

Defence Committee

Oral evidence: UK-French naval co-operation, HC 166

Tuesday 25 May 2021

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Members present: Mr Tobias Ellwood (Chair); Stuart Anderson; Sarah Atherton; Martin Docherty-Hughes; Richard Drax; Mr Mark Francois; Mr Kevan Jones; Gavin Robinson; John Spellar.

Questions 1 - 32

Witness

I: Rear Admiral Nicolas Vaujour, French Navy.



Examination of Witness

Witness: Nicolas Vaujour.

- Q1 Chair: Welcome to this Defence Committee hearing on 25 May 2021. I am delighted to welcome Rear Admiral Nicolas Vaujour, who is head of French Navy foreign relations. Sir, thank you very much indeed for coming here today with your defence attaché, who is very welcome, to discuss UK-French naval co-operation. There is lots to talk about. We are very pleased to have a very close bond with our biggest European military ally. You are in good company. We do a lot of work with your senior staff college when they come over to this country as well. We speak with our opposite committee in the French Parliament, too. We are very pleased to have you here today. Could I invite John Spellar to open up the questions?
- Q2 John Spellar: Admiral, how successful has UK-French naval co-operation been over the last 10 years?
- Q3 Rear Admiral Nicolas Vaujour: Thank you for your question. I will just give an example. When the chief of the French Navy, Admiral Pierre Vandier, took on his assignment, his first trip was to see the First Sea Lord, more or less 10 days after being appointed. We—the French Navy and the Royal Navy—are definitely linked together. If we look at history, we fought together and we fought each other. Now, we fight together in the same theatre of operations. We share the same challenges in capability, human resources and operational deployment.
- Q4 For me, Lancaster House secured this very important link between the Royal Navy and the French Navy, and the best success is that. Even if there are political discussions between France and the UK, we have a very secure format in the Lancaster House treaty in which to work together. Day after day, we work together. It is normal business now, and I have to say that it is probably the most successful co-operation that we can have with a country.
- Q5 John Spellar: Thank you very much for that. That is a success that we ought to be publicising more, for exactly the reasons you have said. I do not want, in any way, to undermine that but merely to ask, because there are always challenges, what the challenges are that you have found or that you see going ahead.
- Q6 Rear Admiral Nicolas Vaujour: More globally, it is not a challenge between the Royal Navy and the French Navy. We face the same challenges across the world. We have peer competitors and systemic competitors, and threats around Europe, so the question is whether we are able to face all the challenges alone or whether we are going to work more closely with the Royal Navy, the US and other partners in NATO or the EU to face all those challenges.
- Q7 We can see that the US is definitely rebalancing to the Indo-Pacific, so perhaps they will need us to take on a greater burden in our part of the world, by which I mean Europe and the Atlantic. We probably need to



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work more closely together because, when you think about China, there is a challenge of numbers. Our navies are not so numerous. Your ambition is to have 24 frigates and destroyers; we have 15. We have to face bigger and bigger navies across the world. If we do not work together, we will face big difficulties in the future.

- Q8 When you are thinking globally and about maritime power, there are three main pillars. The first one is the numbers: how many ships you have. The second is technology: do you have the right technology to face your competitors? The third, which is not brought forward enough, is partnerships and alliances. If you want to be a global maritime power, you need to have the three pillars: numbers, technology and partnerships. What we are doing with the Royal Navy is to try to work in those three pillars day after day. We are on the right track but we need to build more and to be more closely linked in order to face global challenges together.
- Q9 John Spellar: That is very welcome. The final question is this: how does the co-operation between the Royal Navy and the French Navy compare with the other services of our two countries? I know that it is a slightly unfair question.
- Q10 Rear Admiral Nicolas Vaujour: I do not want to fight with the Air Force or the Army. Nevertheless, I would like to say that, as I said earlier, we fought against the Royal Navy, and you fought against the French Navy. It is a relationship with a long history, and I have to say that, today, we are working very closely on a day-to-day basis with the Royal Navy, not only in operational theatres. When we are at sea, we work with the Royal Navy. When I went into operations during my career, each time I met a Royal Navy ship everywhere in the world. It is not only working in operations when you speak about the navies; it is work on a day-to-day basis.
- Q11 For the armies, it is not exactly the same. They are working very closely in the Sahel, for example, but only in operational deployments. We work every day with the Royal Navy, and the opposite is true. It is the same for the air forces. They do a very good job together but more or less only in operational deployments. For us, it is peace, crisis, operations and day-to-day work for the staff.
- Q12 Chair: Admiral, to pursue that a bit further, you give the impression that both our navies need to grow in size. We have just come out with the integrated review, which we will explore a bit further in detail, but our theatres of operation can be summed up as being the UK's shores and overseas territories, the Atlantic and now the Arctic, the Gulf and the Caribbean, and we are now tilting towards the Black Sea and the Indo-Pacific. Do your focal points and maritime interests complement those or are there specific ones that the French are beginning to focus on?
- Q13 Rear Admiral Nicolas Vaujour: First, the core relationship with the Royal Navy is nuclear deterrence. The core confidence that we have built between the Royal Navy and the French Navy is due to our nuclear



deterrence, because we have challenges in that field. That is the first theatre of operation. The French Navy tries to have a continuous presence at sea in the north Atlantic, the Gulf of Guinea, the Med Sea, and the Indian Ocean up to the Indo-Pacific. We are very much linked with the Royal Navy and have the same deployment areas in the world.

