EMERGENCY LOCATOR TRANSMITTER - MAINTENANCE PRACTICES

1. General

A. This section provides maintenance practices for the Dorne and Margolin, Pointer 3000-1 and Pointer 3000-11 series emergency locator transmitters.

2. Transmitter Removal/Installation

- A. Remove Transmitter.
 - Gain access to transmitter by removing aft cabin partition or unzipping canvas wall. Refer to Rear Cargo Compartment Wall - Maintenance Practices.
 - (2) Disconnect coaxial antenna cable from transmitter.
 - (3) Remove transmitter from airplane according to transmitter type:
 - (a) Dorne and Margolin (Refer to Figure 201) Remove screws attaching transmitter to bracket and remove transmitter.
 - (b) Pointer 3000-1 (Refer to Figure 202) Loosen wing nut on transmitter mounting bracket and remove transmitter.
 - (c) Pointer 3000-11 (Refer to Figure 202) Remove remote connector from transmitter. Disengage attach strap from around transmitter and remove transmitter from airplane.
- B. Install Transmitter.
 - (1) Install transmitter to airplane according to transmitter type:
 - CAUTION: Ensure that direction of flight arrow on transmitter is pointing toward nose of airplane.
 - (a) Dorne and Margolin (Refer to Figure 201) Position transmitter to bracket and secure using screws.
 - (b) Pointer 3000-1 (Refer to Figure 202) Position transmitter to bracket and secure using wing nut.
 - (c) Pointer 3000-11 (Refer to Figure 202) Position transmitter to bracket and secure using attach strap. Reconnect remote connector to transmitter.

CAUTION: Coaxial antenna cable assembly contains a matching transformer which must be connected properly to obtain specified emergency locator transmitter performance. Marking sleeves (labels) on antenna cable ends specify correct hookup.

- (2) Install coaxial antenna cable to transmitter.
- (3) Perform an operational test of transmitter in accordance with Emergency Locator Transmitter Test.

3. Panel Mounted Rocker Switch Removal/Installation

NOTE: An instrument panel mounted rocker switch is used in conjunction with Pointer 3000-11 series emergency locator transmitter to provide remote testing capability of transmitter.

- A. Remove Switch (Refer to Figure 202).
 - (1) Disengage BCN MONITOR circuit breaker on firewall mounted junction box.
 - (2) Gain access to backside of remote mounted switch. Compress locking tabs on either side of switch and, at same time, pull switch aft and away from instrument panel.
 - (3) Disconnect electrical connector from switch.
- B. Install Switch (Refer to Figure 202).
 - (1) Reconnect electrical connector to remote mounted switch.
 - (2) Grasp edges of remote mounted switch and insert into instrument panel cutout. Ensure locking tabs engage and that switch is secure.
 - (3) Engage BCN MONITOR circuit breaker on firewall mounted junction box.

4. Antenna Removal/Installation

- A. Remove Antenna.
 - (1) Disconnect coaxial antenna cable from base of antenna.
 - (2) Remove antenna from airplane according to antenna type:
 - (a) Dorne and Margolin (Refer to Figure 201) On inside of airplane, remove nut and washer securing antenna base to fuselage. Withdraw antenna (with washer) from airplane fuselage hole.

- (b) Pointer 3000-1 and 3000-11 (Refer to Figure 202) On outside of airplane, remove six screws attaching antenna base and cable to cabin top and antenna doubler. Remove antenna rod and hub assembly.
- B. Install Antenna.
 - (1) Install antenna to fuselage according to antenna type:
 - CAUTION: Adhere rubber boot to antenna only using class VC adhesive. Do not apply adhesive to fuselage skin or damage to paint may result.
 - (a) Dorne and Margolin (Refer to Figure 201) Position antenna (with washer and rubber boot) through hole on top of fuselage. From inside of fuselage, secure antenna to fuselage using washer and nut. Slide rubber boot down against fuselage and secure top of boot to antenna using Class VC adhesive. Refer to Adhesive and Solvent Bonding - Maintenance Practices.
 - (b) Pointer 3000-1 and 3000-11 (Refer to Figure 202) From inside of airplane, position antenna base and cable to fuselage. Secure to fuselage using screws. Connect antenna rod and hub assembly to antenna base.
 - CAUTION: Coaxial antenna cable assembly contains a matching transformer which must be connected properly to obtain specified emergency locator transmitter performance. Marking sleeves (labels) on the antenna cable ens specify correct hookup.
 - (2) Reconnect coaxial antenna cable to base of antenna.

