HEARING ON DETERRING THE PEOPLE'S REPUBLIC OF CHINA AGGRESSION TOWARD TAIWAN

HEARING

BEFORE THE

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

ONE HUNDRED SEVENTEENTH CONGRESS
FIRST SESSION

THURSDAY, FEBRUARY 18, 2021

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WASHINGTON: 2021

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DETERRING THE PEOPLE'S REPUBLIC OF CHINA AGGRESSION TOWARD TAIWAN

THURSAY, FEBRUARY 18, 2021

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

Washington, DC

The Commission met via videoconference at 10:30 a.m., Senator Carte P. Goodwin and Senator James M. Talent (Hearing Co-Chairs) presiding.

OPENING STATEMENT OF SENATOR JAMES M. TALENT HEARING CO-CHAIR

SENATOR TALENT: Good morning, everybody. I'm Commissioner Jim Talent, and I want to welcome everyone to the second hearing of the U.S.-China Economic and Security Review Commission's 2020 annual report cycle. Thanks to all of you for joining us, and thanks especially to our witnesses for the time and effort they put into their testimonies.

The Commission holds this hearing as China's hostile rhetoric and provocative military actions have created an increasing threat to our partners in Taiwan and throughout the Indo-Pacific. As tensions rise, Taiwan's ability to deter China from using military force, even with the help of like-minded countries, is more and more uncertain.

Taiwan has always been a particular focus of the Commission. We include a chapter on it in every annual report to Congress. Normally, we assess the relationship between Taiwan and China as well as Taiwan's significant economic, political, and security ties with the United States and other countries.

In last year's report, the Commission noted that China's increasing use of military coercion and provocation is putting increasing pressure on Taiwan's government and public. The PLA's aggressive maneuvers, such as flights by military aircraft into Taiwan's air defense identification zone, may reflect the view in Beijing that the results of its expansive military modernization campaign allow it to use its military power with increased impunity.

And, indeed, there is no question that the Cross-Strait military balance has become more favorable to China in recent years and particularly in the last ten years. Where that balance now rests is open to question, but that the balance has altered significantly in China's direction is not.

In addition, China, under General Secretary Xi Jinping, and especially since the election of President Tsai Ing-wen, has become more overtly hostile in word and deed towards Taiwan. With the changing military balance, the prospect of outright coercion is greater now than it has been in the past.

Taiwan, a vibrant democracy of 23 million people and an important partner of the United States, is therefore now facing a growing threat from a more hostile and risk-tolerant China. We're holding this hearing to examine the nature of that risk and how best it might be deterred, and we're going to look at it in a comprehensive manner.

Our hearing today will look first at the state of the Cross-Strait military balance. Our second panel will look at political factors underpinning deterrence from the standpoint of China and Taiwan. And our final panel will consider the American interest at stake and the policy options available to the United States, Taiwan, and U.S. allies and partners.

I will now turn the floor over to my colleague and co-Chair for this hearing, Commissioner Carte Goodwin.

PREPARED STATEMENT OF SENATOR JAMES M. TALENT
HEARING CO-CHAIR

Good morning, and welcome to the second hearing of the U.S.-China Economic and Security Review Commission's 2020 Annual Report cycle. Thank you all for joining us, and thank you especially to our witnesses for the time and effort they have put into their testimonies. The Commission holds this hearing as China's hostile rhetoric and provocative military actions have created an increasing threat to our partners in Taiwan and throughout the Indo-Pacific. As tensions rise, Taiwan's ability to deter China from using military force, even with the help of like-minded countries, is more and more uncertain.

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I will now turn the floor over to my colleague and co-chair for this hearing, Commissioner Carte Goodwin.

OPENING STATEMENT OF SENATOR CARTE P. GOODWIN
HEARING CO-CHAIR

SENATOR GOODWIN: Thank you, Senator Talent. And good morning, everyone. I would also like to extend my appreciation to our witnesses for the time and effort that they put into their excellent testimonies.

As the Commission documented in last year's annual report, PLA significantly expanded its operations in the air and waters around Taiwan throughout 2020, increasing the chance of a Cross-Strait crisis stemming from an accident or miscalculation. China's imposition of the national security law in Hong Kong also raised real questions about whether Chinese leaders are now more willing to accept certain risks in the pursuit of their political objective for Taiwan and less concerned about the cost that they could incur as a result.

Many U.S. analysts have argued over the years that China would only use its military in the near term to deter Taiwan's leaders from declaring independence. Our concerns are growing that Chinese leaders may soon use force to compel Taiwan to accept unification on Beijing's terms.

To be sure, initiating a campaign to annex Taiwan, the most ambitious political objective, will be fraught with risk for both the PLA and the Chinese Communist Party. It is also assumed that concerns about PLA's own preparedness and effective military intervention by the United States, or international isolation, would constrain Chinese leaders' decisions to use force against Taiwan. And over the last five years, China's confidence in its own military has grown, as General Secretary Xi has overseen a major reorganization of the PLA.

China's influence over many countries has also deepened as a result of the economic dependency created by the Belt and Road Initiative and other trading relationships. Moreover, Chinese leaders have observed the international community's reaction to its decisions to militarize the South China Sea and reneg on its commitment to respect Hong Kong's autonomy, experiences that may lead Chinese leaders to conclude that they can pursue their political objectives toward Taiwan without prohibitive cost to their reputation or their access to global economy.

These actions have sparked a vigorous debate in Washington over how Chinese aggression against Taiwan could affect U.S. national security interests and whether the U.S. should therefore revisit or alter its long-standing policy towards the island.

Taiwan remains strategically important because it serves as a barrier limiting the PLA's freedom of movement throughout the Western Pacific, and its vibrant, free political system offers a model for democracies around the world. For these reasons, it has been U.S. Government policy for decades to provide for Taiwan's defense and stabilize Cross-Strait relations through the 1979 Taiwan Relations Act, while at the same time remaining publicly uncommitted to a particular course of action in the case of a Cross-Strait contingency.

The logic behind the so-called strategic ambiguity has always been that by declining to make clear whether and under what circumstances the U.S. might become involved in a war over Taiwan, U.S. policymakers could create uncertainty both in Beijing and Taipei sufficient to deter moves by either side that could lead to conflict.

Today, however, there's a growing debate regarding the continuing value of strategic ambiguity to deter PRC aggression from Taiwan. We look forward to exploring this and other themes throughout today's hearing.

Before we begin, I would like to remind everyone that the testimony, as well as the

transcript, from today's proceedings will be posted on our website at www.uscc.gov. Additionally, please mark your calendars for the Commission's upcoming hearing on U.S. investment in Chinese companies scheduled for March 19th.

Before I turn to introduction of our first panel, I'd like to turn it over to our Chairman, Commissioner Bartholomew, for some introductions of her own.

PREPARED STATEMENT OF SENATOR CARTE P. GOODWIN
HEARING CO-CHAIR

Thank you, Commissioner Talent, and good morning, everyone. I would also like to thank our witnesses for the time and effort they have put into their excellent testimonies.

As the Commission documented in last year's Annual Report, the PLA significantly expanded its operations in the air and waters around Taiwan throughout 2020, increasing the chance of a cross-Strait crisis stemming from an accident or miscalculation. China's imposition of the national security law in Hong Kong over the summer also raised real questions about whether Chinese leaders are now more willing to accept certain risks in the pursuit of their political objectives toward Taiwan, and less concerned about the costs they could incur as a result.

Many U.S. analysts have argued over the years that China will only use its military in the near-term to deter Taiwan's leaders from declaring independence, but concerns are growing that Chinese leaders may soon use force to compel Taiwan to accept unification on Beijing's terms. To be sure, initiating a campaign to annex Taiwan – the most ambitious of political objectives – would be fraught with risk for both the PLA and the Chinese Communist Party. It is often assumed that concerns about the PLA's own preparedness, an effective military intervention by the United States, or international isolation would constrain Chinese leaders' decision to use violence against Taiwan.

Yet over the last 5 years, China's confidence in its own military has grown as General Secretary Xi Jinping has overseen a major reorganization of the PLA. China's influence over many countries has also deepened as a result of the economic dependencies created by the Belt and Road Initiative and other trading relationships. Moreover, Chinese leaders have observed the international community's reaction to its decisions to militarize the South China Sea and renege on its commitment to respect Hong Kong's autonomy -- experiences that may lead Chinese leaders to conclude that they can pursue their political objectives toward Taiwan without prohibitive costs to their reputation or their access to the global economy.

Beijing's actions have sparked a vigorous debate in Washington over how Chinese aggression against Taiwan could affect U.S. national security interests, and whether the United States should therefore alter its longstanding policy toward the island. Taiwan is strategically important because it serves as a barrier limiting the PLA's freedom of movement throughout the Western Pacific, and its vibrant, free political system offers a model for democratizing countries around the world. For these reasons, it has been U.S. government policy for decades to provide for Taiwan's defense and stabilize cross-Strait relations through the 1979 Taiwan Relations Act while remaining publicly uncommitted to a particular course of action in the case of a cross-Strait contringency.

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Before we begin, I would like to remind you all that the testimonies and a transcript from today's hearing will be posted on our website, www.uscc.gov. Also, please mark your calendars for the Commission's upcoming hearing on "U.S. Investment in Chinese Companies," which will take place on March 19.

OPENING STATEMENT OF CHAIRMAN CAROLYN BARTHOLOMEW

CHAIRMAN BARTHOLOMEW: Thanks very much. Thank you, Jim and Carte, for pulling this hearing together. And to our witnesses, I think that Michael Hunzeker is actually coming in to us from Texas today as I have that correctly. So he gets the award for putting up with the most difficult circumstances as a witness, and Commissioner Borochoff is actually in Houston, too.

But first, what I really want to do was to welcome our two new Commissioners. We swore in Derek Scissors and Alex Wong yesterday. They have been appointed by Leader McCarthy, and they're jumping in with both feet. Less than 24 hours, I think, and we've got them on board and working. So we welcome them both, and look forward to working with you.

And with that, I'll turn it back over to Commissioner Goodwin

PANEL I INTRODUCTION BY SENATOR CARTE P. GOODWIN

COMMISSIONER GOODWIN: Thank you, Madam Chair.

And turning to our first panel, our first panel will examine the military balance across the Strait. And first we'll hear from Mr. Lonnie Henley. Mr. Henley retired in 2019 after over 40 years as an intelligence officer and expert in East Asia. He served in the U.S. Army as a China foreign area officer before retiring as a Lieutenant Colonel. He went on to serve at the Defense Intelligence Agency, including two terms as Defense Intelligence Officer for East Asia.

Mr. Henley received a bachelor's degree from West Point and a master's degree from Oxford University, where he attended as a Rhodes Scholar, as well as a master's from Columbia University and from the Defense Intelligence College.

Welcome, Mr. Henley.

Next, we'll also hear from Dr. Fiona Cunningham, an Assistant Professor of Political Science and International Affairs at the George Washington University. Dr. Cunningham is also a Stanton nuclear security fellow in the Nuclear Policy Program at the Carnegie Endowment for International Peace. Dr. Cunningham's research examines the use of space, cyber, and conventional missiles for coercion in war.

Dr. Cunningham previously served as a fellow at the Center for International Security and Cooperation at Stanford University, and she received her PhD in political science from MIT. Welcome.

Finally, we will hear from Dr. Michael Hunzeker coming to us from Texas under less than ideal circumstances, so appreciate your time. Dr. Hunzeker is an Assistant Professor at George Mason University, where he also is Associate Director of the Center for Security Policy Studies.

His published research focuses on conventional deterrence, war termination, military adaptation, and simulation design. A Marine Corps veteran, Dr. Hunzeker received his doctorate and BA from Cal Berkeley and also holds two master's degrees from Princeton University.

Thank you all very much for your time and your testimony today. I'd like to remind you to keep your remarks to seven minutes.

And, Mr. Henley, we will begin with you.