- Q14 In the north Atlantic, it is for deterrent reasons; in the Gulf of Guinea, it is about economic interests and capability building with our African partners, as well as maritime domain awareness. We have a common cell, MDAT-GoG, which stands for Maritime Domain Awareness Trade—Gulf of Guinea. It is a French/UK alert system against piracy in the Gulf of Guinea and a concrete example of what we are able to do.
- Q15 In the Med sea, we share the same challenges with NATO in the southern flank. In the Indian Ocean, we fought together during the Atalanta mission against piracy and it was a very successful mission. Right now, we need to continue to work with the Royal Navy to protect all sea lines of communication in the Indian Ocean, as China applies more pressure in that part of the world against the maritime domain.
- Q16 In the Indo-Pacific, we have the same assessment. If the Queen Elizabeth is going up to Japan, it is the same analysis of the French Navy as when the Charles de Gaulle went to the South China Sea in 2019. We share the same assessment of the world. We do not have exactly the same answers but they are quite similar.
- Q17 How we can work together is a good question. We are doing it day after day. We are ready to improve that relationship.
- Q18 Chair: It is an important fact to remember that, when you put British and French military capability together, you get half of all European military capability. That is a powerful standing point from which we co-operate. Let us turn to the strengths and weaknesses of our navies.
- Q19 Sarah Atherton: Bienvenue, admiral. In answer to my colleague John Spellar, you spoke about numbers, technology and partnerships. Can you summarise the relative strengths and weaknesses between our two navies?
- Q20 Rear Admiral Nicolas Vaujour: That is a great question. The first point is that the Royal Navy is definitely structured on an expeditionary model. You have high-end capabilities that can go very far from the United Kingdom and produce a military effect very far from your territories, whereas the French Navy does not follow exactly the same model. The French Navy has a dual model, with forward-based forces, especially in our overseas territories, which can protect our EEZs and our territories, and with expeditionary capabilities, although fewer than yours, in amphibious warfare and in a carrier strike group, where we can deploy everywhere in the world.
- Q21 The first difference is there: we have a dual model, with forward-based forces and an expeditionary model. I am very glad to see that, within the integrated review, you are coming up to that kind of model with forward



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presence in Singapore with OPVs, in Bahrain with frigates, and with the littoral response group in the Indian Ocean. You have a very good analysis in the integrated review and are going to have a more balanced model between forward presence and the expeditionary model.

- Q22 On the second difference, it is probably more of a joke, but you will see. The UK is able to make radical choices, and sometimes you are wrong. France sometimes has difficulties making choices, but sometimes we are right. I will give you an example: maritime patrol aircraft. You decided to withdraw the capability years ago and chose to come back in afterwards. It cost you a lot and you decided that it was wrong.
- Q23 If we had to face the same issue in France, we would decide to diminish the number of MPAs, even if we had to keep only one. At the end of the day, we would like to retain the skills of the crews in order to be able to rebuild the capability in the end. We definitely do not have the same vision of how to do things. You are able to put things in the far right or far left, and we always try to find a more nuanced option. That is probably a very big difference in what we do in the French Navy and in the Royal Navy.
- Q24 Sarah Atherton: You just answered my second question, Admiral, about what we can learn from you. We have had extensive collaboration around the challenges of Covid, particularly on the Charles de Gaulle. Is there anything else that we can learn from you?
- Q25 Rear Admiral Nicolas Vaujour: From the Charles de Gaulle?
- Q26 Sarah Atherton: No, in general from you and the way you approach your challenges in the French Navy.
- Q27 Rear Admiral Nicolas Vaujour: If we look at another domain, politics, and we come to the channel and fisheries, the French Navy is able to deal with illegal fishing, counter-narcotics and low-end warfare. These are usually called coastguard duties. The French Navy has high-end capabilities and coastguard duties, whereas the Royal Navy is more divided into two parts. The Royal Navy is definitely about high-end capabilities, and the coastguard is under another administration. In France, we are organised to have what we call a maritime prefect, who is an admiral in mainland France. He is in charge of deploying our Navy and enforcing the law in French territorial waters on behalf of the Government.
- Q28 That is a big difference in terms of how we are organised. We always say that it is very efficient to have one French Navy admiral who is, at the same time, the maritime prefect under the Government's authority, because he can use assets of the French Navy and other administrations to fight against pollution, illegal fishing or narcotics. That is also a major difference between our two navies.
- Q29 Chair: Just to pursue that a bit further in terms of capabilities, your destroyer uses the SCALP system to hit targets on land. Is that correct?
- Q30 Rear Admiral Nicolas Vaujour: It is not exactly SCALP but it is quite



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similar. It is called MdCN . It is not the same range.

