

# CHECK LISTS FOR THE A2A PA24 COMMANCHE

Use this checklist to startup the A2A Commanche using the Logitech **Switch Panel, Multi Panel** with **SPAD.Next** and my **PA24 profile**.

## SET UP THE ENVIRONMENT FROM MAIN MENU

- Choose a suitable aerodrome to depart from, ensure you pick a parking slot so you are cold and dark.
- Choose any of the liveries for the PA24.
- Choose some suitable weather for your flight, few clouds would be nice.
- I recommend using headphones as the sounds for the aircraft are amazing.
- Once you are happy click Fly.
- You should now be cold and dark on your chosen parking slot at your aerodrome ready for your startup procedure.



BY ATCMR

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## TIME TO START HER UP

- Run Spad.Next from the start menu.
- Choose the PA24 from the profiles menu and activate it, you can now minimize Spad.Next
- You should see the Landing Gear lights on the switch panel with the top red and the others Green, this is a good indication that you have Spad.Next running correctly. For good measure switch the battery on, then off, to activate the switch panel. Check to see if the switch works on the sim.

## BEFORE ENGINE START

- Preflight Checks and walkaround Complete
- Passengers Briefed
- Seat Belts Secure
- Controls Lock Removed
- Parking Brake Set
- Gear Switch Check down
- Flaps up
- Radios Off
- Auto pilot and avionics master Off
- Electrical switches Off
- Circuit Breakers check all pushed in
- Rotating Beacon set On

### **Engine Start**

- Fuel selectors set to desired tank or both
- Mixture to full rich
- Prop full forward
- Throttle open 1 inch
- Carb Heat check off (pushed in)
- Master Battery on
- Fuel Pump on and monitor fuel pressure gauge to 5
- Fuel pump off
- Prime 1-5 strokes dependent on temperature

- Magnetos switch to both
- Shout "Clear Prop" and ensure area clear
- Engine to start
- Monitor Oil Pressure gauge
- Lean mixture as required (to prevent plugs fouling)

#### **Taxi Checks**

- Check Primer locked
- Avionics Master On
- Ammeter check positive amps
- Radios ensure all on
- Transponder set as required
- Altimeter and heading indicator set
- Landing gear Lamp green (very dim light)
- Nav lights, taxi lights and landing lights all on
- Parking brake release and test brakes

