HOUSE OF COMMONS

Foreign Affairs Committee

Oral evidence: Implementing the Integrated Review: Tilt to the Indo-Pacific, HC 684

Tuesday 26 October 2021

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Watch the meeting

Members present: Tom Tugendhat (Chair); Chris Bryant; Stewart Malcolm McDonald; Andrew Rosindell; Bob Seely; Henry Smith; Royston Smith; Graham Stringer.

Questions 22 - 49

Witnesses

I: Dr Jack Holland, Associate Professor in International Relations/Security, University of Leeds; Dr Sidharth Kaushal, Research Fellow for Sea Power, Royal United Services Institute (RUSI).

Examination of witnesses

Witnesses: Dr Jack Holland and Dr Sidharth Kaushal.

Q22 **Chair:** Welcome to this afternoon's session of the Foreign Affairs Committee. We are lucky to be joined this afternoon by Dr Jack Holland and Dr Sidharth Kaushal. Can you introduce yourselves briefly, please?

Dr Holland: My name is Dr Jack Holland. I am an associate professor in international relations and security at the University of Leeds.

Dr Kaushal: Good afternoon. My name is Sidharth Kaushal. I am the research fellow for sea power at the Royal United Services Institute in London.

Q23 **Chair:** Thank you very much indeed, both of you, for joining us. Dr Holland, what are the relative strengths of each AUKUS member country? In what areas is the UK best placed to contribute to this pact?

Dr Holland: These are the kinds of questions that I used to ask myself when I was beginning out in my research career. I would go through the respective countries—the US, UK and Australia—and think what they are bringing to the table. There is an extent to which I have flipped that question in recent years to change the unit of analysis to the coalition itself, and to think what it is the coalition actually does, since it now operates as a transnational political space and a single security community.

There are obvious things that the US brings to this, in terms of pure capability. Having Australia and the UK there, for a very long time now—this is not a new thing—has helped to multilateralise American foreign policy. It has helped to grant legitimacy to coalition actions in a variety of places. That is just for the last 20 years. There is a whole range of things that the relatively junior partners of this can bring to the table.

For the UK, it is incredibly useful to have a name on something that is so enduring. There has been an old anglosphere coalition now for a very long time. To have this branded as AUKUS and to make concrete something that is going to be so important through the 21st century is going to really help with that tilt to the Indo-Pacific, and making global Britain real and manifesting it.

Q24 **Chair:** What are the fundamental benefits to the UK of this deal?

Dr Holland: Working with Australia and America is not new. Labelling this thing has done some specific initial things in terms of technology, with submarines, AI and all the rest of it. It is essentially brass hatting something that has been in operation for a long time, whether that is through Syria, Afghanistan or Iraq, and previously through the 20th century.

It helps with force projection into the region. It helps to make concrete those containment efforts for rising powers in the Indo-Pacific and China

specifically. It has acted for a long time as a security guarantee both for the UK and, in particular, for Australia. That will continue to be the case by labelling it in this way.

We have been a member of things such as Five Eyes for a very long time now, but there has been this old anglosphere core to the thing, which is the US, UK and Australia, the more extroverted members of Five Eyes, as distinct from Canada and New Zealand. There are these anglospheric dyads: you have the three that really possess a willingness and desire to take military intervention when needed that the others lack.

This puts Britain right at the heart of those efforts to say, "This is what the next century is going to look like and this is how we think we can project force in order to stop or prevent future conflicts from actually occurring." Going right up to that line is very delicate, but this is going to be right at the heart of those efforts.

Q25 **Chair:** What are the disadvantages for the UK?

Dr Holland: There is a real risk. If you push that trip wire ever closer in the Indo-Pacific towards China, you need to have processes and mechanisms in place to make sure that, when that trip wire is actually triggered, it does not lead into a conflict that you do not want to be in. It is a case of treading that fine line of being more proactive in containment efforts by working with culturally similar friends and allies that we are very used to working with, in order to have the desired effect, which is the maintenance of a maritime capitalist, liberal order that we have made in our own image. To not maintain that is pretty catastrophic.