- Q31 Chair: We created a bay for this on the Type 45 destroyer. There is a bit of a joke within the Royal Navy that we are just moving air around the world in these tubes, which would otherwise have the necessary missiles to be able to hit land. Would you agree that, as we advance forward in upgrading the Type 45 and, indeed, the French destroyers, it cannot be just the maritime domain that we need to focus on, but co-ordinated interservice capabilities for sea support, whether through Tomahawks or any form of missile systems that can work at sea and on land?
- Q32 Rear Admiral Nicolas Vaujour: That is a very interesting question. More globally, we face multidomain issues. The answer is not only navy, air force or army, but always multidomain, by which I mean interservice and interagency. It is a joint-service answer that we have to provide. When France decided to have the MdCN on board the FREMM frigate, it was quite new for the French Navy. We had the cruise missile on board the aircraft, but not on board submarines. We decided to put it on board the FREMM and, very quickly, the joint staff were very happy with that. It is a new tool for them.
- Q33 They would like to have more frigates such as these that are able to fight against submarines, and then shift to having an effect with cruise missiles, or just put pressure on a competitor at the time. We would like to have more, but I do not think that we are going to do it on the Horizon class. We would like to do it on future classes of frigates in order to have more of a multi-mission ship. As we do not have the numbers, we would like to have all the capabilities on the same ship, but I have to say it is very expensive. It is a good option for you.
- Q34 With the next generation Suffren class, we are going to have the MdCN on board, so we will have it on board submarines, frigates and aircraft. In this way, you can propose all the options to the political authorities about that. That is a good discussion, I have to say. I would not make the decision for you, of course, but the more options you can provide, the better it is for the political authorities.
- Q35 Chair: Thank you very much. That is very helpful. Let us look at joint operations. I am pleased to see that the Charles de Gaulle is going to be doing some exercises with our carrier strike group.
- Q36 Richard Drax: Admiral, good morning. It is very nice to see you. I also note that the MOD is very grateful to you at the French Navy for the lessons that you shared during the Covid outbreak. We are all very grateful for that and for the many other things you do with us. On that point, could you tell us which joint operations you think have been the most successful?
- Q37 Rear Admiral Nicolas Vaujour: With the French Navy, of course, and the Royal Navy.
- Q38 Richard Drax: Yes.
- Q39 Rear Admiral Nicolas Vaujour: The first one was definitely the Atalanta



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mission. You were at the head of that mission. With European nations, we provided a very efficient solution. Right now, there is no more piracy off the Horn of Africa.

- Q40 The second operation, which I already talked about, is in the Gulf of Guinea, where we shared the same way of working. If we remember the Hamilton strike mission in 2018 off the Syrian coast, we worked together, the US, the UK and France, in launching cruise missiles against chemical infrastructure in Syria. What is important is that we were able to do it in less than one week. An important concept for the French Navy is plug and fight. We know the Royal Navy and the US Navy very well, and if there is a political decision we are able to plug together very quickly and to fight against a competitor. It took less than a week to plan the synchronised cruise-missile joint services, with the French Air Force and Navy, the Royal Navy and the US Navy. It was quite amazing to achieve.
- Q41 I was in charge of operations at the time, and I can assure you that it is the best example of what we call CJEF. There are all these different concepts on paper, but that was a concrete demonstration of what we can do. In a few days, during dual carrier ops between the Queen Elizabeth and the Charles de Gaulle south of Toulon, we are going to demonstrate that we can fight and work together at the highest level of capabilities, which are carrier strike groups. For me, it is very important because, as you said, we have the two biggest navies among the European nations.
- Q42 To be able to plug and fight together is very important, but there is another way of thinking. If we have the same challenges in another area of the world, we could have the Queen Elizabeth first, then the Charles de Gaulle, the Prince of Wales and so on. We can turn in the same theatre to have a military effect over a long time, because we do not have all the resources to do it alone. We are able to turn and to provide the same military effect if we agree on the political objective. Day after day, we demonstrate that we are fully interoperable and ready to plug and fight together.
- Q43 Richard Drax: Admiral, one of the reasons, as you know, why our aircraft carrier is doing this incredible tour is to make the point that international trade routes should be kept open. I assume that that is a high priority for you and the French Navy, not least your aircraft carrier, in the future as well.
- Q44 Rear Admiral Nicolas Vaujour: Yes, definitely. Maritime trade routes are a big focus for the French Navy at this time. We are talking here about two or three subjects. The first one is maritime domain awareness and the sharing of information. It is not well known but, at this time, we share a lot with UKMTO in Dubai and the French MICA Center in Brest. All the maritime domain awareness systems that cover white-shipping information are working day after day. If we have a knowledge system, we can share with you or other nations.
- Q45 Information is not the only thing to do, of course. We need to have a



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continuous presence at sea in that part of the world, especially in the Indian Ocean, from Bab-el-Mandeb to Hormuz and the Malacca Strait, in order to secure sea lines of communication. For that, we need to share the burden together, because it is a wide area. We need to work together to find the best way of doing it. At the end of the day, we need the ability to have the deployment of key high-end capabilities like carrier strike, if we need to demonstrate our willingness to show that we would like an open and free Indo-Pacific.

