

FOLDING KAYAKER



tips & insights on using & enjoying foldable kayaks

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Boat Review: FirstLight's 420C

*At under 20 lb.
how can you
go wrong!*

As I sit down to write a review of the incredibly lightweight FirstLight kayak model 420C from New Zealand (see *Folding Kayaker*, March/April 2002), I find myself drawn to repeating the words I used when I first reviewed the then newly launched Feathercraft K-Light in the Sept/Oct 1993 issue of *Folding Kayaker*:

"If the K-Light were just a highly portable boat with so-so performance on the water it would still be worthwhile considering. But the K-Light sacrifices little if anything when you put it out to sea. What's more it is a superbly well-built boat with great attention to details, especially little things under-the-hood that most buyers will never notice but which the people who designed and make the boat take pride in."

And that was for a kayak that weighed 29 pounds (the K-Light would eventually go up to 34.5 pounds with heavier hull material and some other detailing changes later in its model run). The FirstLight is just under 20 pounds and a foot longer than the K-Light. The FirstLight has superb on-water handling characteristics as did/does the K-Light. And it is full of innovations as had/has the K-Light.

Since this is such an important new introduction of a lightweight folding kayak—the dream of everyone who lugs a bagboat through airports and train stations, I want to go through all the pluses and minuses of the FirstLight 420C so that you can weigh

for yourself the tradeoffs of getting one. Also, I want to go through some tips for assembly you might want to consider if you get one as well as pointers in using the boat. No sense in listing shortcomings or difficulties without also indicating remedies and solutions.

What Makes It Light

The FirstLight comes by its low weight through the company's choice of materials at every turn:

The frame's long pieces or rods are made of a carbon/kevlar fiber. (There is an option for purchasing one of these boats with fiberglass rods. The price of the kayak with this option is slightly cheaper but it does add two pounds to the total weight. The carbon/kevlar fiber rods version is most likely stronger than the fiberglass. Having seen fiberglass tent poles split, it may also be a chancier option.). Each rod (there are eight of them not counting the deck rods) is in bungeed sections that extend the full length of the kayak.

The crossribs are made of Zytel ST801, a super tough nylon material that saves weight; their strength is enhanced by their design. The crossribs use an I-beam construction, i.e. it is not a solid crossrib such as on those seen in the more expensive Feathercrafts with polyethylene crossribs or on wooden crosspieces of Kleppers, Nautiraids, etc. This also makes the

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FIRSTLIGHT 420C (CONT'D FROM P. 1)

crossribs extremely flexible. They are designed to contort a bit when in use.

The hull is unsupported urethane and the deck lightweight. This hull material that it is not a coating on a core material as are the hulls of all other folding kayaks. (The rest



have a polyester core generally on which a coating is applied such as in hypalon hulls or embossed as in the hulls of newer Feathercrafts, for example.) This gives a huge weight savings. The hulls on FirstLight kayaks

in the demo version are actually clear, i.e. you can see right through them as if through a piece of glass.

Buyers will have that option or choose the hull in a solid black color. Urethane is a tough material. I have no way of knowing how tough or durable it will be in the long run in the field. Hypalon is, for example, a known quantity because it has been used for quite awhile and you can see 20 year old boats with hypalon hulls going strongly still. But the same thing can be said for the new Feathercraft hulls, i.e. they have not been around long. My guess is that these kinds of new materials will hold up well.

The deck is made of a three layer composite polyester that is bonded to the hull at their point of contact. The deck has two sets of flaps that close with overlapping zippers. The flaps open widely and facilitate assembly.

FirstLight also saves weight by things it does NOT have. It does not have air sponsons. Air sponsons are extra weight as are the sleeves in which they rest. The FirstLight also does not have keel strips; again, these extra protective layers add weight. It also does not have a traditional coaming or washboard. Instead of being made of some solid material such as wood or fiberglass, the coaming on the FirstLight has sleeves into which you slip thin fiberglass wand-like rods; it is an ingenious design that holds a sprayskirt tenaciously (and the included seasock).

The FirstLight also does not have traditional bow and stern endpieces. On other foldables these are made of solid pieces of wood or poly-something or another. The FirstLight instead uses a small nylon plate to which the long rods attach and that all presses against a very light closed cell block. Again the design is clever and effective.

So, between lightweight materials and not using certain traditional folding kayak components, you get a 13 ft 9 in boat, i.e. about half way in length between a 12 ft 10 in. K-Light and its successor the 14 ft 9 in Kahuna at about 60 per cent of their weight, i.e. 19 ½ pounds as compared to around 35 pounds (I use these Feathercraft models because they are lightest around). The company plans a longer model of about 16 feet soon. In rough terms these models will add about a pound or so per foot of length. Imagine a 16 foot kayak weighing 22 or 23 pounds!

Innovative Assembly

Before looking at performance and other factors, I always like to concentrate on assembly aspects of a folding kayak. This is what distinguishes foldables from hardshells and so warrants a lot of consideration.