5. Battery Pack Removal

- A. Remove Dorne and Margolin Battery Pack (Refer to Figure 201).
 - (1) Place transmitter switch in OFF position.
 - (2) Remove transmitter from airplane.
 - (3) Remove screws attaching cover to transmitter.
 - (4) Disconnect battery pack electrical connector.
 - (5) Remove battery pack from transmitter.
- B. Install Dorne and Margolin Battery Pack (Refer to Figure 201).

WARNING: Dispose of unserviceable battery pack properly. Do not incinerate or compact.

CAUTION: Battery packs are not interchangeable and transmitters can only use recommended battery pack, as operating life and/or signal strength of the transmitter will be seriously degraded. In some cases, changes in mechanical configuration may make transmitter prone to failure due to vibration and corrosion.

- (1) Place battery pack in case.
- (2) Connect electrical connector to battery pack.
- (3) Attach cover to transmitter using screws.

WARNING: Ensure new battery pack expiration date is entered in airplane records. It is also recommended that expiration date be place in emergency locator transmitter owner's manual for quick reference.

- (4) Stamp new replacement date on outside of transmitter. Date should be noted on switch nameplate, on side of unit and in instruction nameplate on top of unit.
- (5) Install transmitter to airplane.
- C. Remove Pointer 3000-1 and 3000-11 Series Battery Packs (Refer to Figure 202).
 - (1) Place transmitter switch in OFF position.
 - (2) Remove transmitter from airplane.
 - (3) Remove screws attaching base plate to transmitter.
 - (4) Disconnect battery pack and transmitter electrical connectors.
 - (5) Remove battery pack from transmitter.
- D. Install Pointer 3000-1 and 3000-11 Battery Packs (Refer to Figure 202).

WARNING: Dispose of unserviceable battery pack properly. Do not incinerate or compact.

CAUTION: Battery packs are not interchangeable and transmitters can only use recommended battery pack, as operating life and/or signal strength of the transmitter will be seriously degraded. In some cases,

changes in mechanical configuration may make transmitter prone to failure due to vibration and corrosion.

- (1) Place battery pack in transmitter.
- (2) Connect battery pack electrical connectors.
- (3) Attach base plate and gasket to transmitter using screws.
 - WARNING: Ensure new battery pack expiration date is entered in airplane records. It is also recommended that expiration date be place in emergency locator transmitter owner's manual for quick reference.
 - (a) Stamp new replacement date on outside of transmitter. The date should be noted on switch nameplate, on side of unit and in instruction nameplate on top of unit.
- (4) Install transmitter to airplane.

6. Emergency Locator Transmitter Test

- A. Operational Test Of Radiated Signal With Control Tower Monitoring.
 - (1) Request permission from control tower and/or flight service station to test emergency locator transmitter system.
 - CAUTION: Prior approval from control tower and/or flight service station must be obtained when checking/testing operation of the emergency locator transmitter system. If performing local monitoring test conduct test at five minutes before or after the hour.
 - (2) Perform an operational test for the Emergancy Locator Transmitter. If the ELT does not perform properly during test proceed to Step 2. If ELT performs properly during test, proceed to Step 5.
 - CAUTION: Remove remote connector from (Pointer 3000-11) elt before performing maintenance. Failure to remove the remote connector could cause inadvertent blowing of the ELT's internal fuse.
 - (3) If the ELT fails to operate properly during the functional test, remove the transmitter and return it to any authorized avionics repair shop for inspection and repair.
 - (4) Install transmitter.
 - (5) Perform operational test for the Emergency Locator.
 - (6) Make an entry in the airplane logbook stating this test has been accomplished.
 - (7) Activate emergency locator transmitter system by placing master switch to ON position.
 - NOTE: On Pointer 3000-11 series system, transmitter may be activated from cockpit by placing the remote mounted switch to ON position. Other transmitters must be activated from the tailcone mounting area.
 - (8) Contact control tower and/or flight service station to confirm proper emergency locator transmitter system operation.
 - (9) Restore master switch to AUTO position.
 - NOTE: On Pointer 3000-11 series system, momentarily place remote mounted switch to RESET position and release. This will place transmitter in the AUTO position.
- B. Operational Test Of Radiated Signal With Local Monitoring.
 - (1) Verify that test is performed within five minutes before or after the hour.
 - (2) Position a small, hand held AM radio tuned to any frequency, within six inches of the emergency locator transmitter antenna.
 - NOTE: Using airplanes's VLF receiver or ADF will not properly check power of radiated signal.
 - (3) Activate emergency locator transmitter system for no more than three sweeps of the audio signal.
 - (a) Verify that signal has been detected on the AM radio.
 - (4) Restore master switch to AUTO position.
 - NOTE: On Pointer 3000-11 series system, momentarily place the remote mounted switch to RESET position and release. This will place the transmitter in the AUTO position.
- C. G Switch Operational Check (Dorne and Margolin/Pointer 3000-1 Series).
 - (1) Remove transmitter from airplane.
 - (2) While holding transmitter in one hand, sharply strike end of case in the direction of activation indicated on transmitter