- Q46 If some disagree, we have the ability to fight against that option and to show that we are able to have a partnership, in which we can gather together all nations from one area to protect the sea lines of communication and to fight together. We developed one exercise in the Bay of Bengal with India, Australia, Japan, the US and France, called La Pérouse. We developed it around that way of thinking, demonstrating that we are able to gather nations from that area in order to work together for the protection of sea lines of communication, and more if needed.
- Q47 Richard Drax: Admiral, I have just one more quick point, if I may. I do not want to hog the whole session, although it is very tempting to do so. There are so many interesting points that I would like to raise. It is about the unmanned mine countermeasures system, on which we are co-operating with you. Where are you with this new system? It was clearing the central waterways, not least our trade routes. In certain parts of the world, clearing minefields is extremely important. How are you co-operating with us in this programme?
- Q48 Rear Admiral Nicolas Vaujour: Thank you for the question. Perhaps you do not know, because it is not in my bio, but I was involved in the early stages of the binational programme on MCMM when I proposed to the joint chiefs of staff going with the Brits on UAVs and USVs. We are definitely moving towards an automated world, so that is a very good example of what we can do together in new technologies. We were not able to do it alone and, in the same way, neither were you, so it is very good to share that objective, even if, in the end, we do not choose exactly the same system. That is not the issue. The issue is to be able to work together on a new technology and to find the best way to answer our own questions.
- Q49 For sure, when we decided to use USVs or UAVs, I remembered our French sailors on board minehunters in the Bay of Brest. Looking at the seabed there is so boring. It is a boring mission. Every day is very long, and doing that with a USV is more efficient, so I am sure that we are heading in the right direction. There are a lot of challenges to face still at this time, especially how to get authorisation to sail with a USV within or outside the Bay of Brest with maritime shipping and so on, but we are moving in the right direction. The tests are good, although not everything is finished, but I am very happy that we are going to do that together.
- Q50 Chair: I want to move on to carriers in a second, but I just wanted to pursue the minehunters. We have some incredible capabilities in Bahrain,



which you touched on before. You are right that UAVs and USVs are coming in to replace many of those capabilities. Would you agree that there is also a bond that we develop between our personnel on board those smaller ships and Bahrain, which allows us to develop HMS Jufair and that long-term relationship with the country itself, and to have a force presence and an upstream engagement that is doing work all the time, not just in the very low-probability events that these minehunters are designed to serve?

- Q51 Rear Admiral Nicolas Vaujour: If we are dealing only with mine warfare, there are different things. First, when we speak about co-operation with Bahrain or with the UAE, we are speaking about the protection of the country's harbours or of the line where we would like to pass through. This is very specific co-operation. We probably do not need minehunters for that. If I want to protect the harbour at Dubai or Abu Dhabi, I definitely do not need a minehunter. I do it right now with a minehunter, but I can do it with a USV in the future.
- Q52 I say that when we have a very low crisis level. If, in the future, the crisis level grows, perhaps we will have to deploy a minehunter to do the job, which is not exactly the same, because you will have a threat around your USV, which is not so easy to face only with a USV. That depends on the situation. In order to protect, I need to see and verify the seabed.
- Q53 Chair: In shipbuilding design as we move forward, there has been a frenzy of activity to develop UAVs and USVs, with incredible capabilities coming on board, but you also touched earlier on force presence. A ship can only be in one place at one time. Should we be looking at a mothership that has simple capabilities but is a platform to launch types of USVs and UAVs, which then becomes a footprint? We therefore have more vessels with different capabilities that can be interchanged.
- Q54 Rear Admiral Nicolas Vaujour: That is a really good question. That was a concept developed by the US Navy with seabasing, with very big ships and whole tankers equipped with helicopter, UAV and USV platforms. It is quite interesting if there is not that much threat in front of you. Of course, everybody wants to solve every problem with UAVs or USVs.
- Q55 What lessons did I learn? When I was chief of operations in the French Navy, I saw that, when you face a UAV, you do not hesitate to open fire. If you face a Houthi USV in Bab-el-Mandeb Straits, you will definitely fire against it, because it is very easy and there is no collateral damage. The arrival of USVs and UAVs has a consequence in terms of a disinhibition from opening fire. Iran shot down a US Global Hawk, with not that much consequence. We have to think about it. The consequence of building more and more USVs will probably be to increase the level of crisis and the frequency of human error. Are you sure that it is a USV? You are fully disinhibited from opening fire, because you think it is, but sometimes it is not.
- Q56 That is a good question. How are we going to fight in a world where you have UAVs, USVs and manned ships? We are working on that at the



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moment, and I am not that optimistic. I am not sure that USVs will provide what we would like them to. In terms of consequences, we will probably see an increased level of crisis from where we are.