#### **Run Up Checks**

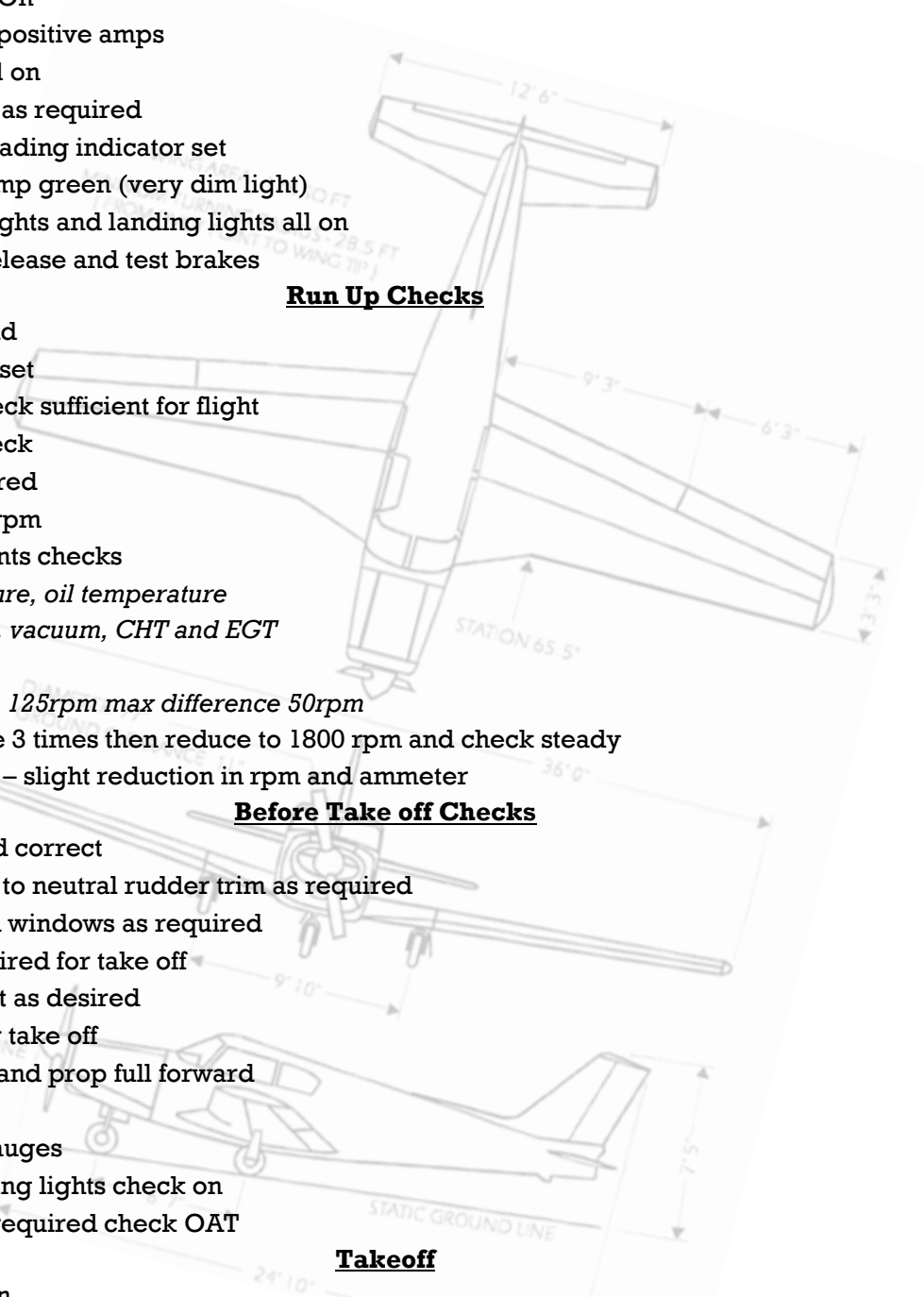
- Position into Wind
- Brakes hold and set
- Fuel quantity check sufficient for flight
- Fuel selector check
- Mixture as required
- Throttle to 2000 rpm
- Engine instruments checks
  - Oil Pressure, oil temperature
  - Ammeter, vacuum, CHT and EGT
- Magnetos check
  - Max drop 125rpm max difference 50rpm
- Prop check cycle 3 times then reduce to 1800 rpm and check steady
- Carb heat check – slight reduction in rpm and ammeter

#### **Before Take off Checks**

- Controls free and correct
- Elevator trim set to neutral rudder trim as required
- Doors all latched windows as required
- Flaps set as required for take off
- Fuel selectors set as desired
- Fuel Pump on for take off
- Mixture full rich and prop full forward
- Carb Heat off
- Check engine gauges
- Strobes on, landing lights check on
- Pitot heat set as required check OAT

#### **Takeoff**

- Throttle Full open
- Airspeed alive check
- Engine gauges check
- Rotate at 85mph
- Positive climb and verify



- Gear up
- passing 600ft AGL Flaps Up
- Trim for 105mph Vy (best rate of climb)
- Emergency landing area check

### Climb

- Fuel pump off at 1000ft AGL
- Power reduce at 1000 ft
  - Throttle set to 24"MP Max
  - Prop 2400 rpm Max
- CHT Check
- Mixture lean as required

### Cruise

- Throttle and Prop Set
- Fuel Pump verify off
- Fuel pressure check
- Mixture lean as required using the following methods:
  - By ear or
  - By using the JPI EDM 830 or
  - By reducing mixture to shake RPM and then increase 2 GPH
- Engine gauges check