There is a strong normative reason to do this, but the risks of pushing too far and of this old anglosphere coalition getting it wrong are high. We have seen repeatedly in the last 20 years what happens when this coalition takes action that it should not. Having those processes in place is going to be crucial. It is going to rely on things like back channel diplomacy and making sure, as is going on right now, as well as that shopfront in AUKUS, that diplomatic efforts are there to make sure everybody is talking to each other behind the scenes.

Q26 **Chris Bryant:** You referred to global Britain. What do you mean by global Britain?

Dr Holland: That is a good question. If I could answer that, I would be on a higher pay grade than I currently am.

Chris Bryant: It is alright; the Foreign Secretary could not either.

Dr Holland: This is one really interesting thing about AUKUS. It has come right at this moment when we are trying to make out what this thing—global Britain—is. At the moment, global Britain is taking shape, but this anglospheric security community has been there for a long time. It is one of the ways in which the UK has projected force for decades, alongside Australia and America, in Afghanistan, in Iraq and in Syria.

That doctrine of international community-type interventions is a very visible and key part of what global Britain has been.

This will push into new directions, I am sure, with refocused international trade and all the rest of it. In terms of security, security is global. This anglosphere community operates in a global way, not just in the Indo-Pacific. This is one of the key means through which Britain can extend its force projection and operate in a more global manner. You are right: we are still working out what global Britain means.

Q27 **Chris Bryant:** What makes it Anglo?

Dr Holland: Do you mean in terms of AUKUS?

Chris Bryant: The French have a very significant presence in the region. They are physically the closest nuclear presence to us. I have never quite understood why Britain and France could not share technology on a nuclear weapon. Has this done any damage to our relationship with France?

Dr Holland: Yes, certainly. When talking about the anglosphere, this is an exclusive security community. The reason the French are not involved is because they are the French. It is important to stress the degree to which this is based on assumptions of familial kinship among these countries that go back centuries. There is a series of qualitative variables that can be thrown out to explain this thing: democracy, culture, language and all the rest of it. It is also shared colonial histories and the mutual values that have come out of these things that are sometimes quite unpalatable.

We anticipated this, with less foresight than is suggested. We put a funding bid in to look at France-anglosphere relations in the summer before AUKUS was announced and it all kicked off, so we have a little bit of money to actually work this out. The plan for what we wanted to do was to consider the French-anglosphere relationship in a changing liberal international order. We did not quite expect the furore that was to come with the announcement of AUKUS.

I have spoken to my colleague at ANU, Dr Eglantine Staunton, who is an expert on French foreign policy. I bring the anglosphere side of things. Yes, this has been managed badly and damage has been done, but it is also an issue that is not politically un-useful to the French at the moment. There are concerns long term over the French role in working with the anglosphere, as it has done in Libya and Syria, but I would not worry long term about that role. The convergence of interests is still there.

It has a different foreign policy culture and a series of different discourses to articulate that position in the world, which is very distinct from the anglosphere, but those are not going away. Once the elections are done and more diplomatic efforts are put in place to relax some of what has happened, long term that should be less of an issue than it is right now. You are right: France has an awkward position alongside the

anglosphere, despite how involved it has been in Libya and in Syria recently.

Q28 **Chris Bryant:** I am conscious we have not had anything from Dr Kaushal. I would like to ask you both whether we could have had FAUKUS rather than just AUKUS and, if not, why not. It seems intrinsically that that would have been a wiser policy to have pursued and you would not have ended up with a breaking of a contract on behalf of Australia.

Dr Holland: I have 15 years of research on the anglosphere that says that is unlikely to be the case. It is always going to fall back on those core anglosphere states for these less-than-palatable reasons of perceptions of an Anglo-Saxon heritage and all the rest of it. We do not always put these things front and centre on the branding of AUKUS, but they are, none the less, intangible things that mean these allies trust each other in a way perhaps that they are more suspicious of what could be natural allies based on convergent interests.

This is not really about interests all of the time. This is about those shared identities, and the values and cultures that come along with these things. It is why we trust the Americans and Australians so much. It is why, in Five Eyes, it is Canada and New Zealand, and then you get this fading gradation of anglosphere identity. There have been bolt-on partners for these organisations. At times, Five Eyes has worked with Japan, the Netherlands, South Korea or whatever it might be, but they are always bolt-on parts. They are never the heart of that recurrent security coalition that stands up and takes action in those key moments.

