

Nigel Watson. Interview for Yachts Russia, July 2105.  
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## УЛЕТЕТЬ В МОРЕ

Крупнейшие верфи мира заявляют, что четверть ступенчатых или за последние годы есть специальные вертолетные площадки. Мы пообщались с экспертами в области взаимотношений судов морских и воздушных и задали им интересные.

Текст – МАРИЯ МОСКВИНА

### ОПРЕДЕЛИТЬСЯ, ПОКА НЕ ПОЗДНО

Решить, будет ли на борту вашей яхты вертолетная площадка или нет, стоит на стадии проектирования или доработки уже существующего проекта, здесь не возникает сложностей без исключения эскипты. В первую очередь потому, что базирование вертолета на борту или хотя бы площадка для посадки сопряжены с дополнительными требованиями к пожарной безопасности. Однако, есть варианты выходы из положения и для тех, кто решил в последний момент. Комментарии Найджела Уотсона, главы компании Nigel Watson Limited, предоставляющей консультации по проектированию бортовых вертолетных площадок, инсталляции пилотов и т.д., «Если площадь deck достаточно хороша и если позволяет место, всегда можно внести в проект яхты надстройку и безопасную

## What is the minimal area for a helipad if a helicopter is stored on board? And what is the minimal touch'n'go pad area?

The key word in your question is “stored”. In order for an embarked helicopter to remain onboard it needs to be completely and safely accessible. A pilot or technician needs to be able to access any part of the helicopter with the help of a ladder. The tail sections of many yacht helicopters are inaccessible. A satisfactory solution for a yacht with a relatively small landing area where the tail section hangs out over the lower decks of the yacht, or the water is to be able to move the helicopter forward to a non flight position where the helicopter can be properly inspected and then returned to a fly position. This also allows exposed tail rotors to be properly secured in high winds overnight. Ground handling helicopters normally requires access to the tail to allow the helicopter to pivot about the ground handling wheels. If you cannot get to the tail this becomes difficult. A small tug can be used in conjunction with the ground handling wheels for skidded helicopters.

The expression “touch'n'go” is overly used with regards to helidecks aboard yachts and is used to suggest that it is just for quickly coming and going. I usually ask the question; “When do you think are the most dangerous times of operating a helicopter to any vessel? When it touches and goes is the answer.” So firstly as an industry we need to get away from this expression and what people think it means.

If you are going to land on a yacht, you should adhere to the recommendations of existing Marine legislation. In principle an unobstructed area equivalent to the overall length of the of the helicopter with all rotors turning, this is known as the D value of the Deck and for the smallest twin engine helicopters can be considered as being at least 13 metres in diameter. A compromise in beam to 0.83D moves you closer to the reality of modern medium size yachts at the beam of the helicopter landing area. The area in front of this D circle has a sector where limited obstacles may exist. Again this is well documented in the legislation.

**What is the last moment for the owner to say “I want a helipad on my yacht”?  
When a yacht is being built or at the design stage?**

The answer is of course at the design stage as a deck that is going to be suitable and fit for purpose needs to be thought about before hand and built to a standard in terms of size, strength and outfitting.

In addition to the deck itself, firefighting arrangements, Jet A1 fuelling considerations, dedicated aircrew accommodation with a suitable work area and workshop space all impact on the overall vessel build.

For the owner who did not consider this at the design stage, there is always the option for a change on allocated role of a deck if it has been built strong enough in the first place and left relatively clear of obstacles. In this instance the question can always be raised as to what can be done almost right up to the last moment. If the deck is strong enough and there is enough space something can be achieved. It might come with a lot of operational limitations (day only, optimum weather conditions etc) and it is unlikely to be commercially certifiable but if the objective is very occasional use and that can still be done safely then the project may be viable.

**Requirements to a marine helicopter pilot.**

The issue here is not what are the requirements for a marine helicopter pilot but what sort of a pilot makes a great VIP helicopter pilot in a luxury yachting environment.

I have said over the years a successful Helicopter pilot in the luxury yachting industry is a cross between “Tom Cruise in ‘Top Gun’ and Father Christmas” ( looking forward to seeing the Russian translation !).

As a part of any interview process with a candidate, I will say the given is that you can fly a helicopter and your experience (be it military or offshore) shows that you have had some relevant experience of the limitations of offshore operations; the limited size of landing areas and poor weather. You may also have specific experience of the helicopter type. It is almost certain you will not know your client and their needs. This is a steep learning curve that requires strength of character, professional competence and an understanding that we are in the service business. Fulfilling the needs of the Owner, their family, the vessel and its guests.

Our goal with all our aircrew is to get them to a point in their relationship with the principal that there is total trust. The principal will not put the aircrew into an unreasonable position in terms of pressure to perform a mission that they feel is unsafe and in turn they will be assured that the crew will do their utmost to perform the mission safely for the principal.

This takes time but once achieved usually results in client loyalty and a long working relationship together.