OPENING STATEMENT OF LONNIE HENLEY, DEFENSE INTELLIGENCE OFFICER FOR EAST ASIA AT THE DEFENSE INTELLIGENCE AGENCY (RETIRED) AND ADJUNCT PROFESSOR AT GEORGE WASHINGTON UNIVERSITY

MR. HENLEY: Thank you, and thank you to the entire Commission for hosting this event and for giving the opportunity to speak about PLA's operational plans for a war against Taiwan.

The PLA has been working for about 20 years to develop serious military capabilities for a Taiwan conflict. They began that effort thinking that it would be a fairly easy effort. They realized early on that the higher-end options that they had, that they were looking at, especially an invasion of Taiwan, were much harder than they had anticipated and taking them most of that 20 years to develop the capabilities that they initially decided that they needed after the initial examination in the 2005 time frame.

It seems clear to me that they set 2020 as the goal for initial capabilities for an invasion of the island of Taiwan and that they believe themselves to have achieved the goals they set for themselves 15 years ago. They're not fully capable. There's still much more that they can do and are doing to improve their capabilities against Taiwan. But if the political leadership turned to the PLA today and said, can you invade right now, it's my assessment that the answer would be a firm yes.

So that's my first major point. My second point, though, is that the invasion is not the entire conflict. U.S. forces, and Taiwan forces for that matter, have spent most of their development of operational concepts, most of their planning energy, most of their force development and weapons acquisition efforts at -- on means to defeat the landing, the amphibious landing across the Taiwan Strait, and the airborne landing.

My message is that defeating the landing does not end the conflict. Any major conflict against Taiwan will include a full-scale air, maritime, and information blockade of the island. When the landing is defeated, the Chinese Communist Party cannot afford to accept defeat.

Having got that far into the conflict, having stirred up the passions of the Chinese people in support of the notion that war against the United States over Taiwan is essential to the vital national interest of China, the party can't stop at that point unless they can declare victory. If there's some political formula that they can declare as a victory, they will gladly accept it at that point. If not, they must continue the fight. How they continue the fight is by continuing the blockade.

The bad news for us is that they are very capable of continuing that blockade indefinitely because of the geography of Taiwan. If you're going to get large amounts of tonnage into Taiwan, it has to be through the West Coast ports, the ports facing the Chinese coast. The East Coast of Taiwan has a few very small ports, low-capacity ports, but much more important, those ports are cut off from the rest of Taiwan by extremely rugged terrain and very austere transportation links. They cannot serve as the lifeline to keep Taiwan alive in an extended blockade.

Any shipping coming in to relieve the blockade and keep Taiwan on its feet has to come in through those West Coast ports. The problem there is that you're relatively close to the Chinese coastline. And even if U.S. forces had sunk the entire Chinese Navy, shot down the entire Chinese Air Force, and the Chinese have expended all of their long-range missiles in the invasion phase of this conflict, the PLA nonetheless can continue to seal those West Coast ports with shore-based short-range assets, including the short-range cruise missiles -- anti-ship cruise

missiles that were not of much use in the earlier conflict, and also long-range artillery, mines, patrol craft, and other resources that will have not have been expended in the earlier months of the war.

Furthermore, the mines will be -- the ports will be heavily mined and heavily damaged in the course of a conflict. So getting materiel into those ports and into Taiwan will be very difficult under the full fire of everything China has available remaining at that point in the conflict.

We don't have a plan for how to defeat that blockade. Furthermore, we haven't even put the requisite thinking into it. No one in the United States, no one in Taiwan, knows what Taiwan's wartime consumption rates are of critical materiel, what their stockpiles are of those materials, how much of those stockpiles will have been damaged in the conflict up to that point, how many tons of what kinds of stuff need to come into the ports per week to keep Taiwan alive. No one wants to think about this.

My final point is that the -- as important as it is to develop mechanisms to sink the amphibious fleet as it tries to cross the Taiwan Straits, that is not the key to winning this war. There are two issues which constitute -- which are much more important -- equally important as the sinking of the invasion fleet.

Sinking the invasion fleet is vital but relatively easy. What's much harder is taking down the Chinese air defense array along the Taiwan Strait and clearing the hundreds of thousands of sea mines that will have been placed by Chinese forces and by Taiwan forces and by U.S. forces in the invasion phase of the conflict in order to get that materiel into the ports and ashore.

If we can defeat the air defense array, then U.S. airpower can make it possible to conduct the operations necessary to get into port. If that -- the air defense array is up and functioning, then the blockade is up and functioning indefinitely.

And I will yield my remaining 26 seconds. Thank you.

PREPARED STATEMENT OF LONNIE HENLEY, DEFENSE INTELLIGENCE OFFICER FOR EAST ASIA AT THE DEFENSE INTELLIGENCE AGENCY (RETIRED) AND ADJUNCT PROFESSOR AT GEORGE WASHINGTON UNIVERSITY

Lonnie Henley: Witness Testimony

February 18, 2021
Lonnie Henley
Professorial Lecturer
The George Washington University

Testimony before the U.S.-China Economic and Security Review Commission
Hearing on Cross-Strait Deterrence

PLA Operational Concepts and Centers of Gravity in a Taiwan Conflict [1]

Key judgments

- The PLA has systematically built the capabilities they believe they need for a war with the United States over Taiwan. They probably have achieved initial capability.
- A failed Taiwan landing would not end the war. China would continue the conflict by whatever means available, primarily blockade. The PLA would have the advantage in that extended phase of the conflict even after severe losses.
- Most of the operational approaches available to US forces would not serve to end the war.
    - Defeating the amphibious landing
    - Destroying the PLA Navy and Air Force
    - Cutting off China's international trade
    - Trying to spark internal unrest or crises on China's periphery
    - Other "cost imposition" strategies
- If we cannot defeat the blockade, we will not prevail.
- Taiwan's will to resist is vital but unknowable. Equally vital, and knowable but inexcusably not known, is their *ability* to endure a long-term blockade and what they would need to survive.
- The military center of gravity of this conflict is the PLA integrated air defense system in southeast China. If we can disable that, we can win militarily. If not, we probably cannot.

Evolution of PLA Concepts for a Taiwan Conflict

Following the May 1999 bombing of the Chinese embassy in Belgrade, the Chinese People's Liberation Army (PLA) began planning in earnest for a potential conflict with the United States over Taiwan. From China's perspective, the bombing and the larger Kosovo conflict were a major geostrategic event: a US-led coalition acting without UN authorization, invading a sovereign state and carving off a province of that state to become independent just because Americans thought it should be. The rampant unilateralism and disregard of international norms, plus the specifically anti-China focus of the embassy bombing (which no Chinese I have ever spoken to believes was a mistake), made the prospect of a near-term US war over Taiwan look alarmingly real.[2]

One immediate response to the bombing was a sharp acceleration in the PLA's hardware modernization under the rubric of the 995 Program, an effort that continues today.[3] The PLA also began exploring what an amphibious invasion of Taiwan would actually require, reflected in a series of studies and field exercises in the early 2000s focused on Taiwan scenarios.[4] To an outside observer, it appears that the closer they looked at it, the more their initially optimistic assumptions gave way to sober assessments of what such a huge operation – by far the largest amphibious landing any military force has contemplated – would actually require. Getting ready to carry out an invasion was going to take much longer than they initially thought.

Luckily, by 2004, geostrategic shifts had reduced the sense of imminent crisis that followed the Belgrade bombing. The United States had become severely distracted after 9/11 and appeared less eager to support Taiwan independence. As observers throughout Asia heard from their Chinese interlocutors, President and Central Military Commission Chairman Hu Jintao announced new strategic guidance at a nationwide Taiwan Work Conference in September 2004: "struggle to negotiate, prepare to fight, [but] don't be afraid to wait" (爭取談，準備打，不怕拖).[5] The latter phrase signaled a reversion to China's earlier view that a Taiwan conflict was not imminent and that the PLA could safely return to long-term rather than immediate preparations.

The military aspect of "don't be afraid to wait" took the form of a phased approach to the operational capabilities required for various scenarios. Toward the lower end of the conflict spectrum, the PLA needed to go beyond the saber-rattling employed in the 1995-1996 crisis and develop the ability to inflict serious pain on Taiwan – hard coercion rather than mere intimidation. Western analysts enumerated several PLA options including air and missile strikes, seizure of offshore islands, commando raids inside Taiwan, and a limited blockade. Analysts judged that the PLA had achieved the necessary capabilities for these coercive options by 2008, coinciding with the last few months of Taiwan President Chen Shui-bian's second term.[6]

The high end of the spectrum would take much longer, however, and there is active debate about whether the PLA is yet capable of a full invasion. Taiwan's Ministry of Defense concluded in its *2020 China Military Power Report* (109年中共軍力報告書) that the PLA cannot yet mount a large-scale invasion of Taiwan and is limited to blockade or fire strikes.[7] This Commission reached the same conclusion in its 2020 Report to Congress.[8] The US Department of Defense declined to make a call in its own 2020 report, noting that "China continues to build capabilities that would contribute to a full-scale invasion" but that "[a]n attempt to invade Taiwan would likely strain China's armed forces and invite international intervention."[9]

I am on the other side of this debate, judging that the PLA probably has achieved the initial targets it set for itself for a capability to invade Taiwan. I base this judgment on several supporting arguments:

- *They clearly had such a target and still do*. Many aspects of PLA hardware modernization, doctrinal development, force structure, and operational training make clear that operations to invade and occupy Taiwan remain central to PLA force development and "Army building." Over the past two decades the operational concept has evolved to include comprehensive "three-dimensional" air, sea, and amphibious

operations with urban warfare, special operations, cyber, space and counterspace, "three warfares" (psychological, diplomatic, and legal), and nuclear deterrence components.
- *2020 was probably the initial date set for that target*. Absent some external constraint, such as Chen Shui-bian's term in office, PLA force development programs tend to align with five-year planning cycles such as the 2016-2020 13th Five Year Plan. From the viewpoint of 2004, when the initial decisions were made, 2010 or 2015 would not be long enough to build the required capabilities, leaving 2020 or 2025. There has been no public statement from Beijing about the target date for invasion capabilities, but there have been ample statements about the PLA's overall force modernization milestones, all listing 2020 prominently but none mentioning 2025.[10]
- *The PLA probably built what it was scheduled to build* during the 11th, 12th, and 13th Five Year Plans. Aside from the aeroengine program, which remains an ongoing disaster for China, I see no indication of a major failure in any of the PLA's force modernization efforts.

I therefore conclude that the PLA had a force development plan for being able to invade Taiwan; that they executed that plan on schedule; and that they have now achieved whatever it was they set out to achieve fifteen years ago.

Those who disagree with me make several arguments:[11]

- *Maybe the PLA never had such a goal, or gave up on it because it was too hard*. I find the first to be unsupportable; the PLA incessantly talks about and trains for large-scale island landing operations. The latter seems inconsistent with the PLA's continued public emphasis, including the large amphibious landing exercises that attracted attention this past fall.[12]
- *Maybe the apparent effort to build invasion capabilities is just a stratagem, intended to intimidate but not expected to achieve actual invasion capabilities*. Possible, but it seems like a very expensive bluff, and I see nothing beyond speculation to support that conjecture.
- *Maybe 2020 was never the goal, or maybe the goal has shifted to a later date*. I have made my arguments on the former. The latter is possible, but again there is no hard evidence to support it.

The disagreement centers on the PLA's perceived lack of enough lift capacity to deliver the required force across the Strait and sustain it in combat. Clearly, they have less amphibious lift than American planners would deem necessary. I see only a few possible interpretations:

- *The PLA tried but failed to add enough lift*. This is implausible; amphibious ships are well within China's shipbuilding capacity, and a failure of that magnitude would have political consequences impossible to conceal.
- *The PLA never really intended to build enough lift*. This is a reiteration of the stratagem argument above.
- *They intend to build it, but the target date is later than 2020*. This is a reiteration of the timing argument.

- *The PLA believes it has built enough for at least an initial landing capability*. This requires a different concept for how to deliver forces, relying less on military ships and more on civilian vessels.

