

INSPECTION DOCUMENT 20

Date: _____
 Registration Number: _____
 Serial Number: _____
 Total Time: _____

1. Description

- A. Inspection Document 20 gives a list of required 14CFR 91.207 interval item(s), which are completed every 12 calendar months (No grace period).
- B. Inspection items are given in the sequence of the zone in which the inspection is completed. A description of the inspection, as well as the Item Code Number are supplied for cross-reference to section 5-10-01. Frequently, tasks give more information about each inspection. These tasks are found in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. You can use copies of these pages as a checklist while you complete the tasks in this Inspection Document.

2. General Inspection Criteria

- A. As you complete each of the inspection tasks in this Inspection Document, examine the adjacent area while access is available to find conditions that need more maintenance.
- B. If it is necessary to replace a component or to make a change to a system while you complete a task, do the task again before the system or component is returned to service.
- C. Inspection Kits are available for some Inspection Documents. They supply consumable materials used to complete the inspection item(s) given for the interval. Refer to the Model 208 Illustrated Parts Catalog, Introduction, Service Kit List to find applicable part numbers.

ITEM CODE NUMBER	TASK	ZONE	MECH	IN-SP	REMARKS
B256001	ARTEX C406-2 Emergency Locator Transmitter (ELT) Functional Check Task 25-60-00-720	220 311 312 340			
B256003	ARTEX ME406 Emergency Locator Transmitter (ELT) Functional Check Task 25-60-00-721	220 311 312 340			
B256005	ARTEX C406-N Emergency Locator Transmitter (ELT) Functional Check Task 25-60-00-722	220 311 312 340			
B256007	Dorne and Margolin, Pointer 3000-1, and Pointer 3000-11 Emergency Locator Transmitter (ELT) Functional Check Task 25-60-00-723	220 311 312 340			
*** End of Inspection Document 20 Inspection Items ***					

Task 25-60-00-720

2. Artex C406-2 Emergency Locator Transmitter (ELT) Functional Check

A. General

- (1) This task gives the procedures to do a functional check of the Artex C406-2 Emergency Locator Transmitter (ELT).

B. Special Tools

- (1) 50 Ohm Dummy Load
- (2) Amplitude Modulation (AM) Receiver
- (3) Attenuator (30 dB)
- (4) SARSAT Tester

C. Access

- (1) Open access panel 340A on the right side of the vertical stabilizer. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

D. Do an inspection of the ELT, mounting tray, antenna, and the ELT battery for condition and correct installation.

- (1) Make sure that the ELT switch, found on the forward end of the ELT, is set to the OFF position.
- (2) Remove the ELT from the mounting tray. Refer to ARTEX C406-2 Emergency Locator Transmitter System - Maintenance Practices.

CAUTION: Do not use solvents to clean the ELT, mounting tray, or electrical contacts. Solvents used in these areas can cause damage to the ELT housing.

- (3) Examine the ELT and the mounting tray for correct installation, cleanliness, cracks, or other damage.
- (4) Examine the ELT battery for corrosion.
- (5) Look at the battery expiration date.
 - (a) Make sure that the battery life limit is not expired.
 - (b) Make sure that the battery expiration date is shown correctly in the maintenance records.

NOTE: The battery manufacturer puts a mark on the battery to show the battery life limit. When you install a new battery in an ELT, make sure that you make a record of the expiration date in the space given on the ELT name and data plate.

- (c) If you have to replace the ELT battery, refer to ARTEX Maintenance Manual 570-5000.
 - (d) You must replace the ELT battery with a new battery if one or more of the conditions that follow occur:
 - Use of the ELT battery in an emergency
 - Operation for an unknown amount of time
 - Use for more than one hour of cumulative time
 - Replace the battery if the voltage under load is less than 12.0 vdc.
 - Replacement date shown on the battery label has expired or will expire before the next scheduled inspection.
 - (e) Record the new battery expiration date in the maintenance log if you replaced it.
- (6) Examine the ELT antenna for correct installation and cracks or other damage.

E. Do a G-Switch Test.

NOTE: If possible, do the test procedure for the emergency locator transmitter inside a metal hangar with the doors closed to decrease the signal transmission from the ELT unit during the test.

CAUTION: Operate the emergency locator transmitter system only during the first five minutes of each hour. If the functional test must be completed at a time other than the first five minutes of the hour, the nearest FAA tower or Flight Service Station must be told of the test in accordance with FAA Advisory Circular AC-91-44A.

CAUTION: Do not operate the emergency locator transmitter for more than 15 seconds at a time. During the first 15 seconds of transmission, the satellite system will receive the 406.025 MHz signal as a test signal. If the signal continues for more than 15 seconds, the signal will be identified as a distress signal.

- (1) Install a jumper wire between pins 5 and 8 on the electrical connector of the ELT. Refer to the ARTEX web site as necessary.

CAUTION: Do this procedure with an experienced technician because of the potential physical damage that can occur if the jumper wire is not installed correctly.

NOTE: The ELT will not activate with the G-switch unless electrical pins 5 and 8 have a jumper wire installed between them (this happens automatically when the ELT is locked into the mount tray with the electrical connector in position).

- (2) Make sure the ELT switch is in the OFF position.
- (3) Use an amplitude modulation (AM) and set it to 121.5 MHz to listen for the aural warning sweep tone.
- (4) Hold the ELT transmitter tightly in one hand and make a throwing movement, then an opposite movement of the ELT transmitter.
- (5) Make sure that the G-switch operates and that the aural warning sweep tone is heard on the AM receiver that is set to 121.5 MHz.
- (6) Set the ELT switch to the ON position and then back to the OFF position to reset the G-switch.
- (7) Remove the jumper wire from electrical pins 5 and 8 on the electrical connector of the ELT.
- (8) Install the emergency locator transmitter in the airplane. Refer to ARTEX C406-2 Emergency Locator Transmitter System - Maintenance Practices.

F. Put the Airplane in the Test Configuration.

NOTE: The ELT antenna is disconnected and the 50 ohm dummy load is installed to the airplane coax or to the ELT with coax as necessary.

- (1) Examine the ELT battery to make sure that it is not due for replacement.
 - (a) If the battery must be replaced, follow the manufacturers instructions to replace it.
- (2) Do the functional test with a 50 ohm dummy load as an alternative to the antenna.
- (3) Connect the GPU to the external jack. Turn the GPU on and adjust to +28. +0.25 or -0.25 V.
- (4) Make sure that the COM 1, COM 2, AUDIO AMP, and GPS circuit breakers are engaged.
- (5) Put the battery switch in the BATT position.
- (6) Put the avionics switch in the ON position.
- (7) Make sure that the GPS position has been initialized on FMS.

CAUTION: Operate the emergency locator transmitter system only during the first five minutes of each hour. If the functional test must be completed at a time other than the first five minutes of the hour, the nearest FAA tower or Flight Service Station must be told of the test in accordance with FAA Advisory Circular AC-91-44A.

CAUTION: Do not operate the emergency locator transmitter for more than 15 seconds at a time. During the first 15 seconds of transmission, the satellite system will receive the 406.025 MHz signal as a test signal. If the signal continues for more than 15 seconds, the signal will be identified as a distress signal.

