RAAP 5
WHAT TO EXPECT FROM YOUR BIENNIAL FLIGHT REVIEW (BFR)

V2.0 February 2022

Recreational Aviation Advisory Publication

RECREATIONAL AVIATION AUSTRALIA

RECREATIONAL AVIATION ADVISORY PUBLICATION—RAAP 5

WHAT TO EXPECT FROM YOUR BIENNIAL FLIGHT REVIEW (BFR)

If you recently achieved your RAAus Pilot Certificate, congratulations, you have become part of a group of like-minded individuals who enjoy the fun and challenge of flying a RAAus aircraft.

Regardless of when you gained your RAAus Pilot Certificate, to maintain competency, skills and ensure up to date knowledge, a Biennial Flight Review (BFR) is mandated by RAAus as is the case for pilots internationally.

A flight review is an opportunity for the pilot undertaking the BFR (the **candidate**) to demonstrate their skills in the operation of an aircraft, a way to confirm practical drift has not occurred, complete refresher training and update their understanding of changes to regulation or procedure and forms an important component of ongoing safe flight.

For holders of a Recreational Pilot Certificate issued by Recreational Aviation Australia a Biennial Flight Review is required to be conducted in order to continue to act as pilot in command of a RAAus aircraft every 2 years, as the term Biennial implies. Section 2.07 of the RAAus Flight Operations Manual notes that the review should include:

- A review of current operating procedures, radio calls and flight rules, and
- a review of those manoeuvres that, at the discretion of the RAAus Examiner completing the review, are necessary for the pilot to demonstrate the competence to continue to safely exercise the privileges of the RAAus Pilot Certificate (RPC)

If it has been some time since a BFR was last completed or if the **candidate** has not flown for a significant period of time, the **candidate** should discuss the issues with the RAAus Senior Instructor or higher approval holder (the **Examiner**), who may ask the candidate to complete an exam, to refresh them on a variety of topics. The **Examiner** may spend time on the ground asking questions and catching the **candidate** up on any changes to air legislation, flight planning information, radio procedures or provide remedial training for basic aeronautical knowledge, human factors or navigation.

Following the theory component the practical component of flight will be conducted, to determine where any additional practical remedial training is required, if any, before completing the BFR flight itself. This may include a navigation flight, if required.

Conduct of a flight review

Pilot in command during the conduct of the flight

A BFR may be completed by a RAAus Senior Instructor, Deputy Chief Flying Instructor (DCFI), Chief Flying Instructor (CFI) or Pilot Examiner (PE), identified as the **Examiner**. As they will be directing the **candidate** to manoeuvre the aircraft in specific exercises or flight sequences the **Examiner** is the Pilot in Command and the flight is logged as dual in the **candidate** logbook.

Management of emergencies

Prior to the flight taking place it is critical to conduct a discussion to confirm who will act as pilot in command in the event of real emergency. While an **Examiner** may have greater aeronautical experience overall, if the BFR is being conducted in the **candidate's** own aircraft, the **candidate** may have greater familiarity with the aircraft systems and competence flying the specific aircraft.

Consideration could be given to management of the operation of the aircraft from the operation of the radio and communications with other aircraft, immediate troubleshooting emergency actions and determining appropriate emergency landing options are some of the topics which could be included.

Regardless of the specific circumstances, as for any emergency, it will be easier to manage if a plan has already been discussed and can then be implemented.

Considerations

As part of the BFR process, the **Examiner** may ask the **candidate** provide verbal information about their actions throughout the flight to assist the **Examiner** to understand the **candidates'** thought processes throughout the flight, and particularly the **candidates** proposed actions in the event of an emergency situation.

Pilots should also consider completing BFRs with different **Examiners** rather than the Instructor/s or CFI who completed their basic training or recommended the issue of the Pilot Certificate. The opportunity to learn something new from another Instructor is invaluable.

Is a BFR a pass/fail exercise?

Whilst **Examiners** cannot fail a **candidate** during a BFR, if any remedial training is required or there is an area the **candidate** was not able to competently demonstrate, the **Examiner** cannot make an entry in the pilot logbook that the BFR is complete. This is not a pass/fail issue; the requirement for a BFR is that the pilot must demonstrate their ability to continue to meet the required standard for a RAAus Pilot Certificate.