I find the latter interpretation the most viable: they set 2020 as a target and built what they believed essential, which happens not to match what we might deem essential. The alternative approach centers on large-scale employment of civilian ships and aircraft to augment military lift. A fuller examination of that concept of operations would take this paper far afield, so I leave that for a separate discussion.

That is not to say that I believe a cross-Strait invasion would succeed. It would be a very difficult operation with a high risk of failure. I am merely saying that the PLA probably believes it is capable of executing that operation now if called upon, and that its capabilities will continue to grow in coming years.

A Failed Landing would not End the War

If ordered to compel reunification by military force, the PLA would bring every tool to bear. Among its most effective lines of operations would be a long-term air, maritime, and information blockade of Taiwan. Such a blockade could be the main effort, eschewing an attempted landing altogether, or it could be part of a larger invasion campaign. Most importantly, even if the landing failed, the PLA could continue the blockade indefinitely and neither US nor Taiwan forces would have much ability to overcome it.

The Communist Party (CCP) leadership could not afford to accept defeat. The passions aroused by the war itself and by the propaganda effort in support of the war would not allow the Party to stop short of a political outcome they could credibly sell as a victory. If such a formula were available in the immediate wake of a failed landing, they might be tempted to take it. If not, they would have no choice but to continue the conflict by whatever means remained.

Even at this point in the conflict, after weeks or months of intense fighting, the loss of much of its landing force, expenditure of its ballistic missile inventory, and very severe attrition of its navy and air force, the PLA could still have the upper hand in enforcing the blockade. The distinctive geography of the Taiwan theater would finally start working in the PLA's favor and its remaining short-range strike assets would still be useful.

The geography would strongly favor China. Whatever flow of imports were required to keep Taiwan alive – more on that later – would have to enter through the same west coast ports that would have played a prominent role in the invasion attempt. The east coast ports would be of as little use for relief supplies as they were for the PLA landing effort, cut off as they are by extreme terrain and very austere transportation links from the rest of Taiwan. If the west coast ports remained functional at all – a big "if" at this point – then relief convoys would have to negotiate the narrow seaward approaches while less than 100 miles from the Chinese coast, exposed to withering fire from shore-based rockets, cruise missiles, patrol craft, mines, and whatever air assets and submarines remained. Cargo aircraft would fare no better if the PLA's long-range air defense systems remained functional – again, more on that later.

In my assessment, China could continue the blockade operation indefinitely even with the severely diminished force that remained after a failed landing and months of air and naval attrition. US forces could probably push through a trickle of relief supplies, but not much more.

The United States has Few Options

Most of the operational approaches available to US forces would not serve to end the war. Defeating the landing operation is feasible given a large enough US effort, but to repeat my earlier point, that would merely move the war into the next very extended phase. It would not end the military conflict, nor would it necessarily go very far toward creating the conditions for a political settlement.

In my observation, the thinking about potential US courses of action centers on the following approaches:[13]

- *Defeating the invasion*. Attacking the invasion force as it crosses the strait, to include the supporting logistics effort; assisting Taiwan's effort to repulse the force as it lands.
- *Destroying the PLA Navy and Air Force*.
- *Economic punishment*. Cutting off China's international trade and access to the international financial system, with particular emphasis on energy supplies.
- *Political punishment*. Threatening the CCP's hold on political power by supporting separatist groups or fomenting unrest inside China.

The first two have the virtue of centering on things we're already good at – sinking ships and shooting down airplanes, at least when the airplanes are not inside a good air defense umbrella. They also have the advantage of being big enough to let everyone play, even the Army and Marine Corps with their new land-based anti-ship artillery.[14] They provide a central role for some of the platforms most prized by the services – fighters, bombers, aircraft carriers, submarines, artillery. (Though not air defense artillery. Defending air bases from missile attack is an Army mission, but it does not seem to be one the Army relishes.) But such preparations do not leave us ready to deal with a blockade.

All of these approaches, military, political, and economic, share an unexamined faith in "cost imposition." The assumption is that if we can make the conflict costly enough, the Chinese will back down. Michèle Flournoy's recent *Foreign Affairs* article encapsulates this outlook:

> "For example, if the US military had the capability to credibly threaten to sink all of China's military vessels, submarines, and merchant ships in the South China Sea within 72 hours, Chinese leaders might think twice before, say, launching a blockade or invasion of Taiwan; they would have to wonder whether it was worth putting their entire fleet at risk."[15]

The problem is that Chinese leaders certainly would think far more than twice before going to war against the United States. The military cost is only one of myriad reasons not to do it, and not the most important reason by far. If they decide they must do so anyway, they will have made that decision in full acceptance that the war will be economically devastating to China for

decades to come and that its failure would severely endanger the Communist Party's hold on power. At that point, the "cost imposition" dial is at 11; it won't go any higher.
This brings us back to my central point: if we can't defeat the blockade, we can't prevail.

Taiwan's Will and Ability to Resist

There has been a good deal of discussion about whether the Taiwan public and elites have the political will to endure the horrific punishment China would rain down on them. Would Taiwan crumble at the first blow, like many mainland Chinese observers seem to believe? Or would they rise to the Churchillian moment, fighting on the beaches, on the landing grounds, in the fields and streets and hills, vowing to never surrender? No one knows. Many have opinions, but this is essentially unknowable.

Despite this uncertainty, both US and Taiwan operational concepts assume a vigorous resistance against the PLA landing.[16] Indeed, assuming and planning for such resistance is an important part of making it happen, should push ever come to shove. But all discussion among both US and Taiwan observers focuses on defeating the landing. There is no discussion whatsoever of what happens next, if the PLA doesn't just go away to lick its wounds as we think it should.
Unlike Taiwan's will to resist, its *ability* to resist a long-term blockade is something we should know much more about than we do. I am aware of no study in the United States or Taiwan examining Taiwan's wartime consumption rate of critical materials, its peacetime stockpiles, or which stockpiles would likely be lost to PLA fires. There is no assessment of what must get through a blockade to keep Taiwan alive, what types of materiel in what quantities, or what Taiwan's domestic production of food, water, supplies, and equipment might be under wartime conditions. And to the best of my knowledge, no one has considered in detail how to get enough materiel through a PLA air and maritime blockade, day after day, week after week, while working to break down the blockade itself.

Potential Approaches to Defeat the Blockade

Suppression of Air Defenses. The center of gravity for this entire conflict, in my judgment, is the PLA air defense network. Over many years of participating in Taiwan Strait war games and tabletop exercises, I observe that Taiwan's air defenses are almost always disabled within the first few days of the conflict, but China's integrated air defense system (IADS) along the Taiwan Strait remains effective for as far into the conflict as the exercise examines. This in turn limits the United States to long-range stand-off weapons or precision-strike incursions by stealth platforms. I assume I am not the only person to have observed this and that US forces are working on the issue.

Success in this area would have the greatest impact on the overall conflict, more even than finding a way to defend US air bases from Chinese missile strikes. Poorly defended bases will still generate some combat sorties, particularly as the conflict drags on and the Chinese expend their inventory of theater-range missiles. But a functioning air defense network greatly reduces the impact those sorties can have. Conversely, defeating the Chinese IADS would open the door to the kind of air campaign that has proven decisive against less capable opponents.

More specifically, enabling US air operations over the Strait would be our best hope for getting cargo into Taiwan's western ports. The PLA's short-range anti-ship assets can be extremely effective under a tight air defense umbrella, but much less so in the glare of US air power. The PLA air blockade, meanwhile, simply ceases to exist without the IADS.

Mine Clearing. Even if US air cover opens the way for cargo ships, it is highly likely that China or Taiwan or both will have mined the harbors extensively. The blockade is not defeated until enough shipping gets through, and that cannot happen until enough mines are cleared. This would be a large operation and time would be of the essence.

The US Navy's newly-developed mine warfare strategy reportedly centers on mine countermeasure (MCM) modules aboard Littoral Combat Ships rather than dedicated MCM ships.[17] It is not clear from publicly available information what overall mine clearing capacity the Navy envisions, how that compares to the scale of a Taiwan blockade mine-clearing effort, or even whether any study has determined how large that effort needs to be.

Conclusion

US analysts and force developers have devoted a great deal of thought to how we would defeat a Chinese invasion of Taiwan. We have been at it long enough for operational concepts to mature into weapons and force development programs, from the Long Range Anti-Ship Missile to reviving the Tomahawk's anti-ship role to the US Army Multi-Domain Operations Concept.[18] But if we succeed, then what? We haven't devoted nearly enough attention to the next, much longer phase of the conflict.

Penetrating a Chinese blockade of Taiwan would be a slow, grinding battle stretching over many months. It would not be the kind of rapid, decisive combat that US forces prefer, but it would decide the outcome of the war. It is vital that we begin giving this phase of a potential Taiwan conflict the same serious attention we have given the landing phase.

[1] The author is retired from the US Department of Defense. The views expressed here are the author's alone and do not necessarily reflect those of the Department of Defense or any other part of the United States Government. Cleared for open publication by Department of Defense Office of Prepublication and Security Review, February 4, 2021.

[2] Baidu online encyclopedia, "Kosovo Incident (科索沃事件) , https://baike.baidu.com/item/科索沃事件, accessed January 2021; Zhu Mingquan 朱明权, "The Kosovo War's Threat to International Stability" (科索沃战争对世界稳定的危害), *Exploration and Debate*《探索与争鸣》September 2009, pp. 39-41, https://cas.fudan.edu.cn/picture/1587-pdf; Wang Fuqun 王福春, "China's Foreign Relations Strategy after the Kosovo War and Cold War" (科索沃战争与冷战后的中国外交战略) February 4, 2002, http://www.defence.org.cn/article-13-36503.html.

[3] "The PLA's Secretive '995 Program' Generated a Blowout in the Development of Weapons and Equipment" (解放军神秘"995工程" 使武器装备呈井喷式发展), *Global Times* 环球时报, March 13, 2015, http://news.sina.com.cn/c/2015-03-13/102031602956.shtml.

[4] My favorite of these was a set of articles by the commander of the 38th Mechanized Group Army, then China's only corps-sized mechanized unit, and his subordinate division commanders summarizing field exercises focused on break-out operations in the second echelon of a large island landing. "A Selection of Articles on Research into

Issues of Joint Tactical Formations at the 65521 Unit" (66521部队联合战术兵团作战问题研究章选登), *Military Art Journal* 军事学术 (Beijing), December 2003, pp. 45-51.

[5] "'Struggle to negotiate, prepare to fight, but don't be afraid to wait' over Taiwan" (對台「爭取談，準備打，不怕拖」). *United Daily News*聯合報 (Taipei), September 27, 2004, http://city.udn.com/50248/1052471; "Hu Jintao's 'Not Afraid of Procrastination' vs. Xie Changting's 'Shooting the Moon'" (胡锦涛"不怕拖"vs谢长廷"射月论"), *Chinese Herald* 中文导报 (Tokyo), 2005 Issue 2 (February 2005), p. 135, https://www.chubun.com/modules/article/view.article.php/9861/c0

[6] Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China, 2008*, pp. 43-44.

[7] *Youth Daily News* 青年日報 (Taipei), "2020 Communist China Military Power Report: Security Challenges Across the Taiwan Strait are More Severe" ("109年中共軍力報告: 臺海安全挑戰更嚴峻"), August 31, 2020, https://www.ydn.com.tw/news/newsInsidePage?chapterID=1256680. Also *Taipei Times* in English, "China not ready for full assault: report," September 1, 2020, https://www.taipeitimes.com/News/front/archives/2020/09/01/2003742623.

[8] US Congress, United States-China Economic and Security Review Commission, *2020 Report to Congress of the U.S.-China Economic and Security Review Commi*ssion, December 2020, p. 395.

[9] Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2020,* p. 114.

