

Big Game Fishing. Should It Be Boat Centric, or Helikite Centric?

A Discussion Document
by Sandy Allsopp

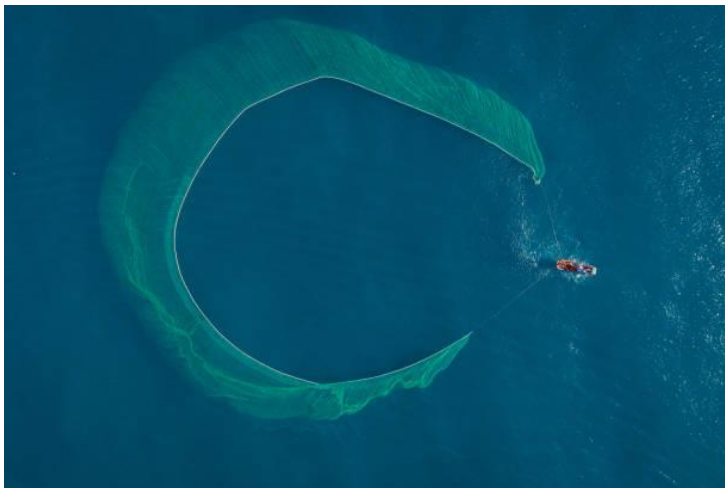
Helikite-Centric Concept.

Successful racing sailboats win because, unlike hull-centric boats such as slow motor-sailers, racing boats are sail-centric. In a racing sailboat, such as the classic J-Class racing boats, the hull design is very important, but basically it is just a carrier for the massive mast and sails that catch the energy of the wind. More sail area generally means more speed - as long as the boat does not capsize. Bold design philosophy wins races.



J-Class Yachts
Large Sails + Relatively Small Hull = Sail-Centric

Commercial fishing boats are Net-Centric. The boats are designed to deploy as large a net as possible, from a boat that is as small and economical as possible.



Commercial Fishing Boat
Large Net + Relatively Small Boat = Net-Centric

Catching and releasing big game fish combined with protected fish reserves, perhaps subsidised by big game fishing licences, means that big game fishing can be a huge benefit to the ocean ecology and diversity. If they are released properly, big game fish can be caught repeatedly with no significant reduction in their populations, just like carp in a fishpond. So, making the process more efficient should increase the chances of catching a fish, leading to more charter customers, thus increase the funds available to protected fisheries, and increase the numbers of all sea creatures in the areas of the reserves.

The fact that the successful tournament fishing boats utilise so many fishing kites, shows that in many circumstances kites are more effective at catching big game fish than rod and line. However, at present traditional fishing kites operate within a boat-centric fishing system. This is probably dictated by the inherent unreliability of traditional fishing kites, that tend to crash into the sea unless supported by rubber balloons, that need large helium cylinders to fill them, multiple kite spares, dry boat space to store all the equipment, and deck space to tie balloons to kites, large skilled crews, etc.



Tournament Boat Using Traditional Fishing Kites
Small Kites + Relatively Large Boat = Boat-Centric

Fishing Helikites are genuinely revolutionary because they fundamentally change the dynamic. Helikites do not need the support equipment in the boat to fly, because they stay inflated for weeks and automatically fly themselves. They will fly from buoys for weeks unattended. They will also never cause a boat to capsize. In fact, they pull boats upwards. The biggest Helikite in the world (the 250m³ Desert Star Helikite) would never capsize even a tiny boat if flown from it, but instead would pull the small boat right out of the water in a high wind.

As an example of Helikite independent flying capability, two years ago, for the purposes of hurricane research, an 11m³ Skyhook Helikite had its 200ft long flying line tied to a sensor-laden, floating wooden block 1ft x 3ft in size. Then this combination was launched from Tahiti, and the Helikite rapidly and autonomously pulled the sensors and wooden block through the water, much of the way across the Pacific Ocean to near Japan. This was possible because the Helikite + Wooden block was Helikite-Centric, not Boat-Centric.



Helikite-Centric Trans-Pacific 11m³ Skyhook Helikite

Helikite-Centric Fishing

What would happen if big game fishing boats were Helikite-Centric, rather than Boat-Centric?