Here, too, the FirstLight departs from other folding kayaks in how the thing gets put together and the differences are not just gimmicky. The FirstLight has you assembling a good part of the frame outside the skin, i.e. it is not assembled in frame halves that are then inserted into the skin and extended/stretched out in a variety of ways. Nothing new here since a number of models of folding kayaks that have come on to the market in recent years also have the full length of frame assembled outside the skin (Some of the latest Nautiraids have you assemble the entire frame outside the skin including the coaming!).

The FirstLight extends by a clever concept. Where the last two sections of each rod meet nearest the stern, one section has an extra long male piece. You grab on to the rod further toward the cockpit as far as you can reach. You then

FirstLight 420C

length	13'9"
beam	22.3"
weight	19.6 lb.
payload	265 lb.
price	\$2,395

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bow out the rod to the side (or you can use a lifting motion). You continue to do this until that extra long male part can be capped by a half round smaller rod that clips on. It takes a knack but works like a charm and the frame stays extended. You can use force to get the sections separated enough to expose that male part but finesse is better. It is good to see it done as it may not be that clear from the photos. This procedure is so unusual you are not likely to have it in your head from anything else you have done with foldables.

Another part of the extension, really the tensioning, of the boat is a unique set of webbing straps running the length of the kayak. There are two such straps that you tighten to reduce rocker and increase longitudinal rigidity. The concept is very clever but does add to assembly time as you play with the lengths of these straps.

Ways To Improve Assembly

The whole assembly process is not all that difficult once you get the hang of it. I am certain one can get assembly down to under 20 minutes with familiarity. Here are some tips for improving assembly of the FirstLight kayak:

Do more color coding. The company has the bow end of all the rods marked with colors that you place in a certain order. These ends are inserted into holes in the end piece plate and turned. I would suggest that you mark the holes particularly the top ones. It is easy to confuse where to place which. Just mark the red holes or the yellow holes and you will be just fine. At the stern end of the kayak you have a similar end piece plate; mark this one too. More importantly, the company does not continue the color coding at all for the long pieces at the stern. I found myself constantly having to look back all the way to the front of the boat to know which rod went where. So get some tape and mark at least the red, yellow and blue rods (the keel rods already have some green tape for knowing where to place the stern most cross rib and you will be able to see that when assembling the rods at the stern).

Figure out some way of dealing with the lengths of straps.

The instructions offer you the option of either attaching the straps at the bow prior to inserting the frame into the skin or doing so later. That suggestion is because the company knows the straps get partly in the way while inserting the frame. BUT, don't even try to place the straps later. Why? The straps have some shorter lengths of webbing that attach to the bow crossrib and these webbing straps indirectly help keep the long rods connected to the end piece plate. You might want to have rubber bands around the straps to hold them rolled up out of the way.



expansion clips

Remember that the extension process for placing the half round clips can be accomplished in a variety of motions.

The suggested one is to pull out horizontally on the rods but I found that the other suggestion the instructions give, i.e. lifting the rods up, also is important. Basically the upper rods yield to side pull and the lower ones yield best to lifting.

Mark the hull with some alignment marks. Since the hull is all one piece, you have very little visual clues as to whether the frame is lined up well inside the hull (Feathercraft has a keelstrip up the inside center that helps you align the frame and hull). The deck has little clues for you because of the way the stitches and the overflaps of material involved with the two sets of zippers. It is relatively easy to fix alignment of the frame inside the skin . . . the procedure in the instructions works well. But you need some visual mark to let you know when the frame is properly aligned.

On-Water Performance

The FirstLight 420C has a lot going for it on the water and getting there. It is very unusual to have a kayak that is so light that you can carry an assembled one in one hand as you would a duffle bag. Lowering it down from a dock or lifting it out will put no strain on any kayaker regardless of age, gender or strength. Same with launching

from a beach. The experience is very refreshing. Here are some performance aspects of this FirstLight:

Speed. The 420C is a lively boat with lots of speed. Several factors account for this. First its beam is relatively narrow compared to other folding kayakers. It is just 22.3 inches in beam, i.e. Khatsalano narrow, where as most singles run in the 25-28 inch range. Another thing go for it is that the boat is all waterline, i.e. there is no overhang at the bow or stern. So the FirstLight has a waterline of a boat around 18 to 24 inches longer. Then too there is its lightness. A lighter boat accelerates faster because there is less inertia to overcome.

Its swiftness will mean that you will likely not have any problem keeping up with hardshell kayakers in boats much longer than it. It is a very surprising boat.

Stability. The 420C is quite stable belying its relatively narrow beam. Lacking sponsons only marginally affects stability. The reason for its stability is apparent if you look at its cross-section when actually on the water not just sitting on a showroom floor. First, it has a double rail keel reminiscent of what you see in Folbots. This makes for a flatter bottom that generally helps to have a sense of stability. But something else is happening with the flat bottom. When you are out paddling, the section of the stretchy hull between these two rails (which taper from about 2 inches wide at the bow and stern to about 8 to 9 inches in the cockpit area) is pushed up by the water pressure to form a pronounced concave elongated pocket. This shape, along with two similar elongated concave pockets between the keel rails and the chine rods, tends to enhance secondary stability. The boat sits deeply in the water anyway and so initial stability feels fine.