- Q57 Chair: It is an important, powerful philosophical discussion. As an admiral, you have served on many ships. You have all that experience in your mind now that is brought to bear when we are asking questions today. If your roles in the past were replaced by UAVs and USVs, you would not be as knowledgeable as you are today. Without opening up another debate about that, let us now turn to aircraft carriers.
- Q58 Stuart Anderson: Hello, admiral. It is very good to hear about your positive views of how the partnership has worked over the years. You have also mentioned areas where both sides could learn from each other. I would be interested to look specifically at operating a carrier. What has the Royal Navy learned so far from you on operating a carrier?
- Q59 Rear Admiral Nicolas Vaujour: During your carrier gap, we had a very extensive exchange of human resources, including jet pilots, aircraft controllers and liaison officers, on board the Charles de Gaulle, so that you retained the skills and know-how on how we are able to manage that. When I was the chief of naval operations, I was on a phone call more or less every week with COMOPS UK to give advice. When we spoke about the pandemic on board the Charles de Gaulle, I gave him everything—"Do not do the same"—to try to find the best solution for avoiding such a situation. We exchanged a lot of human resources in order for you to quickly reach the right level of operation.
- Q60 Of course, within the French carrier strike group, your destroyers were integrated, and particularly the air defence destroyers, so that they could learn about how it is managed around the Charles de Gaulle. Of course, it will be very different with the Queen Elizabeth, as the fighters are not the same, but we definitely have some know-how in the aircraft carrier environment, and so we shared everything with the UK during this carrier gap. Thanks to that, and also to you, you have the skills. You are ready to project the Queen Elizabeth at the right level. You spent a long time preparing that mission and you are fully ready for that. I am sure that it will be a great success for the Royal Navy.
- Q61 Congratulations, because it is definitely not easy to operate a carrier strike group. It is probably the most difficult thing for a navy, to be honest. China is not yet really ready to do that, but you are with the Queen Elizabeth, and you will be ready with the Prince of Wales later. We are very happy if we have given you some lessons or skills that have allowed you to move quickly.
- Q62 Stuart Anderson: Thank you for helping us to maintain that currency and to learn from you in that, and also for the compliments that you made about our carrier strike group. What role will you play in our carrier strike group? If you could expand on that for the Committee, that would be good.
- Q63 Rear Admiral Nicolas Vaujour: I do not know if the aim or the goal is to



be integrated in the carrier strike group. The question is more strategic. If we go to a strategic level, the question is what we are going to do with the carrier strike group: the Charles de Gaulle, the Queen Elizabeth and the Prince of Wales. As I said earlier, we share the same assessment of the world at this time. If a crisis breaks out, I am sure that we will have more or less the same political vision. The question is how we are going to employ our carrier strike group in that new crisis. There are two options. If it is a very big crisis, we will have to plug the Charles de Gaulle and the Queen Elizabeth together at the same time to provide the best effect in this theatre of operation.

- Q64 Stuart Anderson: On that point, if we were at the stage where you have to plug in, is that a straightforward process because of the partnership we have had over the last 10 years? Would that be easy to do?
- Q65 Rear Admiral Nicolas Vaujour: It will probably not be easy, for sure. It is definitely never easy. We just plan to do it south of Toulon at the beginning of June, with the Charles de Gaulle and the Queen Elizabeth at the same level at the same time. I was at the high-level meeting for planning with COMOPS UK. I told them, "You need to learn to face a carrier strike group." When you face a frigate, it is not difficult. When you face a carrier strike group, it is very hard. We used to do that with the US, and I proposed that to COMOPS UK, saying, "For the first time, the Queen Elizabeth is going on an operational mission. We are going to train you to face a carrier strike group, and it is very challenging". That is the first step in the co-operation.
- Q66 The second one is this: "In the first exercise, you will face a carrier strike group. In the second one, we are going to work together on the same side". It is clearly a demonstration of what we can achieve together. It could be inside NATO or another coalition. The point is about demonstrating that we are able to do it. Of course, it is not that easy. We have different fighters and different ways of thinking about a carrier strike group, but, if we have a crisis in the future, the question is whether we are going to go alone, with our partners, or to plug and fight at the same time, or whether we want to have a permanent presence for a year, meaning that we first have the Charles de Gaulle or the Queen Elizabeth and then turn with the nation. That is how I saw the co-operation for the carrier strike group.
- Q67 As you know, carrier strike is a very sovereign capability. You have the political decision to employ and deploy the carrier strike. If we converge, share the same assessment and have the same political objective on the crisis, that is the best way to use it: plug and fight, or take turns.
- Q68 Mr Francois: Good morning. You talked about co-operation between the Queen Elizabeth, the Prince of Wales and the Charles de Gaulle, which we all welcome. Our two carriers are recently commissioned, with the Charles de Gaulle commissioned around the turn of the century. A few months ago, President Macron announced that there will be a further new French carrier to replace the Charles de Gaulle. Can you tell us a few things about the new carrier? When will the Charles de Gaulle



decommission and when will the new carrier come in? Will it be nuclear-powered? Will it have electronic catapults? What aircraft is she likely to carry?