case.

- (a) Verify that G switch has been actuated.
- (3) Reset the G switch.
- (4) Reinstall transmitter in airplane.
- D. G Switch Operation Check (Pointer 3000-11 Series).
 - (1) Remove transmitter from airplane.
 - (2) Hold transmitter firmly in one hand, and make a throwing motion followed by a sudden reversal of the transmitter.
 - (a) Verify that G switch has been actuated.
 - (3) Reset the G switch.
 - (4) Reinstall transmitter in airplane.

Retain printed data for historical reference only. For future maintenance, use only current data.

A22695 **RUBBER** BOOT **AFT CABIN PARTITION ANTENNA ELT IS LOCATED BEHIND** WASHER THIS SURFACE. SKIN DETAIL C PLACARD (CANADIAN AIRPLANES ONLY) WASHER NUT COAXAL **EMERGENCY LOCATOR TRANSMITTER CABLE** INSTALLED BEHIND THIS COVER. MUST BE SERVICED IN ACCORDANCE WITH FAR 91.207 DETAIL B DETAIL A PLACARD (ALL AIRPLANES) 26181009 A2618X1140 B1205085-1 C0405101-4

Figure 201: Sheet 1: Dome and Margolin Emergency Locator Transmitter Installation

A22696 **EMERGENCY LOCATOR COVER TRANSMITTER BATTERY PACK MASTER** COAXAL **SWITCH CABLE** DETAIL D D26181007

Figure 201 : Sheet 2 : Dome and Margolin Emergency Locator Transmitter Installation

A22697 **INTERNAL** LOCKING **SCREW CABIN** TOP RIGHT PANEL SKIN **ANTENNA ROD AND HUB ASSEMBLY ANTENNA DOUBLER** REMOTE MOUNTED SWITCH (3000-11 ONLY) DETAIL E **ANTENNA BASE** AND CABLE DETAIL A **ELT IS LOCATED BEHIND** THIS SURFACE. EMERGENCY LOCATOR TRANSMITTER INSTALLED BEHIND THIS COVER. MUST BE SERVICED IN ACCORDANCE DETAIL C WITH FAR 91.207 1205085-3 PLACARD (CANADIAN AIRPLANES ONLY) DETAIL B PLACARD (ALL AIRPLANES) 26181009A A2618C1008 B1205085-3 C0405101-4 E6718C1114

Figure 202 : Sheet 1 : Pointer 3000 Series Emergency Locator Transmitter Installation

A22698 **MOUNTING BRACKET** BASE **PLATE GASKET BATTERY** PACK **NEOPRENE WASHER** TRANSMITTER **MASTER SWITCH ANTENNA G SWITCH SWITCH POINTER 3000-1** DETAIL D D2618C1007

Figure 202 : Sheet 2 : Pointer 3000 Series Emergency Locator Transmitter Installation

A22699 **MOUNTING BRACKET BASE PLATE BATTERY GASKET PACK NEOPRENE WASHER ATTACH STRAP MASTER SWITCH REMOTE** TRANSMITTER CONNECTOR POINTER 3000-11 DETAIL D D2618C1007A

Figure 202: Sheet 3: Pointer 3000 Series Emergency Locator Transmitter Installation