R.F. Indicator tube and rework of the heater circuit of the crystal oscillator and speech amplifier tubes as part of a noise limiter circuit modification. Activities are requested not to effect removal of the R.F. Indicator circuit until directed by a Technical Order.
Wires to JK-49 P/O BC-629 P/O SCR-522 in P-38	1	JK-49 fails	Wires to Jack JK-49 becomes broken from constant bending and twisting.	Secure Jack JK-49 rigidly to Jack Box BC-629 by any satisfactory method in P-38 aircraft in which this unsatisfactory condition exists.

Transformer Ref. #160 P/0 BC-625 -A P/0 SCR-522-A	4	Windings of Modulation Transformer Ref. #160, P/O Radio Transmitter BC-625-A, short circuited to shield can and/or transformer core laminations.	Providing the windings were not subject to high current flow, it is indicated that manufacturing deficiencies in the order of improper winding insulation or faulty potting was the cause of malfunction.	In event of failure of this item, ascertain if possible, whether a short circuit in the components of the power amplifier stage was a co-failure or not. If negative, forward the information by Unsatisfactory Report, with exhibit transformers to CG, ASC, Patterson Field, Ohio. The exhibits will be analyzed to determine the exact fault, after which corrective action will be incorporated in production.
Crystal DC-11-B P/0 SCR-522	6	In a new shipment of Crystals DC-11-B, six were found defective.	Undetermined	Action Pending.
Brushes P/O PE-94-A	100	Short life of low voltage input and output brushes at high altitude operation.	Unsatisfactory brush material	1. Install replacement brushes Nos. 3H1894A/B10, 3H1894A/B11, and 3H1894A/B12, which were developed to provide satisfactory operation at high altitudes (future spares will be these brushes). 2. Adjust low voltage input and output brush pressure to 7 ounces. 3. Adjust medium & high voltage brush pressure to 2 ounces. 4. In event replacement brushes are of the old type suggest inspection after every 10 hours of high altitude operation, should replacement brushes show any wear. 5. To adjust brush pressure proceed as follows: a. Lift the brush spring from the brush moving it away from the brush board allowing it to clear brush holder and uncoil. b. Additional pressure is required bend the spring in direction in which pressure is normally applied to brush. The bending should be about 1 112 inches from end of spring normally resting on brush. (After bending make certain that pressure applied to the brush remains in the longitudinal plane and that the spring rests in center of brush. c. If less pressure is required proceed as in A and B above except the spring is bent in the opposite direction.
Dynamotor PE-94-A, B P/O SCR-522	2	Dynamotor PE-94-A and B overheat in Dynamotor compartment of P-47-( )	Undetermined.	Action Pending.
Resistor #317, P/O PE-94-A P/0 SCR-522-A	1	Resistor Ref. #317 P/O Dynamotor PE-94-A was found broken.	Careless installation or maintenance	Due to the rugged construction of this resistor, nothing short of gross carelessness could cause breakage of the resistance wire of this item. It is believed that damage was caused by either moving the sliding tap without loosening the clamp screw, or that the input filter was removed and/or replaced without first removing the resistor, thus forcing the edge of the metal capacitor case against the resistive wire.

Brushes PE-94-A P/0 SCR-522-A	102	Noisy transmission and reception on Radio Set SCR-522-A	Incorrect brush spring tension and/or rough commutators.	1. Brush spring tension should be checked to correspond with pressures noted below. a. Low voltage input and low voltage output 7 ozs. b. Medium (150 Volt) and high (300 Volt) voltage 2 ozs. 2. If commentators are found to be rough the Dynamotor should be returned to the appropriate service activity for necessary armature dressing and repair. 3. To adjust brush pressure proceed as follows: a. Lift the brush spring from the brush moving it away from the brush board allowing it to clear brush holder and uncoil. b. If additional pressure is required bend the spring in direction in which pressure normally applied to brush. The bending should be about 1 1/2 inches from end of spring normally resting on brush remains in the longitudinal plane and that spring rests in center of brush.) c. If less pressure is required, proceed in a and b above except the spring is bent in the opposite direction.
Stowage Rack for SCR-578-A in B-24-( ).	91	Stowage rack not large enough to hold SCR-578-B. Not in best location.	Rack was designed for SCR-578-A and is too small for SCR-578-B.	1. Radio Set SCR-578-A or B can be relocated and installed between stations 7.6 and 7.7 on right side of airplane. 2. Secure the SCR-578-A, or B in the above position by letting the equipment rest on the floor and using a strap of local design and manufacture. 3. Action has been initiated to require manufacturers to provide stowage provisions for both SCR-578-A or B in future production B-24-( ) airplanes.
Accessory Container SCR-578-A in B-26	1	No stowage facilities for Radio Set SCR-578-A	Not determined.	Action Pending.
Accessory Bag and Metal Tube P/O SCR-578-A in B-17	12	Accessory bag and contents unserviceable.	Repeatedly being stepped on by personnel moving about in the aircraft.	Action has been initiated to require contractors to provide adequate stowage facilities for Radio Set SCR-578-A or SCR-578-B, whichever is installed, in current production B-17 series aircraft. The set will be readily accessible for use in ditching yet will be protected from damage by personnel.

Visor M-387 P/0 SCR-718-A.	1	Visor M-387 not provided with Radio Set SCR-718-A installation.	Oversight by installing agency.	Requisition through normal supply channels one Visor M-387, Signal Corps Stock No. 2ZA950-387, for each installed Radio Set SCR-718-A not so equipped. Action has been initiated to insure inclusion of visor in production airplanes in which SCR-718-A is installed.
TA-12-B in A-30.	1	Microphone T-14 or T-44 is required to properly operate Transmitters and Interphone System and causes pilot to release controls when operating transmitters.	Use of T-14 or T-44 Microphone in A-30 airplanes require one hand to operate microphone and the other to operate Toggle Switch on Interphone Control Box MC-22-A.	Action pending.
Microphones U/W TA-12-B in A-30.	10	A-30 aircraft equipped with Bendix TA-12-B and SCR-522 VHF Radio Equipment require a magnetic microphone for operation. Microphone supplied must be hand-held.	Airplanes are destined for lend-lease beneficiaries, and are not equipped with standard microphone facilities.	Action pending.
Technical Order 01-110F-46 Re: M-299 U/W SCR-522 in P-39	4	Both hands required to operate radio.	No provision for Microphone T-30 and ANB-M-C-1. These microphones do not require the use of both hands to operate.	1. Install Microphone Adapter M-299 in service P-39 series aircraft using Technical Order 01-11OF-46 and deviating from provisions of T. 0. where necessary. Make proper entry on Form 60-A of airplane affected. 2. Current production P-39 series aircraft have microphone adapter M-299 installed.
Bonding and Shielding (T.O. 08-5-1) on BT-13B.	1	Aircraft arriving at stations from contractor with no bonding.	Manufacturer not complying with Technical Order No. 08-5-1.	Compliance with Section III, Par. 9, subparagraphs b (7) and b (8) of Technical Order No. 08-5-1, "Aircraft Radio - Shielding and Bonding of Aircraft', dated 16 March 1942. Action is being taken with Aircraft contractors to see that bonding is properly accomplished.
Technical Order No. 08-5-2.	32	Activities consider the number of inspections directed as unwarranted when applied to training type of aircraft, particularly where a shortage of personnel assigned to make the inspection exists.	Provisions of Technical Order No. 08-5--2.	None considered necessary as inspections outlined are considered necessary to assure dependable communications in aircraft at all times. Under normal operations, the inspections are not considered excessive for most organizations and therefore revision to exclude the "After Flight" and "Daily Inspection" is not favorably considered.
Technical Order No. 08-5-70A.	2	Non-compliance with Technical Order No. 08-5-70A by manufacturer of Radio Set SCR-522.	Compliance symbol (blue dot) on other places that specified by the Technical Order.	Action has been taken to rescind Technical Order 08-5-70 since a Technical Order directing installation of a Noise Suppressor in the SCR-522 will obviate the necessity for the squelch modification.