- Q69 Rear Admiral Nicolas Vaujour: As you said, President Macron decided to have a renewal of the Charles de Gaulle at the end of her life, which was, at that time, 2038. It is very difficult to say that it will be 2038, 2039 or 2037. I do not know—it is very far from us—but, for sure, we are going to begin a study of the future aircraft carrier. When you build an aircraft carrier, there are some major pillars.
- Q70 The first is what kind of aircraft or UAV you are going put inside it and on the deck. With the aircraft, you have their weight and some bombs on board, as well as the ship's power requirements and the catapults. Of course, the French Navy prefers catapults to ski-jumps. That is historical. You made a different choice. If you want to come back to catapults—welcome back—that is a good option, especially in terms of efficiency and range, given the number of weapons on board the aircraft. When you have the weight of the aircraft and the ammunitions, you have the length of the catapult and the deck, and then you have the power needed to propel the aircraft carrier.
- Q71 Chair: The boiler being for the steam.
- Q72 Mr Francois: Or electricity.
- Q73 Rear Admiral Nicolas Vaujour: President Macron also decided to go for nuclear power on board the new carrier. Included in the decision making is the efficiency of nuclear power. With the Charles de Gaulle, we have years of experience of not needing so much replenishment at sea, thanks to nuclear power, so we want to continue in that field.
- Q74 When you think about nuclear power, the question is how to maintain the skills of the French industry in the nuclear power. If you do not do that with the next carrier strike group, you will probably have difficulties with the next generation of nuclear submarine, and so on. That is a decision not only for the next carrier strike group, but to preserve the skills in the French industry, which are very important. If you cut those skills, you will not get them back.
- Q75 Mr Francois: One ship or two?
- Q76 Rear Admiral Nicolas Vaujour: At this time, it is one. It has been decided like this. If you asked me, of course I think that the UK is on the right path, but that is a budget option.
- Q77 Mr Francois: So it is at least one.
- Q78 Rear Admiral Nicolas Vaujour: It is at least one.
- Q79 Mr Francois: It has recently been announced that there will be a new Franco-German-Spanish next-generation combat aircraft. We have the Tempest to replace the Eurofighter Typhoon. At the moment, you are doing your own thing. Is the intention that a navalised version of that aircraft will operate from the new carrier in the way that the Rafale



operates from the Charles de Gaulle?

- Q80 Rear Admiral Nicolas Vaujour: Definitely yes. When we built the Rafale, it was first an aircraft for the navy. Then we designed it for the navy and for the air force. Due to structural problems with the aircraft, you need to decide very early in the process whether you are going to put it on an aircraft carrier. We want to do that for the new-generation SCAF fighter too, with the German and the Spanish. That is how we are dealing with it. I spoke about the next generation of aircraft carrier; I spoke about the next generation freighter. It will be larger and heavier, so we need a long deck.
- Q81 Mr Francois: Lastly, your ship will have catapults. The Americans now have magnetic catapults—EMALS—on the Gerald Ford. You use the old steam method. Have you decided whether you will have the electronic ones?
- Q82 Rear Admiral Nicolas Vaujour: We are looking, with the US, at how we can co-operate in that field. We are very interested in the EMAL magnetic catapults. At this time, I do not know if it has been decided. I know that there are some studies with the US to look at that very specific point. It was very helpful of the US to commission the magnetic catapult. It is now very efficient and they are very happy on board the Gerald Ford, and so we are looking at that very carefully. We have some time, because we are talking about 2038. At that time, electronic catapults will be very mature in terms of safety and efficiency.
- Q83 Mr Francois: They are not cheap.
- Q84 Chair: Those were really interesting questions and answers on the carriers. The job of this Committee, as you will know, is to scrutinise, with best intentions, what our military does and, when we see some errors made, to expose. I am afraid that we have come across some clangers in the procurement process in all three services, so learning from your own deductions and experiences with carriers is absolutely important. I was astonished to find out that our aircraft carriers have no UAV capability of any substance whatsoever. When I asked why this was not built into the newest aircraft carriers in the world, they said, "We were just too focused on getting the F-35B right."
- Q85 You talked about the timeline. Even the size of our aircraft carriers was dictated because we were going for the C variant, and then, because we did not have any steam on board to launch the catapults, because we did not go for nuclear, we have ended up with a ship two thirds the size. When you see the F-35 take off from the carrier, which is incredible, it uses only one-third of the front end of the deck. There are some big decisions there that we need to recognise for the future. It was decided yesterday that Tempest will not be carrier-based, so your FCAS equivalent is not going to be able to land on our aircraft carriers in the future. You made the decision to have the marinised version. Should we reconsider?
- Q86 Rear Admiral Nicolas Vaujour: Aircraft carriers are a political tool. If you



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withdraw some options from that tool, you have fewer capabilities. Aircraft carriers are a very flexible capability. If you put away the Tempest, you have to think about it.

