RPA

RECREATIONAL PILOTS ACADEMY

PILOT'S REFERENCE

A pocket guide for student and recreational pilots

FLY SAFE, FLY PREPARED.

Recreational Pilots Academy
rpafly.net · M. 0419 825 252

Contents

What's in this booklet, and how to use it

HOW TO USE THIS BOOKLET

Keep it in your flight bag. Use it as a quiet, honest cross-check before every flight — especially the IMSAFE and personal limits pages. Fill in the blanks in pencil so you can update them as you grow. This is a reference, not a regulation; always defer to your CFI, your aircraft documents, and current official publications.

SOURCES & REFERENCES

Content in this booklet is drawn from and aligned with publications by Recreational Aviation Australia (RAAus), the Civil Aviation Safety Authority (CASA), Airservices Australia, and the Bureau of Meteorology (BoM). See page 11 for full references and acknowledgements.

Am I Fit to Fly?

Run this check before every flight — out loud if you can.

I

Illness

Do I have any illness or symptoms that could affect this flight? A cold can change pressure tolerance, a headache can mask fatigue, an upset stomach distracts at the worst possible moment.

M

Medication

Am I taking any medication, prescription or over-the-counter? Some are flight-incompatible. If unsure, don't fly until you've checked with your DAME or the CASA list.

S

Stress

Am I carrying psychological pressure today — work, family, finances? Stress narrows attention and slows decision-making. The cockpit is the wrong place to process it.

A

Alcohol

Have I had alcohol in the last 8 hours? In the last 24? "Eight hours bottle to throttle" is a minimum, not a target. Hangovers reduce performance well past the legal window.

F

Fatigue

Am I genuinely rested? Did I sleep well? Fatigue feels like normal tiredness until you need to make a fast decision — and then it's the difference between a good outcome and a bad one.

E

Eating

Have I eaten? Am I hydrated? Low blood sugar and dehydration both reduce performance, especially on longer flights or hot days. A snack and water before you walk out is cheap insurance.

ONE NO IS ENOUGH.

If any line returns a 'no' or even a 'maybe' — the answer is not yet. The aircraft will still be there tomorrow. So will the weather window. So will you, if you make the right call.

Source: IMSAFE checklist as published by RAAus (Aviator's Tool Kit) and CASA Human Factors guidance.

My Personal Limits

Your minimums — written by you, with your instructor. Update as you grow.

WEATHER & CONDITIONS

Max crosswind component: _____

Max headwind / tailwind: _____

Max wind gusts: _____

Min cloud ceiling (circuits): _____

Min cloud ceiling (nav): _____

Min visibility: _____

Max temperature for ops: _____

Min density altitude margin: _____

OPERATIONS & TIMING

Min fuel reserve (hrs): _____

Latest landing time (local): _____

Min runway length: _____

Max passenger weight: _____

Max distance from base solo: _____

Min hours since last flight: _____

Min sleep last night (hrs): _____

No-fly: hours since alcohol: _____

WHY HAVE PERSONAL LIMITS?

Aircraft limits and regulatory minimums are not your limits. Your limits are tighter, because they reflect your experience, your currency, your aircraft, and your local conditions. Set them when you're calm and clear-headed, on the ground, with your instructor. Then on the day, simply check against them — no negotiation, no creep. Review and update every six months or after any significant change in experience.

Pilot: _____ Date: _____

CFI: _____ Review by: _____

Pre-Flight Decision Framework

Five questions before you walk to the aircraft.

1

Am I fit to fly?

Run IMSAFE. Honestly. If anything's off — stop here.

2

Is the aircraft fit to fly?

Maintenance current? Squawks resolved? Documents on board? Fuel, oil, tyres, surfaces?

3

Is the weather fit for me to fly?

Not whether it's legal — whether it's within YOUR personal limits, today, with your currency.

4

Do I have a plan, and a Plan B?

Route, alternates, fuel, daylight remaining. What conditions would make me turn back, divert, or stay on the ground?

5

Am I being pushed?

By a passenger, the time of day, money already spent, ego, or routine? If yes — that's the time to slow down, not speed up.

WATCH FOR: GET-THERE-ITIS

The pressure to complete a flight despite reasons not to. It builds quietly: you've driven to the strip, your passenger is keen, you're looking forward to dinner at the destination. The cure is simple — ask yourself: "if I hadn't already committed, would I still go?" If the honest answer is no, that's the answer.

Aligned with RAAus Human Factors guidance and CASA Aeronautical Decision Making (ADM) principles.

Aircraft Details

Your aircraft's key numbers, in your own hand.