### Approach final for landing

- Autopilot Off
- Fuel Pump on
- Fuel selector to desired tank
- Fuel levels and Fuel pressure check
- Mixture Rich and prop full forward
- Carb heat as required
- Airspeed reduce to 120mph
- Gear down and flaps down 1 stage
- G.U.M.P.s check (**G**as, **U**ndercarriage, **M**ixture, **P**ropellor, **S**eat belts and switches)

### Landing

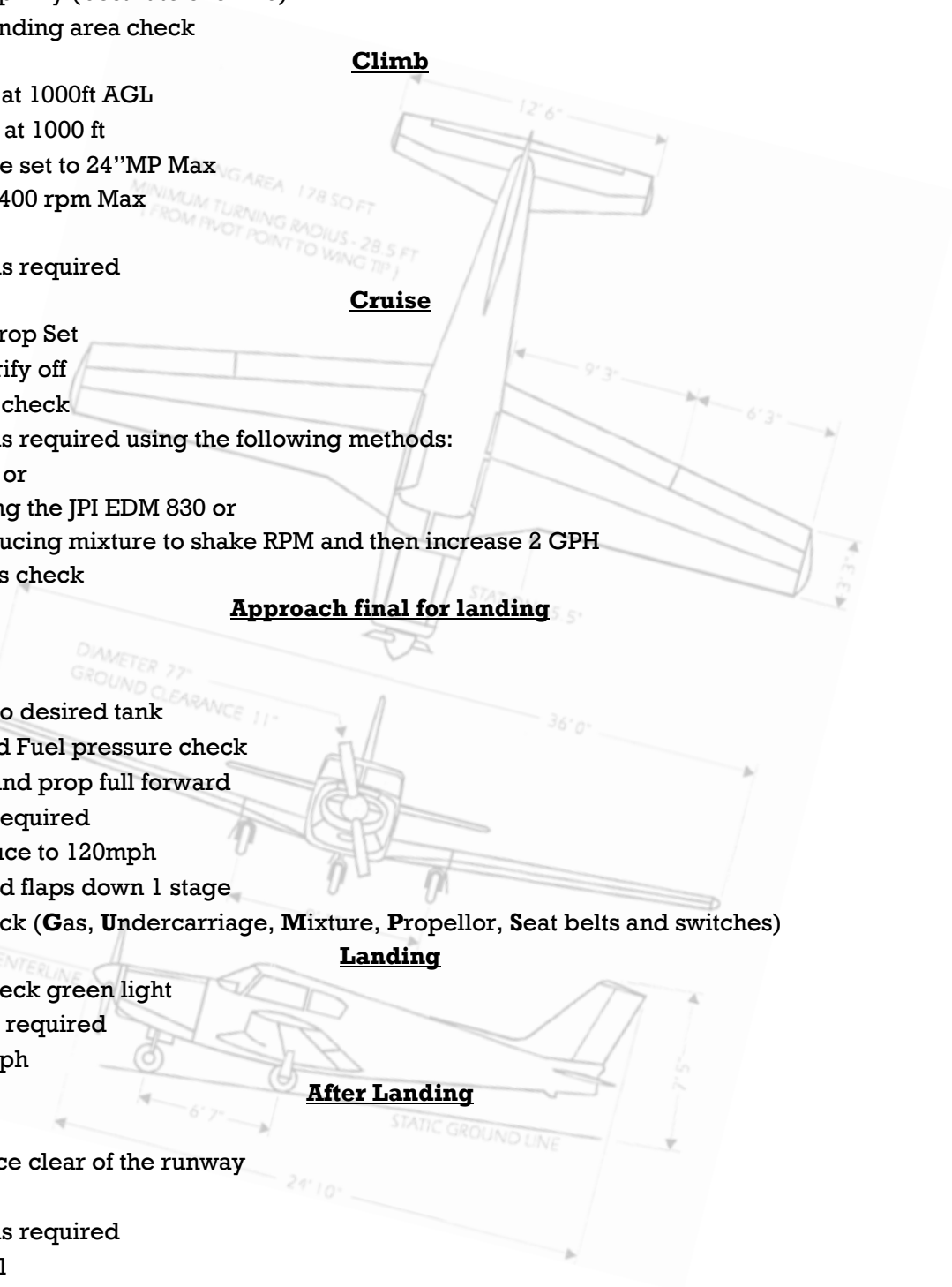
- Gear down check green light
- Flaps down as required
- Airspeed 90mph

