

RV-14A *N59ER* Checklist Rev. 1.2

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AIRSPEEDS FOR SAFE OPERATION

Stall – Full Flaps (V_{S0}).....51 KIAS
Stall – No Flaps (V_{S1}).....62 KIAS
Best Glide (V_{GL})..... 95 KIAS

Take-off
Lift-off (V_{LOF})..... 58 KIAS

Maximum Climb
Best Angle (V_X)..... 70 KIAS
Best Rate (V_Y).....95 KIAS
Cruise Climb (V_{CC})..... 120 KIAS

Maneuvering Speed (V_A) @2,050 lbs.....130 KIAS
Maneuvering Speed (V_A) @1,900 lbs.....147 KIAS
Max "G" + 6.0 to -3.0
Structural Cruising (V_{NO}).....156 KIAS
Do Not Exceed (V_{NE}).....200 KTAS

Pattern Speed100 KIAS
Flaps Extended (V_{FE})100 KIAS
Landing Approach
Full Flaps.....65 KIAS
No Flaps.....80 KIAS
Max Demonstrated Crosswind.....20 KIAS

POWER PLANT DATA

Lycoming.....YIO-390-A3B6
Type.....4 CYL / FUEL INJECTED
Horsepower.....210
Maximum Speed.....2,700 RPM
Fuel Requirement.....100 LL
Fuel Capacity.....50.8 U.S Gallons
Useable.....50.7 U.S Gallons

WEIGHTS

Maximum Takeoff.....2,050 lbs
Maximum Ramp.....2,050 lbs
Maximum Landing.....2,050 lbs
Maximum Baggage Compartment.....100 lbs
Empty.....1,311 lbs
Gross.....2,050 lbs

PREFLIGHT INSPECTION

COCKPIT CHECK

Control Lock.....REMOVE
All Switches.....OFF
Key.....OFF and REMOVE
Fuel Selector.....OFF

EXTERIOR CHECK

NOSE SECTION

Left Cowl.....SECURE
Induction Air Intake.....CLEAR
Propeller.....CHECK
Tire and Nose Gear.....CHECK
Chocks.....REMOVE
Engine Oil.....CHECK
Cap & Dipstick.....SECURE
Right Cowl.....SECURE
Windshield.....CLEAN

RIGHT FUSELAGE

Static Air Port.....CLEAR
NACA Vents.....CLEAR
All Antennas.....CHECK

RIGHT LANDING GEAR

Tire and Brake.....CHECK
Chocks.....REMOVE
Fuel Sump.....DRAIN

RIGHT WING TRAILING EDGE

Flap.....CHECK
Aileron.....CHECK

RIGHT WING LEADING EDGE

Pitot Tube.....CHECK, (Remove Cover)
Tie Down.....REMOVE
Wing Tip.....CHECK
Fuel Tank.....CHECK QUANTITY & SECURE
Position Light.....CHECK
Fuel Vent Line.....UNOBSTRUCTED

TAIL

Elevators.....CHECK
Stabilizers.....SECURE
Tie Down.....REMOVE
Position Light.....CHECK
Elevator Trim.....CHECK
Antenna.....CHECK

LEFT WING LEADING EDGE

Pitot Tube.....CHECK, (Remove Cover)
Tie Down.....REMOVE
Wing Tip.....CHECK
Fuel Tank.....CHECK QUANTITY & SECURE
Position Light.....CHECK
Fuel Vent Line.....UNOBSTRUCTED
Pitot Heat.....CHECK

LEFT FUSELAGE

Static Air Port.....CLEAR
NACA Vents.....CLEAR
All Antennas.....CHECK

LEFT WING TRAILING EDGE

Aileron.....CHECK
Flap.....CHECK

LEFT LANDING GEAR

Tire and Brake.....CHECK
Chocks.....REMOVE
Fuel Sump.....DRAIN

BEFORE STARTING

Seats.....POSITION AND LOCK
All Panel Switches.....OFF
Master.....ON
Fuses.....CHECK
Set Fuel in EIS.....CHECK

STARTING

Seat Belts.....CHECK
Fuel Selector.....LEFT or RIGHT

COLD START

Mixture.....FULL RICH
Throttle.....OPEN
Fuel Boost Pump.....ON (1 - 3 sec. then OFF)
Mixture.....OFF
Start Switch.....START
Mixture.....FULL RICH (on start)
Throttle.....IDLE SPEED