[10] "Leap Ahead, Towards a World-Class Army – How to View the Strategic Plan for Comprehensively Advancing the Modernization of National Defense and the Armed Forces" (跨越，向着世界一流军队 ——怎么看全面推进国防和军队现代化的战略安排), *Liberation Army Daily* 解放军报, November 14, 2018, http://www.81.cn/jfjbmap/content/2018-11/14/content_220624.htm.

[11] This discussion is based on personal conversations with colleagues over the past ten years.

[12] "Fire and Fury: China stages terrifying Taiwan invasion drill with rockets, drones and thousands of airborne and amphibious troops." *The Guardian*, October 12, 2020, https://www.thesun.co.uk/news/12911651/china-military-exercise-taiwan-invasion-island-troops/.

[13] Based on the author's conversations with colleagues over the past decade.

[14] David Axe, "Could the Marine Corps Kill Ships with Rockets? Maybe—If the F-35 Helps" *The National Interest* December 31, 2019, https://nationalinterest.org/blog/buzz/could-marine-corps-kill-ships-rockets-maybe%E2%80%94if-f-35-helps-109731; US Indo-Pacific Command, "RIMPAC Units Participate in Sinking Exercise," July 13, 2018, https://www.pacom.mil/Media/News/News-Article-View/Article/1574875/rimpac-units-participate-in-sinking-exercise/.

[15] Michèle A. Flournoy, "How to Prevent a War in Asia: The Erosion of American Deterrence Raises the Risk of Chinese Miscalculation," *Foreign Affairs* June 18, 2020, https://www.foreignaffairs.com/articles/united-states/2020-06-18/how-prevent-war-asia.

[16] Lee Hsi-min and Eric Lee, "Taiwan's Overall Defense Concept, Explained: The concept's developer explains the asymmetric approach to Taiwan's defense," *The Diplomat*, November 3, 2020, https://thediplomat.com/2020/11/taiwans-overall-defense-concept-explained/.

[17] Office of the Chief of Naval Operations, *Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2020*, March 2019, https://media.defense.gov/2020/Dec/10/2002549918/-1/-1/0/SHIPBUILDING%20PLAN%20DEC%2020_NAVY_OSD_OMB_FINAL.PDF/SHIPBUILDING%20PLAN%20DEC%2020_NAVY_OSD_OMB_FINAL.PDF; Kris Osborn, "Mine Warfare Is A Big Part Of The Navy's New Maritime Strategy," *The National Interest*, March 4, 2020, https://nationalinterest.org/blog/buzz/mine-warfare-big-part-navys-new-maritime-strategy-129202.

[18] https://www.lockheedmartin.com/en-us/products/long-range-anti-ship-missile.html; John Kellor, "Raytheon eyes guidance sensor and processor to enable Tomahawk missile to hit moving enemy vessels at sea," *Military & Aerospace Electronics*, August 23, 2019, https://www.militaryaerospace.com/sensors/article/14038802/tomahawk-missile-antiship-upgrade; Sean Kimmons, "Army to build three Multi-Domain Task Forces using lessons from pilot." Army News Service, October 15, 2019, https://www.army.mil/article/228393/army_to_build_three_multi_domain_task_forces_using_lessons_from_pilot; Wyatt Olson, "Army test-fires naval strike missile off Hawaii," *Stars and Stripes*, July 13, 2018, https://www.stripes.com/news/army-test-fires-naval-strike-missile-off-hawaii-1.537468; Christopher Woody, "Watch The US And Its Allies Blow The Hell Out Of A Warship In A Clear Message To China," *Task & Purpose*, July 18, 2018, https://taskandpurpose.com/military-tech/rimpac-us-sinks-warship-china/.

OPENING STATEMENT OF FIONA S. CUNNINGHAM, PH.D., ASSISTANT PROFESSOR OF POLITICAL SCIENCE AND INTERNATIONAL AFFAIRS, GEORGE WASHINGTON UNIVERSITY

COMMISSIONER GOODWIN: Thank you. Dr. Cunningham?

DR. CUNNINGHAM: Commissioner Goodwin, Commissioner Talent, members of the Commission, thank you very much for inviting me to appear before you today to discuss deterring military actions of the People's Republic of China that would target Taiwan.

I have been asked to comment on PLA information operations capabilities, and in particular its counterspace, cyber, electronic warfare and psychological warfare capabilities. And I'd like to make three points about these capabilities.

My first point is that the Chinese People's Liberation Army, the PLA, envisages using its information operations capabilities for two goals: for strategic deterrence and for operational effects.

So, turning to the first goal of strategic deterrence, information operations capabilities are a key component of the capabilities that the PRC uses to deter its adversaries, which would include Taiwan and the United States and its allies in a future Taiwan contingency, alongside its conventional weapons, its nuclear weapons, and its nonmilitary tools, such as diplomacy and economic power.

And the PLA views strategic deterrence as operating throughout the conflict spectrum from peacetime to war to achieve a variety of goals, which include coercing an adversary to back down in a crisis or a conflict, preventing the outbreak of war, and preventing the escalation of a limited conflict.

The second goal that these capabilities could be put to is to achieve operational effects, which include degrading an adversary's ability to exploit information in a conventional war. The aim of using information operations capabilities from the PLA's perspective in this case is to seize information superiority at the outset of a conflict by hacking an adversary's information networks, sensors, and infrastructure as a way of creating favorable conditions for conventional air, land, and sea operations, in particular to conduct an island landing campaign or the other PLA campaigns that might be waged against Taiwanese interests and territory.

Protecting the functioning of the PLA's own information networks while attacking an enemy's is also viewed as critical to achieving information superiority. The PLA's joint information operations campaign, which has been described in authoritative PLA teaching texts since the early 2000s, lays out how it would use information operations capabilities to achieve this goal of information superiority.

And that campaign, I would argue, was probably largely aspirational until recently, for one reason. The PLA lacked an organizational structure that would be able to coordinate and integrate the effects of counterspace, cyber, electronic, and psychological warfare until it was able to consolidate many of those capabilities in a single organization, the Strategic Support Force that was created as part of the 2015/'16 PLA reforms.

I'd argue the PLA's space, cyber, and electronic warfare and psychological warfare capability development has also been uneven. For example, its development of the capabilities for offensive cyber operations has outpaced its investments in cyber defenses and situational awareness within its own networks. This uneven development has been a result of the PRC's low vulnerability to cyber attacks when it began to invest in these offensive cyber capabilities in the early 2000s.

One aspect of China's future development of these capabilities is going to be to draw on civilian and commercial talent, innovation, and production capacity under the rubric of the PLA's revamped concept of military-civilian fusion.

So, to my second point, China is vulnerable to space, cyber, electronic warfare, and psychological operations as well. And this constrains the PLA's employment of these capabilities to the offensive purposes I have just described. Vulnerability in the space and cyber domains in particular have created incentives for greater precision, caution, and attention to escalation management in the way the PLA employs its space and cyber capabilities.

And while it certainly expects an adversary would conduct electronic and psychological warfare attacks against PRC interests, PLA tech suggests that it manages vulnerability to those kinds of attacks more with defenses than with self-restraint.

So my third point concerns the implications of the PRC's information operations capabilities for the United States and Taiwan in a future Cross-Strait contingency, and I'll highlight three of them. First, China's use of these capabilities creates a risk of escalation in a Taiwan crisis or conflict.

The PLA invested in these information operations capabilities in part because they provided it with coercive options to compensate for an unfavorable Cross-Strait balance in conventional military capabilities, and they are able to use these capabilities to compensate for that without either directly confronting U.S. advantages in conventional military power or threatening to use nuclear weapons, which its defense plan has believed in the past could lack credibility in this contingency.

But these capabilities would push a Cross-Strait crisis to the brink of war and could push a Cross-Strait war to the brink of nuclear use in certain applications. That's the very reason why they give the PRC coercive leverage when used for these strategic deterrence goals.

Escalation from the use of these capabilities could occur for a variety of reasons, including PLA overconfidence about its ability to coerce without provoking the United States and Taiwan, as well as accidental unauthorized use of information operations or an inadvertent escalation.

Second, these capabilities pose challenges for Taiwan and the United States to come up with appropriate responses to these kinds of attacks. Threatening to begin an armed conflict or to use nuclear weapons in response to those attacks would play into the hands of a strategy that's actually built on expecting an adversary to hesitate to cross those thresholds.

In addition to improving defenses, resilience, and redundancies, information networks is a way of blunting the coercive effect or military advantage that these attacks could produce. China's increasing vulnerability to space/cyber/electronic warfare and psychological warfare attacks give the United States and Taiwan more symmetric in-kind options for responding to those attacks.

Third, the United States and Taiwan are likely to be operating in a degraded information environment, which would complicate conventional operations.

So, my remaining 30 seconds, I'd like to close with two recommendations for the Commissioners to consider. The first is that Congress should encourage and support executive efforts to pursue crisis stability talks with the PRC to better understand and manage these escalation risks.

And second, given how little information the PRC reveals officially about these information operations capabilities, Congress should also support and encourage the analysis of Chinese military operations using open source Chinese language materials and ensure their

availability outside of government as well.

Thank you.

PREPARED STATEMENT OF FIONA S. CUNNINGHAM, PH.D., ASSISTANT PROFESSOR OF POLITICAL SCIENCE AND INTERNATIONAL AFFAIRS, GEORGE WASHINGTON UNIVERSITY

Fiona Cunningham: Witness Testimony

Testimony before the U.S.-China Economic and Security Review Commission

Hearing on "Deterring PRC Aggression Towards Taiwan"

Fiona S. Cunningham, Ph.D.

Assistant Professor of Political Science and International Affairs
George Washington University

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February 18, 2021

Commissioner Goodwin, Commissioner Talent, members of the commission, thank you for inviting me to appear before you today to discuss deterring PRC military actions targeting Taiwan. I have been asked to comment on the Cross-Strait military balance. My testimony will examine how authoritative and other Chinese sources define the goals and employment of the People's Liberation Army's (PLA) information operations capabilities, including for space, cyber, electronic, and psychological warfare, the role of PRC commercial actors in those operations, the challenges those capabilities pose for Taiwan and the United States, and provide several recommendations for Congress to consider.

PLA Information Operations in a Taiwan Contingency

The PLA's information operations capabilities refer to a subset of military capabilities that can be used for stand-alone operations to achieve strategic deterrence or for operational effects, in combination with the PLA's general purpose conventional capabilities for land, sea, or air operations for operational effects. When employed for stand-alone operations, these capabilities enable the PLA to take escalatory steps below the threshold of armed conflict in peacetime or nuclear conflict during a local conventional war, to exploit an adversary's hesitancy to cross those key thresholds.[1] The PLA also views these capabilities as integral to its ability to fight local, informatized wars because they are capable of degrading an adversary's ability to exploit information in its conventional operations.

The PRC is vulnerable to space, cyber, psychological and electronic warfare operations, which constrains its employment of these capabilities against a sophisticated adversary like the United States. It remains unclear whether the PLA has the ability to integrate effects from space, cyber, electronic warfare, and psychological operations, and integrate those operations with conventional operations, to achieve the kinds of joint operational effects its doctrinal writings aspire to. The main foci of PLA developments in these information capabilities in the future are likely to be enhancing capabilities and the capability to integrate effects in joint operations, accounting for its growing vulnerability in these domains, and adjusting its use of these capabilities to take account of its improving conventional capabilities.

PLA information operations pose three key challenges for Taiwan and the United States. First, when used for strategic deterrence, they create escalation risks. Second, they pose challenges for escalation management because they occur below key conflict thresholds that the United States and Taiwan may be hesitant to cross. Designing appropriate responses to limit the effects of these operations is challenging. Third, when used for operational effects, these capabilities pose challenges for U.S.-Taiwan operations to defend Taiwanese territory and interests from PRC attacks. To address these challenges, Congress should support crisis stability talks with the PRC and invest in open-source research of PLA plans and capabilities.

Goals of PLA Information Operations

[1] For more detailed arguments about China's use of space and cyber capabilities for strategic deterrence in local wars, see Fiona S. Cunningham, "Maximizing Leverage: Explaining China's Strategic Force Posture Choices in Limited Wars" (Ph.D. Dissertation, Cambridge, M.A., Political Science Department, Massachusetts Institute of Technology, 2018).

