

# AirCam CHECKLIST 912ULS

## START-UP

- ✓ Pre-flight Complete
- ✓ Tie downs and chocks removed
- ✓ Note Hobbs time
- ✓ Rear seat occupant, remove and stow hat. Check shirt pockets to ensure they are empty. (Omit this step when full enclosure is installed.)
- ✓ Avionics off
- ✓ Master (key) on
- ✓ Auxiliary fuel pumps on
- ✓ Clear props and blast area behind
- ✓ Apply brakes
- ✓ Advance throttle approximately 1"
- ✓ Begin cranking first engine
- ✓ Alternate starting left and right engines first
- ✓ If no start in 3 seconds begin tapping primer up to 6 times until engine starts. If no start, move to second engine and repeat. Do not crank more than 10 sec without giving the starter a break.
- ✓ Flooded engine starting procedure:  
*Auxiliary fuel pump off. Apply brakes and hold control stick full back. Open throttle to ¾ and crank till startup. Rapidly reduce power to 2,500 rpm upon startup. Maintain 2,500 rpm until excess fuel is consumed. Crank engine for a maximum of 10 seconds. Allow starter to cool down in between cranking cycles.*
- ✓ Upon startup, check for oil pressure and voltage increase
- ✓ No oil pressure in 5 seconds, shut down engine
- ✓ Turn off Auxiliary fuel pumps after startup
- ✓ Warm up engine at 2,000 - 2,200 RPM until smooth
- ✓ Avionics master on
- ✓ Intercom check
- ✓ Flaps up

## ENGINE RUN-UP

- ✓ Clear behind
- ✓ Point into wind if possible
- ✓ Apply brakes
- ✓ Auxiliary fuel pumps off
- ✓ Left engine increase throttle to 3,800 RPM
- ✓ Check smooth operation at 3,800
- ✓ Ignition check – A & B 250 RPM max drop
- ✓ Check engine gauges o.k.
- ✓ Back to idle - 1,400 - 1,800 RPM and smooth
- ✓ Right engine – 3,800 RPM
- ✓ Ignition check – A & B 250 RPM max drop
- ✓ Check engine gauges
- ✓ Back to idle – 1,400 - 1,800 RPM and smooth

## PRE-TAKEOFF

- ✓ Seat belts fastened
- ✓ Ensure all phones and loose gear secured
- ✓ Verify both fuel tanks – 1/3 minimum
- ✓ Flaps up for normal takeoff / 25° for short field takeoff
- ✓ Trim set
- ✓ Auxiliary fuel pumps on left & right
- ✓ All mag switches (forward) on
- ✓ Altimeter set
- ✓ Radio to correct frequency
- ✓ Strobes on
- ✓ Controls free & correct
- ✓ Oil temps min 120 F
- ✓ When canopy is installed: Check all doors closed and properly latched and canopy closed and latched.
- ✓ Lift-off at 43 MPH IAS
- ✓ Normal Climb 60 mph IAS
- ✓ Aux Fuel pumps off at 1000ft or when cruising altitude is reached.

*Note: 25° of flap is verified when the inner trailing edge of the flap aligns with the wing trailing edge to aft fuselage sweep cable.*

## LANDING

### NORMAL LANDING

- ✓ Fuel pumps on
- ✓ Flaps up
- ✓ Approach at 60 - 65 mph higher speeds permissible in gusty conditions

### SHORT FIELD LANDING

- ✓ Fuel pumps on
- ✓ Use Full flaps for short and rough field landings
- ✓ Approach at 50 mph plus 5 minus 0

*Note: when using flaps remember to reduce flaps to 25° for takeoff. 25° of flap is verified when the inner trailing edge of the flap aligns with the wing trailing edge to aft fuselage sweep cable. Use of flaps for landing is not recommended in gusty conditions.*

*Note: If left or right fuel quantity indication is 1/8 or less avoid steep descents.*

## EMERGENCY PROCEDURES

### ENGINE FAILS TO SHUT DOWN WITH IGNITION SWITCHES MOVED TO THE OFF POSITION.

- ✓ Reduce throttle to idle
- ✓ Turn on Aux fuel pump and actuate primer to shut down engine. Hold primer on until engine floods. Shutdown will be rapid.

