

Sky BOARD

Skyboard is a one-person glider that offers a highly manoeuvrable alternative to skydiving

It is a 2.3m long capsule, in which a pilot lies face down with hands on controls that offer full flying functions. On being launched from between 10,000ft and 35,000 ft (from either a fixed wing aircraft or helicopter) Skyboard's front and rear wings, and tail plane are electronically deployed. The pilot, using aileron and elevator control surfaces can then fly the glider before making a wheels-down or parachute-assisted landing.



Key Features:

Length:	2.3m approx
Weight	24 kgs
Wing span:	3m – 4.8m
Potential flight times:	10-15mins (estimated) from 12,000 feet; 55 minutes (est) from 25,000 ft.
Speed:	Up to 300kph (estimated)
Drop height:	10,000 - 35,000ft
Landing gear:	A spring-loaded 8-inch central front landing wheel (released by pilot) is augmented by a permanent fixture smaller tail wheel.
Design features:	Skyboard's main wings and horizontal stabilizers extend and fold away into the main fuselage at pilot command.
Additional equipment:	Altimeter, flight speed indicator, rate of descent indicator and ballistic parachute for emergency deployment.

Superior Construction

Almost 100% carbon fibre construction for superior strength/weight ratio. Simplified carbon fibre components constructed using over 40 precision CNC machined moulds, which can be used to reproduce parts indefinitely.

First developed in New Zealand in 2004, the new 2007 Skyboard has been fully wind tunnel and field-tested with remarkable results.

Superior aerodynamics have been achieved by:

- Super-computer modelling and simulation at Canterbury University
- Lowering the pilot out of the air stream
- Improving the nose cone shape and adding extended sides to better guide the flow over the tail plane
- Using wing doors which open and close to let the wings in and out, and work to form a streamlined fuselage once the wings have been deployed



- Improving integration between all components for improved strength, simplicity and ease of assembly
- Increasing cockpit visibility through the incorporation of a larger windshield coupled with an additional floor windshield for helpful 'birds-eye' view
- Using strong, lightweight, hollow carbon fibre airfoils using proven German sailplane construction methods
- Employing a simple structural skeleton, consisting of only four carbon fibre components which are bonded together
- Replacing the old mechanical linkage system (which added unnecessary weight and complexity) with a 'Fly by wire' control system. The 'fly by wire' system allows infinite tuning possibilities by using compact, hi-torque, zero-deadband digitally controlled servos.

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