The PLA's information operations capabilities serve two goals: strategic deterrence and achieving operational effects in a conflict.[2]

Strategic Deterrence

The PLA's information operations capabilities are a key component of its capabilities for strategic deterrence. The PLA was first tasked with developing capabilities and operations to carry out strategic deterrence in local wars in 1993, which includes "information deterrence" and "space deterrence" alongside conventional and nuclear deterrence.[3] The objectives of PLA strategic deterrence are to prevent the outbreak of war, reduce the severity of an outbreak of war, stop escalation, and prevent or reduce the damage inflicted in a war.[4] PLA writings indicate that military means of deterrence should be coordinated with non-military means, such as diplomatic, economic, and political actions.[5]

The PLA views strategic deterrence as operating during peacetime, crises, and wars. In peacetime, it provides warning and defense against a latent adversary. During a crisis, it coerces an adversary to back down and creates favorable conditions for the transition to war. During a war, escalatory attacks can coerce an adversary to come to terms.[6] PLA texts indicate that the targets and tempo of operations for strategic deterrence during crises should be carefully selected to coerce but not provoke an adversary into starting a war.[7] The targets of strategic deterrence operations in wartime could include high-value targets that would have a strong effect on adversary decision-makers and society, including civilian critical infrastructure.[8]

PLA texts are often silent about the inadvertent escalation risks that cyber and space attacks on high-value targets would pose. They caution that an adversary needs to be carefully studied, and targets and means carefully selected, to avoid provoking retaliation at a higher level of violence. Nevertheless, they appear confident that signaling with military capabilities, including warning strikes, could be carefully calibrated to coerce an adversary without prompting it to further escalate the conflict.[9]

Operational Effects

The PLA frequently describes its goals for using space, cyber, and electronic warfare as attacking an adversary's information networks to gain a military advantage while protecting its

[2] Shou Xiaosong, ed., *Zhanlue Xue [The Science of Military Strategy]* (Beijing: Junshi Kexue Yuan Chubanshe, 2013), 118.
[3] Chen Zhou, *Mianxiang Weilai de Guojia Anquan Yu Guofang [The Future National Security and Defense]* (Beijing: Guofang Daxue Chubanshe, 2008), 215.
[4] Chen, 217; Shou, *Zhanlue Xue*, 119.
[5] Xiao Tianliang, ed., *Zhanlue Xue [The Science of Military Strategy]*, revised (Beijing: Guofang Daxue Chubanshe, 2017), 135.
[6] Shou, *Zhanlue Xue*, 119.
[7] Xiao, *Zhanlue Xue*, 134.
[8] Zhou Xinsheng, ed., *Junzhong Zhanlue Jiaocheng [Study Guide to Military Service Strategy]* (Beijing: Junshi Kexue Yuan Chubanshe, 2013), 125.
[9] Fiona S. Cunningham and M. Taylor Fravel, "Dangerous Confidence? Chinese Views of Nuclear Escalation," *International Security* 44, no. 2 (2019): 103.

own information networks to ensure continuing exploitation of information on the battlefield.[10] These capabilities would enable the PLA to seize "information superiority" with preemptive attacks on an adversary's information networks, sensors, and infrastructure at the outset of a conflict to create favorable conditions for subsequent land, air and sea operations.[11] Psychological warfare also creates favorable conditions for conventional operations by diminishing the cohesion and morale of an adversary's military and society.

The PLA's primary campaign for achieving operational effects using these capabilities is its joint information operations campaign, which would combine cyber, electronic, space, and psychological warfare to degrade an enemy's information capabilities.[12] The military advantage generated by these attacks would enable the PLA to carry out an island landing campaign, the PLA's campaign for an amphibious landing on Taiwan, as well as other PLA campaigns that could target Taiwanese interests, including its joint firepower campaign and naval blockade campaign. It is likely that the PLA also contemplates stand-alone space, cyber, electronic, and psychological warfare operations.

Means of PLA Information Operations

Cyber, counterspace, electronic warfare and psychological operations constitute the main operations that the PLA could use to conduct information operations against the United States and Taiwan before and during a conflict.

Cyber Operations

The PLA has developed offensive cyber capabilities and extensive cyber surveillance capabilities since the early 2000s. Development of its defensive cyber capabilities has lagged behind offense and surveillance. It has prioritized situational awareness capabilities, including the ability to attribute cyber attacks, since approximately 2015.[13] The PRC officially acknowledged the PLA's building of defensively oriented cyber capabilities for the first time in 2015,[14] but does not officially acknowledge that the PLA possesses offensive cyber capabilities.

PLA media and research texts indicate that China has the capability to carry out offensive cyber operations on adversary tactical military networks and homeland critical infrastructure networks. Army units reportedly carried out cyber attacks on tactical military networks during a 2009 exercise,[15] while U.S. media reported that Chinese state actors had intruded into U.S. critical

[10] Wang Houqing and Zhang Xingye, eds., *Zhanyi Xue [The Science of Campaigns]* (Beijing: Guofang Daxue Chubanshe, 2000), 168; Zhang Yuliang, ed., *Zhanyi Xue [The Science of Military Campaigns]* (Beijing: Guofang Daxue Chubanshe, 2006), 151–52; Ye Zheng, ed., *Xinxi Zuozhan Xue Jiaocheng [Study Guide to Information Warfare]* (Junshi Kexue Yuan Chubanshe, 2013).
[11] Zhang, *Zhanyi Xue*, 151–55.
[12] Zhang, 300–301.
[13] State Council Information Office of the People's Republic of China, *China's Military Strategy* (Beijing: Renmin Chubanshe, 2015).
[14] State Council Information Office of the People's Republic of China.
[15] Bryan Krekel, Patton Adams, and George Bakos, "Occupying the Information High Ground: Chinese Capabilities for Computer Network Operations and Cyber Espionage" (Washington, D.C.: Northrop Grumman Corp for the U.S.-China Economic and Security Review Commission, March 7, 2012), 21, 23–24.

infrastructure networks as early as 2008.[16] Media reports indicate that the PRC cyber actors have sought access to the networks of the Taiwanese armed forces, government and critical infrastructure.[17]

PLA writings have expressed enthusiasm about the effectiveness of offensive cyber operations against a conventionally superior military such as the United States since the early 2000s. That enthusiasm has endured despite a recognition since approximately 2012 that China itself is increasingly vulnerable to cyber attacks and more realistic appraisals of the limits of cyber operations. The PLA continues to view cyber operations as taking aim at the "soft underbelly" of an information-dependent adversary's military and society. Cyber capabilities are also viewed as the "strategic commanding heights" of future joint operations, playing a key role in linking the multi-domain battlespace, and military conflict with politics, economics, technology and culture.[18]

PLA texts describe the use of cyber attacks for both strategic deterrence and operational effects. Some PLA texts describe attacks on an adversary's critical infrastructure in a crisis as a form of "information deterrence."[19] The PLA might have raised the threshold for such attacks from a crisis to a conflict in recognition of the emerging international consensus that such attacks would be an act of war.[20] Cyber attacks are described as one way of attacking an enemy's systems in local wars under informatized conditions. They are a type of "soft kill" information warfare, alongside electronic warfare. Together with "hard kill" and "three warfares," soft kill capabilities make up the three capabilities of information warfare. According to a PLA textbook on service strategy, cyber attack methods would include "systems intrusion, computer virus attacks, attacks to cut off servers, and network deception attacks," focusing on enemy communications hubs, radar stations, computer network nodes, and important civilian networks (*minyong wangluo xitong*).[21]

Counterspace Operations

The PLA began to test counterspace weapons in approximately 2005-6.[22] Since then, it has developed and tested a wide array of kinetic and non-kinetic counterspace weapons.[23] The PLA's investments in space-based support for its own conventional operations has also increased

[16] Shane Harris, "China's Cyber-Militia," *National Journal*, May 31, 2008, https://www.nationaljournal.com/s/636724/chinas-cyber-militia?mref=search-result.
[17] J. Michael Cole, "China's Shifting Cyber Focus on Taiwan," The Diplomat, April 30, 2013, https://thediplomat.com/2013/04/chinas-shifting-cyber-focus-on-taiwan/; Sean Lyngaas, "Taiwan Accuses Chinese Hackers of Aggressive Attacks on Government Agencies," CyberScoop, August 19, 2020, https://www.cyberscoop.com/taiwan-china-hacking-apt40/.
[18] Wang Kebin, "Jiangding Bu Yi Zou Zhongguo Tese Xinxi Qiangjun Zhi Lu [Resolutely Take the Path of Strengthening the Military by Informatization with Chinese Characteristics]," *Zhongguo Junshi Kexue [China Military Science]* 2 (2015): 3.
[19] Xiao, *Zhanlue Xue*, 133–34.
[20] Chuanying Lu, "Forging Stability in Cyberspace," *Survival* 62, no. 2 (2020): 130.
[21] Zhou, *Junzhong Zhanlue Jiaocheng*, 125.
[22] Michael R. Gordon and David S. Cloud, "U.S. Knew of China's Missile Test, but Kept Silent," *The New York Times*, April 23, 2007.
[23] Defense Intelligence Agency, "Challenges to Security in Space" (Washington, D.C.: Defense Intelligence Agency, January 2019), 20–21.

dramatically. PLA texts indicate, however, that China's capabilities to defend its space assets, including space situational awareness capabilities, have lagged behind its development of attack and information support capabilities.[24] The PLA does not officially acknowledge its counterspace capabilities.

PLA texts indicate that counterspace weapons could deter at least three kinds of unwanted adversary actions by holding an adversary's satellites at risk: harassment of China's space capabilities,[25] an adversary's conventional military operations,[26] and degradation of its nuclear retaliatory capability through satellite-enabled counterforce attacks or missile defense.[27] Descriptions of the PLA joint information warfare campaign from 2006 included counterspace capabilities, but provided no details of what kinds of counterspace attacks (e.g. kinetic or non-kinetic attacks) might be employed in that preemptive campaign.[28]

PLA texts recognized that China's own valuable space assets made it vulnerable to counterspace attacks even when it had only a few dozen satellites in orbit in the early 2000s. Since then the PLA envisaged that any space hostilities would be limited.[29] Chinese assessments of the effectiveness of using direct-ascent ASAT weapons for operational effects have also diminished over time.[30] The PLA is increasingly aware of the fragility of the space environment and the close relationship between certain space capabilities, computer networks, and nuclear capabilities.[31] These texts suggest that the PLA might prefer to employ non-kinetic counterspace capabilities for limited attacks, either with temporary effects if employed for operational purposes, while relying on kinetic weapons such as its direct-ascent ASAT capability for strategic deterrence. It remains unclear from open sources which PLA counterspace capabilities are still in development and which are currently operational.