- Q87 Chair: The Committee is yet to form a view on this. I was surprised to find the answer confirmed by the MOD that Tempest—and indeed Mosquito, the next UAV—is not going to be able to land on our aircraft carriers.
- Q88 Rear Admiral Nicolas Vaujour: As usual, you are able to make radical choices...
- Q89 Chair: Whether anybody listens is another matter.
- Q90 Rear Admiral Nicolas Vaujour: ...and sometimes you are wrong.
- Q91 Chair: We have a carrier heading towards Japan. Should it go through the Taiwan Strait?
- Q92 Rear Admiral Nicolas Vaujour: That is your choice.
- Q93 Chair: Has the Charles de Gaulle gone through the Taiwan Strait?
- Q94 Rear Admiral Nicolas Vaujour: The Charles de Gaulle has not sailed up to that point. It went north of Singapore but not up to the Taiwan Strait, because it was probably too far. That is a political decision.
- Q95 Chair: In the spirit of Lancaster House, that is a very diplomatic reply and we fully understand that. I hope that we are at least going to send a destroyer through, if nothing else; it is a long trip to make, otherwise.
- Q96 Gavin Robinson: Good morning, sir. You started off this morning's session talking about how our navies used to engage one another, and I guess the conversation has developed toward embracing one another. I just wonder how you envisage our co-operation developing in the future.
- Q97 Rear Admiral Nicolas Vaujour: At this time, we have a treaty, which is Lancaster House. I am okay with that. To be very honest, our co-operation is at a very good level at the moment. You are changing your model very quickly, and so the question is how we are going to stabilise our co-operation, with your model of two aircraft carriers, the littoral response group, a forward-deployed basis in Singapore and OPVs. For the future, we are going to have the same co-operation in terms of deterrence, because it is mandatory for the two nations, so we will do the same job there.
- Q98 The next question is about having you at the same time in Indo-Pac, in Singapore. We will also be there because we are in Nouméa, La Réunion and Pape'ete, so what kind of balance will we find together to make the operation and to secure sea lines of communication together in that part of the world? I am thinking especially about the Indian Ocean, where we have a lot of things to do together. Your littoral response group will enhance the capability of European nations in that area. At this time, we probably have to find new ways of co-operation in that part of the world.
- Q99 I spoke already about carrier strike co-operation. For the rest, while you



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are going to be forward-based, we are in the same area at the same time, so we have to co-operate in order to share the burden of what we have to do together, especially in terms of maritime domain awareness and maritime security. In the Indian Ocean, we have common staff in the CTF 150, which is against illegal trafficking, in Bahrain, and we have developed joint UK-French staff. When the UK has the lead, France is No. 2 and we provide one third of staff. When France has the lead, the UK provides one third of the staff as the No. 2. We are really ready to do that. The question is doing it. When you have more assets in that area, we can increase our co-operation in that field.

- Q100 Gavin Robinson: You mentioned the carrier strike groups, which are going to face one another in the first instance, and then, as you put it, walk alongside one another. What you are talking about at this stage sounds as if it is complementary collaboration. Do you see it evolving into integrated or joint responses, not just for the carrier strike group but across the board?
- Q101 Rear Admiral Nicolas Vaujour: I do not know if we need anything very structured. I spoke last year with COMOPS UK about the CJEF concept, which was something written on a piece of paper to say, "We have to improve our skills to work together. We are able to do it." CJEF is a concept; it is best to do something concrete. The question is the same: do we have to put something down on paper? I am not sure.
- Q102 What we have to do is to share the assessment of what we think about the crisis, what we would like to do in a crisis, and then to find the solution. When we work with the First Sea Lord and the CEMM in the French Navy, we do not speak about centralisation of capabilities—where we are going to deploy the Charles de Gaulle, the Queen Elizabeth and so on—but about whether we have opportunities to work together. The best way of doing it is not to put administration inside that field. We have to share our assessment, find the opportunities and just go.
- Q103 Chair: Can I ask about a specific procurement project, the future cruise/anti-ship weapon? This is an MBDA project looking to replace Storm Shadow, Exocet and Harpoon, and is an important advancement in capability. It touches on what I was speaking about before. I am slightly embarrassed to say that the British surface fleet cannot hit anything on land other than using the big gun on the front of the ships. This will be that gamechanger that will allow greater versatility for the commander. Can you update us on where things are with that project?
- Q104 Rear Admiral Nicolas Vaujour: We could say that in a very diplomatic way: the work is still in progress, but the solution is not yet found. Joking apart, what we have to face are competitors. Russia is coming back in submarine and missile superiority. With China, there are challenges on the numbers and on missile technology. For Russia and China, these are supersonic to hypersonic missiles: Zircon for Russia and DF-17 for China.
- Q105 Can we stay outside of that game? The first thing is to be able to defend ourselves against that kind of missile. The Formidable Shield exercise just



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finished, in which we tested with the US and with you our ability to fight against that kind of weapon. Secondly, do we have the technology to go further and to build together a future weapon of superiority? There are two ways: velocity and stealth. We have to make a decision, to find a solution and to work together.