### After Landing

- Flaps up
- Strobes off once clear of the runway
- Fuel pump off
- Mixture lean as required
- Trim to neutral

### Shutdown

- Parking Brake set
- Radios, Transponder, Avionics master and last Battery Master all off
- Throttle closed
- Mixture to idle cut off
- Magnetos off
- Walk around complete, secure the aircraft, the control wheel and stow the Tablet.



**POWER SETTING TABLE**

LYCOMING MODEL O-540-A, 250 HP NORMALLY ASPIRATED ENGINE

PRESSURE ALTITUDE	STD AIR TEMP F. C.		138 HP - 55% RATED				163 HP - 65% RATED				188 HP - 75% RATED		
			1. APPROX 10.3 GPH				APPROX 12.3 GPH				APPROX 14.0 GPH		
			2. APPROX 12.0 GPH				APPROX 14.0 GPH				APPROX 16.0 GPH		
			RPM AND MAN PRESS				RPM AND MAN PRESS				RPM AND MAN PRESS		
			2100	2200	2300	2400	2100	2200	2300	2400	2200	2300	2400
SEA LEV	59	15	21.6	20.8	20.2	19.6	24.2	23.3	22.6	22.0	25.8	25.1	24.3
1,000	55	13	21.4	20.6	20.0	19.3	23.9	23.0	22.4	21.8	25.5	24.8	24.1
2,000	52	11	21.1	20.4	19.7	19.1	23.7	22.8	22.2	21.5	25.3	24.6	23.8
3,000	48	09	20.9	20.1	19.5	18.9	23.4	22.5	21.9	21.3	25.0	24.3	23.6
4,000	45	07	20.6	19.9	19.3	18.7	23.1	22.3	21.7	21.0	24.8	24.1	23.3
5,000	41	05	20.4	19.7	19.1	18.5	22.9	22.0	21.4	20.8		23.8	23.0
6,000	38	03	20.1	19.5	18.9	18.3	22.6	21.8	21.2	20.6			22.8
7,000	34	01	19.9	19.2	18.6	18.0	22.3	21.5	21.0	20.4			
8,000	31	-01	19.6	19.0	18.4	17.8		21.3	20.7	20.1			
9,000	27	-03	19.4	18.8	18.2	17.6			20.5	19.9			
10,000	23	-05	19.1	18.6	18.0	17.4				19.6			
11,000	19	-07	18.9	18.3	17.8	17.2							
12,000	16	-09	18.6	18.1	17.5	17.0							
13,000	12	-11		17.9	17.3	16.8							
14,000	09	-13			17.1	16.5							
15,000	05	-15				16.3							

- 1.) BEST ECONOMY CRUISE - PEAK EGT (FOR LEANEST CYLINDER)
- 2.) BEST POWER CRUISE - 100 DEGREES FAHRENHEIT RICH OF PEAK EGT (FOR LEANEST CYLINDER)

**\*\* NOTE \*\***

TO MAINTAIN CONSTANT POWER, CORRECT MANIFOLD PRESSURE APPROXIMATELY 0.17 INCH Hg. FOR EACH 10 DEGREE FAHRENHEIT VARIATION IN CARBURETOR AIR TEMPERATURE FROM STANDARD ALTITUDE TEMPERATURE. ADD MANIFOLD PRESSURE FOR TEMPERATURES ABOVE STANDARD; SUBTRACT FOR TEMPERATURES BELOW STANDARD.