Technical Order No. 08-5-75.	1	Varied difficulties attendant with compliance with Technical Order No. 08-5-75.	Removal and/or loss of Headsets and Microphones through violation of the Technical Order, carelessness and theft.	Provisions of Technical Order No. 09-5-75, dated 16 March 1944 reflect the opinion and policy of Hqs., Army Air Forces, Washington, D.C., in this matter, and was initiated to effect the following: 1. Reduce excessive loss of microphones and headsets. 2. Provide a means whereby disciplinary action would be taken in event unauthorized persons had these items in their possession. 3. Reduce the overall quantity of microphones and headsets required in service, especially in training schools. 4. Have those items available at all times in every airplane for tactical and practical reasons. In view of the above, compliance with Technical Order is mandatory, and no exceptions other than those noted in Par. 5 thereof will be considered.
Technical Order No. 01-1-152	1	Charts not attached.	Oversight by printing contractor.	Copies of Technical Order 01-1-152 are currently distributed with charts attached,
Technical Order No. 01-1-152	1	Wording in paragraphs 2 c and 2 d inconsistent.	Par. 2 c refers to inspection of markings on loop housing, paragraph 2 d refers to markings on loop base.	Further revision of Technical Order No. 01-1-152, now in preparation, will Include mention of exact part of loop to be inspected.
Technical Order No. 01-1-152 Re: AT-10.	21	Radio Compass quadrantal error correction data, given for AT-10 airplane in Data Line No. 2 of Technical Order No. 01-1-152 inaccurate.	Data given in Data Line No. 2 was determined for airplanes without automatic pilot. Installation of automatic pilot in AT-10 airplane of plywood construction, change amount of distortion of radio field pattern by conducting parts of airplane.	Action pending.

Power Unit Onan 358-RS P/O AN/MRN-3	8	Line voltage delivered to RC-115 not stable.	Model 358-RS power unit is commercial model. PE-88 should be used for AN/MRN-3.	Replace Onan Model 358-RS power unit with PE-88, Signal Corps Stock No. 3H4588. Voltmeter is being installed on RC-115 to determine input voltage
Power Unit PE-214-A p/o AN/MRN-3	4	General deterioration and increasing frequent over-hauls necessary.	PE-214-A is of too light construction to provide a dependable source of power for AN/MRN-3	PE-214-A is being replaced, as production will permit, by PE-88 which is a more rugged unit, equipped with shock mounts.
Power Unit FE-95-G, H	2	Exhaust valve rusted and stuck upon issue.	Inadequate rust preventative treatment.	Specifications for rust preventative treatment have been changed to provide adequate protection for engine.
Power Unit PE-95-G	1	Generator Bracket broken upon arrival at destination.	Probably a severe drop caused this breakage.	Office of the Chief Signal Officer states that this is first report of this failure. Present packing crate is deemed strong enough without changes.
Rectifier RA-62-B p/o SCR-624	1	Low voltage filter capacitor, 6000 mfd, 15 V., deteriorated and shorted out.	Method of fabrication was faulty.	Improved method of fabrication of condensers should prevent further failures. Condensers should be replaced from depot stock upon failure.
Fixed Course Detector P/O AN/MRN-3	1	Cord for fixed course detector breaks at junctions of plugs in CD-811-A	Rubber cable covering cut back so metallic sheath makes contact with plug shell.	Rubber insulation should not be cut from cable so sheath makes contact with plug shell. Additional strip of rubber 1-5/8" x 7/16" x ¼" placed under cable clamp provides secure fit. Cable shield should be connected by soldering small pieces of #20 wire from shield to pin "E", the ground terminal of both plugs.
SCR-610 P/0 SCS-51	1	Dry batteries in power supply run down.	No 110V AC power supply ever issued for SCR-610	A 110 volt power supply is now being designed by Signal Corps Laboratory.

AN/MPS-2 532 MK III Power Unit B-6	10	Poor frequency and voltage regulation. Insulation breakdown in alternator.	High speed operation, poor voltage regulator and improper insulation.	This B-6 unit was supplied by the Chief Signal Officer because it was the only available power source at the tine. Re-Replacement PE-95-G units have been distributed.
AN/TPN-1 Case CY-21/ TPN-1	4	Equipment battered during transit.	Battery slipped from its hold-down screws as it was inadequately secured.	A technical order is being prepared covering the installation by field personnel of a bracket which will be attached to the bottom of Case CY-21/TPN-1. The battery will fit into the bracket which will be made from angle iron.
AN/TPS-2 Transmitter T-25/TPS-2	1	Pulse Transformer K52-J676, T206 showed internal leakage after 2 or 3 hours, operation.	Inadequate insulation.	New transformer with higher insulation value is being procured. All original transformers were checked and 50% stood up well enough to be used. New transformers will be distributed to the field when available.
AN/TPS-2 Transmitter T-25/TPS-2	1	Pulse transformer K-52J813, T205 fails.	R/F leakage from transmitter oscillator. Secondary lead breaks off.	A choke coil has been designed to reduce R/F leakage and will be supplied two per set delivered without it when available. The size of the secondary lead has been increased.
AN/TPS-2 Transmitter T-25/TPS-2	1	Transmitter R/P output jack, J202, breaks down frequently.	Set runs without load.	All sets after serial No. 100 will have a key on the antenna cable plug, P202, which will work an interlock in the transmitter so that the transmitter will not run unless the antenna cable is connected.
AN/TPS-2 Receiver Indicator R-36/TPS-2	1	Intermittent amplitude change noted in output of receiver.	Contact between receiver chassis back-shield and shell of plug on cable connecting assembly with the receiver chassis.	The hole through which the plug passes is being enlarged in later sets to eliminate possibility of contact between plug and chassis. This can be done by field modification on sets not changed in production.
MRU Transmitter T-3104	1	Set inoperative as no spare V1501 tubes could be obtained.	V1501 tubes have been a critical item due to inadequate procurement of spare parts.	Spare tubes were shipped as soon as available. In view of salvaging of several TRU sets for spares and anticipated delivery of spare tubes from Britain, it is believed that no further difficulty will be encountered in the supply of V1501 tubes.
SCR-268 Transmitter BC-407-A	4	Filament to grid shorts in vacuum tube VT-127-A.	Faulty manufacture or packaging.	Information received from Maintenance Coordination forms indicates that the average life of the VT-127-A tube, 1,274 hours, requires a supply of replacement tubes nearly twice that being furnished by present ABC Plan levels. This information has been furnished the Signal Corps Ground Signal Agency, and improvements in design and packaging of the tube have been requested.
SCR-268-B Converter BC-437	1	Inadequate parts list and no stock numbers available for Converter BC-437.	Technical Manual TM 11-1106-B published with inadequate parts list.	Stock numbers of spare parts for Converter BC-437 are provided in ABC Plan lists for Radio Sets SCR-268-( ). The Fort Monmouth Signal Corps Publications Agency has been requested to determine whether the present parts list in TM 11-1106-B is complete.
SCR-268-B Rectifier RA-38	1	Mounting bolts for the reactor #106 sheared during truck movement allowing the reactor to swing about and damage other parts. Repair is difficult since bolts are welded to false floor.	The reactor is not braced at the top and excessive vibration during transportation will shear off the mounting bolts.	Camp Evans Signal Laboratory has been requested to design a suitable mounting for the reactor which can be fabricated and installed in the field. Instructions for manufacture and installation will be issued as a technical order.