ENGINE INSTRUMENTS

Oil Pressure.....CHECK
Warm-up.....1,000 to 1,200 RPM
Alternator.....ON & CHECK

HOT START

Mixture.....OFF
Throttle.....FAST IDLE
Start Switch.....ENGAGE
Mixture.....ADVANCE SLOWLY
(until engine starts running smoothly)
Fuel pump.....ON (if rough)

FLOODED ENGINE

Mixture.....OFF
Throttle.....FULL OPEN
Starter Switch.....ENGAGE
When engine starts
Throttle.....IDLE
Mixture.....ADVANCE SLOWLY

AFTER STARTING AND BEFORE TAXI

Avionics Master.....BOTH ON
Trim Power.....ON
Nav Lights.....ON
Autopilot Servos Power.....ON
Landing/Taxi Lights.....AS REQUIRED
TrimCHECK & SET
Flaps.....RETRACT
Brakes.....CHECK
Oil Pressure.....25 psi (30 seconds)
Fuel pressure.....14 PSI min
Altimeters.....SET ALL
(EFIS, Horis and Winter ALT)

BEFORE TAKEOFF

Canopy.....CLOSED & LATCHED
Annunciators.....CHECK
Seat Belts.....CHECK
Flight Controls.....CHECK FREE & CORRECT
Autopilot Disconnect.....CHECK
Avionics.....CHECK
Nav & Strobe Lights.....ON
Landing/Taxi Lights.....AS REQUIRED
Pitot Heat.....AS REQUIRED
Throttle.....1,800 RPM
Prop.....CYCLE
Magnetos.....CHECK LEFT AND RIGHT
Mixture.....CHECK
Engine Instruments.....CHECK
Throttle.....IDLE
Elevator Trim.....CHECK AND SET
Mixture.....FULL RICH (or as required)
Flaps.....AS REQUIRED
Fuel PumpON

IN FLIGHT

TAKEOFF

Takeoff & Climb.....FULL THROTTLE
Rotate..... 58 KIAS
Climb.....95 KIAS
Best Angle.....70 KIAS
Flaps.....RETRACT

CLIMB

Fuel Pump.....OFF (> 1,000 AGL)
CHT.....≤ 435°
Oil Temp.....≤ 220°

CRUISE

Fuel Pump.....CHECK OFF
Power.....SET
Mixture.....LEAN
Navigational Aids.....IDENTIFY
Landing/Taxi Lights.....AS REQUIRED
Fuel Quantity.....CHECK
Altimeters.....SET
Oil Temp.....165° to 200°

DESCENT

Altimeters.....SET
Power.....AS REQUIRED
Mixture RICHEN AS REQUIRED
Landing/Taxi Lights.....AS REQUIRED

BEFORE LANDING

Seat Belts.....SECURE
Fuel Pump.....ON
Fuel Selector....CHECK / SET FULLEST TANK
Mixture.....FULL RICH (as required)
Landing and Taxi Lights.....AS REQUIRED
Flaps.....DOWN
Airspeed.....75 – 80 KIAS

GO-AROUND

Mixture.....FULL RICH (or as required)
Prop.....MAX RPM
Power.....FULL THROTTLE or 2700 RPM
Airspeed.....95 KIAS
Flaps.....UP

EMERGENCY LANDING

AIRSPEED..... SLOWEST PRACTICAL
THROTTLE.....IDLE
FUEL SELECTOR.....OFF
MIXTURE.....OFF
FLAPS.....AS REQUIRED
ALL PANEL SWITCHESOFF
SEAT BELTS.....SECURE
CANOPY.....UNLATCH OR JETTISON
.....(prior to landing, as appropriate)

AFTER LANDING

Fuel Pump.....OFF
Landing/Taxi Lights.....AS REQUIRED
Flaps.....FULL DOWN
Pitot Heat.....OFF
Pitch Trim.....SET AS REQUIRED
Avionics 2.....SET AS REQUIRED

SHUTDOWN

Engine.....IDLE TO COOL DOWN
Lights.....OFF
Avionics 2.....OFF
Avionics 1.....OFF
Alternator.....OFF
Prop.....MAX RPM
Throttle.....IDLE
Mixture.....FULL LEAN
Master.....OFF (after engine stop)
Key.....OFF & REMOVE
Fuel Selector.....OFF
Control Lock.....INSTALL
Aircraft.....TIE DOWN
Canopy Lock.....PLACE AND LATCH
Canopy Cover.....AS REQUIRED

