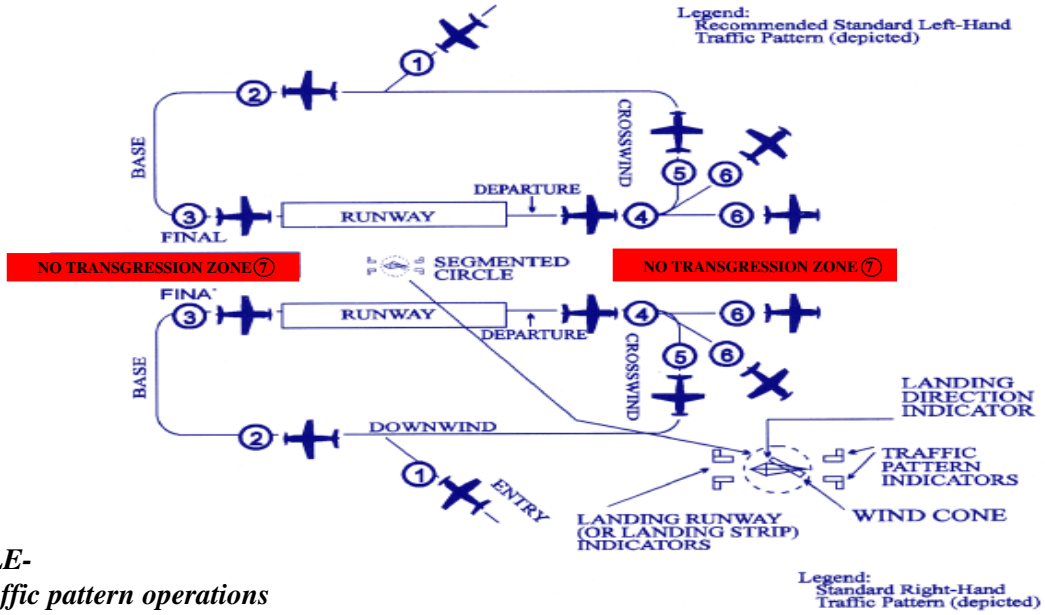
DVT ATCT Tower Tips | # 2

TRAFFIC PATTERNS

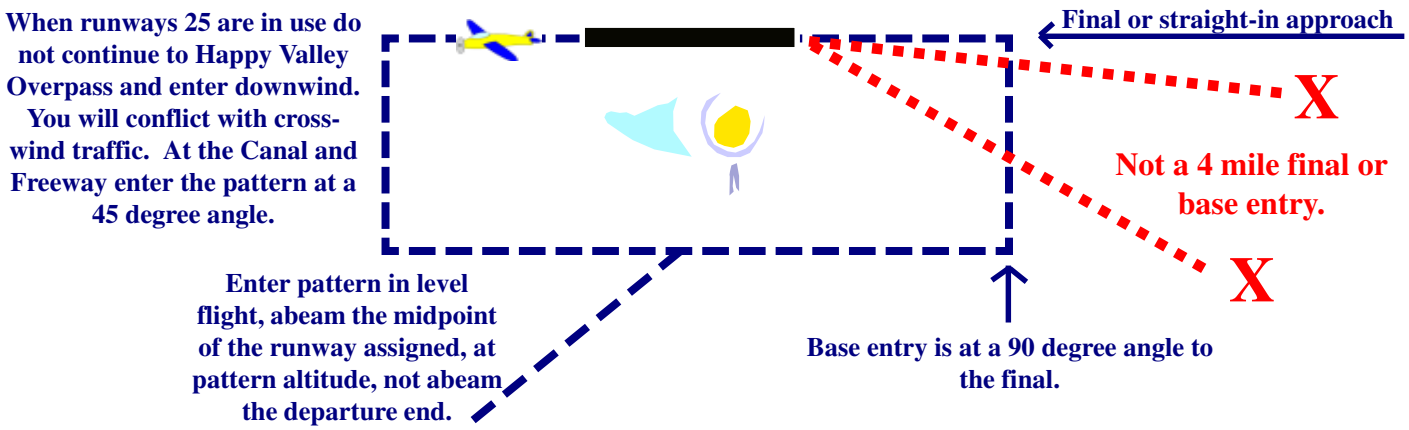
Aeronautical Information Manual: 4-3-3. Traffic Patterns

