

Waterford Aero Club

Basic Instrument Rating



The Basic Instrument Rating (BIR) is designed as an accessible alternative to a full instrument rating for EASA general aviation. The underpinning legislation is available here (https://www.easa.europa.eu/en/document-library/easy-access-rules/online-publications/easy-access-rules-aircrew-regulation-eu-no?page=28#_DxCrossRefBm1169327016) but this document is designed to provide an overview of the rating, how to achieve it and how we deliver this course at Waterford Aero Club.

What privileges does the BIR grant?

The BIR grants broadly similar privileges to a full EASA instrument rating with the following key differences:

- The BIR is a sub-ICAO rating and is only valid in EASA airspace;
- An additional 200 feet must be added to the approach minima;
- Visibility on departure and arrival must be at least 1,500 meters;
- Planning minima are 600 foot ceiling and at least 1,500 meters visibility for departure, destination and any required alternates.

In practical terms the only item above that may be an actual restriction is the EASA airspace validity (e.g. if you wanted to fly to the UK or rent in the USA etc). Operating single pilot in a typical GA would likely require the addition of a safety margin over the legal minima applicable for a full IR so this limitation is more regulatory than one that would affect risk mitigated planning in practice.

So you can file an IFR flight plan, fly a departure SID, fly en-route, fly an arrival STAR followed by an approach. Everything that you can do on a “full” IR aside from the limitations listed above.

What are the prerequisites to commence the course?

The entry requirements are to hold an EASA PPL (or higher). To exercise the privileges of the BIR at night, then a night rating must also be held. The night rating can be completed before or after the BIR – there is no interdependency.

There is no minimum hours requirement post PPL to commence the BIR.

Credit for prior experience

A number of credits are available for instrument training experience accumulated prior to commencing the BIR course. These include:

- If you hold a valid ICAO Instrument rating and have >25 hours of IFR PIC experience, then there are no minimum training hours required. Complete an assessment flight and if no areas requiring further training are identified you then complete the Skills Test with an examiner. There is no requirement to take any written exams and theoretical knowledge is assessed by the examiner during the skills test.
- Other prior instrument training may also be credited subject to a pre-entry assessment flight. Demonstrated competencies will be credited and any additional training required will be specified after the assessment flight. A minimum of ten hours training must be completed within the ATO as part of the BIR course.

Please contact us to discuss any specific prior experience credits you may wish to apply for.

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Course structure:

The overall course structure is competency based and is broken down in to three modules:

Flight Training Phase	Flight Training Syllabus	Ground Briefings
Module 1 - Pre-flight operations and general handling (basic attitude instrument flying)	12.0	5.0
Module 2 - Departure and arrivals, approaches, arcs, holding.	20.0	10.0
Module 3 – En route IFR procedures	8.0	6.0
Grand Total	40.0	21.0

The competency based nature of the course sets out specific competencies that must be demonstrated before progressing to the next module. This replaces the “hours based” approach of other courses such as the PPL where there is a need to do “x” hours of training in specific categories. The course is complete when all competencies have been demonstrated. The theoretical exams can be taken before, in parallel with, or after completion of the flight training. The only requirement is that they are completed prior to the skills test. Our advice is to complete the exams in parallel with your flight training as they are largely complementary in nature.

The course comprises three key elements:

1. Ground school / theoretical exams

There is a mandatory ground school element to the BIR followed by three multi-choice written examinations. The ground school is delivered via a mixture of self-study and classroom time with an instructor.

The self study is supported via a mix of computer based training and practice exam questions. The classroom time comprises three full days (typically scheduled for a Friday to Sunday in Waterford) to review the material covered via your self study and to complete the mock exams required for IAA exam approval. One to one online training can also be scheduled with our instructor team if you are unable to attend the scheduled dates.

Subjects covered in the three exams include: Instrumentation, Meteorology, Human Performance, Radio Navigation, Flight Planning / Monitoring, Air Law & Communications.

You have eighteen months to pass your final exam from the date you pass your first exam. Another BIR benefit is that the exams have no expiry date once they are all passed within the eighteen month window – so you are under no pressure to complete the BIR within a set timeframe after passing the exams.

If you have already taken ATPL exams or IR exams and the results are still valid (i.e. not expired) then there is no requirement to take the BIR exams.