G. Transmitter Test of the ARTEX C406-2 Emergency Locator Transmitter (ELT) System.

- (1) Pull the COM 1 and SPKR knobs on the audio control panel.
- (2) Adjust the volume to make sure that the transmissions from the radio are heard in the cockpit.
- (3) Adjust the COM 1 frequency to 121.50 MHz. Make sure that audio is heard through the cockpit speakers.

CAUTION: Operate the emergency locator transmitter system only during the first five minutes of each hour. If the functional test must be completed at a time other than the first five minutes of the hour, the nearest FAA tower or Flight Service Station must be told of the test in accordance with FAA Advisory Circular AC-91-44A.

CAUTION: Do not operate the emergency locator transmitter for more than 15 seconds at a time. The ELT must be OFF for at least 60 seconds between each 15-second activation cycle. During the first 15 seconds of transmission, the satellite system will receive the 406.025 MHz signal as a test signal. If the signal continues for more than 15 seconds, the signal will be identified as a distress signal.

- (4) Put the ELT remote switch (SZ09) in the ON position for approximately 1 second .
- (5) Make sure that the ELT signal is heard through the cockpit speakers and that the LED adjacent to the switch is on.
- (6) Immediately put the ELT remote switch in the ARM position.
- (7) Make sure that the LED stays on for approximately 1 second before it is turned off.
- (8) If the ELT system has sensed a fault in the system, the LED will flash a fault code at this time.
 - (a) For information on the possible codes, refer to the Installation and Operation Manual for the Artex C406-2 system.

H. Do a NAV Interface Test.

- (1) If necessary put the airplane in the test configuration. Refer to Put the Airplane in the Test Configuration in this section.
- (2) After a minimum of 60 seconds, engage the ELT/NAV circuit breaker circuit breaker on the cockpit circuit breaker panel.
- (3) Use a 30-dB load to connect the SARSAT Tester to the 406.025 MHz coax cable at the base of the antenna.

NOTE: The SARSAT test set is held no more than six inches away from the antenna.

- (4) Turn on the SARSAT tester.
- (5) Engage the receive function of the SARSAT tester.
 - (a) Make sure that the display on the tester shows that it is searching for a signal.

CAUTION: Operate the emergency locator transmitter system only during the first five minutes of each hour. If the functional test must be completed at a time other than the first five minutes of the hour, the nearest FAA tower or Flight Service Station must be told of the test in accordance with FAA Advisory Circular AC-91-44A.

CAUTION: Do not operate the emergency locator transmitter for more than 15 seconds at a time. Also, the ELT must be off for at least 60 seconds between each 15 second activation cycle. During the first 15 seconds

of transmission, the satellite system will receive the 406.025 MHz signal as a test signal. If the signal continues for more than 15 seconds, the signal will be identified as a distress signal.

- (6) Put the ELT remote switch (SZ09), on the right switch panel, in the ON position.
- (7) Within 15 seconds put the ELT remote switch in the ARM position.
- (8) Monitor the SARSAT tester to see if it received a signal from the ELT system.
 - (a) If a signal was not received, the cycle can be completed again after the 60-second off cycle.
- (9) Make sure that the tail number shown on the SARSAT tester is correct.

NOTE: When ownership of an aircraft is transferred within the same country, the C406-2 ELT must be registered with the applicable authority. When an aircraft with a C406-2 ELT changes tail number or country registration, the ELT must have the new identification data entered. The ELT must be registered with the applicable authority.

- (10) Make sure that the Mode S code shown on the SARSAT tester is the same as the number found on the back of the transmitter.
- (11) Make sure that the latitude and longitude information is the same as that shown on the FMS display.
- (12) Turn the SARSAT tester off.
- (13) Disconnect the 30 dB load and SARSAT tester from the 406.025 MHz antenna cable.
- (14) Connect the coaxial cable to the antenna.
- (15) If no other tests are necessary, do the steps that follow:
 - (a) Put the avionics switch in the OFF position.
 - (b) Put the battery switch in the OFF position.
 - (c) Remove the external electrical power from the airplane.

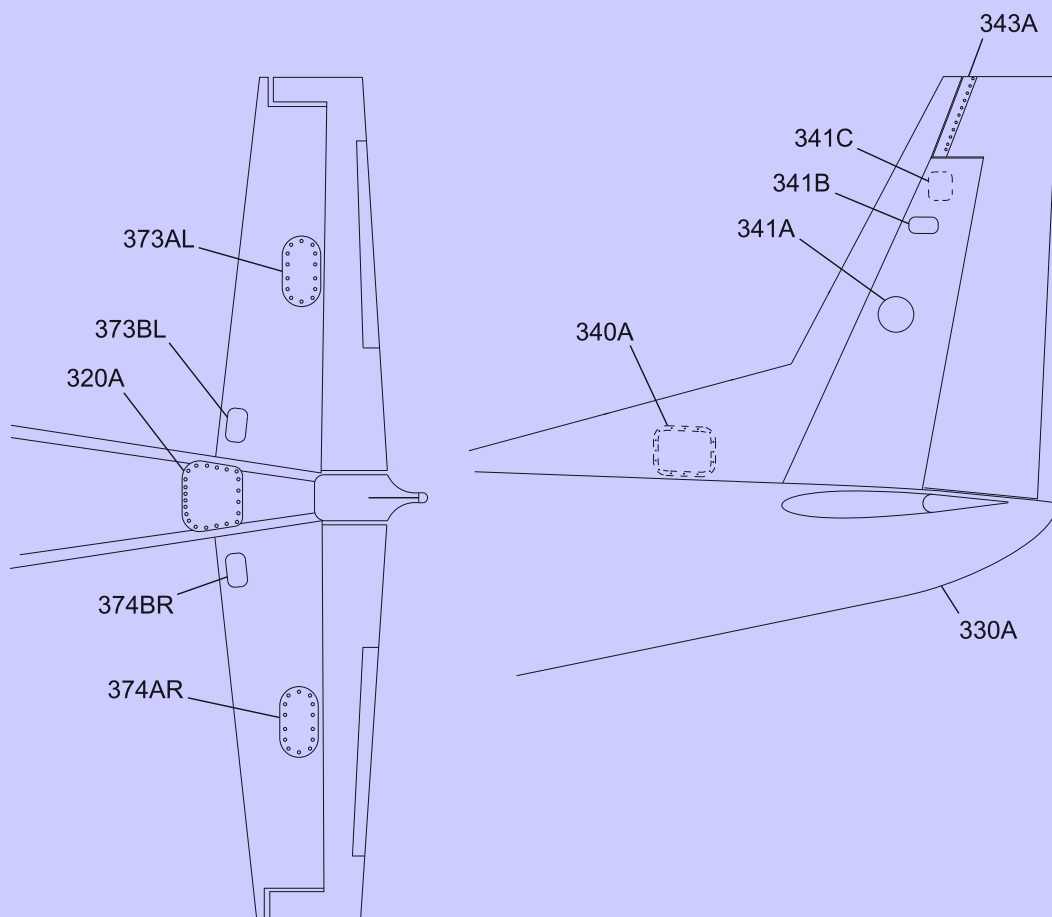
I. Restore Access

- (1) Close access panel 340A on the right side of the vertical stabilizer. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

End Task

Figure 9. Aft Fuselage, Horizontal and Vertical Stabilizer Panels

A22967



VIEW LOOKING UP AT TAILCONE

Sheet 1 of 1

2610T1009

Task 25-60-00-721

3. Artex ME406 Emergency Locator Transmitter (ELT) Functional Check

A. General

- (1) This task gives the procedures to do a functional check of the Artex ME406 Emergency Locator Transmitter (ELT).