- Q106 Mr Francois: As the Chairman was hinting at earlier, in terms of our surface platforms—not the carriers but our frigates and destroyers—some would argue that their defensive capabilities are very good. The type 45, with its SAMPSON radar, is a brilliant air-defence destroyer. The type 26 is a highly capable ASW frigate, when she gets into service. Their offensive capabilities are relatively weak. We have these very expensive platforms but not a lot of bang for our buck. Would you agree that it is very important that, as we bring these platforms into service or upgrade the existing ones, we give them an offensive capability to try to match their defensive capability?
- Q107 Rear Admiral Nicolas Vaujour: When you are in the planning process for deploying a destroyer in an area of operations, you put a Russian ship inside the Mediterranean sea and put a circle around it, which is the range of the Russian anti-ship missiles. It definitely completely changes the way you think about how you are going to operate in that area, if the competitors in front of you have that kind of weapon.
- Q108 We need navies to have key capabilities like this—anti-ship missiles, cruise missiles and torpedoes—to repel competitors outside of the circle. For years, the French Navy has had Exocet missiles on board. We put in a small one in the beginning, and then blocks 1, 2 and 3. That is why we want to go with you to the FC/ASW, which can be fired from an aircraft and from a ship. When you have that kind of capability, you change the mindset of your competitor. That is why it is so important to have it on board.
- Q109 Mr Francois: The problem is that our recently published defence review said that we need this capability, but was very vague on the timings and what kind of system it would be. Presumably, from what you have said, that would also apply to the Chinese surface combatant working in the Far East. The principle is the same. Presumably, you would like to see a system brought into service as soon as practically possible.
- Q110 Rear Admiral Nicolas Vaujour: I cannot go into that subject. That is your view and your statement, I have to say. For the French part, we need to have that kind of capability.
- Q111 Mr Francois: If we are going to co-operate with you, it would be handy if we had it too.
- Q112 Rear Admiral Nicolas Vaujour: Yes.
- Q113 Chair: In that vein, I am concerned that perhaps there is not enough collaboration between our two great nations, and not just from a naval perspective. We can point to examples, but we are building FCAS and Tempest. These are sixth-generation aircraft costing billions and billions



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of dollars. We have just done the same thing with the F-35 and have had to cut the numbers of aircraft, because we simply cannot afford it. We are down to 48 from 138. My concern is that it is going to happen again with Tempest, and we have just established that it is not even going to land on our aircraft carriers. Why are we competing against each other? You have mentioned China three times, unprompted, in this discussion here today. Are we competing too much against each other?

- Q114 Rear Admiral Nicolas Vaujour: The question is about sovereignty, industry, co-operation and politics. It is not a navy problem.
- Q115 Chair: You are the customer.
- Q116 Rear Admiral Nicolas Vaujour: Yes, for sure—I need something. I would be very happy if every industry were able to speak together, to share technology and to have the same aircraft. My concern is not the aircraft itself, but interoperability. If we want to work together with the Queen Elizabeth and the next carrier strike group, we need to have aircraft that can speak to each other and fight together.
- Q117 The question is whether we are able to converge. That is not so easy, because it is always the same. We need to put the French industry first and you need to put yours first. That is not my problem. It is a political problem; it is a sovereignty issue. My only thing is that I want them to be interoperable. That is it. It is very important. NATO is there for that reason. Within the NATO structure, we need to find a way for all aircraft to fight together at the end of the day in 10 or 20 years. It would be better if you were on board, if there was only one project with Tempest, SCAF and so on. For sure, it would be better.
- Q118 Chair: Admiral, that brings us to a conclusion for our first session this morning. Can I thank you very much indeed for your time? It has been a really illuminating session and we can all underline the importance of us working together. The threats around us are only going to get larger as we advance in a very uncertain world. It is a real pleasure to have you here today. Thank you very much indeed for your time.
- Q119 Rear Admiral Nicolas Vaujour: Thank you for inviting me. I would like to give you a small souvenir from the French Navy, which is a French whistle to welcome the high authorities on board French Navy ships. That is for your desk. You can put it there to say, “I am always welcome in the French Navy.”
- Q120 Chair: When the Government do not listen to our recommendations, we will blow that very loudly indeed. Admiral, thank you very much indeed.