At most airports and military air bases, traffic pattern altitudes for propeller-driven aircraft generally extend from 600 feet to as high as 1,500 feet above the ground. Also, traffic pattern altitudes for military turbojet aircraft sometimes extend up to 2,500 feet above the ground. Therefore, pilots of en route aircraft should be constantly on the alert for other aircraft in traffic patterns and avoid these areas whenever possible. Traffic pattern altitudes should be maintained unless otherwise required by the applicable distance from cloud criteria (14 CFR Section 91.155). (See FIG 4-3-2 and FIG 4-3-3.)



EXAMPLE-
Key to traffic pattern operations

1. *Enter pattern in level flight, abeam the midpoint of the runway, at pattern altitude. (1,000' AGL is recommended pattern altitude unless established otherwise. . .)* **2.** *Maintain pattern altitude until abeam approach end of the landing runway on downwind leg.* **3.** *Complete turn to final at least $^{1}/_{4}$ mile from the runway.* **4.** ***Continue straight ahead until beyond departure end of runway.*** **5.** *If remaining in the traffic pattern, commence turn to crosswind leg beyond the departure end of the runway within 300 feet of pattern altitude.* **6.** *If departing the traffic pattern, continue straight out, or exit with a 45 degree turn (to the left when in a left-hand traffic pattern; to the right when in a right-hand traffic pattern) beyond the departure end of the runway, after reaching pattern altitude.* **7.** ***Do not overshoot final or continue on a track which will penetrate the final approach of the parallel runway.*** **8.** ***Do not continue on a track which will penetrate the departure path of the parallel runway.***



AIM 4-3-2. Airports with an Operating Control Tower

c. The following terminology for the various components of a traffic pattern has been adopted as standard for use by control towers and pilots (See FIG 4-3-1):

1. Upwind leg. A flight path parallel to the landing runway in the direction of landing.

2. Crosswind leg. A flight path **at right angles** to the landing runway off its takeoff end.

3. Downwind leg. A flight path **parallel** to the landing runway in the opposite direction of landing.

4. Base leg. A flight path **at right angles** to the landing runway off its approach end and extending from the downwind leg to the intersection of the extended runway centerline.

5. Final approach. A flight path in the direction of landing **along the extended runway centerline** from the base leg to the runway.

6. Departure leg. The flight path which begins after takeoff and continues straight ahead along the extended runway centerline. **The departure climb continues until reaching a point at least $^{1}/_{2}$ mile beyond the departure end of the runway and within 300 feet of the traffic pattern altitude.**

(AIM Excerpts)

When operating at an airport where traffic control is being exercised by a control tower, pilots are required to **maintain two-way radio contact with the tower** while operating within the Class B, Class C, and Class D surface area unless the tower authorizes otherwise.

Initial callup should be made about 15 miles from the airport. Unless there is a good reason to leave the tower frequency before exiting the Class B, Class C, and Class D surface areas, it is a good operating practice to remain on the tower frequency for the purpose of receiving traffic information.

In the interest of reducing tower frequency congestion, pilots are reminded that **it is not necessary to request permission to leave the tower frequency once outside of Class B, Class C, and Class D surface areas.**

On occasion i**t may be necessary for pilots to maneuver their aircraft to maintain spacing** with the traffic they have been sequenced to follow. The controller can anticipate minor maneuvering such as shallow “S” turns. The controller cannot, however, anticipate a major maneuver such as a 360 degree turn. If a pilot makes a 360 degree turn after obtaining a landing sequence, the result is usually a gap in the landing interval and, more importantly, it causes a chain reaction which may result in a conflict with following traffic and an interruption of the sequence established by the tower or approach controller. Should a pilot decide to make maneuvering turns to maintain spacing behind a preceding aircraft, the pilot should always advise the controller if at all possible. **Except when requested by the controller or in emergency situations, a 360 degree turn should never be executed in the traffic pattern or when receiving radar service without first advising the controller.**