SCR-268-B Improvement Kits	1	No parts lists with stock numbers are provided with such improvement kits as the 68-S1, 68-C1, 68-A1, etc.	Manuals for these kits were published without adequate parts lists.	The composite maintenance lists being prepared by the Chief Signal Officer for Army Ground Forces equipment should provide adequate parts information provided both the SIG-7 series (for 1st and 2nd echelons of maintenance) and the SIG-8 series (for higher echelons) are distributed to the using, and servicing units. The Fort Monmouth Signal Corps Publications Agency is no longer releasing manuals without adequate parts lists properly stock numbered. However, information has been requested as to the policy for correction of manuals already released.
SCR-268-B oscilloscope BC-412-A	30	Shorts in secondary of HV transformer 4G1670-A/T4 between windings or to ground.	Improper design and inadequate insulation. moisture and heat accelerate failures.	Improved transformers submitted by different manufacturers are now being tested by Camp Evans Signal Laboratory as a replacement for the present transformer.
SCR-268-B Power Unit PE--84	2	Water Pump shaft crystallized and broke throwing the fan through the radiator.	Insufficient strength of pump shaft.	The pump shaft of the new water pump assembly, 6A13-360-1, being distributed on priority is heavier and stronger in construction.
SCR-268-C Shelter HO-18	1	Excessive wear and damage to Shelter HO-18 during transit of set or storage.	Inadequate means of packing, storage and transporting parts of the shelter as no room available in the two trailers of the set. Parts must be packed in a truck and stored outside.	Paragraph 37 of TM 11-1106C states that HO-18 is placed in its original packing cases and transported in a cargo truck when the set is moved. The adequacy of these packing cases for transporting the shelter is being investigated.
SCR-268-C Shelter HO-18	1	The contents of packing boxes P3, 4 and 6 cannot be easily carried when the set is moved.	Boxes do not contain a suitable transport rack to carry the contents originally shipped in the boxes.	Camp Evans Signal Laboratory has been requested to design racks and supports suitable for fabrication in the field, which will properly carry the contents of boxes 3, 4 and 6 during transit. These instructions will be issued as a technical order.
SCR-268-C Radio Equipment, RC-148	2	Mishandling of Radio equipment RC-148 during transit of set.	No means of properly packing components of RC-148 with the set for transportation.	Instructions for properly packing RC-148-( ) equipment for transportation in vans of Radio Sets SCR-268-( ), which are now being prepared by Camp Evans Signal Laboratory, will be distributed as a technical order as soon as available.
SCR-268-C Keyer BC-409	5	Inspection of set upon arrival in theatre revealed resistor 40-1 in Keyer and 50% of replacement resistors 3ZO625-14 open.	Faulty inspection. No overload noticed when substitute resistors installed.	Results of Signal Corps Inspection Agency investigation are that failures were not caused by faulty inspection. Since the Keyer is operated for one hour and its output checked, failure of resistor 40-1 could not escape detection. Spare resistors are given a 10% spot inspection and rejection records plus a test of 800 resistors at Lexington Signal Depot reveals only 2% defective. Resistors might have failed because of their inability to withstand tropical conditions.
SCR-268-C Cable #24	5	Inspection of sets upon arrival in theatre revealed that the "sync' line in Cable #24 was open.	Faulty inspection as possibly the further processing in manufacture, of a kink in the "sync" line wire was cause of failure.	Results of Signal Corps Inspection Agency investigation are that failures were not caused by faulty inspection. All cable circuits are given a continuity test. The cable might have been damaged during transit.

SCR-270 Oscilloscope BC-403	10	Horizontal positioning potentiometer 4G1668B/ 96 burns out.	Present rating of 2 watts insufficient for current carried.	Referred to Signal Corps Ground Signal Agency for investigation of whether the potentiometer is satisfactory and for necessary corrective action if unsatisfactory.
SCR-270 Oscilloscope BC-403	12	Vertical positioning potentiometer 4G1668B/96 burns out.	Present rating of 2 watts insufficient for load required.	Forwarded to the Signal Corps Ground Signal Agency for investigation of whether the potentiometer is satisfactory and for necessary corrective action if unsatisfactory.
SCR-270-B Control Unit, BC-1012	1	Receiver sensitivity potentiometer, 2ZZ276 (item #2, Fig. 46, TM-11-1110-D) burned out after short life. Replaced by 10 watt, 60,000 ohm control.	Insufficient voltage rating.	Referred to Signal Corps Ground Signal Agency for investigation of whether the potentiometer is satisfactory and for necessary corrective action if unsatisfactory.
SCR-270-B Old type Turning Gear	1	Need means of reading azimuth accurately.	Poor visibility with old style azimuth indicator.	Westadyne Drive to be installed on all sets will eliminate this difficulty.
SCR-270-D Oscilloscope BC-403	1	Heater resistor burned out in Time Delay Relay 54-1, 4G1668B/R5.	Relay contacts failed to close.	Spare heater resistors are not provided on ABC Plans for Radio Sets TM 11-270/271 as field replacement is considered impractical. The entire relay assembly must be requisitioned as a replacement.
SCR-270-BB SCR-270-DA Control Unit, RM-41-A	4	Fuses F-1202 and F-1204 fail too often, and replacing them is a difficult procedure.	Cover on Control Unit must be removed each time a fuse is replaced This is a long and tedious procedure. Fuses are under-rated.	A technical order is being prepared authorizing that a small access aperture be cut out of the cover at the rear of the unit so that the fuses are readily accessible. The aperture will be covered with a removable metal plate. The technical order will also authorize that fuses F-1202 and P-1204 be replaced by fuses of 5 ampere capacity.
SCR-270-BB SCR-270-DA operating Van K-30, K-62	4	Lamp sockets in operating van interfere with sound absorbing panels being installed with Console Conversion Kit.	Holes must be cut in panels for installation, and lamps are so close to panels that a fire hazard exists.	The positions of the lamp sockets vary in vans K-30, K-62, and K-79 and also in vans of the same type. Since the kit is for all vans, no holes could be cut by the manufacturer. The panels are fireproof, and so no fire hazard exists. The recommendation made of installing collars, through which the lamps may be inserted, is being further investigated by Camp Evans Signal Laboratory.
SCR-270-BB SCR-270-DA operating Van K-30, K-62	4	After 4 hours of operation in an outside temperature of 85F, inside temperature of van was 125F and temperature inside receiver indicator was 140F. This led to erratic picture on H/R oscilloscope and inefficient performance of duties by operating personnel.	Complete lack of ventilation or air-conditioning when the van doors are closed as required when the set is operating.	Ventilation Improvement Kits 270-MX2 consisting of Carrier air conditioning units with a capacity of 21,000 BTU/hour have been procured, and delivery is scheduled to start 10 July 1944. The unit is tropicalized and can be used outdoors. The exact method of mounting has not been determined, but is is certain that it will be mounted externally to the van and connected by a canvas duct.

SCR-270-D SCR-270-BA Driver MC-437	1	To disengage coupling between motor MO-30 and gear reducer, the coupling must be slipped along the shaft.	Driver cannot be moved endwise to disengage coupling.	No difficulty is experienced in moving driver mountings associated with the drive motors. Figures 3 and 11 of Technical Manual TM 11-1059, for Antenna Position Control MC-298-( ) shows clearly that there is adequate room to disengage the coupling by moving the motor endwise.
SCR-270/271 Transmitter BC-405-A	1	Doubt exists as to what is furnished when requisitioning ceramic coil 2C6382B/C5 using the Signal Supply Catalogue, SIG-5.	Coil is listed on page 64 of the Catalogue without reference to the two connectors and fittings used with the Coil.	The Signal Corps Stock Numbering Agency has been requested to make necessary changes in the catalogue and to consider the recommendation made that the description for each component includes a complete listing of parts.
SCR-270/271 Rectifier RA-60-A	2	Excessive heat is generated in the rectifier by the WL-531 vacuum tubes.	Inadequate ventilation of air through the rectifier.	A technical order is being prepared authorizing the cutting of holes in the sides of the rectifier to increase circulation of air. Until publication of this technical order, instructions are given in item 3 of the Trouble Diagnosis Chart appearing on page 262 of either TM 11-1114D or TO-08-40SCR270-2. These instructions state that one panel should be removed from each side of the rectifier and replaced with wire screen.
SCR-270/271 Keyer BC-402	61	inspection of depot stock revealed 56 out of 144 450TH (VT-108) tubes were defective. Of these 17 were gassy, 13 had grid to cathode short, 13 had heaters open, 6 had broken envelopes and 9 were defective as a result of ionic bombardment of plates. Tube must be replaced when the emission is thought too low.	Defective packaging for 65% and faulty manufacture for remainder. No means of testing tubes.	Recommendations that steel springs or rubber shock cords be used to suspend the tubes rather than canvas strips and that adequate caution signs be placed on all sides of the containers have been forwarded to the Chief Signal Officer. Mechanical improvements have been made during the past year and no substitutes are recommended as average life is in excess of specifications required. Testing of tubes at the set is not considered practical.
SCR-270/27 Rectifier RA-39/60	13	Shorts take place in WL-531 tubes when 7 to 12 KV is applied. Also filaments opened At 12 KV. These tubes also fail because of gassiness and low emission.	Defects in tube manufacture. Possible cause is fluctuating voltages.	Camp Evans Signal Laboratory is at present conducting an investigation of failures of the WL-531 tubes.
SCR-270/271 Spark Gaps GA-6A	1	Plastic bars on Spark Gaps melting from heat.	Unknown.	Spark Gap GA-6A has been in continuous use in other radio sets, and there have been no other reports of the difficulty mentioned above. if the spark gap is installed on the line, especially on a horizontal line, so that the rising heat is away from the polystyrene parts, the defect probably will be eliminated. The polystyrene shield, which because of its location is more liable to melt, will, on future productions, be made of low loss Bakelite.
SCR-270/271 Oscilloscope BC-403	1	Range obtained from scope cannot be checked for errors.	Suitable test equipment not available.	Test Set I-144, Dual Range Calibrator, part of Test Equipment RC-70-B, will provide pip calibrations for checking ranges. Test Set I-146 provides the same method of calibration for only one range.

