

# FAQ's

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## What are the most frequently asked questions about Moths?

### Sailing a Moth:

- 1) What is it like to sail?
- 2) What weight do I need to be?
- 3) How easy is it to sail?

### The Boat:

- 4) How fast is it?
- 5) What are the rules?
- 6) What are the fast designs?
- 7) Development?

### Getting into the class:

- 8) Where can I get a boat from?
- 9) What would be a good starter boat for me?

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## Some Answers from the UK IMCA Committee:

### 1) What is it like to sail?

"The best sailing I've ever done" is a common quote from foilborne Moth sailors.

"Probably the most rewarding sailing you'll ever do." – *Simon Payne*

"There is nothing to match it" – *Adam May*

"Sailing on foils is amazing" – *Tim Ollerenshaw*

"Feels like horizontal freefall, as soon as the boat lifts off all boats around suddenly become stationary, and a permanent uncontrolled maniac grin develops! Makes sailing any other boat feel like you're dragging a sofa behind you." – *Simon Goodwin*

"Without doubt the most unbelievable sailing moment i have ever had. The feeling when she rose out of the water for the 1st time was just fantastic and then to sail a complete leg almost on foils all the way was simply awesome." – *Keith Cuthbert*

" It was COMPLETELY MAD!!! I haven't had so much fun in ages...certainly the most fun you can have with your wetsuit on!" – *Ian Forsdike*

For all of the stories from first timers, check out the UK website.

### 2) What weight do I need to be?

The weight range for the top ten at the last Worlds was 60 – 85kg, and much is still being learnt about the effect of weight on performance for foilborne Moth sailing. The top guys are around the 65kg – 70kg region, but then they have been sailing foilborne Moths the longest, and sailing skills seem to be the biggest factor.

It is likely that different foil sizes will be best suited to differing weights, much like mast stiffness, or sail fullness traditionally. The lighter guys may foil earlier, but the apparent wind speeds are now such that we are overpowered very early and the heavier guys can drive the boat harder.

The average weight of the UK fleet during the 2007 Nationals was 70kg.

### **3) It looks really hard. How easy is it to sail?**

It is not an unachievable aim to sail and race of these craft. It is no harder than a conventional Moth, and for non Mothies, sufficient practice should permit most people to enjoy this boat.

How well, and quickly you can learn to sail a Hydrofoil Moth depends on several factors.

- Understanding of the problem, and an appreciation of the differences to more conventional craft.
- Previous Moth experience – It is fair to say that good Moth sailors are able to concentrate just on mastering the hydrofoil element, while those new to the class have to grapple with the instabilities of Moth sailing on top of foil borne flight. This is not as hard as many think though, and with the development of boats, understanding, and more people foiling, it is becoming easier and easier for those new to the class.
- Personal learning curve – Some people can just do it, and can jump into the boat and sail around happily, others undertake a fair bit of swimming. As a general rule though each new person to the class picks it up quicker than the last.
- Environment – Trying to learn on your own at a tricky venue will be much harder than with other Moths. You do not need to be at a Moth sailing club, but travel to where some others are sailing early on will move you quickly up the learning curve. Don't hide away at your local club, scaring the rescue crews, join in with other Moths straight away, and learn loads more!

Once you get hold of a boat you need to take the right approach to learning to sail it. It's harder to start off in than a 'normal' boat but it's by no means impossible. It's a bit like learning to sail a windsurfer - you need to start out in a steady force 2 or 3 to learn how to balance it, and only then move on to more (and less!) wind. Most experienced sailors in a decent boat can reach back and forth first time out under these conditions without too many problems.

### **4) How fast is it?**

Maximum speeds recorded for the foilers on GPS are up in the 25-27 knot region, with figures of double the windspeed possible in the mid wind range. Common boatspeeds would be 10-14 knots upwind, and 15 – 25knots downwind. Well sailed they are faster round the course than International 14's and 49er's, and in ideal conditions have been known to be higher and faster than an 18ft skiff upwind! So basically pretty damn quick!

Lowriders:

On a reach the light weight (around 30kg all up) means it accelerates way faster than anything else on a gust or waves - it's faster downwind than an RS600 in these conditions. Upwind in F3-4 you're slightly slower than the 600 but not by much - the technique is to foot off and go for speed with as much windward heel as you can. Also once you can sail it in the light stuff, in a real drifter you reach a point where the moth will pick up on a tiny gust when

everything else just sits there, so you can have fun beating RS800s etc. on the water. Almost makes up for the pain in your knees!

### **5) What are the rules?**

The International Moth is a development class that has evolved over ~ 70 years of development. It started off as something shaped like a big optimist sailed in the UK and Australia. These boats were consolidated into an international development class under only a few basic rules, and have evolved into the incredible flying Moths of today.

Max length: 3.355m  
Max beam: 2.250m  
Sail area: 8m<sup>2</sup>  
Luff length: 5.585m  
Mast Length: 6.250m  
Weight: Unrestricted (so boat weights around 30kg are common)  
Prohibitions : no multihulls or windsurfers.