If this occurs, a **candidate** has a number of options to attain the required standard, provided the BFR hasn't lapsed. They can complete practice in the element or elements they were not able to demonstrate to an appropriate standard, they can contact an Instructor to complete further training, or they can complete additional study as required.

The important components for successful completion of a BFR is a clear brief of the expected requirements the **Examiner** is looking for, clear communications about the ground and in-flight requirements and a clear, concise debrief of the areas of concern. We will explore these areas in more detail in the next section.

What a pilot can expect for the conduct of the BFR

No matter what activity is being completed, a critical part of completion, particularly if two or more people are involved, is a clear understanding of what is expected, required or needed and what standard is required.

To effectively complete a BFR the **Examiner** should discuss the objectives of the BFR with the **candidate** prior to flying, to ensure the maximum benefit is gained from the review, after all, it is the **candidates** review!

Candidates should be honest about the type of flying, the number of hours, the recency and how often they have practiced certain exercises, along with the type of flying they expect to do in the future.

If a **candidate** has not recently completed a navigation flight, having only flown locally or practiced stalls or simulated forced landings, these are areas they might expect may not reach the required standard. If the **candidate** intends to fly a long distance in the coming months, it may be useful to plan and fly a navigation exercise as part of the BFR, however this should not be considered a requirement. Alternatively, the **Examiner** may request the **candidate** complete a flight plan for a nominated course, including management of the weather for a given day, to ensure they are competent. After all, if the **candidate** has mostly only flown locally, it is reasonable to expect some rustiness when it comes to flight planning.

Each review should therefore be individually tailored to meet, at the reasonable discretion of the **Examiner,** the pilots' future flying plans. The primary objective of any review should be to assess the **candidate** competencies and ability to conduct safe flight operations. A **candidate** should expect to be asked to demonstrate similar manoeuvres and procedures as were completed during a flight test, however rather than simply flying from and to an aerodrome, completing upper air work and circuits the **candidate** should participate positively to ensure they gain the maximum benefit from the review.

The **Examiner** may sit down with the **candidate** and ask about expected radio calls, procedures at non-towered aerodromes, changes in other rules or requirements, review areas of aerodynamics and Human Factors (HF), for the **candidate's** aircraft or the school's aircraft by referring to the Pilot Operating Handbook (POH), weight and balance calculations, weather forecasts – obtaining and interpreting, ERSA references, NOTAMs, fuel management and more.

No one is expected to recall everything from our flight training days, so **candidates** should view flight reviews as learning opportunities rather than responding to perceived criticism or seeing it as the **Examiner** trying to show off their knowledge.

What is required to complete a BFR?

Candidates must bring their logbook and RAAus membership information, although it is possible for and RAAus **Examiner** to confirm membership and endorsement information along with aircraft registration using the RAAus online Instructor Portal. If a navigation exercise is planned, a **candidate** may be expected to be able to access appropriate charts, ERSA and means of obtaining weather and NOTAMs. The **Examiner** may be able to spend some time with you revising your understanding of Electronic Flight Bag information, GPS or tablets as these change regularly.

Alternative BFR completion flights

Pilots should consider using an impending BFR due date as an opportunity to add to their overall skill level by training for additional endorsements. Adding Formation, Tail Wheel, In-Flight Adjustable Propeller or similar endorsements is a good process to expand skills. Adding another endorsement which requires a flight assessment (excludes Radio and Human Factors endorsements) will be accepted by RAAus as suitable for a flight review. Pilots are also encouraged to try flying different aircraft at different airports to operate outside a "comfort zone".

Any additional endorsement which requires a flight assessment which was completed at a different time to the BFR date will update BFR expiry date for another two years. The initial date for a BFR was probably based on the date a Pilot Certificate was achieved. RAAus recommends members use reminders or refer to the RAAus Member Portal or Members App to confirm their BFR date.

Finally, if a pilot has:

- been issued a CASA Licence, including a Recreational Pilot Licence (RPL) or higher
- completed the training for issue of an endorsement which required a flight assessment
- completed a Flight Instructor initial issue or renewal

in a single engine aircraft up to a Maximum Take-Off Weight (MTOW) of 1500 kg under day Visual Flight Rules (VFR) this will be recognised by RAAus to reset a BFR. To have this recognised by RAAus provide the office with a copy of the licence or logbook entry and include your member number.

What is required to complete an observed BFR?