B. Special Tools

- (1) 50 Ohm Dummy Load
- (2) Amplitude Modulation (AM) Receiver
- (3) Attenuator (30 dB)
- (4) SARSAT Tester

C. Access

- (1) Open access panel 340A on the right side of the vertical stabilizer. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

D. Do an inspection of the ELT, mounting tray, antenna, and the ELT battery for condition and correct installation.

- (1) Make sure that the ELT switch, found on the forward end of the ELT, is set to the ARM position.
- (2) Remove the ELT from the mounting tray. Refer to Artex ME406 Emergency Locator Transmitter System - Maintenance Practices.

CAUTION: Do not use solvents to clean the ELT, mounting tray, or electrical contacts. Solvents used in these areas can cause damage to the ELT housing.

- (3) Examine the ELT and the mounting tray for correct installation, cleanliness, cracks, or other damage.
- (4) Examine the ELT battery for corrosion.
- (5) Look at the battery expiration date.
 - (a) Make sure that the battery life limit is not expired.
 - (b) Make sure that the battery expiration date is shown correctly in the Maintenance Records.

NOTE: The battery manufacturer puts a mark on the battery to show the battery life limit. When you install a new battery in an ELT, make sure a record of the expiration date is put in the space given on the ELT name and data plate.

- (c) If you have to replace the ELT battery, refer to Artex Maintenance Manual 570-1600.
 - (d) You must replace the ELT battery with a new battery if one or more of the conditions that follow occur:
 - Use of the ELT battery in an emergency
 - Operation for an unknown amount of time
 - Use for more than one hour of cumulative time
 - Replacement date shown on the battery label has expired or will expire before the next scheduled inspection.
 - (e) Record the new battery expiration date in the maintenance log if you replaced it.
- (6) Examine the ELT antenna for correct installation and cracks or other damage.

E. Do a G-Switch Operational Test.

NOTE: If possible, do the test procedure for the emergency locator transmitter inside a metal hangar with the doors closed to decrease the signal transmission from the ELT unit during the test.

CAUTION: Operate the Emergency Locator Transmitter (ELT) system only during the first five minutes of each hour. If you must complete the functional test at a time other than the first five minutes of the hour, you must do the test with a direct connection to the ELT and a 30 dB attenuator. Refer to the FAA Advisory Circular AC-91-44A.

CAUTION: Do not operate the Emergency Locator Transmitter (ELT) for more than five seconds at a time. Do not operate the ELT again for 15 seconds. The ELT will transmit a 406.028 MHz distress signal after it is activated for approximately 50 seconds.

- (1) Install a jumper wire between pins 5 and 12 on the electrical connector of the ELT.

CAUTION: It is recommended that an experienced technician do this procedure because of the potential physical damage that can occur if the jumper wire is not installed correctly.

NOTE: The ELT will not activate with the G-switch unless electrical pins 5 and 12 have a jumper wire installed between them (this happens automatically when the ELT is locked into the mount tray with the electrical connector in position).

- (2) Make sure the ELT switch is in the ARM position.
- (3) Use an amplitude modulation (AM) receiver and set it to 121.5 MHz to listen for the aural warning sweep tone.
- (4) Hold the ELT transmitter tightly in one hand and make a throwing movement followed by an opposite movement of the ELT transmitter.
- (5) Make sure that the G-switch operates and that the aural warning sweep tone is heard on the AM receiver set to 121.5 MHz.
- (6) Set the ELT switch to the ON position and then back to the ARM position to reset the G-switch.
- (7) Remove the jumper wire from electrical pins 5 and 12 on the electrical connector of the ELT.
- (8) Install the emergency locator transmitter in the airplane. Refer to Artex ME406 Emergency Locator Transmitter System - Maintenance Practices.

F. Transmitter Test of the Artex ME406 Emergency Locator Transmitter (ELT) System.

CAUTION: Operate the Emergency Locator Transmitter (ELT) system only during the first five minutes of each hour. If you must complete the functional test at a time other than the first five minutes of the hour, you must do the test with a direct connection to the ELT and a 30 dB attenuator. Refer to the FAA Advisory Circular AC-91-44A.

CAUTION: Do not operate the Emergency Locator Transmitter (ELT) for more than five seconds at a time. Do not operate the ELT again for 15 seconds. The ELT will transmit a 406.028 MHz distress signal after it is activated for approximately 50 seconds.

- (1) Make sure the BATTERY switch and the AVIONICS switches are in the OFF position.
- (2) Connect external electrical power to the airplane.
- (3) Make sure that the COM/NAV 1 and AUD/MKR circuit breakers on the circuit breaker panel are engaged.
- (4) Set the BATTERY switch to the ON position.
- (5) Set the AVIONICS switches to the ON position.
- (6) Make sure that the ELT remote switch on the right panel is in the ARM position.
- (7) Set one of the communication units to receive a frequency of 121.5 MHz.
- (8) Set the communication unit to the airplane speakers at an audio level loud enough to be heard.

NOTE: The SARSAT tester is used as an example to gather test information. However, other equivalent test equipment such as the Aeroflex IFR 4000 Communications Test Set is acceptable.

- (9) Have another person use the SARSAT tester set to the RECV function. Refer to Figure 601.

NOTE: The SARSAT tester must be less than 15 feet from the ELT antenna and must have a line-of-sight between the ELT antenna and SARSAT tester.

NOTE: The person with the SARSAT tester must make sure that the ELT buzzer is heard during the test.

NOTE: If it is necessary to do the transmitter test after the first five minutes of the hour, the SARSAT tester is connected directly to the ELT with a coaxial cable and a 30 dB attenuator. You will not hear the sweep tone from the ELT on the airplane speakers with the attenuator installed.

- (10) Install the 30 dB attenuator between the ELT and SARSAT tester if necessary.

- (11) Set the ELT remote switch on the right panel to the ON position.

- (12) Let the ELT make three sweeps on the airplane speakers.

NOTE: This will take one second. The ELT remote switch will start to flash.

- (13) Set the ELT remote switch back to the ARM position and monitor the LED.

NOTE: The ELT will do a self-test. The LED will stay on for one second and the ELT sweeps are not audible on the airplane speakers if the ELT operation is normal.

NOTE: The ELT does not transmit a 406.028 MHz test signal to the SARSAT tester until the ELT remote switch is set back to the ARM position.