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2. Ground briefings

There are 21 hours of ground briefings that are designed to support the flight training sectors, also broken down into Module 1 / 2 / 3. At Waterford Aero Club we deliver these in a group classroom setting with a full day of ground briefings being scheduled for each module.

3. Flight training

The flight training elements are scheduled directly between you and your instructor. A typical lesson is 2.0 to 2.5 hours in duration and includes items such as:

- Basic attitude instrument flying
- Partial panel IMC flying
- Tracking / intercepting using VORs / NDBs
- Holding
- DME arcs
- 2D and 3D approaches
- Missed approach procedures
- Lost comms
- Performance based navigation

We aim to complete as much of the course in actual IMC conditions as operating limitations allow.

Upgrading from the BIR:

One key advantage of the BIR is the ability to upgrade from a BIR to a full IR once you have gained some additional IFR flying experience. There are two routes to upgrade:

1. Once you have 50 hours of IFR PIC experience, you can complete an assessment at an ATO followed by an IR skills test with an examiner. No further written exams are required and theoretical knowledge will be tested by the examiner as part of the oral section of the skills test. or
2. Complete a minimum of a further 10 hours IR training at an ATO and pass the IR (or ATPL) written exams.

Option 1 above is likely to suit a recreational GA pilot looking to fly IFR outside EASA airspace whereas option 2 may be more beneficial to a professional pilot candidate that's already passed the ATPL exams.

What are the costs?

All details below are subject to change and are based on rates as of May 2024. Membership of Waterford Aero Club (€270 per calendar year) is required to enrol on the BIR.

1. Ground school / theoretical exams

The ground school package costs €1,350 and includes:

- Computer based training covering the full BIR syllabus and incorporates practice questions and stage checks.
- Three days of classroom based revision classes (designed to be taken after you've finished the CBT to help work through any remaining issues).
- Mock exams
- Approval forms for the IAA to sit the exams.

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You will also need to order the below. We partner with www.pilot.ie an Irish pilot shop that have put together a BIR pack for us. The cost is €250 including delivery and includes:

- Jeppesen Student Route manual
- CRP5
- Foggles OR instrument hood
- Scientific calculator
- Protractor, compass, divider, 15cm ruler, 180 degree protractor, 60 degree and 45 degree set squares, a pencil and sharpener

After you have completed the CBT, we recommend purchasing a subscription to www.aviationexam.com. By timing it this way a three month subscription in the lead up to your exams should be sufficient (approx.. €65).

2. Ground briefings

There are three ground briefing days (one for each module) at a cost of €150 per day.

3. Flight training

As always, the exact number of hours required to demonstrate the competencies required will vary from person to person. The hours below are the **minimums**:

- 40 hours of flight training @ €170/hour
- 40 hours flight instruction at €50/hr
- Additional pre/post flight briefings (as required) @ €50/hr
- Landings at Waterford Airport €4
- Approaches at Waterford, Cork, Shannon etc. range from €8-25

Other fees may will be payable directly to other parties e.g.:

- Exam fees to the IAA
- Examiner fees for the skills test
- Aircraft rental for flight training

Why consider the BIR?

It is NOT a “fly in any weather” rating. It will not transform GA flying into a reliable form of transport that’s no longer weather dependent. Low clouds bases, icing conditions, high winds, convective activity and many other factors may still make a no-go the safest options.

The BIR will however significantly enhance the skills you developed during your PPL training and enhance the safety of your flying. It will allow you to operate in some weather conditions where a VFR flight may not have been possible.

You should consider that similar to your PPL, it will take time post qualification to consolidate your skills and slowly / safely expand the envelope of conditions that you are comfortable to fly in.

Completion of the BIR also grants a 10 hour credit towards the CPL course.

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Other considerations:

- A Class 2 medical is sufficient for the BIR, however an audiogram must be added to your Class 2 prior to the issue of the BIR. It's worth adding this at your next medical if you are considering the BIR.
- A home based flight simulator is very beneficial in reviewing procedures and gaining familiarity with the avionics. Whilst the time isn't "loggable" it is still very likely to reduce the total number of flight training hours required in the aircraft and therefore the overall cost.
- Waterford Aero Club is open seven days a week and the airfield at Waterford provides an excellent training environment with great availability, multiple instrument approaches and full air traffic control services.

BIR courses start every three to four months with a module one ground briefing classroom session. Once the briefings for a module have been complete the flight training can be scheduled at times that suit you and the instructor. To get started or to enquire further just email us at info@waterfordaeroclub.com