SCR-270/271 Keyer BC-402	1	Keyer pulse width not correct.	Keyer pulse output not checked during maintenance period.	Section IV of TM 11-1043-A (CO-08-70B-1) for Test equipment RC-70-A outlines a procedure to use in testing pulse width control and output pulse wave form of the keying unit. Additional procedures and instructions for checking the pulse width control are being developed in Camp T-vans Signal Laboratory.
SCR-270/271 Rectifier RA-60	1	Auto transformer (transtat) schematic part #27 burns out.	Fuse rating too high.	This is the first report of this type. The suggested substitution of a 100 ampere fuse for the present 150 ampere fuse is not recommended. A fuse will protect against short circuits or heavy overloads that exist within the local associated circuit only. There are variations in line voltage causing transients which will burn out the fuse if the rating is lowered from 150 amperes to 100 amperes. Furthermore, the main contactor, part 36, will trip on heavy overloads, thereby assuring additional and adequate protection. The failure was undoubtedly caused by faulty contacts.
SCR-270/271 Spark Gap GA-6A	1	Spark gap adjustment and cleaning information needed.	Preliminary instruction books ambiguous.	The recommended spark gap spacing for optimum efficiency is .008 inches according to tests conducted by engineers of Camp Evans Signal Laboratory. The tungsten contact points should be cleaned with a fine file or emery cloth. Instructions for adjustment of the electrode spacing are contained in paragraph 14, page 3, TM 11-1110D (CO-08-55CD-2) and paragraph 16 e, page 85, TM 11-1114D (CO-08-40SCR-270-2).
SCR-270/271 Rectifier RA-39/60	5	Fan for blower motor broke loose from flange on collar.	Metal fatigue.	First report of this nature. Recommendation that the fan be constructed of heavier metal will not be acted upon unless additional failures are reported. It is requested that Unsatisfactory Reports be rendered on this type of failure.
SCR-271-D Transmitter BC-785-A	24	Unstable oscillations, shorted elements, gassiness, open filaments, extraneous matter within tubes and low emission of vacuum tubes L-530.	Inadequate inspection or imperfect manufacture.	Because of excess stocks, many WL-530 tubes have undergone considerable storage. A plan for returning these tubes to the manufacturer for reconditioning prior to shipment is being considered. A recommendation has been made to the Chief Signal Officer that all tubes be tested before being shipped overseas.
SCR-271-D Keyer BC-758-A	1	Fan blades cracked at base.	Weakness in construction.	The recommendation that the blades be made of lighter material or better supporter at the hub junction has been forwarded to Signal Corps Ground Signal Agency.
SCR-271-D Control Unit, BC-1011-A	1	Azimuth Indicator Dial light does not give sufficient light to easily read dial and interferes with reading of oscilloscope.	Absence of shield or shade.	Recommendations have been forwarded to the Signal Corps Ground Signal Agency that either the improved lighting system provided in Control Unit BC-1011-B or some type of shield be incorporated into Control Unit BC-1011-A by field modification.

SCR-271-D Tower TR-8-A	1	In raising antenna to top of tower, the winch cable will jump from the track of the 6" pulley support at the top of the tower, endangering the lives of the installation personnel and damaging the tower and antenna considerably.	When the antenna is raised an inch or two above its normal position ,the divide-splice on the hoisting cable, which is larger than the pulley track, rides up on the track and slips off.	Camp Evans Signal Laboratory has been requested to design a guard which will prevent the divide-splice of the cable from riding up on the pulley track. It was recommended that this guard be designed so that it could be fabricated and installed in the field in compliance with a technical order.
SCR-271-D TM-11-1110D	2	No depot spare parts list and no complete item or drawing number in parts lists used with drawings or figures of major components are provided.	Manual printed without the material included.	The Fort Monmouth Signal Corps Publications Agency is no longer releasing manuals without adequate parts lists properly cross-referenced and stock-numbered. low-ever, information has been requested as to policy for correction of manuals already released.
SCR-271-D Transmitter BC-785-A	1	Arcing between the shielding lead for the high voltage cable from Rectifier RA-60-A and the petcock drain.	Shielding lead and petcock drain too close together.	Forwarded to Signal Corps Ground Signal Agency for investigation of the arcing and consideration of the recommendation that the shielding and the petcock be insulated from each other or rearranged so they will be further apart.
SCR-296-A Receiver BC-716-A	1	Jumpy picture on oscilloscope screens.	Loose cover on can for receiver converter-oscillator or loose connections of either end of cables running from the converter-oscillator to the I/F stages.	It is believed that adjustment by spreading the springs holding the converter will make the cover fit tighter. Ends of cable should be checked and tightened if necessary.
SCR-296-A Antenna AN-70-A	1	Lobing motor would not start.	The two bearings on the lobe switcher had worn and thrown shaft off center.	The lobe switcher is subject to wear due to R/F arcing. An improved lobe switcher shielded from R/F voltages is being procured. It is recommended that replacement bearings or a complete lobe switcher be requisitioned.
SCR-516-( )	1	Potentiometer 2Z7996/500 burned out after short life.	Insufficient voltage ratings.	Forwarded to the Signal Corps Ground Signal Agency for investigation of whether the potentiometer is satisfactory and for necessary corrective action if unsatisfactory.
SCR-527 pedestal FT-342-A	1	The hand control gear box is in constant operation thereby in-creasing the wear on bearings and gears and the drag on the antenna during rotation.	Hand control clutch is located between the gear box and tire hand wheel.	Forwarded to the Signal Corps Ground Signal Agency for consideration of a modification which would place the clutch between the hand control gear box and the hand drive pinion ear which is meshed with the pedestal. Because ball bearings are used throughout the rear box and rotating speeds within the box are not fast, there is doubt that such a modification would be worth the time, effort and expense.
SCR-527-A Oscilloscope BC-986-A	2	Two out of five cathode ray tubes 12GP7 shipped by air were received demolished. Cardboard cartons showed no signs of rough handling.	Inadequate packaging and packing for export shipping or extensive handling.	Recommendation that the tubes be packed in an open or orange crate type of box, constructed of rigid material and employing steel springs or rubber shock cord for suspension of the tube, has been forwarded to the Chief Signal Officer for necessary action.