With the US, the UK and Australia, we have the core of that anglosphere alliance. It just now has a much snappier name than I have ever given it in my research previously.

Q29 **Chris Bryant:** It just seems so weirdly nostalgic to me, but anyway, Dr Kaushal, do you have any comments? I see Andrew Rosindell is smiling.

Dr Kaushal: I do not have much to add on what Dr Holland has said, except perhaps that there were also a few military reasons why the framework might have emerged the way it did, looking particularly, for example, at the question of submarines. British and American nuclear submarines use highly enriched uranium, as compared to French ones, which do not.

That is quite an interesting interoperability consideration if a facility that supports Australian submarines in the Indo-Pacific can also, for example, act as a base for American submarines. That natural interoperability, when it comes to British, American and Australian assets, existed in a way that perhaps it did not with French assets. In addition to the broader historical and diplomatic considerations that Dr Holland mentioned, there was perhaps also a more technical reason why the framework emerged the way it did.

Q30 **Henry Smith:** France withdrew its ambassadors from Washington and

Canberra, but not London. What is your take on that?

Dr Holland: The French spin on this has essentially been that it is not even worth it in the UK, and the greater snub is to not even do anything, because this was expected and foreseen. That would be the French spin on this, I think.

Chris Bryant: That is great.

Chair: I have a personal interest in this. My wife works at the French embassy at the moment, so I am staying out.

Q31 **Royston Smith:** Beyond defence, are there any other areas in which co-operation between the AUKUS countries might be deepened? By that, I mean that we all know that they share intelligence already, but perhaps more so diplomacy and trade. Can this be expanded?

Dr Holland: The cultural ties that bind this are really important. Yes, for sure there are conversations on trade, but there are conversations on things like free movement that groups have been pushing for over a long time, especially in CANZUK, rather than the US—cultural exchanges, university exchanges, this kind of thing. Given how easy it is for people to circulate between those CANZUK countries in particular, whether it is for higher education, cultural purposes or wanting to work and live, there is a lot that can be done simply to enhance those cultural ties that bind. There is a huge resonance popularly to do those kinds of things. It is not particularly controversial to suggest that we would welcome Australians or vice versa.

Dr Kaushal: In the realm of geoeconomics and trade, although there are undeniably areas for further co-operation, I would assume that all three nations would want to approach the wider region on a multilateral basis, lest the creation of trilateral frameworks suggest that a more exclusive economic alignment was developing in the region, in the light of China's own efforts to position itself at the heart of frameworks like the CPTPP, for example. That might represent a strategic misstep.

In the realm of geoeconomics, co-operation doubtless will proceed between all three nations. I would assume that they would want to approach it outside the confines of the AUKUS framework in many ways, given the potential consequences of doing otherwise.

Another area that might be of potential interest and, indeed, was mentioned in the original announcement, was co-operation on the technologies of the future—things like quantum computing and artificial intelligence, which are of course saliant to defence, but also have wider ramifications for these three nations' positions in the world. Given the levels of trust that Dr Holland mentioned and the inherent sensitivity of these areas of technology, that represents a viable area for technical co-ordination between the three nations.

Q32 **Royston Smith:** Does it need to stay with the three nations that are in it

currently? We have just signed a trade deal with New Zealand, but New Zealand is not involved in this. Could it be expanded to include more nations than are currently in it?

Dr Holland: Yes. At the moment, you have the three extroverted members of Five Eyes, the most inclined, culturally and in terms of national identity, to take military action when necessary. Canada and New Zealand are more sceptical of military intervention generally, having suffered from Britain historically and then from a great and powerful neighbour, so you have this foreign policy culture that is a hangover of a two-step process of imperialism, which has tempered that enthusiasm to resort to military action.

In terms of intelligence co-operation and in other areas, I think there are already preliminary conversations in New Zealand about working with AUKUS on specific things that are part of AUKUS, so specific technologies that they are less concerned about. Nuclear submarines is more concerning for New Zealand, perhaps, than AI capacity or whatever else it might be.

There is something special about those three countries and what they can deliver, in terms of military-premised solutions to the challenges of this century, but, yes, there are areas where you can work with likeminded others, even if it is a case of disaggregating some of those things that are going to make AUKUS up.