- (14) If the LED continues to flash, refer to Artex ME406 Emergency Locator Transmitter System - Troubleshooting.

- (15) If the SARSAT tester did not receive a 406.028 MHz signal and the ELT remote switch LED does not show a transmitter problem, do the test again.

- (16) When the SARSAT tester receives a 406.028 MHz signal, scroll the pages on the tester, as necessary, and make sure of the information that follows:

- (a) Make sure the information shown by the SARSAT tester agrees with the placard on the ELT.

NOTE: The information that follows must match the data on the ELT placard:

- COUNTRY code
- 15-digit Hex code ID
- Aircraft identification number.

- (b) Make sure that the SARSAT tester shows the messages that follow:

- S' TEST OK
- Frequency - PASS
- Homing frequency
- Message format (short).

NOTE: When ownership of an aircraft is transferred within the same country, the ME406 ELT should be registered with the applicable authority. When an aircraft with a ME406 ELT changes tail number or country registration, the ELT will need to have the new identification data entered. The ELT will also need to be registered with the applicable authority.

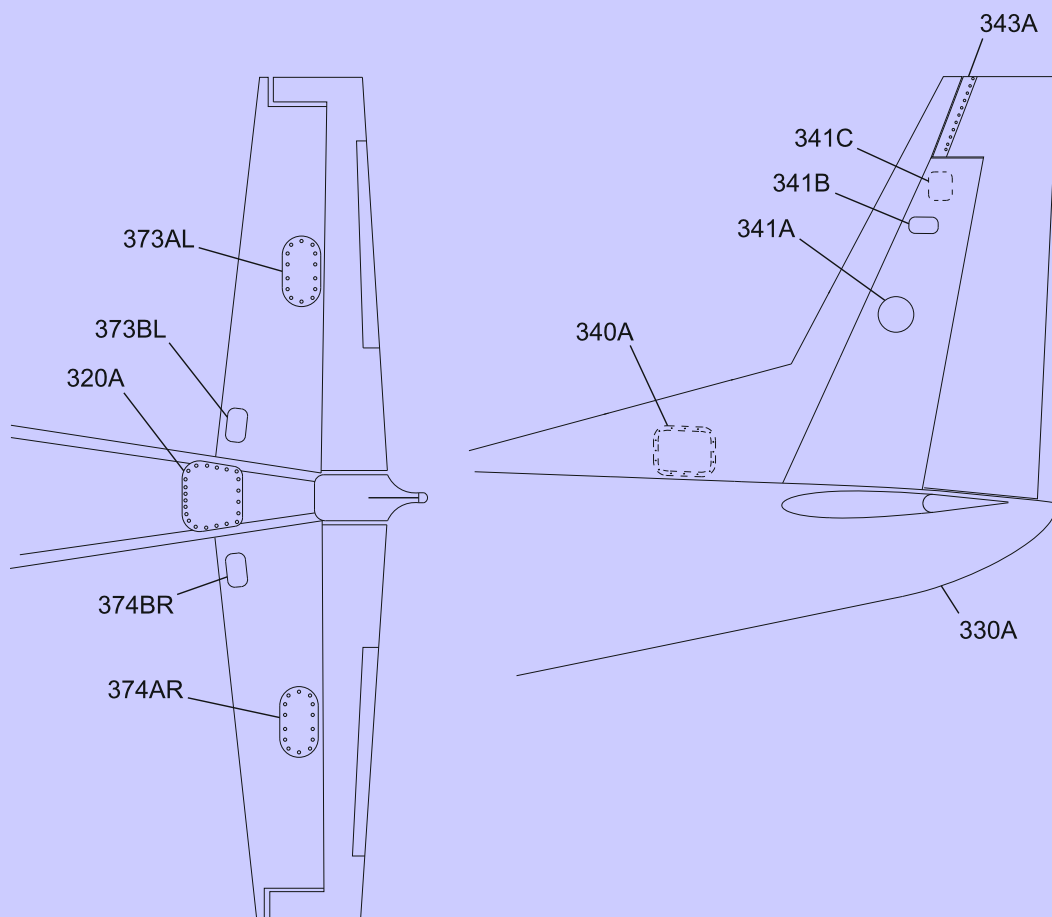
G. Restore Access

- (1) Close access panel 340A. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

End Task

Figure 9. Aft Fuselage, Horizontal and Vertical Stabilizer Panels

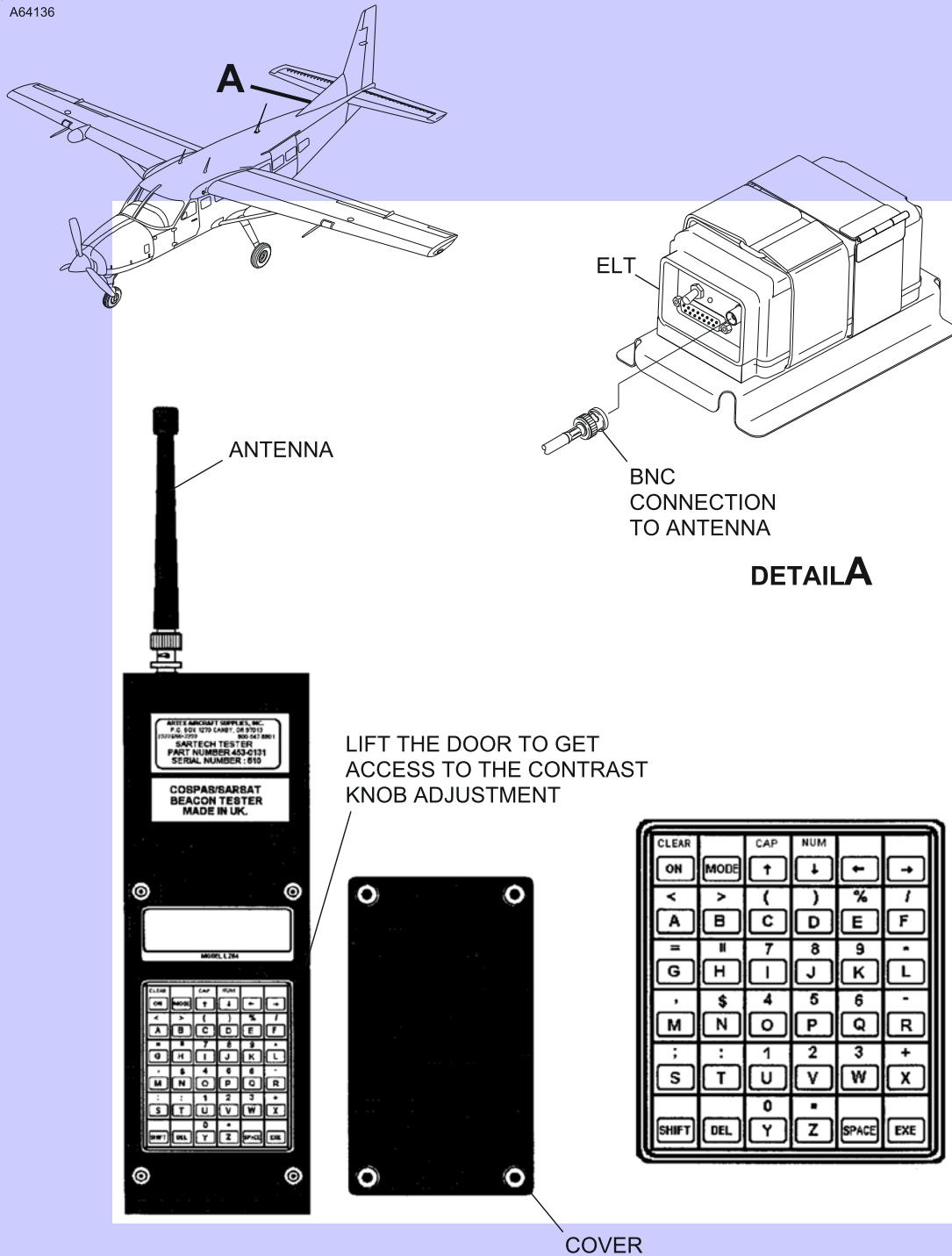
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VIEW LOOKING UP AT TAILCONE

