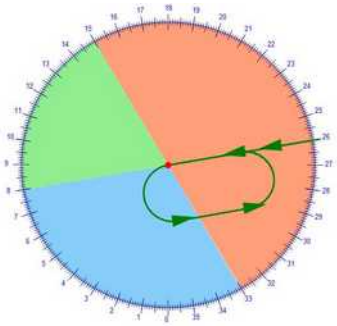
CITATION X

HOLDING PATTERNS

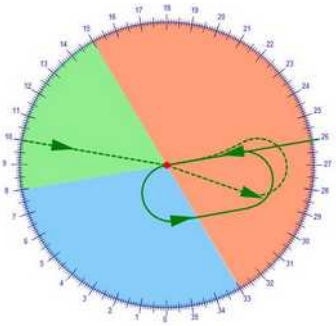
"Holding patterns" or "holding circuits" is a flight maneuver to make an aircraft wait at the request of air traffic control, generally when there is a traffic jam on landing. The entry point can be a "FIX", a "VOR" or an "NDB".

There are three ways to enter a "holding pattern":

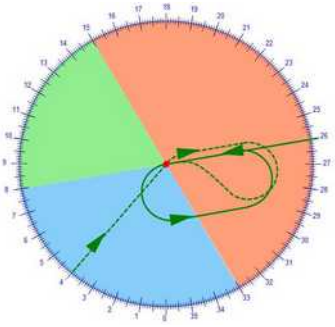
DIRECT :



TEARDROP



PARALLEL



On the Citation X, they are managed by the FMZ 2000, ie by the CDU, and the flight plan and FMS must be activated. It is therefore not possible to program them in NAV mode.

This is the DIR button on the CDU which is used to either bypass a waypoint or to program a holding pattern.

Pressing the “PATTERN” button at the bottom left opens the menu selection page for patterns.

The "HOLD" key opens the waiting circuit configuration windows.
The "REVIEW" key is used to return to the previously programmed waiting circuit and to modify it, if necessary.

After pressing the "HOLD" key:

The view returned to the flight plan but the indication "* HOLD *" appeared at the bottom of the screen in the "scratchpad".

You must now choose the waypoint from which the holding circuit will be made by pressing the key to its left. (the NEXT and PREV buttons allow you to move around on the flight plan). We choose, for example, waypoint 31-12.

A settings window then appears.

The following entries are editable:
- **INBD** = Inbound. This is the orientation of the first leg of the circuit. It is indicated on the IFR approach charts. This orientation automatically determines the values of the QUAD ENTRY line. QUAD for QUADRANT (cardinal points) and ENTRY which is either DIRECT, TEARDROP or PARALLEL.

- **CRS/DIR** = Course/Direction. This is the direction of rotation of the circuit relative to the entry point. It can only be R for Right or L for Left. This is shown on the approach charts. R is the default.

Entering these values is done as follows:
260 for only the INBD value
260/L for INBD CRS/DIR values
L for the DIR value only

- **MAX END SPD** = Max End Speed. This is the maximum value of the speed that the plane must have at the entrance to the circuit. This speed is shown on the approach charts.

- **LEG TIME** = The Time to fly the straight leg of the holding circuit. Usually 1 minute but depends on the flight category of the aircraft (cat A B C D) and it is indicated on the approach charts. Entering a value for LEG TIME determines the LEG DIST (Leg Distance) based on the speed indicated on the MAX END SPD line. Only a numeric value can be entered. MIN is added automatically.

- **LEG DIST** = Leg Distance. Allows you to enter a distance value for the straight leg of the circuit. This value is used to calculate the LEG TIME according to MAX END SPD. The LEG DIST value is generally not shown on approach charts. Rather, the LEG TIME value is used. Only a numeric value can be entered. NM is added automatically.

The "CLEAR" key cancels the configuration of the standby circuit. We then obtain the following screen:

The "FPL" button allows you to return to the flight plan.

The "ACTIVATE" key activates the entry into the standby circuit. It is to be used before arriving at the fixed point selected for entering the circuit.

Activating the hold circuit returns the CDU to the flight plan screen. The chosen fixed point then appears followed by the letter H (hold), in amber color.

When the aircraft is a few nautical miles from the hold circuit, "EXIT" is displayed at the bottom left of the CDU screen.
Pressing this key exits the holding circuit and returns to the initial flight plan. (see the output of the "DIRECT" circuit on the next page).

The "DIRECT" holding circuit from point 31-12 with "TURN" left.

Exit from the holding circuit using the "EXIT" key and resume the normal flight plan:

Enter the "TEARDROP" holding circuit from point 31-12 with "TURN" on the left.

The complete circuit:

Enter the "PARALLEL" holding circuit from point 31-12 with "TURN" left.

The complete circuit:

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English translation by Stefan Frank – June 2021