Dr Kaushal: I do not have much to add to that answer.

Q33 **Stewart Malcolm McDonald:** I am not sure to what extent this is perhaps for our panel earlier. What do you think the economic benefits of AUKUS will be for the UK specifically? In terms of jobs and economic activity, what do you expect the economic benefits to actually look like?

Dr Holland: I am going to have to pass and say I am just not expert enough to answer that.

Q34 **Stewart Malcolm McDonald:** Let me rephrase the question slightly, if I might. Will America largely hoover up all the economic benefits and we will get whatever is left to fall off the table?

Dr Holland: I cannot answer that, I am afraid.

Dr Kaushal: In terms of the immediate economic benefits of the first flagship project, the nuclear submarine, it remains to be seen in many ways. A lot depends on design choices that the Australians make and the technical discussions that take place over the course of the next 18 months. There are good reasons to believe that Britain might accrue certain immediate economic benefits from the project, not least of all the inherent complementarity of the Royal Navy's submarines with things like the likely crew sizes that the Royal Australian Navy can field, as well as some of its operational requirements. However, this remains to be seen.

In the medium to long term, the economic benefits that would accrue from AUKUS are a bit harder to forecast. They depend very much on, as I mentioned earlier, the form and substance of co-operation in areas like disruptive technologies and the constituent bases of the fourth and fifth industrial revolutions. In principle, one can see Britain gleaning benefits from economies of scale and co-operating in areas of technology where perhaps the national industrial and technological base might not have delivered results in and of itself.

Q35 **Henry Smith:** Off the back of my colleague's question—Royston a few questions back—with regard to the involvement in other countries in perhaps an expanded AUKUS, in the House of Commons earlier today at Foreign Affairs questions, the new Foreign Secretary spoke about co-operation with India, for example, and other European nations. I would be interested in your thoughts on that.

Coming back also to those other Five Eyes countries, Canada and New Zealand principally, New Zealand has a long-established moratorium, as you know, on nuclear weapons. That seems to be a cross-party consensus between Labour and the National Party in Wellington. As you mentioned, Canada has its reservations in terms of military involvement because of its southern neighbour and imperial history.

I am just wondering, in your view, how realistic it is to expand AUKUS to other countries, whether it be New Zealand, because of the nuclear question, Canada, for historical reasons, or India, and then the interplay with other Commonwealth countries, like Pakistan and so forth. I would just like to unpack how realistically expandable AUKUS is, as opposed to just bolt-on arrangements that you were referring to earlier on.

Dr Holland: It is a great question, because it is the kind of question that we begin anglosphere research with, which is what the anglosphere is, how we define it, how you work out those cultural variables that warrant inclusion or exclusion from this thing. The answer to your question depends on what AUKUS will be.

Is it going to be a security community that is looking to use force projection and military posturing to avoid greater conflict and retain freedom of navigation of the seas? If it is that, the old anglosphere coalition that is those three countries is best placed and least squeamish to do these kinds of things.

If AUKUS is going to be a co-operation in terms of sharing technology in a range of arenas and all the rest of it, inclusion gets much easier, because the military dimension is downgraded slightly. Then you would be looking to the first class for admission, which would be New Zealand and Canada, because they are already working so closely with Five Eyes and all the rest of it.

Once we go out from those five, things get more difficult, for cultural and historical reasons. India is welcoming of AUKUS, but also nervous about what it does to the region, to the Quad and all the rest of it. Once you get

beyond New Zealand and Canada, you are looking at ad hoc coalitions, rather than something that is at the heart of AUKUS. These three countries have set themselves apart from likeminded nations by demonstrating willingness to take military action when it is deemed necessary for reasons of sovereignty, liberal international order or whatever else it might be.

Q36 **Henry Smith:** Dr Kaushal, from the technical point of view, which I understand you have particular knowledge in, what is your view on the involvement of other nations beyond the initial three AUKUS members, given the varying technology that France has and New Zealand removes itself from, as well as Canada and India?

Dr Kaushal: There are two things on the point Dr Holland made before this. If we view AUKUS in the context of the integrated review and the very Europe-first focus of the review, despite the Indo-Pacific tilt, it suggests that it will be more towards a technology or capability-sharing framework, where the UK's best bet for exercising influence in the region is reinforcing natural regional centres of resistance, rather than deploying hard power there itself, given the commitment of the UK's premier assets to Europe.