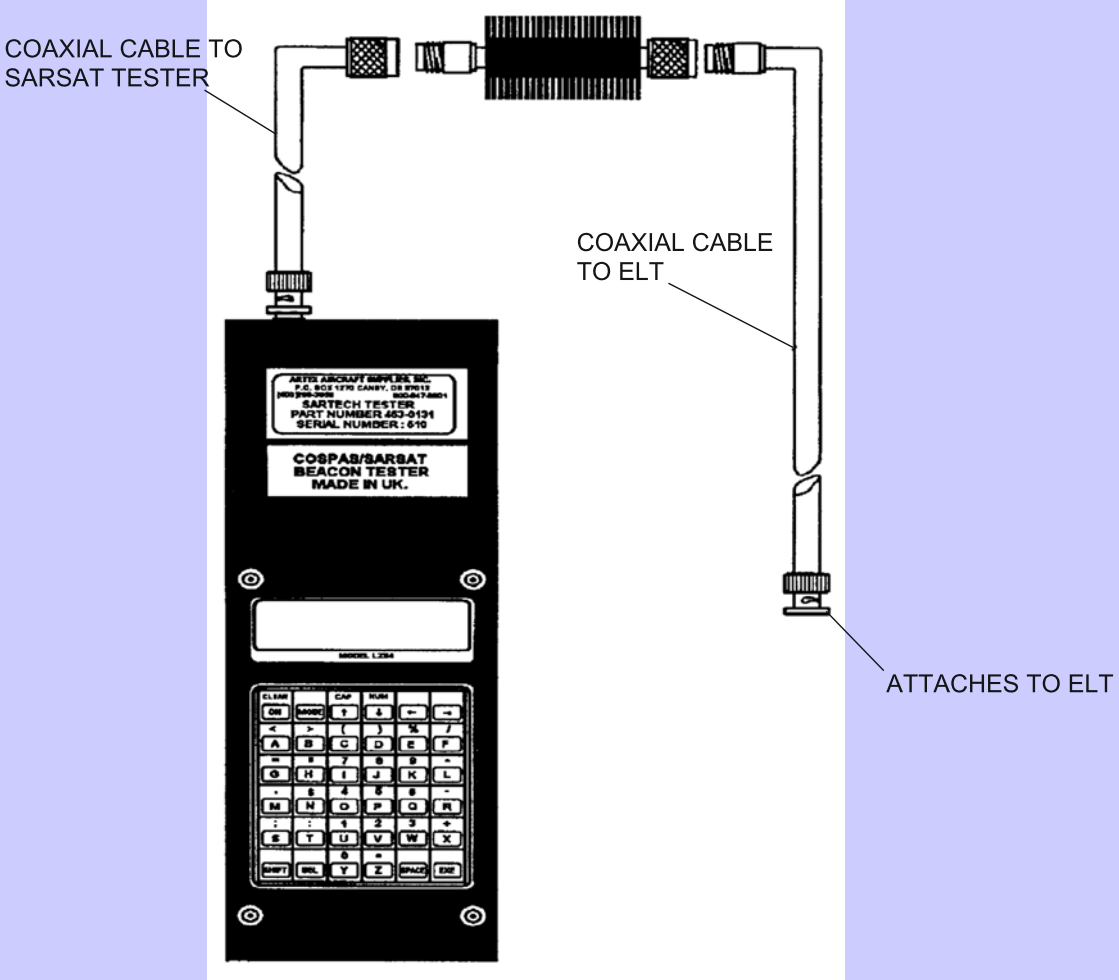
Figure 601. Artex ME406 Emergency Locator Transmitter (ELT) SARSAT Test Set-up

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2610T7005
A2618T1386
6618T1379

A64137



6618T1380

Task 25-60-00-722

4. ARTEX C406-N Emergency Locator Transmitter (ELT) Functional Check

A. General

- (1) This task gives the procedures to do a functional check of the Artex C406-N Emergency Locator Transmitter (ELT).

B. Special Tools

- (1) 50 Ohm Dummy Load
- (2) Amplitude Modulation (AM) Receiver
- (3) Attenuator (30 dB)
- (4) SARSAT Tester

C. Access

- (1) Open access panel 340A on the right side of the vertical stabilizer. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

D. Do an inspection of the ELT, mounting tray, antenna, and the ELT battery for condition and correct installation.

- (1) Make sure that the ELT switch, found on the forward end of the ELT, is set to the OFF position.
- (2) Remove the ELT from the mounting tray. Refer to ARTEX C406-N Emergency Locator Transmitter System - Maintenance Practices.

CAUTION: Do not use solvents to clean the ELT, mounting tray, or electrical contacts. Solvents used in these areas can cause damage to the ELT housing.

- (3) Examine the ELT and the mounting tray for correct installation, cleanliness, cracks, or other damage.
- (4) Examine the ELT battery for corrosion.
- (5) Look at the battery expiration date.
 - (a) Make sure that the battery life limit is not expired.
 - (b) Make sure that the battery expiration date is shown correctly in the maintenance records.

NOTE: The battery manufacturer puts a mark on the battery to show the battery life limit. When you install a new battery in an ELT, make sure that you make a record of the expiration date in the space given on the ELT name and data plate.

- (c) If you have to replace the ELT battery, refer to ARTEX Maintenance Manual 570-5060.
 - (d) You must replace the ELT battery with a new battery if one or more of the conditions that follow occur:
 - Use of the ELT battery in an emergency
 - Operation for an unknown amount of time
 - Use for more than one hour of cumulative time
 - Replace the battery if the voltage under load is less than 12.0 vdc.
 - Replacement date shown on the battery label has expired or will expire before the next scheduled inspection.
 - (e) Record the new battery expiration date in the maintenance log if you replaced it.
- (6) Examine the ELT antenna for correct installation and cracks or other damage.

E. Do a G-Switch Operational Test.

NOTE: If possible, do the test procedure for the emergency locator transmitter inside a metal hangar with the doors closed to decrease the signal transmission from the ELT unit during the test.