IDENTIFICATION

Registration: _____

Make / Model: _____

Serial number: _____

Year of manufacture: _____

Engine type: _____

Propeller type: _____

MTOW (kg): _____

Empty weight (kg): _____

Useful load (kg): _____

PERFORMANCE & OPERATIONS

Cruise speed (kts): _____

Fuel capacity (L): _____

Usable fuel (L): _____

Fuel burn cruise (L/hr): _____

Endurance (hrs): _____

Range (nm): _____

Service ceiling (ft): _____

Takeoff distance (m): _____

Landing distance (m): _____

V-SPEEDS (KTS)

Vs0 (stall, dirty): _____

Vs1 (stall, clean): _____

Vx (best angle climb): _____

Vy (best rate climb): _____

Va (manoeuvring): _____

Vno (max struct cruise): _____

Vne (never exceed): _____

Vfe (max flap): _____

MAINTENANCE

Engine TBO (hrs): _____

Hours since overhaul: _____

Last 100-hourly: _____

Next 100-hourly: _____

Last annual: _____

Next annual: _____

ELT battery expiry: _____

Reg expiry: _____

Important Numbers

Verify each entry from the current AIP and operator websites before relying on these.

EMERGENCY

Triple Zero (Police, Fire, Ambulance): _____

Joint Rescue Coordination Centre (JRCC): _____

AMSA RCC (24 hr): _____

Local Police (non-emergency): _____

Local Hospital: _____

Nearest Aerodrome (after-hours): _____

AVIATION SERVICES

NAIPS / Briefing: _____

Flightwatch: _____

Airservices Australia: _____

BoM Aviation Weather: _____

CASA: _____

RAAus Office: _____

Local Tower / CTAF: _____

Local FIA / Centre: _____

RPA — RECREATIONAL PILOTS ACADEMY

Mobile: 0419 825 252

Email: admin@rpafly.net

Web: www.rpafly.net

Maintenance: Service, repair & dynamic prop balance

Training: Pay as you go — no contracts

Crosswind Component

A simple field method to estimate crosswind without a calculator.

THE CLOCK-FACE RULE OF THUMB

For wind angles relative to the runway, multiply the wind speed by the following factor to estimate the crosswind component. It's not perfect, but it's close enough to brief on the way to the runway.

Angle off runway	Multiply wind by	Example: 20 kt wind
0° (down runway)	**× 0.0**	0 kt crosswind
10°	**× 0.2**	4 kt crosswind
20°	**× 0.3**	6 kt crosswind
30°	**× 0.5**	10 kt crosswind
45°	**× 0.7**	14 kt crosswind
60°	**× 0.9**	18 kt crosswind
90° (across runway)	**× 1.0**	20 kt crosswind

WORKED EXAMPLE

Runway 09. Wind reported as 060° at 15 knots. The wind is 30° off the runway heading. Multiply: 15 × 0.5 = 7.5 knots crosswind. Headwind component: 15 × 0.85 ≈ 13 knots. Compare against your personal crosswind limit before lining up.

Always read off the published crosswind chart in your aircraft's flight manual for accurate values.

Source: Standard clock-face approximation as published in RAAus and CASA training materials.

Weather & Density Altitude

Field rules of thumb. Verify with current BoM and POH data.

DENSITY ALTITUDE — QUICK ESTIMATE

Density altitude rises roughly 120 ft for every 1°C above ISA at the field elevation. On a hot day at a high field, density altitude can be thousands of feet above the runway — with directly proportional reductions in takeoff performance, climb rate, and engine output.

ISA STANDARD

Sea level pressure:	1013.25 hPa / 29.92 inHg
Sea level temperature:	15°C / 59°F
Standard lapse rate:	approx. 2°C per 1000 ft (up to tropopause)
Pressure lapse:	approx. 1 hPa per 30 ft (low altitudes)

CLOUD — WHAT TO NOTICE ON A RECREATIONAL FLIGHT

Cumulus building vertically:
Convective activity. Rough below, possibly violent inside. Stay clear of the bases.

Lenticular / standing wave cloud:
Mountain wave activity. Severe turbulence and downdrafts possible downwind.

Lowering bases / scud:
Visibility deteriorating fast. Don't push under it — turn around or land.

Cumulonimbus (CB):
Thunderstorm. Avoid by at least 10 nm. Hail and severe turbulence well outside the cloud.

Stratus on the horizon:
Possible IMC. Suitable VFR margin disappearing. Reassess go/no-go.

Sources: ICAO ISA standard, BoM aviation weather guidance, RAAus operational publications.