If it travels in the direction of being more of a technical arrangement, as opposed to an alliance per se, you could see the expansion of AUKUS even to a fairly heterogenous group, much as you might analogise it to the PESCO framework in Europe in some ways—a sort of shared capability generation framework.

When it comes to the technical side of this, however, things become more tricky. As you mentioned, you are working with partners such as India, which, among other things, engages in significant levels of defence import from Russia. That creates both interoperability challenges and challenges of information sharing across boundaries, given the natural sensitivities around the subject. You also, to some extent, have fewer interoperability challenges when you look at partners such as Canada and, potentially, Japan, which, in many ways, have always built and structured their forces to slot within a US framework.

At the level of generating interoperable forces and shared capabilities, you potentially run into a varying level of difficulty, depending on which partner you are looking at. At the level of knowledge sharing, for example, or the development of capacity, rather than capability, you might well see more fruitful avenues for co-operation, though there again a great deal depends on, among other things, standards of data protection and information security, which vary across partner nations. To a great extent, it is likely that these ad hoc arrangements will need to be tailored to the partner in question.

Q37 **Graham Stringer:** Dr Kaushal, are there any specific technology areas that should be prioritised within the AUKUS structure?

Dr Kaushal: Yes. Moving beyond the area of nuclear submarines, which is the first flagship project, an area where perhaps the UK could leverage the expertise developed by its partners would be both the offensive and the defensive aspects of long-range hypersonic precision strike. That is an area where Australia and the United States already have longstanding co-operative arrangements and have done a pretty significant amount of work, as well as developing some of the key facilities—things like test facilities.

The UK will itself need these as it works through the challenges of integrating long-range prompt strike capabilities into its own force structure and defending against them in Europe, given the emphasis placed on these assets by nations such as Russia. That is an area where, from a UK military perspective, there is a great deal to be done with the two AUKUS partner nations. That stands out. You might call it an easy win. That would be the area of defence and offence in the area of prompt strike capabilities.

Q38 **Graham Stringer:** That is very interesting. Are there any other areas in defence, apart from hypersonic missiles, where the UK could benefit from this co-operation?

Dr Kaushal: Over the medium to long term, the other areas in which the UK could benefit are more disruptive technologies, things like quantum computing or the integration of unmanned assets, alongside manned platforms. Again, to touch on the latter, the integration of unmanned assets, this is an area where the Royal Australian Air Force has done a great deal with its Loyal Wingman project, alongside the US. It is an area where the UK can potentially leverage its allies' institutional knowledge, much in the way of that Australia probably will with respect to the SSN programme.

There are a number of more disruptive changes in autonomy, AI and similar areas where the UK can benefit from the economies of scale and spreading risk across a multi-partner framework, as well as from leveraging work by partners that, by virtue of the regional challenges they face, have perhaps moved even slightly ahead of the UK in certain respects.

Q39 **Graham Stringer:** During the debate on the replacement of the Trident fleet, one of the arguments used against replacing Trident was that new technology would make the oceans transparent, so the advantage of nuclear submarines as being essentially hidden and not locatable would be gone. Do you think that is a real possibility and that, by the time these submarines are built, they will be obsolete?

Dr Kaushal: There are a number of potential advancements in areas like improvements in data processing that make the use of low-frequency active sonar, which is effective over much longer ranges and with greater accuracy than passive detection methods, viable, as well as, for example, the use of unmanned underwater vehicles in large numbers. It is

conceivable that, in the future, nuclear submarines will have to operate at greater distances from the battle space.

However, two points are worth noting. Even if the future of the subsurface environment is characterised by the use of unmanned vehicles, by virtue of their low endurance, these vessels typically need a mothership to both take them to the battle space and act as a command and control vessel. If you look at, for example, the Russians' approach to the use of autonomous vessels in undersea intelligence and land combat, the mothership for them is the Belgorod and Oscar class nuclear submarine, which had to be elongated to play this new role. That is because you need something with the range and endurance to loiter in a theatre and act as a command and control node in order to make unmanned assets viable.

