

Orientation to N43CA (1977 Mooney M20J)

After orientation, please keep this original, scan and email a copy to our Membership VP

Pilots:

The following list comprises a number of items to help you transition to 43CA. Please use the suggestions to help you get comfortable.

Preflight:

- 1) you are welcome to use the creeper underneath the large toolbox for visualizing underneath the wings, sampling fuel from the drains, checking the landing gear, cleaning the belly, etc. When sumping the fuel in the floor of the plane, please make sure the lever goes back down when you release it. It tends to want to stick in the open position which pours fuel onto the ground.
- 2) oil level should not exceed 6 qts. Please add at any level below 5qts.
- 3) the towel is kept on the windshield inside the hangar to keep dust off
- 4) please remove the pitot cover before flight
- 5) please do not step on the flaps for ingress or egress.
- 6) the tow bar is either lying beside the nose wheel or in the luggage compartment.
- 7) DO NOT ALLOW ANYONE TO TOW THIS PLANE with a mechanical tow that does not lift the entire nose gear. If you turn too sharp it can very easily damage the nose gear trunion. Expensive \$\$\$ to repair.
- 8) the procedures checklists, POH, flight log, credit card, and fuel sump cup are in the seatbacks.
- 9) please keep 1 extra qt of oil in the cargo area inside the plastic bag. Rags are on the hat rack.
- 10) lock the cargo door for flight. If it comes open, it will depart the plane and you will not enjoy the rest of the flight. It is a separate key from the ignition so, we have decided to simply put the door lock key in the logbook in the seat back so it is always available.

Starting:

- 1) master switch on, boost pump on for about 5 seconds or until pressure stops rising on the gauge, turn off boost pump, push fuel mixture to full rich until the fuel pressure drops down on the gauge and then pull back to full lean position, start engine, as soon as it fires off push the mixture to full rich and set the idle for 1000rpm.

Shutdown:

- 1) set the rpm to 1000 and then pull fuel mixture to idle cutoff. It is now set at the proper rpm position for the next startup.

Hot start:

- 1) do not run the boost pump. Simply start the engine and push the fuel mixture from idle cutoff to full rich after the engine starts. If you do run the boost pump when the engine is warm, it will likely flood the engine and not start.

Flight:

- 1) LANDING GEAR DOWN as needed. It's easy to forget if you're not used to it.

2) takeoff at full power, climb power is 2600 rpm and 26" MP. This engine will exceed those settings if you are not paying close attention. Watch the EGT as it will easily exceed the recommended 1350-1375 degree max temp if you forget to put the mixture at full rich for takeoff. 2400 and 24"MP will give you about 150-152 kias once in cruise configuration while burning about 10 - 10.5 gph.

3) flight plan for 11gph and you should land with plenty of fuel on board. This plane can realistically stay aloft for 5 plus hours with reserves with its useable capacity of 64 gallons.

4) descent in this plane needs to be considered farther out than our other club aircraft. You are covering a lot more ground and these Mooneys don't like to come down. If need be, pull back on power, pull the nose up to get the speed down to a safe level and drop the gear which will help greatly with your descent. Add flaps and trim the nose up for additional drag as needed.

Landing:

- 1) downwind 100 mph (not knots)
- 2) base 90 mph
- 3) final 80 mph

Prelanding check- I do this on down wind, base, and final:

- A - autopilot off
- B - Boost pump on - I usually wait until on final for this one
- C - cowl flaps open
- G - gas - fullest tank
- U - undercarriage- GEAR DOWN - panel light green, floor sign green
- M - mixture full rich
- P - prop full forward
- S - speed correct for landing 100, 90, 80

Post flight:

1) before shutdown, press the "hour" button on the tach and it will show the current hrs and then minutes in two separate displays. This will be your recording number for the flight log. If you shutdown without getting the time, simply turn the master switch back on and press the "hour" button to retrieve the data. Restarting the engine is not required.

2) use the manual tow bar to place the plane back in the hangar. No tow motors!