CAUTION: Operate the Emergency Locator Transmitter (ELT) system only during the first five minutes of each hour. If you must complete the functional test at a time other than the first five minutes of the hour, you must do the test with a direct connection to the ELT and a 30 dB attenuator. Refer to the FAA Advisory Circular 91-44A.

CAUTION: Do not operate the Emergency Locator Transmitter (ELT) for more than five seconds at a time. Do not operate the ELT again for 15 seconds. The ELT will transmit a 406.028 MHz signal for 520 milliseconds approximately every 50 seconds. This transmission is an encoded digital message and is sent to a satellite as a distress signal.

- (1) Install a jumper wire between pins 12 and 13 on the electrical connector of the ELT.

CAUTION: Do this procedure with an experienced technician because of the potential physical damage that can occur if the jumper wire is not installed correctly.

NOTE: The ELT will not activate with the G-switch unless electrical pins 12 and 13 have a jumper wire installed between them (this happens automatically when the ELT is locked into the mount tray with the electrical connector in position).

- (2) Make sure the ELT switch is in the OFF position.
- (3) Use an amplitude modulation (AM) receiver and set it to 121.5 MHz to listen for the aural warning sweep tone.
- (4) Hold the ELT transmitter tightly in one hand and make a throwing movement, then an opposite movement of the ELT transmitter.
- (5) Make sure that the G-switch operates and that the aural warning sweep tone is heard on the AM receiver set to 121.5 MHz.
- (6) Set the ELT switch to the ON position and then back to the OFF position to reset the G-switch.
- (7) Remove the jumper wire from electrical pins 12 and 13 on the electrical connector of the ELT.
- (8) Install the emergency locator transmitter in the airplane. Refer to ARTEX C406-N Emergency Locator Transmitter System - Maintenance Practices.

F. Transmitter Test of the ARTEX C406-N Emergency Locator Transmitter (ELT) System.

CAUTION: Operate the Emergency Locator Transmitter (ELT) system only during the first five minutes of each hour. If you must complete the functional test at a time other than the first five minutes of the hour, you must do the test with a direct connection to the ELT and a 30 dB attenuator. Refer to the FAA Advisory Circular 91-44A.

CAUTION: Do not operate the Emergency Locator Transmitter (ELT) for more than five seconds at a time. Do not operate the ELT again for 15 seconds. The ELT will transmit a 406.028 MHz signal for 520 milliseconds approximately every 50 seconds. This transmission is an encoded digital message and is sent to a satellite as a distress signal.

- (1) Make sure that the BATTERY switch and the AVIONICS switches are in the OFF position.
- (2) Connect external electrical power to the airplane.
- (3) Make sure that the COM/NAV 1 and AUD/MKR circuit breakers on the circuit breaker panel are engaged.
- (4) Set the BATTERY switch to the ON position.
- (5) Set the AVIONICS switches to the ON position.
- (6) Make sure that the ELT remote switch on the right panel is in the ARM position.
- (7) Set one of the communication units to receive a frequency of 121.5 MHz.
- (8) Set the communication unit to the airplane speakers at an audio level that will be heard.

NOTE: The SARSAT (Search And Rescue Satellite Aided Tracking) tester is used as an example to gather test information. Refer to Artex website for more information on testing equipment. Generally, the testing is completed with the Artex Handheld Programmer 453-1000 for all 406 Mhz ELTs. However, other equivalent test equipment such as the Aeroflex IFR 4000 Communications Test Set is acceptable.

- (9) Another person must use the SARSAT tester set to the RECV function. Refer to Figure 602.

NOTE: The SARSAT tester must be less than 15 feet from the ELT antenna and must have a line-of-sight between the ELT antenna and SARSAT tester.

NOTE: The person with the SARSAT tester must make sure that the ELT buzzer is heard during the test.

NOTE: If it is necessary to do the transmitter test after the first five minutes of the hour, connect the SARSAT tester directly to the ELT with a coaxial cable and a 30 dB attenuator. You will not hear the sweep tone from the ELT on the airplane speakers with the attenuator installed.

- (10) Install the 30 dB attenuator between the ELT and SARSAT tester if necessary.

- (11) Set the ELT remote switch on the right panel to the ON position.

- (12) Let the ELT make three sweeps on the airplane speakers.

NOTE: This will take one second. The ELT remote switch will start to flash.

- (13) Set the ELT remote switch back to the ARM position and monitor the LED.

NOTE: The ELT will do a self-test. The LED will stay on for one second and the ELT sweeps are not audible on the airplane speakers if the ELT operation is normal.

NOTE: The ELT does not transmit a 406.028 MHz test signal to the SARSAT tester until the ELT remote switch is set back to the OFF position.

- (14) If the LED continues to flash, refer to ARTEX C406-N Emergency Locator Transmitter System - Troubleshooting.

- (15) If the SARSAT tester did not receive a 406.028 MHz signal and the ELT remote switch LED does not show a transmitter problem, do the test again.

- (16) When the SARSAT tester receives a 406.028 MHz signal, scroll the pages on the tester, as necessary, and make sure of the following:

- (a) Make sure that the information shown by the SARSAT tester agrees with the placard on the ELT.

NOTE: The information that follows must match the data on the ELT placard:

- COUNTRY code
- 15-digit Hex code ID
- Aircraft identification number.

- (b) Make sure that the SARSAT tester shows the messages that follow:

- S' TEST OK
- Frequency - PASS
- Homing frequency
- Message format (short).

NOTE: When ownership of an aircraft is transferred within the same country, the C406-N ELT must be registered with the applicable authority. When an aircraft with a C406-N ELT changes tail number or country registration, the ELT must have the new identification data entered. The ELT must be registered with the applicable authority.