The second point is that the undersea environment may change the role that nuclear submarines play. I am not necessarily sure it will make them obsolete. Similarly, things like low frequency active sonar may well make detection viable at much longer ranges and may force submarines to operate from further out, perhaps relying more on long-range strike capabilities as both new-generation Russian submarines like the Yasen and American submarines like the Virginia class are being designed to do. Again, it does not necessarily obviate the utility.

A final point is that, of the areas in which multispectral sensing, the fusion of data from multiple sensors, is likely to make the domain transparent and therefore targetable, the subsurface domain is probably the area in which the technology for detection is at its least mature and most speculative. A subsurface asset is still, all things said and done, much more survivable than, for example, a surface asset, which will possibly become more and more at risk and will find theatre entry harder and harder as the decades progress. That would be my position on it.

Q40 **Graham Stringer:** I have a final question. Do you have a time horizon for these advances in the technology that would make the detection of nuclear submarines easier?

Dr Kaushal: It is difficult to say. Some of them, such as the use of low-frequency active sonar, may be seen in operation in the 2040s, so within a fairly reasonable time horizon. For other things, like quantum computing, for example, it is very difficult to say with any degree of accuracy. The co-ordination of unmanned underwater assets in large numbers is something that we would expect to see in the coming decades, but that I would probably struggle to put an exact time horizon on.

Chair: I am interested by your comments on the various ways in which technology is going to change but, rather than going into it directly, Stewart, you wanted to come in on that.

Q41 **Stewart Malcolm McDonald:** Dr Kaushal, could I ask you to give the

Committee an assessment of China's recent technological advances and, in particular, the story from just a few days ago, maybe a couple of weeks ago, about hypersonic missile testing and the construction of new long-range missile silos?

Dr Kaushal: The fractional orbital bombardment system that China tested a couple of weeks ago is a very interesting development. I am not sure it is necessarily a destabilising development. The system itself was tested by both the US and the Soviets in the 1960s, and eventually abandoned because it was deemed essentially inaccurate compared to an ICBM.

The missile tested by the Chinese today with the hypersonic glide vehicle aboard a FOBS landed within kilometres of its target. This means that it is too inaccurate to be used as a first-strike weapon, but, because it follows a non-traditional trajectory, because of both the fractional orbital trajectory and its use of a hypersonic glide vehicle, it is exceedingly hard to intercept with missile defences. That is the key to the development.

Chinese authors, academics and military officers are watching improvements, both real and potential future improvements, in US prompt strike capabilities and missile defence with a great degree of unease. The fear on the Chinese side is effectively that, because their nuclear submarines, their ballistic missile submarines, are exceedingly noisy, they cannot break out of the first island chain into the Western Pacific to launch a second strike if they need to. Their silo-based missiles are increasingly vulnerable to conventional and nuclear prompt strike capabilities that the US is developing. What was left after a first strike might well be mopped up by missile defences that, though highly imprecise today, could be significantly improved by a space-based sensor layer.

Developments such as the MIRVing of the DF-41 missile— the introduction of multiple independently targetable re-entry vehicles on it— the creation of silos that could either be stocked with missiles or be designed to force the US to expend munitions on empty silos, essentially playing a sort of shell game, and the recent test of the FOBS, fit into the same overarching objective, which is to restore China's confidence in a secure second strike capability. All things said and done, that is not a terribly destabilising development, so I am relatively sanguine about that area of Chinese force development.

An area I am probably less sanguine about is its conventional force development. Many aspects of this have been well trodden: its long-range strike capability, such as the DF-21D and the risk they pose to US power projection, but increasingly its intermediate or theatre-range strike capabilities, such as the DF-26. That is quite critical, because it can target Guam, along with assets like the H-6 and H-6K bomber. That means that the facilities on which American submarine operations in the Western Pacific depend will increasingly become, if not indefensible, at least highly at risk from Chinese long-range strike capabilities.

That potentially is another rationale for the AUKUS framework. It allows the US to diversify its infrastructure across the Pacific and to leverage infrastructure that is out of the reach of most current and existing Chinese strike assets.

Beyond that, more broadly, we have seen steady developments in a range of areas, whether that is the shorter theatre range; hypersonic capabilities like the DF-17; the fielding of, or the attempts to field, newer, quieter nuclear submarines, such as the Type 095; and, of course, the construction of larger and larger vessels, whether that is the Type 055 cruiser or the still-in-construction Type 003 aircraft carrier.