3) There are separate blue towels and cleaner for the painted surfaces. Use them on each flight.

Leading edges, cowling, gear doors, wherever there are bugs. The plane needs to be left at least as clean as when you started your flight. The next pilot will appreciate it!

4) there are separate microfiber towels and windshield cleaner for the glass. Please use only these towels and cleaner on the glass. The glass is brand new and easy to see thru. Let's help keep it that way.

3) replace the pitot cover and windshield towel after cleaning the windshield. If parking outside, please add the cowl plugs which are in the luggage compartment.

General:

1) I do not as yet have control locks for the controls if you were to tie down outside during windy conditions. I do not yet have sun reflectors for the interior. Hopefully I can get these soon.

Aircraft orientation completed:

_____ pilot signature _____ date

_____ Printed name

_____ Tim Adams, owner

Flying Particles Owner-Operator Information Sheet Summary

At each FPI Student Phase Check or Recurrent Flight Check, please read this sheet and sign below to acknowledge that you will comply with all parts of the Flight Regulations (**FR**) and the Member Information Sheet (**MIS**) (available at www.flyingparticles.org). This form is a summary only.

Meetings: Held 2nd Tuesday of each month, 7:30 pm at the LVK terminal building.

Wash Party: Held on Saturday following the Tuesday meeting, 9 am at Hangar 11.

Personal Information: Add/change your info in ScheduleMaster, or notify Membership VP.

Billing: Billing cycle is from 16th of month to 15th of next month. Payment is due in 30 days.

Initial Checkouts: Before you fly any club aircraft, you must have an appropriate checkout by a club CFI. For details, see the MIS and the Flight Regulations.

Recurrent Flight Checks: To fly any club aircraft, you must have a valid recurrent flight check with a club CFI within the preceding 12 calendar months (if you have less than 400 hours PIC), or within the preceding 24 calendar months (if you have 400 or more hours PIC). FAA examinations, instrument currency checks, etc., do not suffice. See the MIS and the FRs for details.

Reservations:

- Do not fly an aircraft without a reservation.
- Make reservations at www.schedulemaster.com or 800-683-8055

Damage to Aircraft: If you have or may have damaged an aircraft, contact the plane captain or the Maintenance VP (fpi_maintenance@email.com) within 48 hours, or as soon as possible. Ground the aircraft, if appropriate by, placing a legible sign in the aircraft and on ScheduleMaster.

Squawks and Maintenance Problems: Enter any aircraft-related problems in ScheduleMaster by clicking on the green/yellow/red triangle to the left of the tail number, or by selecting the Maintenance tab. It is also courteous to call the next pilot to let him/her know of the problem.

Using Aircraft:

- Refuel C182 after each flight. Do not refuel C162 after flight. All other aircraft must be fueled after flight if more than 1 tach hour elapsed since airplane was last refueled.
- Use self-service fuel when available. Check www.100LL.com for prices.
- In the logbook: write name, fuel tach time, final tach time, oil level / oil added.
- Clean the aircraft upon your return to LVK (windshield, leading edges, interior, etc.).
- Ensure master switch off, control & throttle locks in place, doors/hangar locked, tied down.

Oil:

- Please ensure there are 2 quarts of oil in the baggage compartment. Replace if you use one.
- As a general rule, *add* 1-quart oil to an aircraft **only** when it has fallen to the following levels.

N6475Q	N25ES	N9658K	N6004Z	N1080M	N43CA
4 quarts	5 quarts	5 quarts	4 quarts	9 quarts	5 quarts

Member Signature

Date

Club CFI Signature

Date

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Member Signature

Date

Club CFI Signature

Date

FLYING PARTICLES, INC.