### PROP STRIKE IN FLIGHT

- ✓ If a prop strike occurs in flight, causing a high level of vibration, identify which prop has been damaged. Bring one engine to idle and the other one to full power. If the prop damage is causing vibration the powered-up engine will see an increase in the intensity and frequency of vibration. If altitude and single engine performance allow, shut down the engine that is vibrating and land as soon as possible. If not, maintain full power on the smooth engine and reduce power on the vibrating engine to the minimum level required to maintain flight. Find a safe place to land as soon as possible.

### EMERGENCY IN FLIGHT INSPECTION OF DAMAGED PROPELLER

- ✓ Once identified and shut down - the damaged propeller may be visually inspected in flight to determine the severity of blade damage. When an AirCam engine is shut down in flight the prop will stop and one blade will be below the wing in view. With the ignition switches off the pilot may tap the starter on the dead engine turning the prop small amounts allowing the pilot to see each blade one blade at a time. Using this technique, the pilot may assess the damage and determine if restarting the engine with the damaged propeller is an option.

### ENGINE FAILURE IN FLIGHT

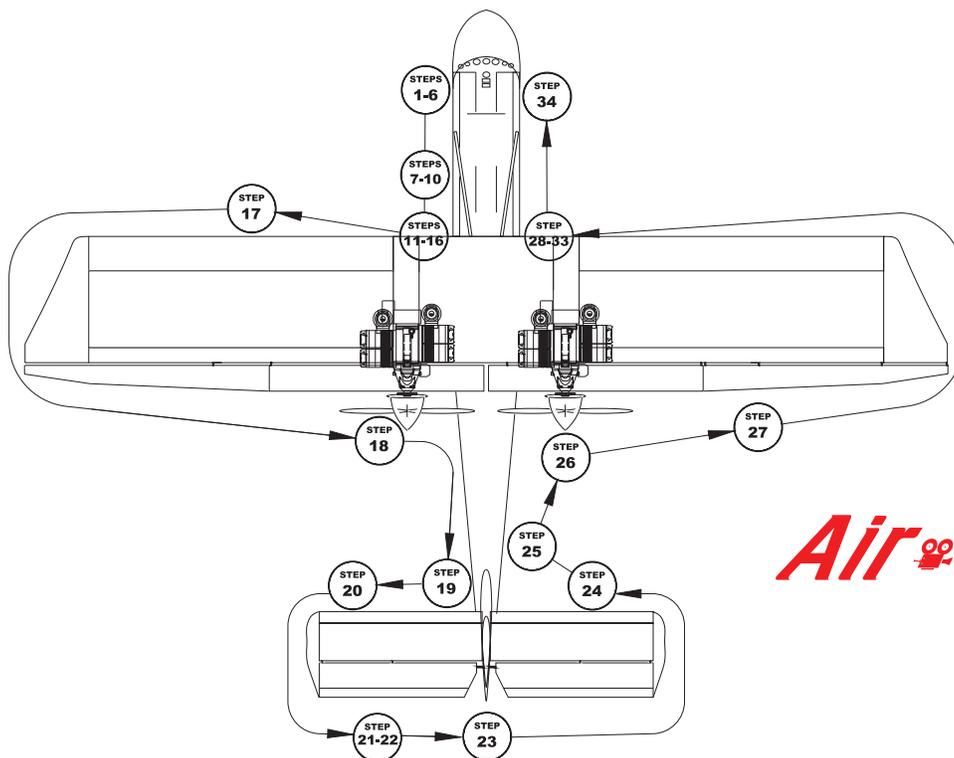
- ✓ Both throttles full forward
- ✓ Maintain 55 - 60 mph indicated ASI
- ✓ Rudder as needed
- ✓ Both Aux fuel pumps on
- ✓ Identify the bad engine
- ✓ Verify – bad engine, point to the tach with low RPM and pull throttle to idle
- ✓ 5° of bank into the good engine
- ✓ Add 5° of flap if additional climb performance is needed
- ✓ The bad engine will produce zero thrust at normal idle at 55 - 60 mph IAS. Anything above normal idle will yield some thrust and help climb performance. If engine RPM drops below 2,000 in flight and does not respond to the aux electric fuel pump then shut it down to reduce drag.
- ✓ Shut Down – if necessary
- ✓ Land at the nearest safe location