SCR-527-A Oscilloscope BC-986-A	7	The 12GP7 cathode ray tubes could not be brought to a focus throughout entire range of controls.	Focusing anode or other elements displaced either in shipment or in manufacture.	An investigation of electrical failures of the 12GP7 tubes is being conducted by Camp Evans Signal Laboratory. It has been found that nearly a third of the tubes supplied as spares for earlier sets were defective as a misalignment of the reflecting plate resulted in low intensity. These are to be replaced. The Chief Signal Officer has been requested to insure adequate packaging of these tubes.
SCR-527-A Transmitter BC-982-A	7	Premature failures of GL-434-A vacuum tubes.	Softness after 200 hours operation. Some tubes showed slight cracks near grid and filament leads but the rest showed no outward sign of failure. Two tubes could not be made to oscillate at the desired frequency.	An investigation of electrical failures of the GL-434-A tubes is being conducted by Camp Evans Signal Laboratory.
SCR-527-A Antenna AN-97-A	7	Several GL-559 tubes could not give a satis-factory rejection ratio others showed very short life by rapid fall of rejection ratio.	Since the only test for these tubes is operations, exact cause cannot be found. Be-cause some tubes were satisfactory, it is believed defects were in the tube.	An investigation of the GL-559 tubes is at present being conducted by Camp Evans Signal Laboratory on premature failures of this tube. Request has also been made for some method of testing tubes in the field. The filament voltage for these tubes has been reduced to minimize failures. Resistors were installed in sets over serial number 97 to lower the voltage. For earlier sets these resistors are provided in improvement kit 527A-MX1.
SCR-527-A SCR-627-A Receiver BC-981-A	4	Difficulty is experienced in tuning the mixer stage as prescribed; i.e. placing a screw driver through a hole provided in the front panel and operating the control by means of the slot at the end of control shaft.	The distance between the end of the control shaft and the hole in the front panel is such that a special screw driver of considerable length is required.	The mixer stage is so mounted that the end of the control shaft is approximately 4" behind the front panel, and a screw-driver of suitable length is provided in the tool kit for this purpose. However, if so desired, the mixer stage can be mounted nearer to the front panel without difficulty and without impairing operation of the receiver. Such a modification could be made in the field.
SCR-527-A Oscilloscope BC-986-A	4	Difficulty is experienced in making connection on the anode terminal of the cathode ray tube.	The position of the terminal is such that the canvas tube support hinders the making of the connection.	The canvas sling was changed to permit easier installation in the early stages of production. However, if difficulty is encountered, it is suggested that the anode opening in the sling be made larger to facilitate making and checking proper connection and to minimize danger of damage to the tube during installation and removal.
SCR-527-A SCR-627-A Transmitter BC-982-A	4	Transmitter must be operated on reduced plate voltage.	Condenser C-181 will fail abnormally at full plate voltage due to insufficient voltage rating.	0.12 mfd. condenser with an improved voltage rating is being procured on the basis of one per set, one per equipment spares, and six per depot spare parts group. The new condenser will have the same nomenclature; i.e. C-181, and though distributed to each set, will not be installed unless the present condenser fails.

SCR-547 Junction Box, JB-57-A	1	Moisture enters junction Box JB-57-A	Poor cover seal.	If cover gaskets are damaged or not properly replaced, moisture will enter the box. In order to be effective under more extreme conditions, it is recommended that four muslin bags each containing four ounces of silica gel #42 mesh be suspended inside from each side of the box. The junction box should be thoroughly dried by means of a portable heating chamber before the silica gel is added.
SCR-582 MK III (AN/MPS - 2 Antenna Equipment RC-162	4	The present antenna drive system is unsatisfactory in tactical operation as the system is very sluggish, particularly when rotation of the antenna is reversed.	Drive system uses a 1/6 H.P. motor driven at 1800 R.P.M. Reversal is accomplished by reversing the field of the motor.	Amplidyne units coupled to the antenna mount by a suitable gear box are being procured by the Chief Signal Officer. However, these units have not been field tested, and delivery is not anticipated before December 1944. A field modification has been accomplished by installation of Drive Unit KS-8901, part of Graham Drive Kit '347-PI for Radio Sets SCR-547.
SCR-584-( ) Modulator BC-984-( )	10	Interference created which makes tracking difficult and eventually impossible.	Sparking in the commutator of blower motor BL-202 as the result of the rapid grooving of the commutator and wearing out of the brushes.	Recommendations have been forwarded to the Signal Corps Ground Signal Agency that: 1. A substitute induction motor be procured to replace the Delco Model #2369 now being use d. 2. Pending delivery of the substitute motor, instructions be issued for a stop-gap field modification whereby part of the output of the large blower fan in Modulator BC-984 will be used to cool the modulator tubes.
SCR-584	1	Trouble in tuning. When tuned on a target in one area , targets in another area fade. After tuning on a certain target, it may fade by itself within a few minutes.	A number of probable causes of this difficulty are listed below. Also shown are suggested corrective measures that might be taken. Probable Cause Drift in receiver crystal current due to blocking by strong nearby signal or to the effect of atmospheric changes on the crystal itself. Image or inversion of signals due to atmospheric conditions (smoke, fog, etc.) Original tuning done on abnormal target condition. Drift in tube characteristics in receiver or Video amplifier. Faulty transmitter tube (gassy), faulty transmitter circuit (change in ratio of voltage and field strength or improper matching of impedance between transmitter tube and load), or wavelength jumping in and out of various modes.	 Suggested Corrective Action Replace crystal. Retune complete set on known normal target. Replace tubes in receiver and Video amplifier. Replace transmitter tube, check rotary joint, VF plumbing, impedance transformers, etc.

SCR-584 Indicator BC-1088	1	Range scales cannot be read except by flashing a light on them. This interferes with operation when set is used as warning and plotting instrument.	No automatic method of lighting the range dials, which won't interfere with range operator's vision, is provided.	A method of illuminating the range dials is being considered for Radio Set SCR-784. If an acceptable method is developed, attempts will be made to apply it to the SCR-584 in the form of a kit. A luminescent material can be applied to the figures and graduations of the range scales as a temporary expedient. Since the SCR-584 is not generally used for plotting this should be done in the field when necessary.
SCR-588	1	Condenser, REL #10373, used in several components, shorted.	Probably defect in insulation.	Fault reports received from Maintenance Coordination forms indicate that both the operation and supply of spares for this condenser are satisfactory.
SCR-588 CS-118-B CS-108-B	2	Failure after 300 and 400 hours of vacuum tube 807.	Low emission and gassiness.	Information received on Maintenance Coordination Forms, indicates that the average life of 807 tubes is satisfactory when the tubes are employed with Radio Set SCR-588.
SCR-621 Power Unit	1	A knock in the Onan Engine, model W2MB, made it necessary to take the engine out of service.	Excessive wear of Fan Pulley Assembly, Part #12255B.	It has been recommended to the Signal Corps Ground Signal Agency that all manuals on Signal Corps power units using the fan pulley assembly contain adequate lubrication instructions. The assembly hub should be filled at least once a week with oil similar to that used in the crankcase. The hub is filled until oil leaks out of the rear bearing end by removing the filler plug location between the V-belt sheave and the fan block assembly.
RCA Oscilloscope 155-B	1	Condensers C-12 and C-13, 25 MF, 1000 volt failing.	Insufficient voltage rating.	This is the first report of this nature and since this oscilloscope has been very satisfactory, no action will be taken unless further Unsatisfactory Reports are received, upon the recommendation that condensers rated at 1500 volts be substituted.
TRU Transmitter T-3104	1	Transmitter dummy load resistors lamps burn out.	Self-excited oscillation, caused by improper tuning, raises the average output of the transmitter to the point where the lamps will burn out.	Tuning up should be done at a reduced setting of the plate variac. It has been found that the lamps in the comparison strip,even though not turned on, will become gassy if left in position for any extended length of time while the transmitter is in operation. Apparently the lamps, & the associated wiring form a closed loop around the antenna feeder, absorb sufficient RF to shorten the life of the lamp. Proof of this may be seen in a corona discharge from the lamp filament supports when the room is darkened. It is suggested that the lamps be removed from the transmitter when not in use. This will also eliminate possible failure of filaments due to the vibration of the blower motor.
Vacuum Tube 2X2/879	3	Premature failure.	Tubes become gassy or filaments parted.	Both types of this tube have been mechanically improved during the past year, and no further improvements are considered necessary as average life is over twice the life required by specifications.