Maneuvering. Although the boat does have good initial stability, it is very easy to lay on its side for carving turns. Helping you accomplish this is a very clever set of thigh braces. The thigh braces can be brought up as tight as you want on your legs and yet push out of the way for getting

into the cockpit. The thigh brace connect just to the cross rib in front of you but because of the boats narrowness, the seat and the crossrib behind you the loose rear end of the thigh braces stay put. You could, if you wish, not even install the thigh brace rods as they have no function in the structural rigidity of the boat. The thigh braces also, obviously, help one roll the FirstLight if one is inclined to want to do that. I saw newsletter reader and friend Dubsided of Philadelphia do at least a half dozen different rolls with the FirstLight 420C.

The boat turns very easily. Even with very little lean, you can get yourself around in a turn with no more than 2 or 3 sweep strokes to get you 90 degrees around. Combine its speed with easy turns and you can see why I consider this boat a rabbit.

Tracking. Well, yes this may seem too good to be true, but the boat also tracks quite well. There is no provision for a rudder and you would never need one anyway to go straight. It gets turned only real slowly into winds or seas hitting you broadside. And the same is true of winds or waves coming from the rear. Having had some boats that turn fully around with a few seconds when stopping in a following sea, I very much appreciated this.

Other Considerations

The boat does not come with a carrying bag. The original demo models had a superduper carrying bag but it was found to be too expensive to provide and still keep the price down. Besides that bag did not fit into the boat and so it would not have done much good for travel since you would have to figure out something to do with it when not in use. The company has located a large dry bag from Cascade Designs that it recommends and runs around \$60 or so. The virtue of that carry bag is that it doubles as flotation bag. And you do need extra flotation since the boat does lack sponsons. I should say you need flotation doubly so since even with sponsons all folding kayakers do require flotation bags.

The cockpit position is generally comfortable but you may want to make one fix



for an annoying problem. First of all the good aspects. The seat is made of a molded block of foam in one piece that is both seat and seatback. And that seat is soft but firm so that it should not be tiring to sit in. Some people might feel it does not give enough under the thigh support. The seat slides fore and aft, which is a good thing as it allows you to find a position in which the back of your calves will not hit the crossrib at the front of the cockpit. The foot brace is also very comfortable, a foam topped tube

running across the boat that you can position to brace your feet at the toes or mid foot or heel; your choice. What is more it adjusts easily for leg length from the cockpit with straps connected to each side of your seat. The downside of the cockpit is that the rear deck bar can hit your back unless you push the seat far forward. You may want to pad the end of that bar. ♦



inside view; rudder bar

Interview Series: Nautiraid Speaks

This is the last of a series of interviews with the heads of the four major folding kayak companies (Feathercraft and Folbot in FK May/June 2001; Klepper in July/August 2001). The idea behind this series dates back a decade when the very first issue of the publication had a kickoff article in which the manufacturers were asked 1) how they saw foldables fitting in the sea kayaking world, and 2) what were the outstanding features of their particular models. Now more than 10 years later, they were asked a similar set of questions. Below is the interview with the head of Nautiraid, Philippe Guyot.

How have things unfolded over the past decade for your company? The last 10 years have seen great expansion of the numbers and types of models we have to offer. A decade ago, we had no alloy frames, we had decks coated with urethane, the needlework on the skin wasn't sealed, all the fittings were not standard and we didn't have the two basic ranges we now have: "Expedition" and "Touring".

Since then, we have come to realize that, depending on the various continents where we sell our kayaks, the history of the folding kayaks is different, the rivers, seas or lakes are different and paddlers vary in size, weight, disposable income, etc. To meet such a range of needs we have developed these two ranges, designed new

models, dropped certain models and improved the others. The idea is to offer the best possible compromise between the needs and budgets of our customers.

Where is the folding kayak market today? I think that the folding kayak market is still at the same place: from my point of view there are no sufficiently good reasons to buy a folding one when choosing a kayak if basically you have room to store it and if you don't travel away from local waters.

Of course, there may be other reasons drawing you to a folding kayak. You may like the traditional look, you may appreciate the feeling of paddling a kayak that "lives", i.e. is organic in feel, or you may like the silence of a foldable. Or, at least for many Europeans and some North Americans, you may be drawn to a foldable, because your father had a folding kayak when you were younger. But the fact is that our customers mainly reside in large cities where space for housing and storage is limited and expensive. We know very few people who live in a large country house in front of a river, a lake or the seashore who really buys a folding kayak if they stay there and don't travel much.

Over the last decade I didn't observe these factors have really changed and this is the place of the folding kayaks I think.

The next 10 years for folding kayaks vis-à-vis hardshell ones? I feel that for

Some surprising thoughts by the head of this French company