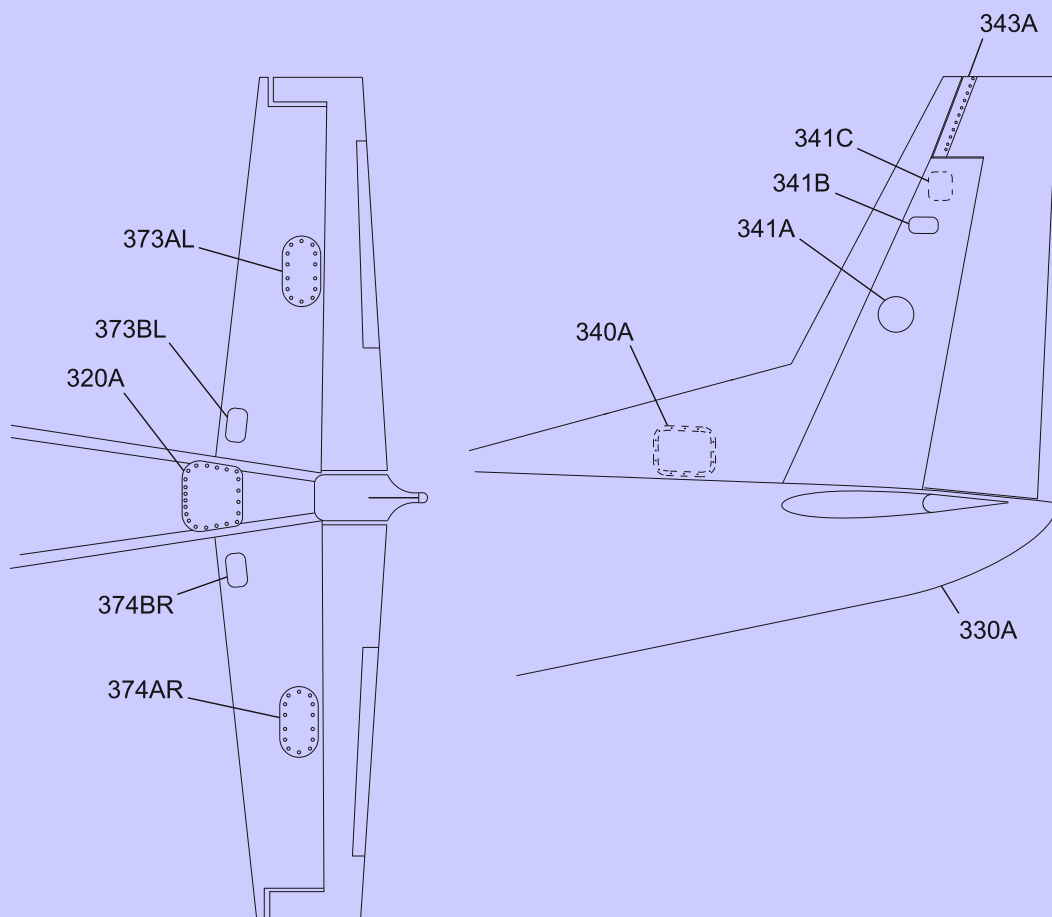
G. Restore Access

- (1) Close access panel 340A. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