Electronic Warfare

The PLA established an electronic warfare capability in the late 1970s.[32] By 2009, it had a basic capability to disrupt U.S. space-based information support for military operations.[33] One PLA text describes the goal of electronic warfare as to "weaken and damage the effectiveness of an

[24] Xiao, *Zhanlue Xue*, 396–98.
[25] Shou, *Zhanlue Xue*, 182.
[26] Jiang Lianju, ed., *Kongjian Zuozhan Xue Jiaocheng [Study Guide to Space Warfare]* (Beijing: Junshi Kexue Yuan Chubanshe, 2013), 127.
[27] Deng Lizhong, "Xinxi Tiaojian Xia Di'er Paobing He Daodan Zuozhan Yunyong Lilun Yanjiu [Research on the Combat Role of Second Artillery Nuclear Missile Forces under Informationized Conditions]" (Masters Thesis, Beijing, National Defense University, 2004), 41–42.
[28] Zhang, *Zhanyi Xue*, 114, 135.
[29] Shou, *Zhanlue Xue*, 186.
[30] Tong Zhao, "Practical Ways to Promote U.S.-China Arms Control Cooperation" (Washington, D.C.: Carnegie Endowment for International Peace, October 2020).
[31] Zhang Shibo, *Zhanzheng Xin Gaodi [The New High Ground of Warfare]* (Beijing: Guofang Daxue Chubanshe, 2016), 29.
[32] Liu Jixian, *Ye Jianying Nianpu [Chronology of Ye Jianying]*, vol. 2 (Beijing: Zhongyang Wenxian Chubanshe, 2007), 1098.
[33] John Costello and Joe McReynolds, "China's Strategic Support Force: A Force for a New Era," China Strategic Perspectives (Washington, D.C.: Institute for National Strategic Studies, National Defense University, September 2018), 8.

enemy's use of electronic equipment, and protect the effectiveness and regular functioning of one's own electronic equipment."[34] Electronic warfare would "damage and interfere with an enemy's command and control system, influencing the regular employment of its weapons equipment systems, delay and pin down an adversary's combat operations, to seize favorable conditions for victory."[35] Those operations would involve both soft kill capabilities such as electronic jamming, as well as hard kill capabilities such as anti-radiation missiles, high-powered laser weapons and electromagnetic pulse weapons.[36]

Psychological Warfare

Since the early 2000s, the PLA's psychological warfare (*xinli zhan*) capabilities have been combined with "public opinion warfare" and "legal warfare" as part of the "three warfares" concept. The PLA views these three capabilities as intimately related and complementary. Psychological offense-defense (*xinxi gongfang*) refers to "employing specific information and media, … [to] exert influence over a targeted opponent's psychology and behavior, according to strategic intentions and combat tasks."[37] One PLA text indicates that the aim of psychological warfare is to shatter the enemy's morale, weaken its combat effectiveness, and influence and divide enemy factions," to reduce the cost of a military victory or avoid having to fight a war at all.[38] The target of psychological operations is the enemy's state, society, and in particular its military knowledge and decision-making systems. In contrast, legal warfare and public opinion warfare aim to shape the views of international society and public opinion.[39] In general, armed attacks serve as a backstop for the three warfares. In wartime, however, the PLA specifies that psychological operations should be combined with armed attacks to strengthen and expand their effects.[40]

Prominent cyber-enabled information operations, such as Russian efforts to influence the 2016 U.S. presidential elections, and increased Chinese societal dependence on the internet, have drawn the attention of Chinese analysts to China's own vulnerabilities to psychological warfare. Some former PLA officials attributed the Arab Spring uprisings to the United States facilitated by the social media platforms of U.S. companies.[41] According to one Chinese cybersecurity researcher, the Russian 2016 U.S. election meddling raised the possibility of interference in Chinese internal affairs, including its leadership transitions.[42] PLA researchers also worried about foreign states using online content to weaken PLA loyalty to the Party.[43] It remains unclear

[34] Xiao, *Zhanlue Xue*, 230.
[35] Xiao, 230.
[36] Xiao, 230–31.
[37] Xiao, 233.
[38] Xiao, 234.
[39] Xiao, 234–35.
[40] Xiao, 234, 236.
[41] Hao Yeli, "Dui Meiguo Jiakuai Wangluo Zhan Fazhan de Jidian Sikao [Some Thoughts on the U.S. Rapid Development of Cyber Warfare]," *Waiguo Junshi Xueshu [Foreign Military Arts]*, no. 8 (2015): 3.
[42] Lu Chuanying, "Heike Ganyu Meiguo Daxuan, Guoji Wangluo Anquan Chongtu Shengji [Hackers Interfere in U.S. Election, International Cybersecurity Conflicts Escalate]," Shanghai Institutes for International Studies, January 5, 2017, http://www.siis.org.cn/Research/Info/3895.
[43] Zhang Lizhong, "Lun Xinxi Wangluo Shidai Budui Sixiang Zhengzhi Gongzuo [On the Ideological and Political Work of the Armed Forces in the Mobile Internet Era]," *Zhongguo Junshi Kexue [China Military Science]* 4 (2016): 95–103.

whether these perceptions of societal and military vulnerability to psychological warfare might constrain PLA employment of psychological warfare in the same manner that cyber and space vulnerability have influenced PLA employment of those capabilities.

The Joint Information Warfare Campaign

PLA texts envisage that cyber attacks, electronic warfare, and psychological warfare capabilities could be used together in joint operations to limit an adversary's ability to exploit information in a future local war. The official *Military Terminology of the Chinese People's Liberation Army* defines information operations (*xinxi zuozhan*) as follows: "comprehensively employing electronic warfare, cyber warfare (*wangluo zhan*), psychological warfare, etc. to constitute missions to attack or confront an adversary. The goal is to interfere with and damage enemy information and information systems in the cyber and electromagnetic domain, influence and weaken an enemy's capabilities for information gathering, transmission, management, exploitation and decision, and ensure the stability of one's own information systems functions, information security and accuracy of decisions."[44]

PLA textbooks published from 2006-2013 outline a joint information warfare campaign that would combine the use of cyber attacks, electronic warfare, and psychological warfare capabilities to limit an adversary's ability to exploit information in a future local war. These operations might take place at the strategic, operational, or tactical level of war. At the time those texts were published, however, the campaign was largely aspirational. China lacked the organizational structure to implement such a campaign,[45] while its capabilities were probably too rudimentary to have the desired effects on an adversary's military networks. Since 2013, however, China has developed capabilities, more detailed operational doctrine, and an organizational structure better equipped to coordinate the effects of each component of the campaign and with the conventional joint operations.[46]

It is likely that the joint information warfare campaign remains among the campaigns the PLA is preparing to fight in a future local war. The Central Military Commission (CMC) recently issued a new set of Joint Operations Regulations for the Chinese People's Liberation Army (Trial) which updated the earlier PLA-wide doctrine reflected in textbooks published during the 2000s.[47] Although the PLA has released no public information about the content of these updated regulations, there are a few hints of the PLA's continuing intent to integrate the effects of its information warfare capabilities in future campaigns. In 2017 the PLA paraded an information operations group at the Zhuruihe training facility, which included an Information Support Formation and Electronic Reconnaissance Formation, both from the SSF, as well as an Electronic Countermeasures Formation from the PLA Army and an Unmanned Aerial Vehicle

[44] Junshi Kexue Yuan [Academy of Military Science], *Zhongguo Renmin Jiefang Jun Junyu [Military Terminology of the Chinese People's Liberation Army]* (Beijing: Junshi Kexue Yuan Chubanshe, 2011), 259.
[45] John Costello and Peter Mattis, "Electronic Warfare and the Renaissance of Chinese Information Operations," in *China's Evolving Military Strategy*, ed. Joe McReynolds (Washington, D.C.: Jamestown Foundation, 2016), 187–88.
[46] Costello and McReynolds, "China's Strategic Support Force: A Force for a New Era," 40–41.
[47] "China's Guidelines on Joint Operations Aim for Future Warfare: Defense Spokesperson," *China Military Online*, November 27, 2020, http://english.scio.gov.cn/pressroom/2020-11/27/content_76954237.htm.

Formation from the PLA Army and Air Force.[48] It also remains unclear what degree of coordination among cyber, electronic, and psychological warfare operations is facilitated within the Strategic Support Force (SSF), a new force created in the PLA 2015-6 reforms that consolidated space, cyber, electronic warfare and three warfares units scattered throughout the PLA into a unified organization reporting directly to the CMC.[49] The organizational structures facilitating coordination between information warfare components within the SSF and in other parts of the PLA also remains unclear.[50]

The Role of PRC Commercial Actors

PRC commercial actors might assist the PLA's unconventional warfare capabilities under the guise of the PRC's efforts to enhance military-civilian fusion (*junmin ronghe*). In the past this concept generally involved the PLA taking advantage of civilian expertise, but the concept has become much more ambitious and comprehensive in its goals since the 2015-6 reforms. In 2017, the PRC established a Central Civil-Military Integration Development Committee, chaired by Xi Jinping, signaling the elevated importance of the concept both within and outside of the PLA.[51]

Commercial actors may provide specialized personnel for PLA reserve and militia units supporting PLA space, cyber, electronic warfare, and psychological operations. Where PLA media and Western analysts have identified commercial actors contributing to these PLA capabilities, they have tended to serve in support rather than combat roles. For example, Western analysts identified as many as 50 cyber militias before the PLA reforms in 2015-6, likely tasked with computer network defense.[52] The PLA has recruited reserve frequency management units from telecommunications companies to coordinate with civilian agencies to manage the electromagnetic spectrum. Their tasks appear limited to "monitor sources of EM [electromagnetic] interference that could impact PLA and civil defense operations during wartime."[53]

Commercial actors may also support the PLA in its development of weapons equipment, defense and situational awareness capabilities. For example, reducing reliance on foreign-produced

[48] Dennis J. Blasko, Elsa B. Kania, and Stephen Armitage, "The PLA at 90: On the Road to Becoming a World-Class Military?" *China Brief* 17, no. 11 (August 17, 2017), https://jamestown.org/program/the-pla-at-90-on-the-road-to-becoming-a-world-class-military/.
[49] "Zhuanjia: Zhanlue Zhiyuan Budui Jiang Guichuan Zuozhan Quan Guocheng Shi Zhisheng Guanjian [Expert: Strategic Support Force Is the Key to Victory throughout the Complete Process of War," *Renmin Wang*, January 5, 2016, http://military.people.com.cn/n1/2016/0105/c1011-28011251.html; Costello and McReynolds, "China's Strategic Support Force: A Force for a New Era"; Elsa B. Kania and John Costello, "Seizing the Commanding Heights: The PLA Strategic Support Force in Chinese Military Power," *Journal of Strategic Studies* (2020): 1–47.
[50] The Joint Staff Department Network-Electronic Bureau, formed out of the former General Staff Department Fourth Department headquarters, could play such a role. See Kania and Costello, "Seizing the Commanding Heights," 12.
[51] Panyue Huang, "Xi to Head Civil-Military Integration Body - China Military," *Global Times*, January 23, 2017, http://eng.chinamil.com.cn/view/2017-01/23/content_7462990.htm.
[52] Robert Sheldon and Joe McReynolds, "Civil-Military Integration and Cybersecurity: A Study of Chinese Information Warfare Militias," in *China and Cybersecurity: Espionage, Strategy, and Politics in the Digital Domain*, ed. Jon R. Lindsay, Tai Ming Cheung, and Derek S. Reveron (New York, N.Y: Oxford University Press, 2015), 208.
[53] John Dotson, "Military-Civil Fusion and Electromagnetic Spectrum Management in the PLA," *China Brief* 19, no. 18 (October 8, 2019).

information communications and technology (ICT) products has been a key thrust of China's efforts to reduce its vulnerability to cyber attacks.[54] To the extent that commercial actors within China produce ICT products indigenously, reducing supply chain cybersecurity threats, they reduce China's overall vulnerability to cyber attacks. The first Chinese actors to publicly attribute cyber intrusions into Chinese companies to U.S. government agencies, demonstrating improvements in the country's cyber situational awareness capabilities, were also Chinese cybersecurity companies.[55]

Future Developments

Three factors are likely to characterize future PLA developments in the use of space, cyber, electronic, and psychological warfare. First, the PLA is likely to continue to develop the sophistication of its capabilities and operations, and to improve its ability to integrate these capabilities with each other and conventional joint operations to amplify their effects on Taiwanese and U.S. decision-making. Second, as the PLA continues to pursue informatization, it will rely more on information networks and space operations to support its conventional operations. As a result, it will become more vulnerable to adversary space, cyber, electronic warfare and psychological operations. The PRC more broadly will remain vulnerable to cyber attacks, counterspace operations, and psychological warfare as economic, governmental and societal actors remain dependent on the internet, information networks, and civilian space assets to continue functioning. This combination of increasing capability and vulnerability creates incentives for greater precision, caution and attention to escalation management in the PLA's employment of these capabilities. Third, as the PLA's general purpose conventional capabilities and ability to carry out operations such as an island landing campaign improves, it is likely to rely less on the use of space, cyber, electronic and psychological warfare capabilities for strategic deterrence and focus more on their employment to enhance the operational effects of conventional operations.

