

## Fundamental Training Goals:

Choosing equipment - wing size and EN certification, visibility, engine weight/power/geometry (evaluating thrust vs torque, harness and connection types: low/high/weight shift, prop clearance, cage and netting), part availability/support, oil and gas, loudness, if used - hours of UV/abrasion/porosity/line length certification. Choosing if/which wheels, helmet, clothing, reserve, floatation, comms, wind sock/streamer, camera gear, freeflight/kiting harness, GPS, variometer, etc.

Mastering forward and reverse kiting in a harness, then with the engine, then taxiing with the running engine. Being able to handle a range of wind speeds, build speed to fly, correct oscillations and keep wing at 12 o'clock in forward position without looking, steer around obstacles, and manage cross wind control. Understanding how brake use, body and wing movements relative to the wind, and weight shift all work together. Helmet and glove use, avoiding line burns and catch hazards. Handling gusts/drag. Mushrooming, packing and unpacking, storing dry/clean, untangling lines.

Being comfortable with the throttle and engine thrust/torque in the simulator, then while walking, then while kiting/taxiing.

Learning to assemble and inspect equipment, check hang angle, adjust harness settings, set brake length, and preflight a machine/suspension/wing.

Understanding laws (FAR 103 & sectional charts), weather (online resources), and engine use/maintenance (carb tuning, spark plug inspection, torque specs, common adjustments and part replacements).

Understanding the basics of flight dynamics - how to keep the wing overhead, how to turn and manage ground track with wind, how to handle torque, how to avoid stalls, spins, dives and collisions in flight, and traffic patterns/flight planning.

## Learning to Perform Each Flight:

Weather Condition Evaluation - avoid mid day thermals (first/last 2-3 hours), no heavy winds/gusts, no shifting winds/devils (thermal signs), benign winds aloft, no strong wind sheer/gradient, no rain or nearby storms, no fog, good density altitude. Use a wind dummy.

Location Evaluation - large enough area to launch and climb/turn over/past obstacles in the direction of torque, enough space to clear obstacles when landing, no dangerous rotor over big obstacles, runnable terrain, no water danger, no ground traffic danger, no electrical wire danger, no air traffic danger, no TFRs, pattern if at airport, sunrise/sunset time.

Equipment Preparation and Preflight Checklist - machine fully assembled, all screws and attachments tight, cage netting tight, proper redrive tension, floatation secure, enough (properly mixed) fuel, throttle not stuck, engine harnessed on back before starting, harness fully buckled, wing lines/risers straight and untangled, no damage to wing or any hardware, wing set up appropriately forward or reverse directly into wind, no line-overs at wing edges, risers clipped straight into locked carabiners, brake toggles clear to pulleys, trims set even, reserve parachute pins secure, loose items stowed, clothing/eyewear/weather protection secured, helmet strapped, radio check, strobe check. Double check all suspension connections, prime carb, "clear prop", run up engine, check idle not set too high or too low, belt not slipping, survey nearby air traffic, weather, and ground activity to avoid.

Launch - taxi with wing perfectly square overhead, posture, COMMIT, apply increasing thrust, run run run, accelerate only, do NOT slow down, do NOT oscillate, do NOT jump into seat or stop churning feet below 20', do NOT release thrust and dive low, do NOT turn against torque, pull a small bit of brake to assist the moment of launch, slowly release brake to achieve full air speed, visually check wing and lines - no cravats/catches/twists/kinks, check that carabiners are locked, climb above 300 feet altitude, slowly release throttle to achieve level flight, fly the pattern. In an emergency abort, choose to land into wind if safely possible.

During Flight - ALWAYS have an LZ reachable in case of engine failure, maintain at least 300' altitude, pick headings and fly toward them, do NOT fixate on obstacles, steer around obstacles/thrust over obstacles smoothly with foresight, you can never stop moving in the air - look ahead, clear turns around other pilots, in case of collapse - weight shift/steer/clear (or just wait for the wing to recover automatically), in case of a locked-in spiral - brake with D risers/bleed off speed gradually, ONLY if in a completely unrecoverable situation, with your wing completely out of control, with death imminent - throw your reserve aggressively into clear air, be prepared for parachutal landing (knees together and bent). Always FLY THE WING - keep it overhead, with enough moving air speed and all lines pressurized.

Landing - pick a landing site INTO wind, clear electrical wires (straight lines on ground) and obstacles, fly the pattern and descend to final, line up and STOP turning, if you're oscillating or set up short/long - go around, get out of seat, kill engine 30-50', put 1 foot in front of the other, do NOT flair above 1 foot altitude, flair progressively at the last moment, RUN on landing.