End Task

Figure 9. Aft Fuselage, Horizontal and Vertical Stabilizer Panels

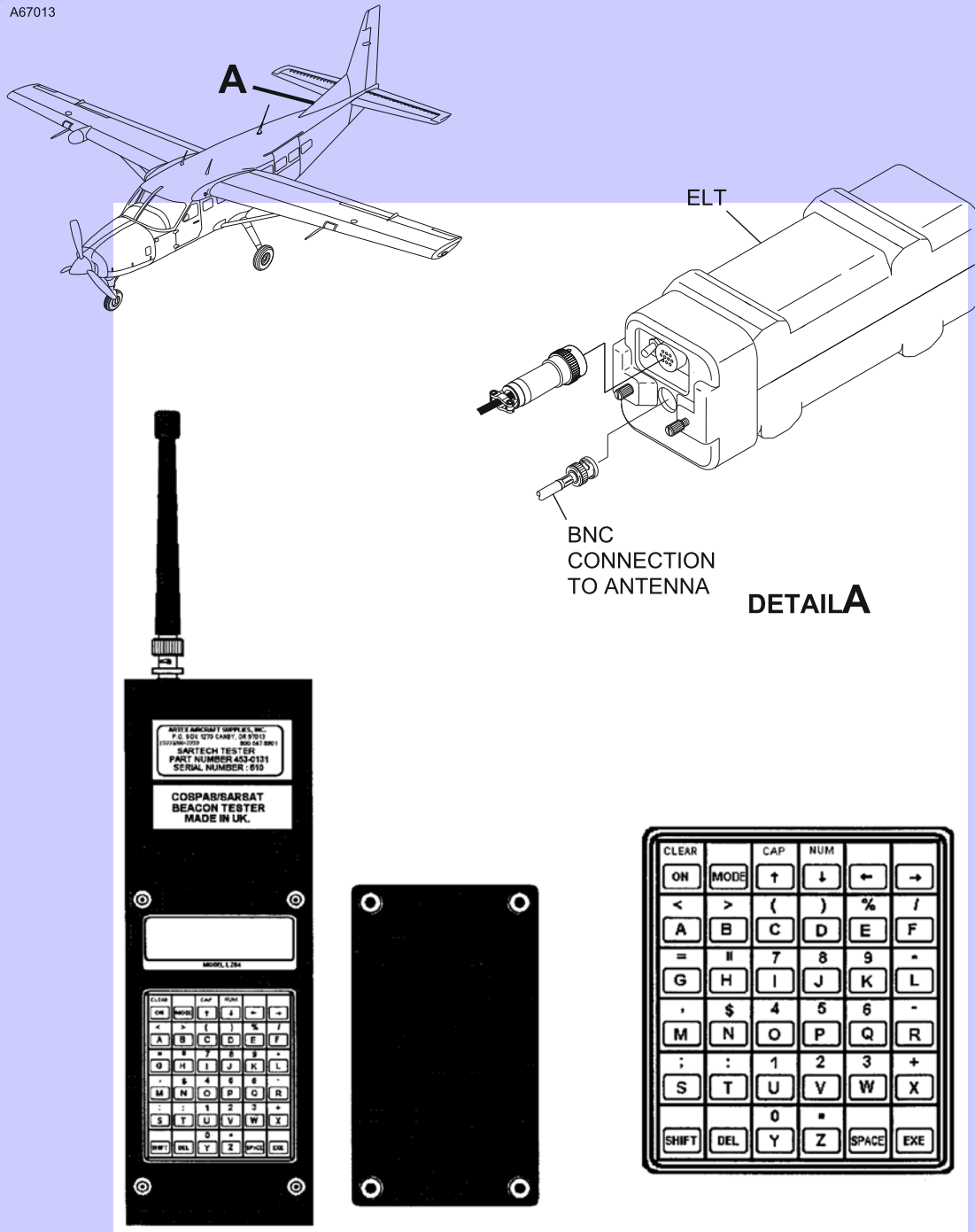
A22967



VIEW LOOKING UP AT TAILCONE

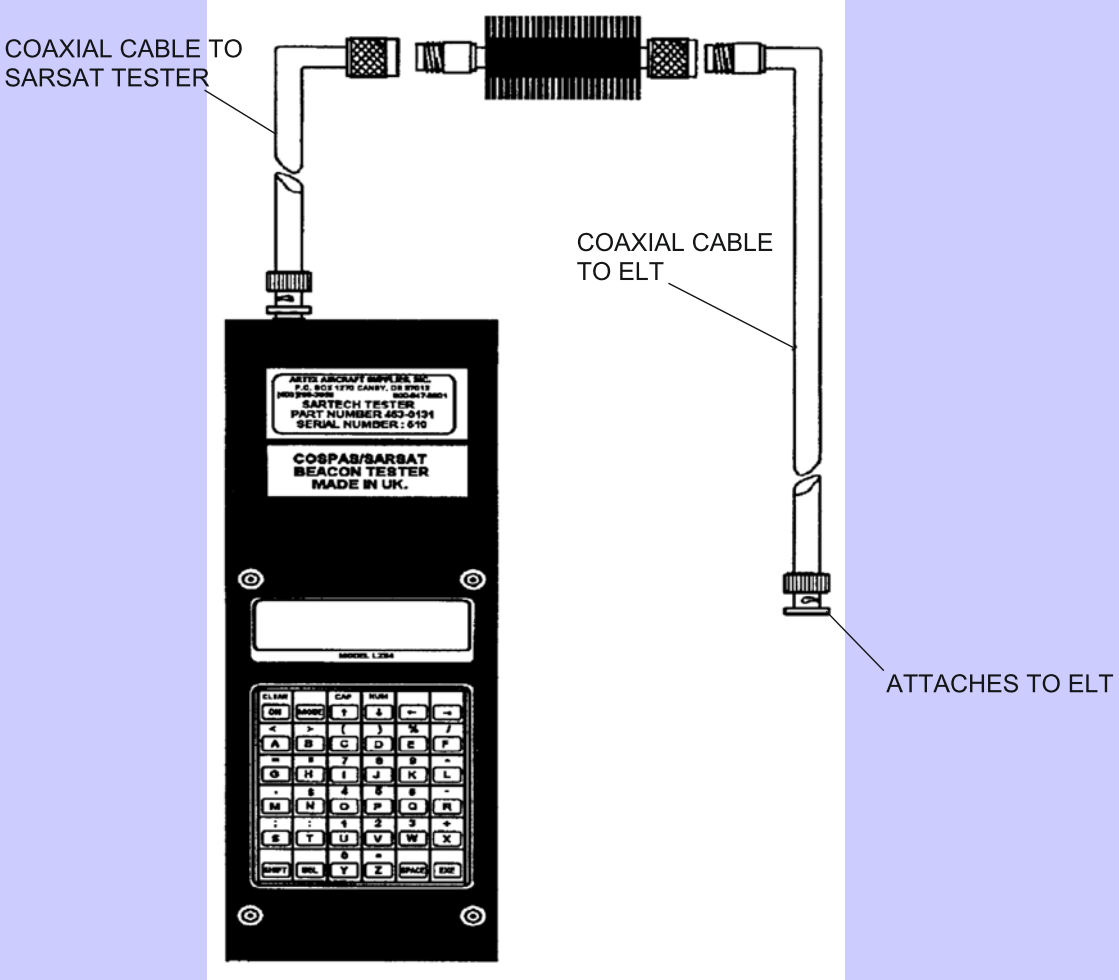
Figure 602. ARTEX C406-N Emergency Locator Transmitter (ELT) SARSAT Test Set-up

A67013



2610T7005
 A5618T1589
 6618T1379

A64137



6618T1380

Task 25-60-00-723

5. Dorne and Margolin, Pointer 3000-1, and Pointer 3000-11 Emergency Locator Transmitter (ELT) Functional Check

A. General

- (1) This task gives the procedures to do a functional check of the Dorne and Margolin, Pointer 3000-1, and Pointer 3000-11 Emergency Locator Transmitter (ELT).

B. Special Tools

- (1) Amplitude Modulation (AM) Receiver

C. Access

- (1) Remove the aft cabin partition or unzip the canvas wall to get access to the ELT. Refer to Rear Cargo Compartment Wall - Maintenance Practices.

D. Do an inspection of the ELT, mounting tray, antenna, and the ELT battery for condition and correct installation.

- (1) Make sure that the ELT master switch, found on the forward end of the ELT, is set to the OFF position.
- (2) Remove the ELT from the mounting tray. Refer to Emergency Locator Transmitter System - Maintenance Practices.

CAUTION: Do not use solvents to clean the ELT, mounting tray, or electrical contacts. Solvents used in these areas can cause damage to the ELT housing.

- (3) Examine the ELT and the mounting tray for correct installation, cleanliness, cracks, or other damage.
- (4) Examine the ELT battery for corrosion.
- (5) Look at the battery expiration date.
 - (a) Make sure that the battery life limit is not expired.
 - (b) Make sure that the battery expiration date is shown correctly in the maintenance records.

NOTE: The battery manufacturer puts a mark on the battery to show the battery life limit. When you install a new battery in an ELT, make sure that you make a record of the expiration date in the space given on the ELT switch nameplate on the side of unit, and on the instruction nameplate on the top of unit.

- (c) If it is necessary to replace the ELT battery, refer to Emergency Locator Transmitter System - Maintenance Practices.
- (d) You must replace the ELT battery with a new battery if one or more of the conditions that follow occur:
 - The ELT battery is used in an emergency
 - Operation for an unknown amount of time
 - The ELT battery is used for more than one hour of cumulative time
 - The voltage under load is less than 12.0 Vdc
 - The replacement date shown on the battery label has expired or will expire before the next scheduled inspection.
- (e) Record the new battery expiration date in the maintenance log if you replaced it.
- (6) Examine the ELT antenna for correct installation, cracks, or other damage.

E. Do a G Switch Operational Check (Dorne and Margolin/Pointer 3000-1 Series).

- (1) While you hold the transmitter in one hand, sharply strike the end of the case in the direction of activation shown on the transmitter case.
 - (a) Make sure that the G switch has been actuated.
- (2) Reset the G switch.

F. Do a G Switch Operation Check (Pointer 3000-11 Series).

- (1) Hold transmitter firmly in one hand and make a throwing motion followed by a sudden reversal of the transmitter.
 - (a) Make sure that the G switch has been actuated.

(2) Reset the G switch.

G. Do an Operational Check of the Radiated Signal with Local Monitoring.

- (1) Install the ELT in the airplane. Refer to Emergency Locator Transmitter System - Maintenance Practices.
- (2) Make sure that test is performed within five minutes before or after the hour.
- (3) Put a small, hand held AM radio tuned to any frequency, within six inches of the emergency locator transmitter antenna.

NOTE: Use of the airplanes's VLF receiver or the ADF will not do a sufficient power check of the radiated signal.

(4) For Pointer 3000-1 ELT's, disconnect the remote connector from the ELT.

CAUTION: For Pointer 3000-1 ELT's, the remote connector must be disconnected from the ELT before you do maintenance. If the remote connector is not disconnected, it could cause the ELT's internal fuse to blow.

(5) Put the master switch to the ON position to activate the emergency locator transmitter system.

NOTE: On Pointer 3000-11 series system, the transmitter can be activated from the cockpit by placing the remote mounted switch to ON position. Other transmitters must be activated from the tailcone mounting area.

(6) Activate the emergency locator transmitter system for no more than three sweeps of the audio signal.

- (a) Make sure that the signal has been detected on the AM radio.
- (b) If the ELT does not operate correctly during the functional check, remove the transmitter and return it to an authorized avionics repair shop for inspection and repair. Refer to Emergency Locator Transmitter System - Maintenance Practices.

(7) Restore the master switch to the AUTO position.

NOTE: On Pointer 3000-11 series system, momentarily place the remote mounted switch to the RESET position then release it. This will put the transmitter in the AUTO position.

(8) For Pointer 3000-1 ELT's, connect the remote connector to the ELT.

(9) Make an entry in the Airplane Logbook to show that the test has been completed.

H. Restore Access

- (1) Install aft cabin partition or zip the canvas wall. Refer to Rear Cargo Compartment Wall - Maintenance Practices

End Task