Challenges for the United States and Taiwan

PLA employment of space, cyber, electronic warfare, and psychological warfare capabilities for strategic deterrence and operational effects pose a number of challenges for the United States and Taiwan. Three key challenges are highlighted below: a risk of escalation, the difficulty of crafting appropriate response options, and complications for conventional operations.

First, PLA space, cyber, electronic and psychological warfare attacks create escalation risks, especially when they are used for strategic deterrence goals in a crisis or conflict. The PLA has invested in these unconventional capabilities because they provide it with coercive options to compensate for an unfavorable cross-Strait balance in conventional military capabilities without directly confronting U.S. advantages in conventional operations and nuclear weaponry. These

[54] Adam Segal, "Seizing Core Technologies: China Responds to U.S. Technology Competition," *China Leadership Monitor*, June 1, 2019, https://www.prcleader.org/segal-clm-60.
[55] "The CIA Hacking Group (APT-C-39) Conducts Cyber-Espionage Operation on China's Critical Industries for 11 Years," *Qihoo 360 Threat Intelligence Center* (blog), March 2, 2020, https://blogs.360.cn/post/APT-C-39_CIA_EN.html.

capabilities could increase the intensity of a crisis right up to the threshold of armed conflict or, when used in a conflict, up to the threshold of a nuclear war.[56]

PLA officers' apparent confidence that they could finely calibrate the use of force for strategic deterrence to force an adversary to back down but not escalate to an armed conflict or a higher level of violence during a war could lead to a miscalculation of U.S. or Taiwanese reactions to such an attack.[57] Accidental or unauthorized use of information operations capabilities poses a second type of escalation risk. Third, there is a risk of inadvertent escalation if the United States or Taiwan discovers PLA intelligence-gathering activity in space, cyberspace or either country's information platforms in a crisis that cannot be quickly distinguished from preparations for an attack.[58] Finally, there is a risk of inadvertent escalation if PLA space, cyber, or electronic warfare capabilities are used to damage components of the U.S. nuclear arsenal or its supporting information systems.[59]

Second, designing effective and proportionate responses to the use of PLA information operations capabilities is challenging. Threatening retaliatory strikes to deter these attacks are unlikely to be effective if they involve the United States or Taiwan crossing key thresholds of armed conflict or nuclear war. Nevertheless, increasing PRC vulnerability to symmetrical, in-kind attacks offers the United States and Taiwan an increasing number of proportionate response options while also increasing the constraints on the PLA to conduct such attacks for fear of blowback. Other response options include investing in resilience, redundancy and defenses of U.S. and Taiwanese assets the PLA is likely to target.

Third, these information operations will complicate U.S., Taiwanese and other allied efforts to defend territory and other interests such as commercial shipping if the PRC uses them in concert with conventional military operations. The United States and Taiwanese militaries are likely to be operating in a degraded intelligence, surveillance, and reconnaissance (ISR) environment from the outset of any future U.S.-China conflict.

Policy Recommendations

The analysis above yields several recommendations for Congress:

First, Congress should support executive efforts to pursue crisis stability talks with the PRC. Crisis stability talks would enable the United States to communicate its concerns about the potential for escalation resulting from PLA use of information capabilities, explore mechanisms for crisis communications, and learn more about the PLA's understanding of key escalation thresholds. Nuclear dialogues at the 1.5-track level have successfully increased awareness of

[56] Costello and Mattis, "Electronic Warfare and the Renaissance of Chinese Information Operations," 189.
[57] Cunningham and Fravel, "Dangerous Confidence? Chinese Views of Nuclear Escalation."
[58] Ben Buchanan and Fiona S. Cunningham, "Preparing the Cyber Battlefield: Assessing A Novel Escalation Risk in a U.S.-China Crisis," *Texas National Security Review* 3, no. 4 (2020).
[59] James M. Acton, "Escalation through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War," *International Security* 43, no. 1 (Summer 2018): 56–99.

inadvertent escalation risks among China's arms control community.[60] This success could be replicated in these non-nuclear domains.

Second, Congress should support and encourage open-source analysis of Chinese military strategy within U.S. and allied academic and policy organizations. The Chinese government provides very little official information about its information warfare capabilities and operations. Open-source analysis of unofficial Chinese-language materials is therefore a key avenue for understanding PLA actions in a future conflict. Numerous Chinese-language materials are available on these topics for researchers to understand PLA thinking about the goals, employment and future of these capabilities. The timely and systematic collection, translation, and wide dissemination of these materials outside of government would increasing literacy about Chinese military strategy within the U.S. and allied policy communities and contributed to more informed public debate about China policy.

[60] Zhao Tong and Li Bin, "The Underappreciated Risks of Entanglement: A Chinese Perspective," in *Entanglement: Russian and Chinese Perspectives on Non-Nuclear Weapons and Nuclear Risks*, ed. James M. Acton (Washington, D.C.: Carnegie Endowment for International Peace, 2017).

OPENING STATEMENT OF MICHAEL HUNZEKER, PH.D., ASSISTANT PROFESSOR AT GEORGE MASON UNIVERSITY'S SCHOOL OF POLICY AND GOVERNMENT AND ASSOCIATE DIRECTOR OF THE CENTER FOR SECURITY POLICY STUDIES

COMMISSIONER GOODWIN: Thank you, Doctor. Dr. Hunzeker?

DR. HUNZEKER: Chairman Bartholomew, Vice Chairman Cleveland, Senator Goodwin and Senator Talent, distinguished Commissioners and staff, thank you for inviting me to speak this morning.

Now, since I am coming to you from a motel room in San Antonio that my wife and I -- last night, I'm a bit worried I could lose power or connectivity at any moment. So I'll start with my bottom line. I'm concerned that Taiwan is not as prepared for war as it should or as it could be.

To be clear, I'm not trying to suggest that an invasion will succeed, let alone at a price that Beijing is willing to pay. Taiwan is naturally defensible. Amphibious assaults are challenging. The PLAhas never conducted one under fire. And even if Taiwan's defensive preparations aren't ideal, they're still capable of imposing heavy costs. Attacking Taiwan is and will remain a gamble.

That said, I'm worried that Beijing is deterred in spite of Taiwan's defenses and preparations, not because of them. To point out just a few shortcomings, first, Taiwan doesn't have enough active duty personnel. As of 2018, it could fill up only 80 percent of its authorized billets. The problem is even worse in combat units, some of which were at 60 percent strength.

Second, maintenance and supply issues could keep many of Taiwan's weapons on the sidelines in a conflict. Experts also question whether the island has enough ammunition. At least one analyst has suggested that the air force has half of what it would need for two days of combat.

Third, the army's training is not sufficiently rigorous or realistic. Conscripts spend most of their short four months in uniform doing drill and yard work. Unit training isn't much better. Exercises are scripted, junior officers worry about passing bad news up the chain of command, and senior officers (audio interference) details that to be frank, western militaries delegate to noncommissioned officers.

Taiwan's reserve force, its literal last line of defense, just isn't ready for prime time. In theory, Taiwan could draw upon roughly two million reservists. But in practice, only 300,000 or so of these attend one week of refresher training every two years.

So, in light of these challenges, many American analysts have called on Taiwan to adopt what we call an asymmetric posture by using large numbers of cheap weapons to flip the so-called anti-access challenge on China. And it even seemed like Taiwan was starting to move in this direction.

The Tsai administration has made defense reform one of its top priorities, and in 2017 Taiwan introduced a highly asymmetric Overall Defense Concept, or ODC. American analysts applauded these changes. Unfortunately, this may have been premature because it's now starting to seem like the ODC's future is in doubt.

Far too many senior officers and defense officials oppose asymmetry in general and the ODC in particular. Nor does the Tsai administration seem particularly willing to force asymmetry on (audio interference) Ministry of National Defense services with the sort of urgency that most of us would think the threat demands.

And I'm worried that time is not on Taiwan's side. It will take years to acquire the platforms and capabilities already in the pipeline. For example, the air force won't receive the last of its upgraded F-16s until 2023. The very first of Indigenous Diesel Submarines won't set sail until 2025. The last of the decidedly non-asymmetric Abrams Main Battle Tanks isn't even scheduled to arrive on the island until 2027.

And make no mistake. Getting the right weapons is just the first step in the transformation process, not the last step. Doctrine, training, and culture -- these all need to change as well, and some of these changes take even longer.

In light of these constraints, I believe Taiwan can get the greatest and fastest return on its investment by acquiring as many sea denial capabilities as quickly as they can and by developing a more coherent ground combat doctrine. Sea denial weapons, things like missile boats, coastal defense missiles, and naval mines can allow Taiwan to send more PLA ships to the bottom of the ocean than Beijing is hopefully willing to lose. And should deterrence fail, they can buy time for Taiwan and the United States if it decides to intervene.

And if sea denial represents Taiwan's first line of defense, then preventing the PLA from taking and holding ground is its last line. Even if Taiwan's ground troops can't stop the PLA, they can at least keep it from consolidating control quickly, which again buys time for Taipei and the United States.

But, at present, Taiwan's army does not seem to have a contingency plan for what it will do if the PLA finds a way to fight its way off the beaches or, worse yet, finds a way to skip the beaches entirely.

Now, because the United States might one day find itself in the position of needing to send or choosing to send troops into harm's way to defend Taiwan, I believe it's in our interest to ensure that Taiwan is doing everything it possibly can to provide for its best defense possible. I will therefore conclude by suggesting three measures that Congress should consider to support faster and more dramatic reform.

First, insist on contingent arms sales. The United States should only sell Taiwan genuinely asymmetric weapons as defined by the United States. Main battle tanks and self-propelled Howitzers are not asymmetric. Future sales should also be contingent on Taiwan's continued progress toward a genuinely asymmetric posture.

Second, we need to stop sending mixed messages to Taipei. Now, I know this Pollyannish, but the fact is, right now, Taiwan has every right to be irritated by the fact that we seem to keep changing our minds, offering Paladin Howitzers one day but insisting on coastal defense missiles the next. Clearer signaling can also help keep reform opponents from cherry-picking the messages they want to hear. To this end, it may be useful to ask the Biden administration for a comprehensive top-down policy review.

Finally, we should push the Department of Defense to develop plans that complement Taiwan's asymmetric posture. The fact is that one source of internal resistance is the fear that if Taiwan adopts this posture and the United States doesn't show up, then Taiwan will be out of options.

With that, I'll conclude. Thank you again for the opportunity to testify, and I look forward to further discussion.

PREPARED STATEMENT OF MICHAEL HUNZEKER, PH.D., ASSISTANT PROFESSOR AT GEORGE MASON UNIVERSITY'S SCHOOL OF POLICY AND GOVERNMENT AND ASSOCIATE DIRECTOR OF THE CENTER FOR SECURITY POLICY STUDIES

Michael Hunzeker: Witness Testimony

Statement before the U.S.-China Economic & Security Review Commission

Hearing on "Deterring PRC Aggression Toward Taiwan"

Panel on "The Cross-Strait Military Balance"

18 February 2021

Michael A. Hunzeker, Ph.D.[1]
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Associate Director, Center for Security Policy Studies
George Mason University

Chairman Bartholomew, co-chairs Senator Goodwin and Senator Talent, distinguished Commissioners and staff, thank you for inviting me to appear before you to discuss the cross-Strait military balance.

Executive Summary

I have been asked to comment on the Taiwanese military's ability to deter, delay, and defeat a cross-Strait attack. My overarching assessment is that the Republic of China's (ROC) armed forces are not yet *optimally* manned, trained, equipped, and motivated to defend against an attack on Taiwan. I want to emphasize "optimally," because I do not think it is inevitable that an attack by the Peoples' Liberation Army (PLA) will succeed at a price that Beijing is willing to pay. After all, Taiwan enjoys formidable natural defenses.[2] Amphibious assaults and large-scale naval blockades are complex military operations under the best of circumstances, and the PLA has no experience conducting either under combat conditions. Taiwan's defensive preparations—even if not ideal—are still substantial and capable of imposing heavy costs on an invader. Attacking Taiwan therefore remains a risky gamble.