If I was to discuss China's force modernisation and development, it would be a story of two parts. I am relatively sanguine about the nuclear development, which I think really is aimed just at restoring second strike security. I find the conventional force development, by contrast, much more destabilising and worrying in many ways.

Q42 **Stewart Malcolm McDonald:** You have almost started to talk to my follow-up question, which is about how you think AUKUS can balance these developments. Before I ask you to go into that a bit more, when it came to the hypersonic missile testing that was in the *FT* and all over the news just a few days ago, that appeared to catch the West, Five Eyes and, in particular, the US by complete surprise. Are you surprised by that? How did that come about?

Dr Kaushal: I am not necessarily surprised by the test, in so far as we knew long before the test happened that China was looking for ways to restore the credibility of its second strike. It was largely assumed that it would do something. We also knew, even in the public domain, that it had been testing hypersonic vehicles and had of course fielded a hypersonic strike missile at theatre range in the form of the DF-17.

It was generally probably more likely and of course there is precedent here, with the Russians fielding the Avangard hypersonic missile, largely to allay similar concerns, and, I should say, the Poseidon nuclear torpedo. There was a precedent for what China did in this space that would have suggested something similar. One of course cannot say with what degree of accuracy intelligence agencies knew exactly what China was going to do, but I think it was generally known that something along the lines of what they did was probably in the offing.

In terms of the ways it could have tried to circumvent its second strike problem, it is worth mentioning that this is probably the most benign way, as compared to other things it could have done, like embarking on a massive nuclear build-up or building larger and larger numbers of anti-satellite missiles to take out any future US space-based sensor layer. Despite the attention it has received from the public and, indeed, elements of the US Congress, my guess, though of course I am not cognisant of what intelligence agencies knew, was that this was anticipated. Part of the reason for a relative lack of alarm bells ringing

was that it was seen as probably the least risky of the ways China could work through its second strike problem.

Q43 **Stewart Malcolm McDonald:** In the *FT* story, it quotes an anonymous US intelligence source as saying it represented "astounding progress", but you do not seem convinced by that.

Dr Kaushal: There are areas in which it represents progress. For example, heat-resistant ceramics have typically been a problem for the Chinese hypersonic missile programmes. The fact that they have built a re-entry vehicle that appears capable of manoeuvring under extreme thermal pressure represents progress in some areas, though, again, we knew that they were getting there, because they had already fielded one hypersonic glide vehicle, the DF-17. As for the rest, we are talking about, as I said, technology that the US and the USSR were working through in the 1960s, so that assessment is probably not one I would agree with.

Q44 **Stewart Malcolm McDonald:** I am currently slowly reading *Nuclear Folly*, which I am sure you are familiar with, and some of this sounds like it is history repeating itself. To go back slightly, you are less concerned about China's technological developments, or some of them. You are more concerned with the conventional developments. I wonder if you could just talk a bit more—you started to—to how you think AUKUS could balance those advances on the Chinese side. Should it and, if so, to what extent?

Dr Kaushal: There are three aspects of China's conventional force development that AUKUS balances. The first is that, in some ways, it inverts the anti-access problem. The Chinese force structure has been built to keep American surface assets, primarily, at arm's length—everything from the DF-21D anti-carrier missile to the range of cruise missiles, the YJ-83 and the YJ-18, that it holds on a variety of air and surface platforms. It is very much optimised to that task, as indeed is the growing space-based surveillance system it has built.

Of course, it does not actually matter if China can keep the US Navy's surface vessels at arm's length if it cannot exploit that anti-access bubble to then overturn the regional order in places like Taiwan or the South China Sea. It is quite easy for regional powers themselves, with the right amount of assistance, to invert the anti-access challenge against PLA Navy vessels, which themselves can be threatened by things like long-range strike capabilities or indeed by submarines.

Submarines represent an optimal tool for flipping the anti-access challenge on the PLA Navy for a number of reasons. Firstly, anti-submarine warfare is an area of relative weakness for the PLAN. Surface vessels are and have historically been vulnerable to attack by quiet and stealthy submarines. In the contest of an increasingly denied surface environment, which the Chinese have become increasingly good at closing off to US vessels, it may well be that, moving forward, submarines represent the most survivable asset for regional powers

developing their own diesel electric fleets, and extra-regional powers projecting into the region at distance with nuclear assets.