SCR-720 In P-61A	All Planes beginning with #42-5570	Due to routing of cable #28 and #6, the new fiber nose cannot be installed as cables are in the way and will not allow the nose to fit.	Routing of Cables	Unsatisfactory Report forwarded to Aircraft Radio Laboratory, Wright Field, Ohio with request that Cable #28 be eliminated from Modification Center installations and Cable #6 be rerouted to eliminate conflict with new nose attachment.
Blower Motor in Synchronizer BC-1148-A, p/o SCR-720-A.	32	Jitter and hash in the sweep trace after 20 hours operation.	Trouble caused by poor motor commutation and vibration of the blower motor shaking tube elements. Vibration due to bearing wear.	Investigation is under way to determine the advisability of relocating the blower motor or mounting it on shock mounts. The manufacturer is adding a thermostat control to the blower motor circuit which will keep it out of operation when the synchronizer temperatures are less than the order of 135 to 150 degrees. If other solutions are not satisfactory, a Technical Order will be issued adding the thermostat to all SCR-720 equipment.
SCR-720		Following Items not available: Item (a) Bearings for Blower, Item #13.444A; (b) Bearings for Elevation Motor, Item #13-433; Item (c) Bearings for Azimuth Motor., Item #13.437; Item (d) Bearings for Blower Motor, Item #13.441; Item (e) Silver wire shutter pins for crystal converter; Item (f) Self Locking nuts for Modulator & R.F. Units; Item (g) Tanks for Modulator & R.F. Unit.	Items not included on Standard Maintenance List.	Items (a), (b), (c), & (d) are not included in Standard Maintenance List due to critical strategic nature of materials. Item (e) and (f) included in Standard Maintenance List. Item (g) is not included in Standard Maintenance List. No previous Unsatisfactory Reports have been received on this difficulty.
SCR-720 A/B Woggle Joints	6	Woggle Joints badly pitted and gold plating worn off contact fingers after 10 hours service. Nickel tubing surrounding contact fingers when Woggle Joints are assembled is also pitted and burned. Chrome tubing that surrounds center conductor is found to be oxidized, pitted and corroded. Silver plating and remaining portion of transmission line is also found pitted and burned.	Tests by Unsatisfactory Report originator indicate plating is too thin.	Previous field reports indicate good service from these r-f units if maintained properly. Attention is directed to the technical order on the Maintenance of Woggle Joints CO-08-40SCR-1. Pitting and corroding due to arcing will result if a rigid maintenance schedule of inspection and cleaning is not carried out. Any loose or dirty contact will result in a high standing wave ratio which causes high voltage breakdown in the line. The line should be completely disassembled and cleaned before putting a set into operation for the first time. A closer inspection has been requested on the plating of these units.
PE-218-A Inverter	Not Known	Continuous adjustment of carbon pile compression screw and vibration of the inverter causes undue wear on carbon washers of voltage regulator	Vibration of the inverter necessitates constant adjustment of the carbon pile for regulated voltage.	Future inverter designs will incorporate shock mounts for the carbon pile regulator. It is requested that this Headquarters be furnished with the number of failures on any future troubles of this type.
Voltage Regulator, Lists changed P/O PE-218	All	When carbon pile compression screw becomes unserviceable, entire assembly must be changed.	No adjusting screws or regulator available as spare parts.	Procurement of these items has been initiated other components of and Standard Maintenance to include same. General information on PE-218-( ) Inverter and Carbon Pile Voltage Regulator is contained in Technical Order AN-08-40PE218-2, CO-08-40PE218-21 and TO 08-4OPE218-21. This last TO is now in the process of being printed. A diagram of the regulator is also shown in TO 03-5H-8.

SCR-717-C Indicator BC-1153-A	30%	High Voltage connection to cathode ray tube becomes unclamped at the point where the lead clips on the Cathode Ray Tube.	Clamp does not fit wire.	Being investigated.
AN/APS-15	All	Maintenance of Spinner is very difficult due to lack of clearance between fuselage and ground. In order to remove dome, it is necessary to jack up ship or dig hole in ground.	Lack of clearance between fuselage and ground.	Unsatisfactory Report sent to ARL, Wright Field, Ohio for information. ARL is now working on development of 2 piece Radomes as shown on drawing 44G24414. Procurement of improved radomes will be initiated when tests have been completed.
AN/APS-15 Modulator		Mechanical Breakage of Switch S-.801.	Very light construction.	Procurement has been initiated on this item Aircraft Radio Laboratory, Wright Field, Ohio and the manufacturers are investigating possibility of relocating switch.
AN/APS-15 Coaxial Connection in Cable "AJ".	6	Coaxial Connections in Cable 'AJ" Shorting. Insulation from center connector being stripped back to shield. Loose ends of shielding shorts center conductor to ground.	Modification Center preparing cables improperly.	Unsatisfactory Report forwarded to Systems Engineering Division, Wright Field, Ohio with request that condition be corrected at Modification Center.
AN/APS-15 Transformer T-203 Receiver Indicator	14	Arcing at high altitude from T-203 to bases of stand-off insulators and from high voltage lead to case.	High Temperature; high relative humidity; sharp edges on high voltage lug insufficient insulation.	Use straight lug on transformer; cover lead with 5/16" Vinylite tubing. Coat terminal with Dow Corning Compound #4 and cover lead and terminal with 3/4" Vinylite tubing. A Technical Order is being written.
Amphenol Plugs in AN/APS-15		Broken wires, broken joints, short circuits.	Body of plug turns with respect to pins.	Recommend regular inspection and tightening of plugs. Recommend proper use of strain relief bar. Production difficulties make it impossible to segregate the product of any one manufacturer. In filling requisitions, no assurance can be given that the AN type connector delivered will be Monowatt, Cannon, Amphenol or any other particular manufacturers product.
CW-60-ABU Wavemeter	All	When the wavemeter is plugged into crystal current jack on 6CH-717, the meter deflects in a negative direction. When used as a wavemeter units operates normally.	Polarity of crystal jack on equipments now in the field has been reversed from that employed for testing the modified wavemeters.	All wavemeters in the field should have the polarity of the battery and meter leads reversed. Then meter minus is connected to ground and battery minus to R-904. A Technical Order is being issued specifying these changes.
5FP7 Tube	60	Crack in glass tubing around external high voltage connection to	Due to unequal temperature coefficients of the glass and metal conductor, aquedag coating causes a burned out filament.	Manufacturer has agreed to replace defective tubes. Serial numbers and tubes affected will be published in the UR Digest as soon as available.
Change in R 08-1-10 "Waterproofing Sealing Cables Plugs & Sockets In Aircraft Radio Sets & Equipment."	All	Dow-Corning #4 Ignition Sealing Compound gets on pins of plugs.	Sealing Compound gets on pins of plugs.	It is felt important to coat both faces of plug to make sure of water-tight connection on power cable. Sealer is an insulator and caution note under (4) warns against getting on contact surfaces, although wiping action of contacts would ordinarily make contact through sealer if applied carelessly. A change in TO is not warranted.

