Pegasus Rotorcraft Ltd. General Aviation Aircraft Comparison

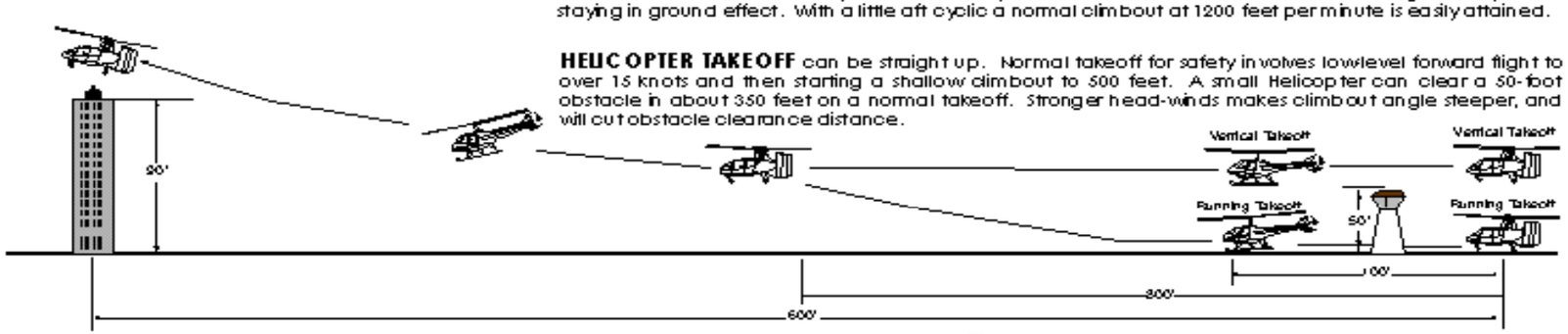
HELICOPTER achieves lift with its powered rotor pulling air down through the blades. Outside of hovering, the attitude of flight is nose down. The purpose of the tail rotor is to give the aircraft directional stability at speeds less than 60 knots.

AIRPLANE usually powered by propeller or jet engine. The wings get their lift from relative-wind flowing over the curved airfoil creating low pressure area on top of the wing and high pressure below. These pressures combine to push the wing up to facilitate flight. Stability depends on speed payload and air density.

GYROPLANE MkIII rotor is not powered during flight. Gyroplanes get their lift from the air flowing up through the rotor system causing the rotor to turn. The term for this is "autorotation". The advantage of this design is it's the best of both worlds providing total stability at both low and high speeds. In the case of an emergency such as an engine failure no major adjustments are necessary beyond identifying a site to land that is open. With only a 37 foot rotor there are a lot of landing options.

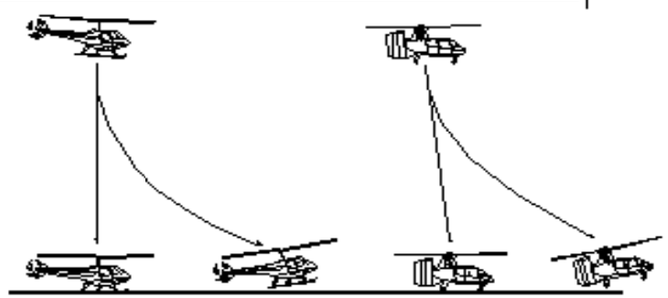
GYROPLANE TAKEOFF is quick; the Pegasus Mk III is a Vertical Take Off and Landing aircraft (VTOL), truly a point to point form of transportation. Using energy stored in its high inertia rotor, the MkIII will exceed the 50 foot vertical clearance required for VTOL qualification. It can, if desired, make a long low departure staying in ground effect. With a little aft cyclic a normal climbout at 1200 feet per minute is easily attained.

HELICOPTER TAKEOFF can be straight up. Normal takeoff for safety involves low-level forward flight to over 15 knots and then starting a shallow climbout to 500 feet. A small Helicopter can clear a 50-foot obstacle in about 350 feet on a normal takeoff. Stronger head-winds makes climbout angle steeper, and will cut obstacle clearance distance.



GYROPLANE LANDING the MkIII can descend vertically 2000 feet per minute comfortably. With a small flair using the high inertia rotor system and the full range collective it can land with zero rollout consistently. If desired the MkIII can make an airplane approach to a landing site as well.

HELICOPTER LANDING can be vertical with a powered rotor. However, most pilots elect to make a safer approach with a forward speed. If the engine fails they must manually transition into an autorotation if altitude and air speed permits.



UNIQUE CHARACTERISTICS OF THE MkIII

- The only 3 place Gyroplane fully Type Certified in both Canada and the United States.
- Ducted Propeller
  - 1320 pounds of static thrust
  - The duct absorbs the tip noise. NASA projected 74 decibels (dB's) based on current design. With the minor modifications (none impacting Type Certification) suggested by their engineers, it is projected that the dB's would decrease to 68.
- High inertia rotor (more stability at all speeds)
- Full range collective (13°) nearly twice as much as helicopters
- Flight range is 400 miles with present fuel capacity (extended to 700 plus 15 minutes reserve with an auxiliary tank)
- Service Ceiling is 13,000 feet (absolute ceiling is currently 15,000 feet).
- Safety
  - Visibility in excess of 270° horizontal. With its' "Greenhouse" roof and contoured body, visibility is excellent from all angles.
  - Strap pack on the rotor hub (eliminates ground resonance)
  - Shielded propeller (people can not walk in to prop)
  - Highly maneuverable in tight spaces in the air and on the ground

Please note:

All aircraft performance data generated by individual manufacturers reflects results under ideal flight conditions. The actual performance will vary from aircraft to aircraft based on payload, air density, individual design idiosyncrasies and the pilot's current abilities.