Critically, there is a requirement which must be met by a **candidate** wishing to complete an observed BFR. They must hold a current BFR, otherwise, they are not permitted to act as pilot in command of an aircraft. **Examiners** must ensure this requirement in addition to the usual compliance requirements of membership, aircraft registration, etc. is met.

Assuming the BFR is current, there are a number of reasons why an observed BFR may be required. These include:

- COVID-19 restrictions
- Lack of availability of an Examiner who holds a rating or approval for the Group of aircraft
- The **Examiner** is not familiar with the aircraft
- The aircraft does not have dual controls
- The aircraft is single seat

The impacts of COVID-19 on the community at large and for RAAus members have been profound and ongoing. Initially, during early restrictions and limitations, operation of an aircraft with two people aboard was tightly controlled and specific measures were provided by RAAus to provide guidance. It was permitted for a RAAus member to complete an observed BFR due to COVID-19 with a specific **RAAus Form BFR003** to guide **candidates** and **Examiners** through the process.

Likewise, for many RAAus members operating Weightshift Microlights (WSM) and Powered Parachutes (PPC), there may be limited opportunities in some states to complete a BFR with an **Examiner** who holds a rating or approval for these aircraft Groups. RAAus has developed a number of processes to assist these members, including:

- observed BFRs conducted by **Examiners** with other Groups (the **candidate's** BFR must be current)
- completion of video BFRs for PPC (the **candidate's** BFR must be current and the video is assessed by a PPC CFI and reviewed with the **candidate** via phone. The **Examiner** uses Form **BFR001**, requiring the **candidate** to complete their sections of the form and send it to the **Examiner** for completion and provide the form to RAAus for processing)
- completion of BFRs by **Examiners** from the Sport Aviation Federation of Australia (SAFA, formerly the HGFA) using Form **BFR002**
- If an observed BFR is to be conducted due to the aircraft limitations noted above, the **candidate** and **Examiner** must still follow the processes noted in this RAAP, however the **Examiner** will complete ground based questions on the topics noted in this RAAP, will provide the **candidate** with a briefing on the required flight manoeuvres and may communicate with the **candidate** using a handheld radio during the flight sequences.

If an aircraft does not have brakes or a control column in the right seat, if the aircraft is a type the **Examiner** is not familiar with or the aircraft is a single seat aircraft, an observed BFR may also be conducted.

RAAus preference is this process is only used in between practical flight reviews, to ensure the **candidate** does not develop poor techniques, bad habits or other issues as a result of not having an **Examiner** aboard the aircraft.

Common areas which require review

Feedback from **Examiners** indicates common problem areas regularly noted during flight reviews, which are usually due to a lack of currency or recent practice by the pilot include:

- Aircraft knowledge – lack of reference to the Pilot Operating Handbook
- Attitude flying – reliance on instruments rather than referencing the horizon – simulated by partially covering the panel
- Over controlling the aircraft – failure to trim the aircraft for a given airspeed or attitude
- Passenger briefing – lack of formal structure or reference to the "informed participation" basis for RAAus
- Pre take-off safety brief –no pre briefed "what if" plan
- Weather forecast – obtaining and interpreting (valid for local and cross country flights)
- Fuel management – not referencing established fuel burn or usage, not using a fuel log
- Unusual circuits - low level or right hand circuit, rarely practiced
- Short field approach and landing – rarely practiced
- CTAF procedures – circuit entry/departure, in circuit calls and Situational Awareness
- Identifying controlled airspace or area frequency boundaries
- Crosswind take-off and landing – management of drift and runway alignment with rudder
- Engine failure after take-off – management of energy, reference to the pre take-off safety brief – make a plan, fly the plan

- Engine failure in the circuit – as above
- Management of simulated emergencies other than engine failure – partial power loss, failure of systems such as flaps, trim or electrics, diagnosis or troubleshooting of issues, etc.
- Go-arounds – failure to effectively manage effects of power application using rudder and pitch changes due to aircraft configuration (flaps) and trim effects
- Practice forced landing - away from the airport, failure to manage the flight path to the aim point, lack of emergency procedures including immediate actions, passenger briefing, Mayday call
- Flight at slow speed – management of the aircraft in turns, changing flaps configurations and simulating go–around actions at altitude
- Precautionary Search and Landing – effective management of the aircraft while scanning the ground and assessing options
- Understanding of pressure height and density altitude and the effect on aircraft performance
- Stalls – generally only last practiced at the last BFR, correct recovery technique, different configurations including the landing configuration
- Steep turns – chasing instrument indications, rather than referencing the horizon and maintaining an effective scan
- Weight and Balance calculations – lack of familiarity with the POH and ensuring the aircraft remains in balance