SCR-595	?	Continuous blowing of fuses in C-87 Aircraft	SW-187 located on instrument panel, co-pilot's side, directly above brace of instrument panel and in some cases so close to the brace as to cause direct ground between leg of switch & brace.	Responsible manufacturers and Modification Centers installing the switch SW-187 are being notified of this Unsatisfactory Condition and requested to take corrective measures immediately by relocating subject switch.
SCR-595	?	TO #01-5-21, dated 2 Feb 43, does not authorize removal of SCR-535 antenna installation.		TO #01-4-21 was rescinded 15 Apr 44. TO #01-1-182 dated 10 May 44, directs SCR-535 antenna installations be removed from all airplanes in all areas.
SCR-595	?	No provision for access to trimmer capacitor C-109 with dust cover in place on radio receivers	Design .	More recent models have access holes. Recommend that access holes be drilled in accordance with sketch in Change Notice #1 of Preliminary Instruction book for SCR-595.
SCR-695	?	Crank arm stud O-118 comes out of the fork of connecting arm O-121 in Radio Receiver.	Design.	More recent SCR-595 sets have a tie wire to prevent crank arm from slipping out of fork of' the connecting arm. Recommend safety wire be Attached by either of two methods illustrated in Preliminary Instruction Book Change Notice #4 SCR-595.
SCR-595	?	Switch boxes BC-706-A with inertia setting of "9" found actually to release at acceleration of 6 to 8 times the acceleration of gravity.	Loss of tension in inertia spring thereby allowing switch to operate at a lower acceleration of gravity than that prescribed in TO #08-5-50.	It is possible that some early switch boxes will trip at a little less than 9 G's. Recent switch boxes are set for not less than 10 G's. Recommend no corrective action unless accidental tripping occurs in service, in which case it is requested that complete details of circumstances be forwarded to this Headquarters.
SCR-595	1	Antenna stub mast of IFF set damaged on B-25-J airplane.	Ejected empty cartridges strike the antenna	Investigation of feasibility of relocating the antenna is underway. Suggest periodic inspection to determine the condition of , & to replace, all damaged AN/95-A antenna rods.
SCR-595/ 695	32	Mechanically defective JAN-7193 vacuum tubes found in stock.	Manufacture.	The manufacturer will be notified of the Unsatisfactory Condition of the tubes; & sample tubes will be investigated.
SCR-695	?	Eight mounting bolts in Receiver Mounting Bracket FT-347-E were missing from factory installation.	Factory Installation.	In accordance with contract specifications manufacturers are required to fasten SCR-695 mounting bracket FT-247-E with only eight screws, Part No. AN-5200832-8. Request this Headquarters be notified immediately if specified size 8-32 mounting screws are not used.
SCR-595 695	?	The socket or the underside of Inertia Switch, BC-706-A, was loose.	Due to the knurled rivets holding socket to the base of the inertia switch being worn.	When the- knurled rivets become loose, recommend replacing the knurled rivets by 6-32 machine screws after holes have been tapped 6-32x1/2. Subject condition will not be experienced on the new type of Inertia switch SA-3/A. This type of Inertia switch uses a covered terminal strip for the necessary connections

				instead of plug and socket connections used on older type inertia switch.
SCR-695	19	Strain is too great on wiring of Plugs PL-181, PL-182, & PL-265 at control box BC-958. Wiring to plug PL-177 will not reach the destructor unit.	Wiring too short.	Responsible manufacturers and Modification Centers have been notified of this unsatisfactory condition & immediate corrective action is being taken to prevent any recurrence of this condition.
SCR-729	26	Detective 2J6AC7 tubes.	Manufacture	Manufacturer is being notified of this unsatisfactory condition & sample tubes will be investigated.
SCR-729	?	Threaded holes in chassis, used for attaching covers, & associated screws become stripped & cover screws cannot be tightened.	Due to lack of tensile & shearing strength of chassis material.	Subject condition is being brought to the attention of ARL for investigation. It is recommended that an interim corrective action be taken of future case of stripped threads by using an elastic anchor nut, stock No. 6500-508235, with screw, stock No. 6700-711200, or an elastic anchor nut, stock No. 6500-508270 with screw, stock No. 6700-714950. These parts may be obtained from Air Corps Supply.
SCR-595/ 695	?	Paragraph 3, (A), of 1st Air Force Circular 55-A states that scotch tape or sealing wax be used for sealing emergency switch "OFF". This has been found unsatisfactory.	Scotch tape may be temporarily removed, permitting unjustified use of the emergency switch, & replaced, thereby defeating the purpose of the Circular.	First Air Force Circular 55-A is not considered satisfactory by this Headquarters &. should not be used as an approved method of safetying the IFF "Emergency" switch guard. Technical Order is now being printed recommending the use of a single strand of No. 25 copper wire for safetying the IFF emergency switch.
SCR-729	?	Inspection of receiving Antennas AN-148-A for compliance with TO 01-1-180 reveal corroded bolts going through the dipole into the Bakelite case.		Cadmium plated bolts are specified. Manufacturers & Modification Centers are being notified.
SCR-729	?	Coaxial cable attached to the dipoles of Antennas AN-148 Is being cut by the edge of the inner portion of the Antenna supporting Arm, aided by the vibration caused by flight.	Not enough slack in the cable.	Modification Centers & manufacturers have been notified & requested to initiate corrective action. Recommend that the cable be pulled through the skin of the ship to allow more slack, and that cable be coated with shellac to prevent cutting. A grommet should be inserted in the top portion of the supporting arm for the Antenna.
AN/APN-1	1	Data regarding the residual Altitude used was not given on the calibration card which is attached to the front panel of the Radio Set of the cables.		Responsible manufacturers & Modification Centers are being notified of this Unsatisfactory condition & immediate action is being taken to have the Residual Altitude & cable lengths (only of cables affected) marked on tag attached to the AN/APN-1 cables. Calculation of Residual Altitude for the AN/ARN-1 & AN/APN-1 may be accomplished in accordance with Technical Order #08-30A-1, dated 10 Apr 1944.

Plywood Antenna Mast, AN-86	3	Does not stand up under high winds, damp climate or unusual usage.	Faulty manufacture and design.	Project Nos. SP-251-Z & SP-252-Z closed. Preventative maintenance should be more frequent on plywood AN-86 mast, especially where weather conditions are damp and the winds are high. A limited number of antenna masts, Type MA-6, 90-ft. steel, 750 pounds, has been made available as replacements for the AN-86 and AN-56. Unserviceable masts AN-86 or AN-56 should be replaced by requisition. Complete basis for requirements must be given.
Plywood Coupling, Box No. AL74195-1 AN-86, Antenna Mast	1	Becomes saturated with moisture and decayed, causing collapse of antenna.	Damp weather conditions.	Couplings should be treated with creosote or painted more often In damp climates. To reduce the strain on the mast and stays and to enable the mast to withstand high wind velocities, the mast must be kept vertical and perfectly straight. More rigid inspection of the installation is recommended. Correct adjustment of all guys is important.
Transformer Power, Box No. A103030, Ref. No. 450, BC-638, Freq. Meter	2	Short in high-voltage winding.	Insulation breakdown due to moisture conditions.	Project No. SP-260-Z pending. As an interim measure, slide back dust cover for better ventilation.
Transform-er, Power, same as above	1	Overheating of transformer.	Probable overloading; poor ventilation.	Project No. SP-260-Z pending. As an interim measure, slide back dust cover for better ventilation.
Potentiometer, R-F Gain Control, St. No. 2Z7262-M, BC-639, Receiver	4	Defective and worn.	Inner raceway metal too soft. Contactor prongs channel metal.	Project No. SP-243-Z closed. Allen-Bradley Type J Potentiometers have been tested and approved by SCGSA. Under severe conditions, a life of six months is considered satisfactory. The failures reported are tabulated as fair wear and tear. DR's should give the number of months in use in order for this HQ to evaluate conditions. Reference AAF Reg. 15-54.
Glass, Meter, Carrier & Decibel, FM-1498, Trans-Receiver	40	Loose, with damaged needle; dust and excelsior clogged meter movement.	Metal retaining ring which holds glass is not satisfactory.	Project No. SP-268-Z pending. Forwarded to CSO for laboratory investigation.
Fan Motor, Circulating, K-53 Van for Ground VHF FCS Equipment	2	Very noisy; Interrupts operator.	Fan mounted too far from shaft bearing. Self-aligning bearing works loose.	Project No. SP-253-Z closed. The fan and the motor are components of the Evans Model HV203200 heater which has been fully approved by the Signal Corps and the Ordnance Departments. Motor employed is known to be of good construction. No change is being contemplated in cm-rent production. The failures reported are being considered as isolated cases.
Magneto, Type FM JVE4B7, PE-99, Power Unit	1	Cast metal failure near rotor laminations.	Faulty manufacture. Poor casting. Metal warped and cracked.	Project No. SP-244-Z pending. Forwarded to CSO for laboratory investigation.