PASSENGER BRIEFING

Restraint system
 Engaging
 Verifying
 Tightening and loosening
 Releasing
Canopy operation
 Lock/Unlock
 Opening
 Jettison function
Controls
 Remaining clear
 Flight controls
 Stick functions
 Pedal functions
 Engine controls functions
 Fuel selector
Avionics
 Stick buttons operation
 Panel PTT operation
 When it's okay to speak
 Headset operation
 Intercom operation
 Radio operation
 Including emergency usage
 EFIS function
 ELT emergency usage
 Transponder emergency usage
Environmental
 Heater operation
 Air vent operation
 Airsickness bag location
Checklist location

--- EMERGENCY PROCEDURES ---

SPIN RECOVERY

CONTROLS.....RELEASE

If Spin Continues

THROTTLE.....IDLE

STICK.....CENTER

RUDDER.....FULL OPPOSITE SPIN

RECOVER FROM DIVE

EMERGENCY DESCENT

Throttle.....IDLE

Airspeed.....ESTABLISH 175 KTAS
(slower for rough air)

MAXIMUM GLIDE CONFIGURATION

Flaps.....RETRACTED

Airspeed.....95 KIAS

EMERGENCY AIRSPEEDS

EMERGENCY DESCENT.....175 KTAS

BEST GLIDE.....95 KIAS

EMERG APPROACH.....75 KIAS

NOTE

Glide distance (in no wind conditions) is approximately
1.7 NM 1,000 feet of altitude

ENGINE DISCREPANCY CHECKS

ROUGH RUNNING ENGINE

FUEL PUMP.....ON

MIXTURE.....FULL RICH, then LEAN as req'd

MAG SWITCH.....CHECK LEFT, RIGHT,
then BOTH

LOSS OF ENGINE POWER

FUEL FLOW / PRESSURE.....CHECK

If fuel flow is abnormally low:

MIXTURE.....FULL RICH

FUEL PUMP.....ON, LEAN as req'd

FUEL QUANTITY.....CHECK TANK

If tank being used is empty:

FUEL SELECTORSELECT OTHER TANK
(feel for detent and check visually)

ENGINE FIRE

ON GROUND

MAGNETO / START SWITCH.....OFF

FUEL SELECTOR.....OFF

THROTTLE.....OFF

MIXTURE.....OFF

ALL SWITCHES.....OFF

Exit aircraft and extinguish with fire extinguisher

IN FLIGHT

FUEL SELECTOR.....OFF

MIXTURE.....OFF

THROTTLE.....IDLE

CABIN HEAT.....PUSH OFF

OUTSIDE AIR.....AS REQUIRED

ALTERNATOR.....OFF

MASTER.....OFF

MAG SWITCH.....OFF

Land as soon as possible, emergency descent if required.

Do not attempt to restart engine.

ENGINE FAILURE

ENGINE FAILURE ON TAKEOFF (NOT AIRBORNE)

THROTTLE.....CLOSED
BRAKES.....MAXIMUM

If unable to land on runway

LAND STRAIGHT AHEAD (45° MAX TURN)
AIRSPEED.....75 – 85 KIAS
PANEL SWITCHES....OFF (*PRIOR TO LAND*)
START SWITCH.....OFF
FUEL SELECTOR.....OFF
MIXTURE.....OFF

ENGINE FAILURE IN FLIGHT

AIRSPEED.....75 – 85 KIAS
FUEL PUMP.....ON
FUEL SELECTOR.....SELECT OTHER TANK
(*Check to feel detent and check visually*)
MIXTURE.....FULL RICH
THROTTLE.....FAST IDLE
START SWITCH.....BOTH
(*START if prop stopped*)

IF NO RESTART

MAYDAY CALL & SQUAWK 7700

MAX RANGE GLIDE SPEED.....95 KIAS
THROTTLE.....IDLE
FUEL SELECTOR.....OFF
MIXTURE.....OFF
MAG SWITCH.....OFF
FUEL PUMP.....OFF

When certain of reaching the selected landing site:

AIRSPEED.....95 KIAS
FLAPS.....AS REQUIRED
ALL PANEL SWITCHESOFF

NOTE

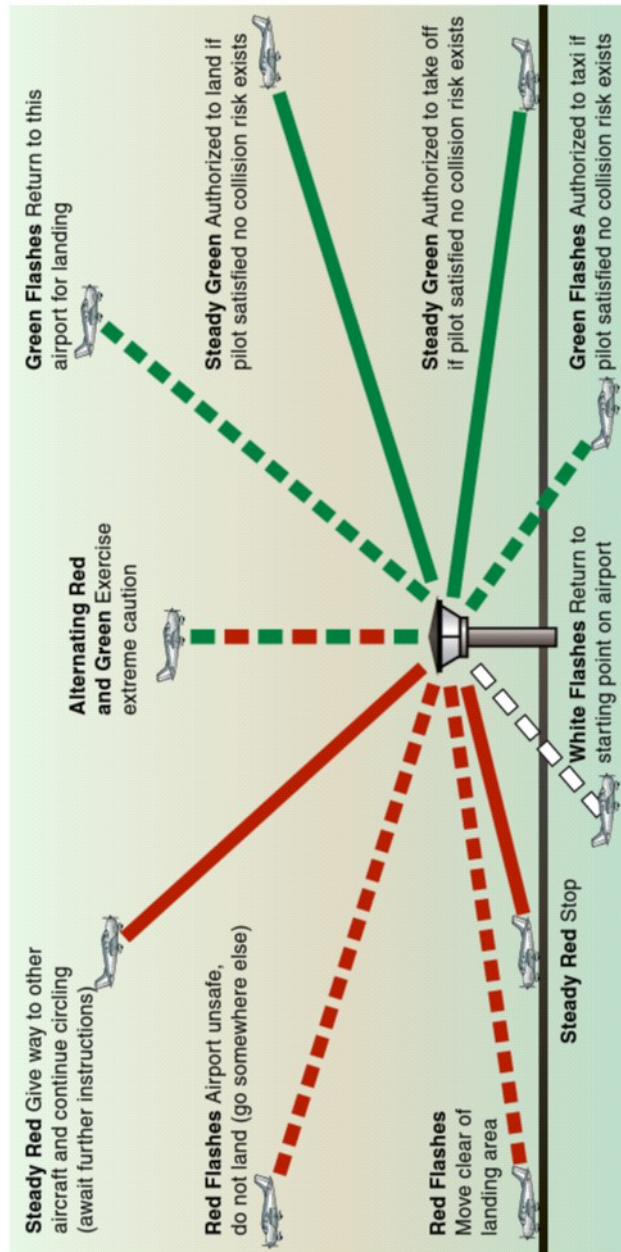
When engine starts, adjust throttle & mixture controls The most probable cause of engine failure would be loss of fuel flow or improper functioning of the ignition system.

ELECTRICAL MALFUNCTIONS

Do not replace fuses or reset alternator breaker in flight. Ensure situational awareness and if necessary, switch off offending bus.

Fuse Legend									
10	Hobbs+ELT	1	Fuel Pump	5	Tail Nav/Strobe	5	10		
9	LEMO	1	EIS+MAP	5	Wing Nav/Strobe	7.5	9		
8	Autopilot Servos	3	SkyRadar DX	3	Landing Right	10	8		
7	GTN-650 Comm	10	Horis EFIS	1	Landing Left	10	7		
6	GTN-650 Nav/GPS	7.5	GTX-345	5	Flaps	5	6		
5	USB Canopy+Tail	3	GTR-200	7.5	Trim	1	5		
4	EFIS Right	3	EFIS Left	3	Dimmer+Defrost	1	4		
3	Capacitive Fuel	1	GMA-245	5	Pitot Heat	10	3		
2	USB Console	5	CO+Fuel Guardian	2	Alternator Field	5	2		
1	AHRS 2	1	AHRS 1+GPS	1	Start	3	1		
	Avionics 2		Avionics 1		Master				

LIGHTGUN SIGNALS



TRANSPONDER CODES

Code	Meaning
7700	Emergency
7600	Radio failure
7500	Hostage
1200	VFR

VISIBILITY RESTRICTIONS

						G				
						<1200 AGL		>1200AGL, <10kMSL		>1200AGL, >10kMSL