

Basic Handling

If you are a novice pilot then it is recommended that you read the 'Ground School' section of the manual to familiarise yourself with the basic principles and handling of a helicopter.

This section will guide you through the flight controls as required for Comanche Hokum and explain the function of the automatic flight systems; 'autopilot', 'altitude hold' and 'hover hold'.

Select a 'Free Flight' mission to practice your flight procedures. Ensure that you select a passive environment and turn the collisions and weapon damage off.

The flight controls are the same for both Comanche and Hokum.

To re-iterate the lesson from Ground School:-

"It is worth emphasising that all your control movements ('control inputs') should be as smooth and deliberate as possible. Sudden, violent control inputs are to be avoided whenever possible, but especially in hovering or low-speed flight. Make sure that you know where to find airspeed, altitude and vertical velocity readouts on the Head-Up Display (HUD)."

Taking off and rising to the hover

1. Release the rotor brake **[R]**
2. The rotor blades will start to spin and the canopy doors will close
3. When the main rotor RPM has reached 90% the 'RTR RPM' warning light will turn off and the helicopter is ready for take-off
4. Release the wheel brakes **[B]**
5. Watching the torque value on the head-up display, gently increase the collective to 65-75% **[Q]**
6. The helicopter will start to climb
7. Climb to an altitude of 100 feet / 30 metres so that the helicopter is out of 'ground effect'
8. Adjust the collective to hold the helicopter in a steady hover **[Q]** and **[A]**

Transition from the hover to forward flight

1. Ease the cyclic forward and the helicopter will start to accelerate **[F]**
2. The helicopter will lose altitude so gently increase the collective to compensate for this **[Q]**

Climbing and diving

1. Pull back on the cyclic to climb **[F]**
2. The helicopter will climb but lose forward speed
3. Push the cyclic forward to regain forward speed **[F]**
4. Raise the collective to climb **[Q]**
5. The helicopter will climb but gain forward speed
6. To climb without losing or gaining speed you need to simultaneously pull back on the cyclic and raise the collective **[F]** and **[Q]**
7. Push the cyclic forward to dive **[F]**
8. The helicopter will lose height but gain forward speed
9. Pull the cyclic back to reduce the dive **[F]**
10. Lower the collective to lose height **[A]**
11. The helicopter will lose height and forward speed
12. To climb without losing or gaining speed you need to simultaneously push forward on the cyclic and lower the collective **[F]** and **[A]**

Turning in forward flight

1. When the helicopter is hovering or flying at low speed (below 60 knots / 110 km/h) use the pedals to turn **[Z]** and **[X]**
2. At higher speeds, turning is accomplished by tilting the cyclic left or right to bank the helicopter **[F]** and **[F]**
3. If you fly sustained or steeply-banked turns you'll need to raise the collective **[Q]** or ease back on the cyclic **[F]** (with loss of some forward speed) to avoid losing height

Slowing to the hover from forward flight

1. Start the manoeuvre by pulling back on the cyclic **[F]** to tilt the helicopter backwards
2. Lower the collective to prevent the helicopter from climbing **[A]**
3. As the helicopter slows, gently raise the collective **[Q]** to compensate for the diminished main rotor thrust
4. As you approach the hover ease the cyclic forward **[F]** to bring the helicopter level, simultaneously raising the collective **[Q]** to maintain altitude
5. Use the pedals **[Z]** and **[X]** as necessary to keep the helicopter straight

Landing

1. From a steady hover, gently lower the collective **[A]** and the helicopter will begin to lose altitude
2. Watching your vertical speed, adjust the collective **[Q]** and **[A]** to maintain a steady rate of descent
3. Just before touchdown reduce the rate of descent to soften the landing
4. After touchdown, bottom the collective **[A]**
5. Engage the wheel brakes **[B]**
6. Engage the rotor brake **[R]**
7. The rotor blades will spin down and the canopy doors will open

Taxiing

1. With the rotor blades spun up and the wheel brakes disengaged, increase the collective **[Q]** to between 25 and 50%
2. To start taxiing, push gently forward on the cyclic **[F]**
3. Use the pedals **[Z]** and **[X]** to steer the helicopter
4. To slow down, ease back on the cyclic **[F]**
5. To stop apply the wheel brakes **[B]**

Trim

Trim re-centres the cyclic to the currently held position. Trim is useful when flying long distances in a straight line so that you do not need to keep pressure on the cyclic.

Autopilot

The autopilot system will fly the helicopter around the waypoint route and eventually land back at base. Autopilot will not engage the enemy at 'target' waypoints.

[G] Autopilot (engage/disengage)

Autopilot is unavailable if the helicopter control systems are damaged or if the helicopter is out of fuel.

Autopilot cannot be engaged when the helicopter's radar altitude is below 25 metres (approximately 80 ft).

Coming in to land at a base, the helicopter may enter a holding pattern until a landing pad becomes available.

Altitude Hold

The altitude hold system will attempt to hold the helicopter at the current radar altitude, in effect, terrain following for nap of the earth flying.

Altitude hold is unavailable if the helicopter control systems are damaged or if the helicopter is out of fuel.

The radar altitude setting can be increased or decreased by one unit at a time (1 foot Comanche, 1 metre Hokum).

[AH] + **[H]** : Altitude hold (engage/disengage)

[AH] + **[J]** : Decrease altitude hold level

[AH] + **[K]** : Increase altitude hold level

Hover Hold

The hover hold system will attempt to hold the helicopter in a stationary position (station keeping).

Hover hold is unavailable if the helicopter control systems are damaged or if the helicopter is out of fuel.

Hover hold can only be engaged if the horizontal velocity of the helicopter is below 20 knots (approximately 40 Km/h).

Use collective to adjust the hover height and yaw to adjust the heading. Hover hold will disengage with any cyclic input.

Hover hold bleeds off any horizontal velocity and adjusts the collective to zero the vertical velocity. It is not an immediate effect and may take a few moments to stabilise. If you are using a throttle stick then you will have to adjust the collective manually.

Stable hover hold is the same as hover hold except that it maintains altitude automatically for players with throttle sticks.

[H] : Hover hold (engage/disengage)

[SHH] + **[H]** : Stable hover hold (engage/disengage)