Motor Starter, Type MBE-4003-A, PE-99, Power Unit	1	Burned out coil windings.	Loose copper bar from commutator ring wedged between rotor and stator and looked motor. Poor manufacture.	Project No. SP-245-Z pending. Forwarded to CSO for laboratory investigation. Care should be taken to properly place bars in segment slots when maintaining motor.
Magneto, Type FM JVE4B7, PE-99, Power Unit	2	Insulation broken down in Hi-Tension Bakelite cap.	Moisture condensation within shield. Inadequate insulation.	Project No. SP-246-Z pending. Forwarded to CSO for laboratory investigation.
Driving Belt, Battery Charging Generator, PE-99, Power Unit	3	Necessary to replace belt after 60 hours of use.	Probable faulty material.	Project No. SP-254-Z closed. Investigation by CSO reveals that the difficulty was due to improper alignment of belt pulleys in early (F) models of this unit. Personnel should check alignment of the belt pulleys prior to installation of a new belt. If failure of the belt continues to occur, submit UR immediately.
Meter, Hour, PE-99, Power Unit	5	Gears within hour meter are not well meshed.	Vibration of unit causes gears to slip out of mesh and cease to operate.	Project No. SP-267-Z pending. Forwarded to CSO for laboratory investigation.
Tachometer Assembly, PE-99, Power Unit	13	Tachometer shaft breaks off inside cable near connection to power generator.	Sharp bend in shaft at right angle connection; shaft diameter too small to carry sudden starting load.	T.O. Is pending on removal of tachometer assembly and replacement with an electrical type frequency meter. All tachometers should be used until completely unserviceable. Frequency Meter, Model 31-F, J.B.T. Instruments, Stock #3F2745, is available through supply channels. Available stock is limited to emergency needs.
Circuit Breaker, 3-pole, 50-amp., PE-99, Power Unit	1	Poor contacts.	Rosin and corrosion on the pins of the relays.	Project No. PP-580-Z pending. Returned to station for submittal of circuit diagram showing recommended changes.
Generator, A-C Power, PE-99, Power Unit	1	Generator field winding shorted out.	Probable short in panel circuits leading to generator.	Project No. FP-581-Z pending. Returned to station for more detailed information regarding Location of short circuits and pertinent wire leads experiencing insulation trouble.
Pulley, Power Drive PE-99, Power Unit	1	Pulley slips on engine drive shaft.	Set key was not installed in drive pulley assembly.	New pulley was correctly installed.
Tube, VT-204, HK-24-G, PN-9 & 8, BC-640, Transmitter	16	Tube base cracks; loss in output results.	Excessive heat from tube	Project No. SP-239-Z pending. Forwarded to OSO for laboratory investigation.
Neutralizing Link Assembly, PN-9 & 8, BC-640, Transmitter	2	Voltage flashover on socket terminals.	Inadequate spacing and moisture condensation.	Project No. SP-250-Z pending. Forwarded to CSO for laboratory investigation. Use smaller washers for more spacing. T.O. pending.
Tube, VT-204, HK-24-G, PN-9 & 8, BC-640, Transmitter	17	Open filament. Tube fails after 600 hours.	Fragile; overloaded.	Project No. SP-239-Z pending. Forwarded to CSO for laboratory investigation.

Relay, Plate Control, Box No. C58363, Ref. No. 8, PN-11, BC-640, Transmitter	3	Standoff insulators burn; contacts make poor connection.	Short circuits in contact line overheat contacts, causing standoff material to burn.	Project FP-511-Z pending. More information regarding probable causes of short circuits in the contact lines of this relay was requested from the station submitting subject report.
Voltmeter, output, Box No. A105170-1, Stock No. 3F8300.8, Ref. No. 354, RA-42, Rectifier	8	Self-contained, wire-wound, series meter resistor becomes open circuited.	Probable high voltage variations due to bleeder resistor burning out. The voltmeter and its resistance were not designed to take full bleeder current and high filter condenser voltages.	Reference is made to T.O. 08-10-191, Page 12, Par. 12f. Defective meters do not affect type operation of the rectifier. T.O. is pending on Instructions for removal of meter and mounting of bleeder resistor on chassis. RA-42-B models do not contain meters.
Transformer Power, Box No. 103012, St. No. 2Z10000, Ref. No. 350, RA-42, Rectifier	1	Burned out.	Improperly connected.	Tabulated as an isolated case; faulty wiring probably due to manufacturer. More UR's are requested on this type of failure. Exhibit was requested from submitting station.
Gasket, Ref. No. 27, Box No. A108686; Gasket, Ref. No. 29, Box No. A108764; Ring, Ref. No. 7, Box No. A108691; Waterproofing Parts, RC-153, Antenna Equipment	1	Water leaks through top coupling into upper shaft and antenna coupler unit.	Felt gaskets and water-proofing parts harden, become damaged, and leak water during rainy seasons.	Project No. SP-249-Z pending. Forwarded to CSO for laboratory investigation. More adequate waterproofing recommended for units in production. Request was made for procurement of spare parts to replace the unserviceable gaskets and ring.
Vent, Air Intake, Battery Charging Room, SCR-561	1	No air intake vent Installed In battery charging room.	Not provided for in the original plans.	Air intake vent complete with blower was installed as recommended by the Ground Electronics Maintenance Coordinator.
Fire Extinguisher, Soda Acid, SCR-563 & SCR-565	2	Not suitable for electrical fires.	Conducts electricity.	C02 extinguishers are available from Class 19A (Air Corps) stock in the following sizes: CO2 Capacity — Stock No. 4 lbs. — 8200-246000 15 lbs. — 8200-249000 20 lbs. — 8200-252000 or similar equipment from the Engineer Corps.
Telephone Communi-cations, SCR-565	Site 4K-4 has only FM communication with operations center 35 miles away; not adequate in case of radio failure		Telephone lines were not installed.	Project No. FP-573-Z pending. Forwarded to HQ IV Fighter Command for comments and investigation of set under their jurisdiction.

Fire Ex-Extinguisher, CCL4 Type, SCR-565	1	Reported as not suitable for electrical fires.	Mistaken for soda-acid type.	Fire extinguisher, Fyr-Fyrter Co., carbon tetrachloride type, is suitable for electrical fires.
Dust Accumulation, SCR-567 & SCR-632	2	Radio parts In BC-639 & PN-8-A need dust removal by means of vacuum cleaner.	Close proximity of parts; dust accumulation affects operation.	The following vacuum cleaner Is available through Air Corps Supply: "Electric Universal, 110-volt, Magic Aire, Model 193 or equal, Stock No. 7900-101470."
Supreme Tube Tester	All	Unable to test VT-175 or VT-204.	No settings or instructions given.	Project No. SP-255-Z pending. Study revealed VT-175 can be tested by using same settings as for 6K6, VT-152. VT-201 can be tested by using the 4-terminal socket, connecting grid and anode together, placing the top cap connection on the anode and using the following settings on the tester: 1-6-35-E-24. Results forwarded to CSO for laboratory investigation.
Supporting Wood Beams, 2nd Floor, TR-17, SCR-564 or SCR-565	2	Beams split at point of crossing. Shaft bearing is moved and rubs against floor. Supporting cone is moved off center.	Floor weight too much for beams used.	Project No. SP-256-Z pending. Forwarded to CSO for laboratory investigation. More adequate beam supports were recommended; suggestions regarding reinforcement were requested from CSO.
Window Shutters, TR-17	4	Construction of windows and shutters does not keep out rain.	Shutters held loosely in place by slide bolts; strong winds force wood shutters away from weather stripping, allowing rain to enter.	Project No. SP-Z73-Z pending. Forwarded to CSO for laboratory investigation. As a temporary measure, it is suggested that more weather stripping be used In order to effect a tighter fitting shutter.
Tripod Head, Aluminum Tripod, Orientation Equipment, Ground VHF FCS Equip.	1	Magnetic deflection on compass used with tripod.	Steel balls used in tripod head.	Project No. SP-247-Z closed. CSO has directed manufacturer to refrain from using metal type tripod. Field organizations should requisition regular wood and brass head tripod, Type W,23, through supply channels. T.O. pending.