Preparation

- Preparation for flight (e.g. cross country flight plan as required)
- Managing expectations – pilot and passenger
- Medical considerations – use of IMSAFE
- Personal minimums – consider creation of acceptable conditions for flight including amount of cloud cover, weather forecast, expected visibility, maximum wind for aloft and cross wind component
- Setting of personal standards for flight tolerances – accepted height deviations, speed management, altitude holding, runway centre line deviations

Ground Review

Aircraft systems knowledge – POH, aircraft limitations

- ASIC requirements (if appropriate)
- Assessment of risk management and personal minimums
- Cross country planning – the candidate may be requested to prepare a cross country flight plan and review the plan considering weather and NOTAMS on the day of the flight.

Flight Review

Aircraft

- Pre-flight Inspection – thoroughness, assumption of expectations
- Current aircraft registration
- Aircraft serviceability and cleanliness
- Compliance to scheduled service, completion of annual maintenance requirements, completion of SBs and ADs
- Aircraft operating competency – management of the aircraft within minimum tolerances such as airspeed, height maintenance, heading maintenance, etc.

Pilot

- CTAF radio and procedures – recommended and required calls
- In flight decision making
- Situational awareness and lookout

Minimum expected requirements of the flight review

- Complete 3 landings –combining partial/full flap (if available) and clean, go-around, short field or any combination
- Stall entry and recovery
- Practice forced landing
- Satisfactorily demonstrated ability to conduct radio communication and circuit procedures

De-Brief

- In flight observations of the **Examiner**
- Plan for continuous practice - future proficiencies -Tail wheel or Advanced Pilot Award (APA), Formation, creation of personal minimum expectations for flight tolerances
- Retraining plan (if required)
- Future development of **candidate**
- Ground review
- Create a plan for ongoing improvement exercises – rolling around a point, 360° turns within +/- 100 feet, turns along ground features (at a safe height)

The **Examiner** should indicate the expected minimum flight tolerances to the **candidate** during the BFR. The table below provides the expected tolerances for a RAAus Pilot Certificate holder.

Flight path or manoeuvre		Flight tolerances
Taxiing aircraft		± 1.0 metres of centreline
Nominated heading		± 10º
Climb airspeed		-0 / +5 kts
Level off from climb and descent		± 150 ft
Straight and level	Altitude	± 150 ft
	IAS	± 10 kts
Power descent airspeed		± 10 kts
Glide		-5 / +10 kts
Turns		Angle of Bank ± 5º
Turns onto nominated headings		Heading ± 10º
Steep turn		Heading ± 10º
		Height ± 150 ft
Final approach airspeed		-0 / +5 kts
Landing	Touchdown	± 60 m
	Centreline tracking	± 2 m

Once the review is completed, the **candidate** and the **Examiner** should debrief the review and agree on what standard demonstrated by the **candidate** for specific areas and if these were acceptable for ongoing maintenance of a RAAus Pilot Certificate holder.

Once the BFR has been successfully completed the **candidate** can immediately operate a RAAus aircraft.

If the **candidate** was not able to demonstrate a competent standard the **Examiner** may require completion of remedial training or further solo practice (assuming the BFR remains current), and will not complete the paperwork or make a logbook entry until required retraining is completed.

Enjoy the BFR process, which a thoughtful pilot will understand provides significant safety benefit as well as making sure they stay safe when flying RAAus aircraft across this beautiful country.

What is a RAAP?

RAAus has developed Recreational Aviation Advisory Publications (RAAP) to provide helpful guidance material for the reporting requirements and member actions in the event of an accident or incident. RAAPs are designed to provide information that interprets RAAus Flight Operations and Technical Manual requirements, provides additional member information in addition to operational and training information to assist Instructors, Flight training Schools, Examiners and Approval holders.

A RAAP is an additional document provided to enhance understanding of operational requirements. They **DO NOT** replace the appropriate requirements contained in the Flight Operations Manual or any Flight Operations Bulletins that may be issued.

That's a WRAP!