The second point I would make about AUKUS, which I touched on earlier, is the fact that it diversifies and disperses critical infrastructure. Even if it takes decades for Australia to field a nuclear submarine, if the shore infrastructure and frameworks to maintain and support them are built in advance and are accessible and interoperable with American submarines, that makes American submarines a lot more survivable and usable in the Indo-Pacific. It means that they are not dependent on a single facility, namely Guam, which will become increasingly vulnerable, and therefore not obligated to keep rotating back to the continental US or to Diego Garcia to operate in the region.

Beyond that, there is a potential capability gap looming in the mid-2020s for the US Navy and going from the 2020s to the 2040s, as its older Los Angeles class submarines retire and the newer Virginia class submarines are introduced at a relatively slow pace. A capability gap between available assets and means of, say, 10 to 12 submarines could very well be filled by an Australian submarine force along those contours. That may not be unilaterally deployable, but could be a very useful alliance asset. That is the submarine side of AUKUS.

Beyond that, co-operation in areas like air and missile defence, against hypersonic threats, given how missile dependent China's force modernisation and force structure has been, could also help all three nations balance against Chinese power and influence in the region.

Finally, from a UK perspective, given that is a framework rather than an alliance, it gives the UK an option to constrain Chinese options in the region by working by, with and through partners, rather than adopting a course of direct confrontation. That is very much consistent with the way the integrated review framed China as a systemic competitor, rather than a threat, the language used for Russia. That sort of mix of competition and rivalry is well ensconced in a policy that involves balancing China through the enablement of partners and allies, rather than the direct deployment of hard power.

Q45 **Stewart Malcolm McDonald:** Dr Holland, do you have anything to add to any of that?

Dr Holland: No, they were full answers, thank you.

Q46 **Chair:** Dr Kaushal, you have covered pretty much everything that we were hoping to come to on that, so I am extremely grateful. The last question I had on the AUKUS agreement is to do with the mid-powers, if you wish—those countries that are still in play. Perhaps, Dr Holland, you might like to touch upon how you see this influencing countries like Malaysia, the Philippines and Indonesia, and, although not in play, to a different extent, countries like Japan and South Korea.

Dr Holland: Japan and South Korea will welcome the announcement and be pleased at the extension of especially American power in the region, the formalising and the brass hatting of that. As for other mid-powers in the region—I am not an expert on those mid-powers—countries like Malaysia may see that there is now a greater choice, a real choice, something that is clearly there to be supported and an alternative direction of travel to what there has been for the past few years.

Australia has been pushed on this and has tried to keep a quite difficult position going. It has not been able to keep that position going anymore, so this is a clear signal in the region that might create that opportunity for those states. I am not expert enough to say how they will go.

Q47 **Chair:** Effectively, you think this is going to be one of those pivot moments where you have to decide whether you are going to fall one side or the other.

Dr Holland: It sounds a bit war on terror, but yes. There is a moment where those lines are now being drawn. You may get that strategic ambiguity that might serve purposes in countries like Malaysia, but there are now lines being drawn around a community of likeminded states that have clearly said that they are prepared to take action to try to shape liberal international order through the next decades. This is quite far sighted. I do not know which way they will go, but it has put the option clearly to them.

Q48 **Chair:** What impact do you think this will have on the FPDA and the Quad?

Dr Holland: For the Quad, it has been a case of broad support, not quite the same across all countries. India is slightly more hesitant than Japan for a few reasons. Broadly, the Quad has been enthusiastic about the AUKUS announcement.

Q49 **Chair:** Do you think this will bring them together in any way, or will they still exist as separate arrangements?

Dr Holland: They are trying to do slightly different things. As I have said, we are still not 100% sure what AUKUS is, whether it is a military community or a technology sharing exercise. It is probably both. I think the Quad will continue to exist in a differing capacity, with very different players, but will be harmonious with what is going on with AUKUS.

Chair: Gentlemen, I am extremely grateful to you both for this contribution. Thank you very much for being with us this afternoon. Thank you enormously for your insight.