**A picture containing chart

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Description automatically generated with medium confidenceArrivals (Black Aircraft) / Departures (Purple Aircraft)**

Before an aircraft can takeoff, it must get clearance. “DAL 123 cleared for takeoff” we all know that phrase. The aircraft will accelerate until it hits the

v-speed, or takeoff speed, which differs by aircraft size when it will climb.

Guide the aircraft to the beacon. From there it will guide itself horizontally to the runway. Later when the aircraft get within the first airport ring it will start to descend following a glideslope.

Condition: Altitude must be lower than 3500 ft at this point.

Airports have autoland features when the orange dot (called the ILS beacon) gets within the aircraft’s proximity circle.

Conditions: Heading must be within 30 degrees of the runway heading.

Aircraft have a callsign (like a flight number), speed, altitude, heading (magnetic bearing), vertical speed (descent or climb rate in ft/min).

Click and type in the command prompt. Examples:

“DAL123 turn right heading 210”

“DAL 123 descend to 3000”

“Delta 123 decel to 150”

“DAL123 direct to (waypoint)”

Aircraft will disappear once landed (under 100 ft). However, sometimes and aircraft may not be able to land in one try. This is known as a go-around. Whether because of weather, traffic, or just the pilot was not confident, the plane will climb to 3000 ft and wait for further instructions.

Diagram

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AVOID STORMS AT ALL COSTS. Storms have strong gusts that **might** cause the aircraft to lost control. I say might because it might just come out fine, but why take the chance? Weather is the 3rd greatest cause of aircraft accidents. Just stay out :)

Sometimes depending on winds or other causes, runways may close operations. Only green (open) runways are open. Don’t worry closed runways won’t have beacons active.

Like arrivals, departure aircraft have a destination. However, we only need to guide it to a waypoint where another controller there will take over. Use the command “DAL123 direct to HELLO” to direct the aircraft to the waypoint. Also use waypoints for arrivals too! It might be easier to guide aircraft that way.