### **6) What are the current fast designs?**

It is no longer just about the hull design. The foils, hull and rig are all key factors in a foiler. There are three basic fast packages out there at the moment, but many home built boats and hybrid boats with equipment from various suppliers also feature well in the results.

Fastacraft – developer of the hydrofoil concept currently in use, and the 2005 & 2006 World Champion boat. The Prowler design has been the benchmark design for a few years and is undergoing a few more changes for the 2008 season.

Bladerider. The 2007 World Championship winning boat. Built in China as a mass produced product, it has suffered from a few production issues early on but these are being sorted.

Full Force – UK developed package. Currently building the Mistress 3 design, with a new set of foils for 2007. A hard chined hull shape with low freeboard.

Each builder is developing their product more over the winter to be ready for the 2008 season, so it will be interesting to see how all the designs match up at the Worlds in Weymouth in July 2008.

There are also a few more boats under development of which we'll have more details soon.

### **7) What development is going on?**

After the adoption of hydrofoils the class seems to be going through a refinement stage. Hydrofoils and mechanisms are receiving a lot of attention to aid with control when flying. New hulls are starting to demonstrate lower freeboards, and hull shapes with foiling in mind. The optimums are still unclear though, and the hull is now only a small part of the overall boat package when it comes to performance.

Sails now have to operate at higher apparent wind speeds than ever before whilst foiling. While the Australian KA sails of sleeved luff design currently dominate, there are a number of new sailmakers entering the scene.

There are always new ideas and concepts out there ready to be tried, and we eagerly await the next big thing in Moth design.

Lowrider hull design has been stable for about 5 years, with new designs being only minor variants on what seems to be the optimum all-round shape. Rigs have developed a lot though, with most sailors moving to windsurfer-style sleeved luff rigs with camber inducers on the battens. These give a much flatter, low drag sail that is significantly faster (and easier to sail with) in F3 or more.

Do not be put off by the development nature of the class – sailing skill is paramount with the advent of foils. Only the top few guys can even tell the difference between much of the kit in use.

## **8) Where can I get a boat from?**

The best place to find a boat is via the moth class website

<http://www.int-moth.org.uk/>

although they tend to sell quickly. Check out the second hand list

<http://www.int-moth.org.uk/BuyOneSP.htm>

and to email the moth Yahoo group ([http://groups.yahoo.com/group/Int-Moth\\_UK/](http://groups.yahoo.com/group/Int-Moth_UK/)) to see if anyone has the sort of thing you're looking for.

New boats can be purchased from the various builders:

Fastacraft, Australia

Bladerider International, Aus/China.

Aardvark Technologies, UK

Full Force Boats, Weymouth, UK

## **9) What would be a good starter boat for me?**

To get started you have several options, basically depending on how much you want to spend:

1. Buy an old boat for say £500-£700, sail it for a season and then trade up. For example a Magnum 6-8 is a good starter, although any design which has lasted until now is probably OK. The boat will probably have an alloy mast, be ply built and have no T-foil on the rudder. Although wider it will be as challenging to sail as the later narrow designs. The advantage is it's a cheap way to get started, and the step to a narrow boat is much easier. You'll need to be handy with repairs though! Lots of people start out this way.
2. Spend a bit more, say £1,000 - £2,500 and get a more modern lowrider, e.g. Skippy 1 or Magnum 9.9. These will have a carbon mast, T-foil rudder and maybe a carbon foam hull depending on the boat. Likely to have been well used but a good entry point to real moths. If you're lucky it will have a pocket luff rig (faster and easier to handle than a conventional tracked mast sail when it's windy).
3. Buy a recent lowrider design like a Hungry Tiger, Prowler or Axeman 6/7 (3-10 years old boat). Harder to start off in than either 1. or 2. but possible if you go about learning to sail it the right way. This will set you back say £3,000 - £4,500 if you can get one, but many have been converted to foils now.
4. Buy a foiler. £4,500 - £9,000  
Starting in a foiler is possible, it just brings on a few extra demands on top of the traditional instability of a narrow Moth.

Because of the demand for good second hand boats new ones hold their value well. Your second hand choices are in three broad categories:

- Converted lowriders. These are mostly Hungry Tigers which have proved to be strong and light enough to make good foilers. They usually have first generation (square tipped) foils by either Fastacraft or Fullforce. Beware anything older than these and avoid wood!
- First and second generation purpose built foilers. Mainly Mistress 1s and Prowlers with early versions of the foil configurations. These designs may be slightly off the pace, due to subsequent foil development, but should make excellent learning platforms and remember – when foiling skill trumps wing tips!
- One or two year old foilers from Fastacraft, Fullforce or Bladerider. There should be few problems here but check carefully for crack or signs of repair. Remember, builders are pushing the envelope of lightness and strength and breakages are still part of the scene.

For a unique sailing experience give it a try but be warned – it's addictive!