ELT Check List

DF Method

Verify or select 121.5 on the frequency switch and place the Alarm toggle switch to off (down). The DF function is not operable in the alarm mode (toggle switch up).

Set the SENS to maximum and the VOL to a comfortable level.

Climb to an altitude of at least 3000 to 4000 feet AGL or higher, if possible. If this fails to acquire the signal, start a methodical search (e.g., expanding square, sector or route).

Continue flying until a reasonable level of signal is acquired. The DF needle should deflect to one side and the Strength needle should come on-scale.

Make a 360° turn at no more than a 30° bank to ensure you get two needle centerings (approximately 180° apart) to verify the heading.

When the turn is complete, center the DF needle and fly toward the ELT. Note your heading (write it down) for reference.

If the ELT is heard on both 121.5 and 243.0 MHz, compare the headings. If they differ by more than 45° or if the turn produces multiple crossovers, try a new location or climb to a higher altitude to escape from the reflections.

While flying toward the ELT the DF needle may wander back and forth around center at 10- to 30-second intervals. This is caused by flying through weak reflections and should be ignored. Fly the heading that keeps needle swings about equal in number, left and right.

Don't become concerned if the signal slowly fades out as you fly towards the ELT. If this happens, continue on your heading for at least six minutes. If you are still headed toward the ELT the signal should slowly build in strength in three or four minutes and be somewhat stronger than before the fade. If the signal does not reappear, return to where the signal was last heard and try a different altitude.

As you get close to the ELT the signal will get stronger, and you will have to periodically adjust the SENS control to keep the signal strength needle centered (do not decrease the VOL control as this could overload the receiver). You also need to do this if the DF needle gets too sensitive. Periodically yaw the aircraft and observe the DF needle respond (left and right).

A "station passage" is often seen as a rapid fluctuation in signal strength and confused DF readings. Yaw the aircraft to see if the course has reversed (needle goes in the direction of the aircraft turn). If the course has reversed, continue on your heading for a few minutes. Then turn and make several confirmation passages from different angles while continuing your visual search.

Homing Method

Tune the receiver to the ELT frequency and listen for the warbling tone of the ELT signal.

Fly directly toward the signal.

Starting with the left/right needle centered, the pilot turns the aircraft in either direction, so that the needle moves away from center.

In a left turn, and the needle deflects to the right, the ELT is in front. Turn back to the right and center the needle to proceed to the ELT.

If the needle swings to the extreme left, then the ELT is behind you. Continue the left turn until the needle returns to the center. You are now heading toward the ELT.

Fly toward the ELT, maintaining the needle in the center of the indicator. If the needle starts to drift left of center, steer slightly left to bring the needle back to the center. If it starts to drift right, turn slightly back to the right.

Over the ELT, the left/right needle will indicate a strong crossover pattern. The needle will make a distinct left-to-right or right-to-left movement and then return to the center. This crossover movement is *not* a mere fluctuation; the needle swings fully, from one side of the indicator to the other and then returns to the center.

Note: During homing you may encounter situations where the needle suddenly drifts to one side then returns to center. If the heading has been steady, and the needle previously centered, such a fluctuation may have been caused by a signal from a second transmitter or signal reflections from objects or high terrain.