At present Allsopp Helikites markets small 0.13m³ and 0.7m³ Fishing Helikites, for the good reasons that they easily fit into the existing boats and compete in price with traditional fishing kites.

A 0.7m³ Professional Fishing Helikite, with its 100g of pure helium lift + useful drag in a breeze, can pull three lines plus simple baits or lures out a couple of hundred yards away from a boat, which is great. However, what would happen if a 3m³ Fishing Helikite was used instead? If US Navy Seals can fly them to 1000ft from small rubber boats, at night in a war zone for covert communications, any fisherman can fly a 3m³ Fishing Helikite from a centre console boat.



3m3 Skyhook Helikite and Dinghy
Helikite-Centric and highly effective.

A 3m3 Fishing Helikite has 1000g of pure helium lift and five times the drag power of the 0.7m3 Fishing Helikite. In a breeze this could probably pull out 9x fishing lines to 200 yards, or instead pull 3x lines out about 900yards if required. Two of these 3m3 Fishing Helikites could be operated behind a small boat, adjusted to fly at 45 degrees either side of the wake to take baits away from the prop wash. Or, instead of skipping three single flying-fish lures from three lines, why not skip three bait rigs mimicking three schools of them, as they naturally behave? Helikites under 114 cubic feet (3.25m3) can be flown up to 500ft in the USA without the need for any air traffic permission, as long as they do not endanger aircraft. Outside the 12 mile national sea boundary, no restrictions of any sort apply to Helikites or any other tethered aircraft, of whatever size or altitude.

Another alternative might be to apply air traffic flight permission, which is normally easy to get, and use one 6m3 Fishing Helikite flown in a cross wind pulling 6x umbrella rigs, to one side of the boat, trolling with the wind abeam for a long reach of maybe 50 miles. Then turning around to fish from the other side of the boat.

Something similar is regularly done by our US agent, US Kites, who uses an 11m3 Skyhook Helikite flying from a modified 24ft boat, to pull advertising banners high into the air beside crowded beaches. So, this approach is technically possible. This Helikite is very powerful, with 5Kg of pure lift and about 50Kg of drag in a good breeze. It will operate in winds from 0 - 40 mph. This simple Helikite-Centric system could pull dozens of fishing lines, hundreds of yards from the boat. Could this this small, inexpensive, Helikite + small boat system actually be more effective at rapidly catching big game fish than the largest \$30 million tournament boat? Would this Helikite-Centric system win more tournaments?



Modified Advertising Boat with 11m3 Skyhook Helikite
Large Helikite + Relatively Small Fishing Boat = Helikite-Centric

IGFA rules Section H. (Other Equipment.) Paragraph 5. States: "Outriggers, downriggers, spreader bars and kites are permitted to be used provided that the actual fishing line is attached to the snap or other release device, either directly or with some other material." Helikites fly very well in wind when weighted down to be heavier than air, therefore they are true aerodynamic kites. Helikites are also defined by US Customs as kites for the purpose of payment of duty. So, Helikites are kites can be used for fishing competitions and charter boats and amateur fishermen can also use them unrestricted as long a everybody follows any relevant air traffic, or sea traffic, rules.

Conclusion

Helikite-Centric introduces the concept of a big game fishing boats' role being to deploy the most productive fishing system, the Fishing Helikites, in the most efficient and maximised way. This is only possible because Helikites require minimal support system to fly themselves automatically, so the size of boat is less relevant. Such an approach, like increasing the commercial fishing net size in relation to a trawler, should allow an increase in the number of baits and the trolling area over which they could be deployed, which is likely to improve fishing outcomes in many circumstances.

As Helikites need little or no specialist systems on a boat to operate, and they can fold up and easily be taken on passenger aircraft, it means that a Helikite fisherman can fly to any big game fishing area, hire a small local boat for a day and deploy the Helikite fishing system, at a far lower cost than hiring a charter boat plus captain, and still have all the kite fishing capability of a big charter boat.

It may also be the case that, for certain tournaments, Helikite-Centric big game fishing systems costing just a few thousand dollars, could out-compete large tournament boats costing many millions. With millions of dollars of prize money at stake, this may be significant.