

**United States Army Aviation Center
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AN/ASN-128 ABBREVIATED CHECKLIST

LIGHTWEIGHT DOPPLER NAVIGATION SET

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DIRECTORATE OF TRAINING
DEPARTMENT OF ACADEMIC TRAINING
UNITED STATES ARMY AVIATION CENTER
Fort Rucker, Alabama

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LIGHTWEIGHT DOPPLER NAVIGATION SET

1. TURN ON

CAUTION: Do not turn doppler on until engines are running and 28 VDC is stabilized.

a. MODE Switch: LAMP TEST

- (1) Observe all characters lit.
- (2) MEM/MAL lamps lit.
- (3) Edge lighting on.
- (4) All pushbuttons lit.
- (5) Check DIM control for operation.

b. MODE Switch: TEST

- (1) After approximately 17 seconds, upper left display will read GO.
- (2) Any other readout indicates a malfunction. Recycle MODE switch to OFF and back to TEST. If still no GO, a malfunction exists. Record the malfunction code displayed in the top window.
- (3) If GO displays, proceed.

c. MODE Switch: UTM

- (1) DISPLAY Switch: DEST TGT.
- (2) DEST DISPLAY Switch: Rotate through destinations 0 to 9, H and P. Check for proper targets desired.

- d. DISPLAY Switch: SPH/VAR.
- e. DEST DISPLAY Switch: Rotate to desired targets. Check for proper SPHEROID and VARIATION for each target.

2. INITIALIZATION

- a. DISPLAY Switch: DIST/BRG/TIME.
- b. FLY-TO-DEST Switch: Rotate to target desired for initialization (usually H).
 - (1) Approaching the initialization point, depress KYBD; DO NOT RELEASE.
 - (2) Directly over the initialization point, release KYBD.
 - (3) Depress and release ENT.
 - (4) Upper left and center displays should now read zeros. Upper right is immaterial.

NOTE: All pushbuttons activate upon release.

- (5) If some time elapses between release of KYBD and ENT, the upper left and center windows may show some small distance and time, if the aircraft is moving. The computer has updated your position from the initialization point.
- (6) FLY-TO-DEST SWITCH: Rotate to next desired target. Display will show distance, bearing, and time to that target.

3. TAKING A FIX

- a. DISPLAY Switch: PP.
 - (1) Approaching the fix point, depress KYRD. DO NOT RELEASE.
 - (2) Directly over the fix point, release KYRD. Record the coordinates displayed. The display will be frozen.
 - (3) To continue flight, rotate DISPLAY switch to any other position. The display will unfreeze and the computer will update the present position.

b. FLY-TO-DEST Switch: To next desired target.

3. UPDATE

a. This procedure assumes the desired update point is a stored position in the CDU.

b. FLY-TO-DEST switch to desired update point.

c. DISPLAY SWITCH: DIST/BRG/TIME.

(1) Approaching the update point, depress KYBD. DO NOT
RELEASE.

(2) Directly over the update point, release KYBD.

(3) Depress and release ENT.

(4) Upper left and center displays should now read zeros.
Upper right is immaterial.

NOTE: All pushbuttons activate upon release.

(5) If some time elapses between release of KYBD and ENT, the upper left and center windows may show some small distance and time, if the aircraft is moving. The computer has updated your position from the update point.

(6) FLY-TO-DEST Switch: Rotate to next desired target.
Display will show distance, bearing, and time to that target.

4. DOPPLER INITIALIZATION AND UPDATE

a. There are three basic methods of initializing the system.

(1) Method 1.

(a) Assumes that the initialization point is one of the stored destinations.

(b) DISPLAY switch to DIST/BRG/TIME.

(c) FLY-TO-DEST switch to destination desired.

(d) Over that destination, RELEASE KYBD.

- (e) Then, depress and release ENT where desired or practicable.

NOTE: Initialization was accomplished at step (d) above.

(2) Method 2.

- (a) DISPLAY switch to PP.
- (b) Over the desired initialization point, RELEASE KYBD.
- (c) Program, via the keyboard, the coordinates of that point.
- (d) Depress and release ENT as and when desired.

NOTE: Initialization was accomplished at step (b) above.

(3) Method 3.

- (a) DISPLAY switch to DEST/TGT.
- (b) DEST DISP switch to P.
- (c) Depress/release KYBD.
- (d) Program, via the keyboard, the coordinates of the desired initialization point.
- (e) Over that point, RELEASE ENT.

NOTE: The initialization was accomplished at step (e) above.

- h. The same procedures can be utilized for UPDATE.
- c. The OPERATIONAL GUIDE lists all three above methods for UPDATE, but only one for INITIALIZATION.
- d. The GUIDE also refers to "depress" the KYBD or ENT keys. At no time does it indicate that all pushbuttons activate upon RELEASE. This is an important point.
- e. It is equally important that the operator(s) fully understand whether the KYBD or ENT keys accomplish the desired action.