## PREFLIGHT CHECKLIST

- 1) Standing on the left side of the aircraft, adjacent to the forward cockpit, turn on the master and note indicated left and right fuel quantity.
- 2) Check function of flaps. You may leave the flaps down to facilitate closer engine inspection.
- 3) Check battery voltage greater than 12V. If less than 12V charge battery.
- 4) Turn off the master and check all engine ignition switches are off.
- 5) Check for proper control stick movement and function.
- 6) Check pitot and static tubes under nose and remove pitot covers if installed.
- 7) Move to left of rear seat and recheck ailerons and elevator for proper function with rear control stick. You cannot see the elevator moving once seated in the cockpit.
- 8) Check rear brake pedals and brake master cylinders for leaks and safe fluid level.
- 9) If flying solo latch rear seatbelt harness.
- 10) Check baggage area for loose cargo and secure as needed.
- 11) Climb up or use a ladder to view the upper left wing center section in front of the left fuel tank. Remove left fuel cap and verify fuel quantity matches the fuel gauge indication previously observed. Verify sufficient fuel for your next flight? Secure the fuel cap.
- 12) Inspect ELT antenna.
- 13) Visually inspect left engine radiator, hoses and air filters.
- 14) Inspect the left wing root to wing center section gap-seal to insure it is properly secured.
- 15) Inspect left landing gear, tire, brake and lower wing strut attachments.
- 16) Sump left and right fuel tanks and gascolators, (four points), and put the fuel tester back where it is stored.\*
- 17) Walk around left wing inspecting the wing leading edge, wing tip, Aileron, flap and wing struts.
- 18) Inspect left engine.
  - a) Inspect propeller blades for damage.
  - b) Inspect exhaust system for cracks and leaks and check all 8 exhaust springs for breaks and correct safety wire. Replace any broken springs or safety wire before next flight.
  - c) Look for signs of fluid leaks under the engine and on the ground below.
  - d) Check oil and coolant levels. (Only remove radiator cap when engine is cool)\*\*
- 19) Inspect the aft fuselage and tail wheel.
- 20) Inspect the vertical and horizontal stabilizer surfaces and all exposed cables for condition and tension.
- 21) Inspect the Elevator trim tab on the left elevator for condition and excessive play in the hinges and actuating pushrods. Little or no play should be present.
- 22) Inspect the elevators.
- 23) Check rudder for free movement and good stops.
- 24) Inspect right horizontal stabilizer and exposed cables.
- 25) Inspect the right aft fuselage.
- 26) Inspect right engine.
  - a) Inspect propeller blades for damage.
  - b) Inspect exhaust system for cracks and leaks and check all 8 exhaust springs for breaks and correct safety wire. Replace any broken springs or safety wire before next flight.
  - c) Look for signs of fluid leaks under the engine and on the ground below.
  - d) Check oil and coolant levels. (Only remove radiator cap when engine is cool)\*\*
- 27) Walk around the right wing inspecting the flap, aileron, wing tip, wing leading edge and wing struts.
- 28) Climb up on the wing struts and fuselage or use a ladder to make a visual check of the fuel quantity in the right fuel tank. Verify the fuel quantity matches the fuel gauge indication previously observed. Secure the fuel cap.
- 29) Visually inspect the right engine radiator, hoses and air filters.
- 30) Inspect the right-wing root to wing center section gap seal to assure it is properly secured.
- 31) Inspect right main landing gear, tire, brake and lower wing strut attachments.
- 32) Check front and rear seat positions for correct adjustment.
- 33) If aircraft is fitted with full enclosure; check canopy attachments and all doors for correct installation and condition. Verify cargo doors are properly latched.
- 34) Note Hobbs time before start-up.

\* We recommend sumping all four fuel drain points in immediate succession to more easily facilitate proper disposal of waist fuel and identify any fuel contamination early in the preflight process.

\*\* Get to know your engine. With no evidence of any fluid leaks, coolant can be checked once before the first flight of the day. Oil can be checked before the first flight of the day and when fueling on a cross county flight. Be sure to burp the engine before adding oil to prevent overfilling of the oil tank. If oil is needed add **Aeroshell SPORT PLUS 4**. Never add more than 1/3 of a liter before rechecking the oil level.



**Air-Cam**