KEEP THIS ORIGINAL FORM FOR YOUR RECORDS
Scan this form and email to: [membership @flyingparticles.org](mailto:membership@flyingparticles.org)

Mooney M20J CHECKOUT FORM [Page 1 of 2] GROUND CHECK

1. Takeoff, landing, and cruise performance at maximum gross weight. Takeoff roll and landing distance over 50-foot obstacle at sea level and at 5,000 feet. Cruise range in hours and miles.
2. Airspeeds: Rotation speed; normal climb speed; best glide speed; stall speeds; landing gear and flap deployment speeds; maneuvering speed; never exceed speed; v_x and v_y at sea level and at 10,000 feet. Spiral descent procedure.
3. Fuel and oil requirements. (6 qt maximum, 5 qt minimum of oil) Auxiliary fuel pump.
4. Location and use of constant speed propeller. What is BMEP? Power settings for climb, cruise, and for the pattern.
5. Landing gear and flaps: Normal operation (NOTE: Emergency extension procedure for gear). Gear down and locked indicators. Use for short field situations. Use of cowl flaps.
6. Use of all systems and switches in the aircraft. Ram Air system. Pre-flight inspection of door position (open & closed).
7. Permissible loading. See weight and balance records. Do at least one weight and balance calculation for this aircraft.
8. Preflight check.

Mooney M20J [N43CA]

	MPH			
V_x	76	IAS		<u>lbs</u>
V_y	101	IAS	Max gross weight	2740
V_{s0}	63	IAS	Empty weight	1754.1
V_{s1}	72	IAS		
V_a	138	IAS		<u>Inch-lbs.</u>
V_{ne}	228	IAS	Empty moment	77135.8
V_{fe}	132	IAS		
V_{glide}	105	IAS		<u>gals</u>
$V_{sh\ fld}$	80	IAS	Total fuel	66.5
V_{lo}	155	IAS		
V_{ie}	155	IAS	Usable fuel	64

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Mooney M20J CHECKOUT FORM [Page 2 of 2]

FLIGHT CHECK [Items marked * are not mandatory. Suggested tolerances are only a guide]

1. [] Use of checklist. Note especially gear, flap, and prop operation.
2. [] Takeoffs: normal; no flaps; short field; soft field. (Tolerances: all airspeeds within ± 10 Mph of nominal)
3. []* Aborted takeoff at rotation speed.
4. [] Climbs: normal; best angle; best rate. (Tolerances: all airspeeds within ± 5 Mph of nominal)
5. [] Slow flight: with flaps; without flaps. (Tolerances: all airspeeds ± 10 Mph; no inadvertent stalls; altitude ± 100 feet)
6. [] Stalls: Power off; approach; departure, accelerated, from go-around. (Tolerances: altitude loss less than 200 ft)
7. []* Steep turns (45 degree bank). (Tolerances: bank ± 5 degrees; altitude ± 100 feet; roll out heading ± 20 degrees)
8. [] Emergency procedures: Landing gear, electrical system, and spiral recovery.
9. [] Instrument proficiency: Straight and level cruise; unusual attitudes; turns to heading; altitude changes.
(Tolerances: cruise heading ± 10 degrees; roll-out heading ± 15 degrees; altitude ± 150 feet)
10. [] For instrument rated pilots: At least one instrument approach.
11. [] Landings: Normal; no flaps; short field; soft field. (Tolerances: approach speeds within ± 5 Mph of nominal)
12. [] One short field landing at Livermore with turn-off at first exit to ramp. (Approximately 1350 feet for 25R)
13. [] Go around from full flaps approach.
14. [] Min. requirements: Private pilot license or better. TT: _____(125 hrs. min.) Retractable time: _____(25 hrs. min. with either 10 hrs. make & model or 5 hours dual with CFI) or (10 hrs CFI dual time in make and model) or (CFI certificate and 2 hours dual in N43CA and 25 hours retract) (Make & Model is M20E,F,J). Complex endorsement.

INSTRUCTOR'S CERTIFICATION: I certify that _____ has completed his/her Mooney M20J checkout on this date: _____, having demonstrated all items checked above to my satisfaction.

Instructor Signature: _____ Date: _____

CFI # : _____ Expires: _____

Checkout type: Annual [] Initial [] Last medical date: _____ Class 1 2 3