Area Forecast Reference

Fill from current BoM/Airservices publications. Verify before each flight.

AUSTRALIAN FORECAST AREAS

Australia is divided into numbered forecast areas (Area 20, Area 21, etc.) used in BoM Area Forecasts (ARFOR). Know the area number for your home base and any planned destination. Area boundaries and codes are on the BoM website at bom.gov.au/aviation.

MY LOCAL AREAS

Home base area number: _____

Adjacent area (north): _____

Adjacent area (south): _____

Adjacent area (east): _____

Adjacent area (west): _____

Common destination area: _____

Common destination area: _____

Common destination area: _____

BRIEFING CHECKLIST BEFORE FLIGHT

- ☐ ARFOR for departure, route, destination, and alternate areas
- ☐ TAFs and METARs for departure, destination, and alternate aerodromes
- ☐ SIGMETs and AIRMETs covering route
- ☐ NOTAMs for all aerodromes and route
- ☐ Sunset / last light at destination
- ☐ Wind and temperature at planned cruising level
- ☐ Fuel required vs fuel available + reserve

Source: Bureau of Meteorology (bom.gov.au/aviation) and Airservices Australia NAIPS briefing service.

Maintenance — Owner & LAME

Reference only. Always verify with current RAAus Tech Manual and CASA regs.

RAAus aircraft maintenance is governed by the RAAus Technical Manual. Some tasks may be performed by the registered owner; others must be done by a qualified Level 2 maintainer or LAME. Always check the current manual for your specific aircraft and registration class — the rules differ between factory-built and amateur-built airframes.

OWNER — TYPICAL

- Daily / pre-flight inspection
- Cleaning and washing
- Tyre pressures and condition
- Topping up engine oil
- Refuelling and fuel sampling
- Battery charging and replacement
- Cabin and canopy seal care
- Logging defects in the aircraft logbook

LEVEL 2 / LAME — TYPICAL

- 100-hourly and annual inspections
- Engine TBO and overhaul
- Propeller overhaul or replacement
- Major structural repairs
- Avionics installation and certification
- ELT certification and battery
- Weight and balance after modifications
- Sign-off following any major service

DID YOU KNOW?

RPA provides aircraft maintenance and service alongside training, including dynamic propeller balancing — a small adjustment that reduces vibration, extends engine and accessory life, and makes for a noticeably smoother flight. Talk to us if your aircraft is due for service or if you've noticed a vibration that wasn't there before.

Source: RAAus Technical Manual (current issue). Always verify owner-permitted tasks for your registration class.

Notes & Endorsements

Space for your own additions, lessons learned, and endorsements.

MY ENDORSEMENTS & RATINGS

Pilot Certificate issued: _____

Passenger endorsement: _____

Cross-country endorsement: _____

Radio endorsement: _____

Other: _____

References & Acknowledgements

The sources behind this booklet, and where to go for current information.

This booklet has been compiled by Recreational Pilots Academy (RPA) as a learning aid for RPA students and recreational pilots. It draws on, and is aligned with, publications by the organisations listed below. RPA is an RAAus-affiliated training school. None of the content in this booklet replaces official documents — please refer to the current versions of the publications listed for authoritative guidance.

PRIMARY SOURCE

Recreational Aviation Australia (RAAus)

RAAus publications including the Aviator's Tool Kit ("Clear Mind, Clear Prop" campaign), the RAAus Technical Manual, the RAAus Flight Operations Manual, and the Flight Instructor Reference Manual. The IMSAFE checklist, maintenance authority categories, and airmanship guidance in this booklet are drawn from or aligned with these sources.
raaus.com.au

OTHER REFERENCES

Civil Aviation Safety Authority (CASA)

Civil Aviation Regulations, AIP, Visual Flight Rules Guide, Human Factors guidance.
casa.gov.au

Airservices Australia

AIP Australia, NAIPS pre-flight briefing service, NOTAM information.
airservicesaustralia.com / naips.airservicesaustralia.com

Bureau of Meteorology (BoM)

Aviation weather, area forecasts (ARFOR), TAFs, METARs, SIGMETs.
bom.gov.au/aviation

ICAO

International Standard Atmosphere (ISA) reference values.
icao.int

DISCLAIMER

This booklet is a learning aid only. It does not replace official publications, your aircraft's documents, or your CFI's instruction. Always refer to current authoritative sources before flight.

FLY SAFE,
FLY PREPARED.

Recreational Pilots Academy

Training · Maintenance · Service

M. 0419 825 252

www.rpafly.net · admin@rpafly.net

Pilot's Reference · Issue 1 · May 2026