Another small quote; There may be very occasionally times when we disappoint you but they are also the times when we may save your life, or the lives of people close to you by saying No.

### **What are main characteristics of a marine helicopter from your point of view?**

Power is critical. We operate in hot conditions often close to our maximum take off weight. To fly safely there needs to be a power reserve when we are working in these temperatures at these weights. The next point is basic seating capacity, how many people can you carry. The success of the Airbus Helicopters H145 helicopter has been the fact it is very flexible in terms of interior outfitting and yet can carry up to 9 passengers in a single pilot operating environment. Take out all of the seats and you have a van which is great for logistics support for the yacht.

Surprisingly whilst luxurious appointing is always nice it is not something that is so evident on helicopters dedicated to yacht operations. The clean functionality of design and outfitting of a high end SUV car; Range Rover etc is the standard.

### **Does a marine helicopter need to have special certification? As well as the yacht that carries a helicopter?**

The helicopter may be used in many different operating environments. How the helicopter is outfitted which is a part of its certification is interesting and important. In a private VIP Marine environment the inclusion of; air-conditioning, emergency pop out floats, An Emergency Location Transponder, a life raft, life jackets are all the norm. A helicopter tracking system such as Spidertracks is cost effective and works.

Certification of the yacht from the perspective of helicopter operations can be considered within the terms of permits to operate. Particularly in French territorial waters either in the Mediterranean, the Caribbean or the Pacific. In these waters a yacht requires a permit to operate with a private embarked helicopter or with a commercial Helicopter charter operator. There are companies that assist with these permits Heli Riviera ([www.heliriviera.com](http://www.heliriviera.com)) in the south of France is one. Other areas of the world have permit requirements where both the helicopter and vessel must comply.

### **Can a yacht carry fuel for the helicopter or they have to fuel elsewhere (on the shore?)**

The carriage of Jet A1 fuel for helicopters is for some yachts and their owners an easy thing that has always been a part of their operation. There are other yachts that see it as too hard a challenge, and do not want to try.

The key with carrying Jet A1 is to plan it from the very beginning of a yacht build and make a clear decision with regard to how much you wish to carry. The carriage of jet A1 requires a storage tank, a filtration plant and an upper deck distribution point. All of them have strict fire prevention, ventilation and build material needs. Retrofitting a system is not easy.

Jet A1 can be maintained over long periods of time with good quality control procedures. It is not easy to top up the onboard yacht supply as road tankers carrying Jet A1 are highly regulated and moving from the airport to the local yacht port is not easy.

Jet A1 fuel is the common fuel of turbine aircraft and so is readily available at airports. Where those airports are in the world and how good their quality control procedures are is again a critical element of operating your helicopter safely.

Yachts with limited storage volume of jet A1 will consider partially de-fuelling the helicopter to top up on their onboard supplies. You need to be very cautious in doing this. If you are confident as you should be of your onboard Jet A1 fuel quality introducing a potential unknown quality sample may not be a wise idea.

### **Does having a helicopter onboard (in a hangar or on the touch&go helipad) impose any limitations on the yacht?**

The converse should be true. Having a helicopter onboard, as long as it does not disrupt the everyday activity of the yacht, provides an asset that can be used across many areas. Passenger transport, logistics support and search and rescue to name a few.

Clearly space has to be allocated to either the area of the landing pad or volume within the vessel if you have a hangar, for the support equipment that comes with the helicopter; ground handling wheels, tools, crash rescue kit etc.

As part of helicopter / yacht integration we discuss the value of “yacht real estate”. The forepeak / bow and associated volume below being of least value. An area at the very top of the vessel aft of the mast that is not dedicated to any other use is another low value area. Consider that we would like to land the helicopter at the centre of gravity of the vessel as it is the most stable point. Moving away from that point in the vessel is a compromise from the ideal. The best helicopter operating areas are also the best areas to enjoy the yacht. As a consequence we operate to the fore part of the vessel or high up.

Having a helicopter onboard does mean it needs to be properly looked after which involves regular rinsing of the airframe and engines with fresh water and a dedicated person who may be a pilot and/or technician with it at all times.

### **Any funny/curious stories related to the use/storage of helicopters on yachts?**

If you have to carry priceless art, then by all means put it in the helicopter but consider that the art is worth far more than the helicopter and someone should be told.

If the owners' daughter has a birthday and a tiered chocolate cake is ordered that is to be transported to the yacht by helicopter as a surprise in a large wooden crate (and I mean large) make sure that it will fit through the doors of the helicopter. A melting chocolate cake is not a lot of fun for anyone.

If you do not tie helicopters down they will fall off the yacht in the wind, not funny but truthful. Make sure you have good tie down arrangements in place.

During shutdown and start up of a helicopter main helicopter rotor blades can dip to a level from the ground that could seriously injure a passenger. If the principal leaves the helicopter too early/quickly and you decide to jump onto him forcing him to fall to the ground because you are concerned for his safety. Have a very good relationship with his private security and understand how to explain your actions quickly in the language of the client.