Taiwan can nevertheless do more to enhance its defenses. Deterrence will rest on less-than ideal foundations until it does.[3] Nor is time on Taiwan's side. The qualitative and quantitative military balance has already tipped in China's favor, and the PLAs advantages are growing.[4] For years, defense experts suggested that Taiwan should redress this imbalance by embracing asymmetry—in other words, by investing in large numbers of low cost weapons and adopting warfighting concepts that prioritize anti-access and denial operations over decisive battles to maintain or regain control of the air, sea, and land.[5]

President Tsai is thankfully pushing Taiwan's military in this direction. Unfortunately, she faces two obstacles. First, defense reforms take time. It will take years to procure new weapons. Meanwhile, Taiwan's military must also update its doctrine, training, maintenance, logistics, supply systems, and culture in order to ensure that these weapons can be effectively employed. Second, the Tsai Administration's reform efforts are encountering resistance as some senior generals, admirals, and defense officials attempt to coopt, dilute, and "slow roll" the transition.

For the rest of my testimony, I proceed as follows. First, I discuss why we should focus on Taiwan's military preparations for a full-scale invasion instead of its ability to defend against an attack on an outlying island, missile strikes, or a naval blockade, even if the Chinese military only seems able to undertake combat operations short of a worst-case scenario invasion and occupation. Next, I identify problems and shortcomings in how Taiwan's military forces are currently trained, manned, equipped, and motivated to defend against a full-scale invasion. I then discuss both the Tsai Administration's defense reform efforts and the obstacles that could prevent it from being quickly realized, after which I suggest that prioritizing sea denial and ground combat operations will do more to enhance deterrence than investments in any other area. I conclude with three policy recommendations for Congress to consider.

Why Taiwan should focus on the threat of full-scale invasion

My assessment of Taiwan's military preparations for attack is based on how I think the ROC Army, Navy, and Air Force are likely to perform in a worst-case, full-scale invasion scenario. There are undoubtedly other ways China could attack if Beijing decides to resolve the "Taiwan issue" by force.

For example, the PLA could seize Kinmen, Matsu, or one of Taiwan's other outlying islands.[6] It could initiate a decapitation operation, a cyber-attack, missile strikes, or some combination of the three. Alternatively, the PLA Navy (PLAN) and PLA Air Force (PLAAF) could impose an air and naval blockade.

In theory, these possibilities suggest that China might find a way to forcibly annex Taiwan "on the cheap". After all, if grabbing an island, launching missiles, or isolating Taiwan from the rest of the world can break the will of the Taiwanese people (and convince the United States to remain on the sidelines), it means Beijing can compel Taiwan into submission without needing to undertake a costly and risky full-scale invasion. Without downplaying the risk that the PLA might try to undertake one or more of these "sub-invasion" options, I am nevertheless skeptical that they should serve as the pacing threat against which we assess the adequacy of Taiwan's military preparations. There are at least three reasons I believe we must remain focused on the worst-case, full-scale invasion scenario.

First, physical occupation remains the only surefire way to achieve Beijing's ultimate goal: political control. The only way to physically occupy Taiwan is to mount a full-scale invasion. Although I discuss social resilience below, the fact is that if the Taiwanese people are so irresolute as to give in to Chinese demands after losing an outlying island, or suffering damage from long-range strikes, then there are deeper issues at play than the most effective military defenses in the world alone can resolve. Moreover, as Mark Stokes, Yang Kuang-shun, and Eric Lee aptly point out, "the credibility of an invasion threat shores up the effectiveness of coercion."[7] A Chinese military campaign short of a full-scale invasion can only succeed at breaking the will of the Taiwanese people to the degree that they believe that Beijing can follow-up an initial attack with something far worse. Conversely, it stands to reason that the more the Taiwanese people believe their military forces can and will defend them against physical occupation, the less likely it is that an island grab, kinetic strike, or blockade alone will cause them to submit.

Second, the seizure of outlying islands, long-range strikes, and blockades are arguably "lesser included" threats. In other words, despite concerns that focusing on the invasion threat leaves Taiwan vulnerable to these "sub-invasion" scenarios, the fact is that PLA would need to successfully accomplish all three of these operations before it could invade and occupy Taiwan.[8] Therefore, the same defensive capabilities and preparations that will help Taiwan defend against a full-scale invasion will also prove useful for dealing with island grabs, fire strikes, and blockades. For example, hardening, dispersing, and concealing command and control (C2) sites, logistics nodes, and combat forces limits damage from Chinese missile strikes, regardless if they occur as part of a stand-alone campaign or a full-scale invasion. Coastal defense cruise missiles (CDCM) are useful against PLAN ships whether they are trying to grab an island, enforce a blockade, or support an amphibious landing. Well-trained, well-equipped, flexible, mobile, and autonomous ground combat units can defend beaches on outlying islands and those on Taiwan itself.

Third, although island grabs, missiles and cyber strikes, and blockades might be easier for the PLA to undertake than a full-scale invasion, they are still challenging and risk-laden operations in their own right. There is no guarantee the PLA will be able to successfully execute any of them under fire. Moreover, far from presenting Taiwan—or the United States—with a morale-breaking *fait accompli*, a Chinese island grab, missile strike, or blockade could instead create a range of political and military opportunities for Taiwan, the United States, regional, and international partners to exploit. Politically, the seizure of an island, missile strikes that harm civilians, or an economically devastating blockade would serve as an unambiguous "wake up" call about Beijing's true intentions. There is, of course, a

chance that Chinese aggression will deter the United States and its regional allies and partners from intervening. However, to the degree that the strong international reaction to China's crackdown in Hong Kong, or revelations about Chinese concentration camps in Xinjiang, serves as an indicator, it seems more likely that violent aggression against Taiwan will galvanize public support for a firm response instead of dividing it.[9] Militarily, blockades and island grabs have serious downsides. Enforcing a blockade will likely force the PLAN to put ships within range of Taiwanese anti-ship missiles. Blockades are rarely decisive by themselves.[10] And they take time to bear fruit in any case—time that the United States and its partners can use to calibrate an effective response.[11] A blockade will also put China in the unenviable position of having to decide what to do about third-party civilian vessels—and the military ships sent to escort them—that defy the blockade. Firing on an American or Japanese civilian or military ship risks escalation. Letting them through undermines the credibility of the entire endeavor. The quick seizure of an outlying island runs similar risks. Their symbolic value notwithstanding, these islands are de facto strategic outposts that serve as a "defense in depth" of sorts. A PLA operation to seize one could fail, damaging Chinese credibility and exposing the PLA's methods and vulnerabilities. Even if the PLA succeeds, the operation will still serve as an early warning, giving Taiwan a chance to mobilize and position its forces, while buying time for the United States to flow forces into theater if it so chooses. Indeed, even an overwhelmingly successful attack against one of Taiwan's outlying islands could well run into the same problems as any bite-and-hold operation: it will not prove military decisive in its own right, but it will give the other side a chance to move reserve forces into place.

Existing problems, shortfalls, and gaps

Taiwan's armed forces would likely face a number of shortfalls and gaps if the PLA launched an all-out invasion today. Again, this is not to say such an attack would succeed. The Department of Defense does not think the PLA is currently capable of mounting such an ambitious operation.[12] Taiwan is naturally defensible. Amphibious assaults are extraordinarily difficult; invading Taiwan would require the largest and most complex amphibious assault in history.[13] Whatever its shortcomings, Taiwan's military still has the wherewithal to impose heavy casualties on a landing force.

Even so, recruiting, doctrine, training, equipment, and motivation remain suboptimal in Taiwan's armed forces. Intangible factors like chance, resolve, and whether the United States decides to intervene make it impossible to predict how long Taiwan's military can hold out against an all-out invasion. Nevertheless, it seems safe to assume that, all things equal, Taiwanese soldiers, sailors, and air personnel will fight more effectively, suffer fewer casualties, and hold out for longer if these problems and shortcomings are addressed.

Personnel

Taiwan does not have enough active duty personnel. As of 2018, Taiwan's armed forces had 153,000 soldiers, sailors, air personnel, and marines, representing roughly 80% of its authorized end-strength of 188,000 active duty billets.[14] The problem is particularly acute in frontline ground combat units, some of which are allegedly at 60% of their authorized end strength.[15] Analysts offer a number of reasons for this shortfall. Taiwan has struggled to attract enough men and women to the armed forces since it began to transition from conscription to an all-volunteer force (AVF).[16] Compounding matters, the Ministry of National Defense (MND) must spend an ever-growing share of its budget on pay, benefits, and incentives to recruit volunteers. As a result, personnel costs now account for 45% of the defense budget, up from 26% before the AVF transition.[17] While conscription still exists to help cover

the shortfall, conscripts now only spend four months on active duty.[18] Among those who do volunteer to remain on active duty, many try to transfer to non-combat units.[19]

Equipment

Taiwan's military might look imposing on paper. Comprised of both foreign purchased and indigenously produced platforms, this arsenal includes 565 main battle tanks, nearly 100 attack helicopters, over two dozen destroyers and frigates, 44 missile boats, 479 combat capable aircraft, and at least 1,100 anti-ship missiles.[20] Unfortunately, maintenance, logistics, and supply issues could prevent many of these platforms from getting into action in an invasion scenario. For example, Taiwan's armed forces are struggling to find replacement parts for many of its foreign-acquired systems. As a result, less than half of the tanks, armored personnel carriers, and self-propelled artillery vehicles acquired from abroad are fully operational at any given point in time. Paradoxically, the pending arrival of 108 American M1A2 main battle tanks could exacerbate the problem. [21] Shortages also plague Taiwan's rotary and fixed wing fleet, especially its inventory of AH-64 *Apaches,* OH-58D *Kiowa Warriors,* F-5 *Tigers*, F-16A/B *Fighting Falcons,* and *Mirages*.[22] That a lack of critical parts is making it hard for units to train and operate in a permissive, peacetime environment suggests the difficulties Taiwan will face if confronted with a prolonged blockade or conflict, especially if it does not have time to stockpile beforehand.

Some analysts also worry about potential supply shortages in the event of war. In particular, the MND may not have enough munitions for a prolonged conflict, especially one in which the island is cut off for long periods of time. To be fair, militaries often underestimate their wartime supply requirements. The history of modern warfare is littered with examples of armies that consumed their entire peacetime stockpile of shells in the opening phases of a conflict.[23] Yet at least one open source report suggests that Taiwan might only have one-third to one-half of the munitions it will need for just two days of air combat.[24] Taiwan's ground forces may face similar shortages in terms of small arms and small arms ammunition.[25]

Maintenance and corrosion control issues present another challenge, especially for the navy and air force. In fact, the military now outsources repair and maintenance for at least some of its airframes to private sector companies.[26] Outsourcing may save money in the short run. However, relying on civilian contractors might not prove viable under combat conditions. Operationally, intercepting PLA intrusions, which have spiked dramatically over the past year[27], is also straining maintenance and readiness.[28]

Doctrine

Many American analysts think that Taiwan's military doctrine—in other words, the concepts that guide how its armed forces train and fight[29]—will prevent it from generating as much combat power as it otherwise could. For decades, Taiwanese doctrine focused on countering an invasion force *symmetrically*. In other words, it envisioned waging a decisive "none shall pass" battle for control over Taiwan's airspace, sea-lanes, and beaches. This doctrine also shaped the military's force posture and procurement plans by spending Taiwan's already constrained military investment and force modernization budget on acquiring small numbers of "expensive, high-end platforms that are high on prestige, but of limited utility in an actual conflict."[30] Given that the cross-Strait military balance is tipping against Taiwan, the fact is that the PLA will soon be able to overwhelm Taiwanese defenders both quantitatively and qualitatively.[31] Although the Tsai Administration is now embracing what many

defense experts have long considered a more appropriate, *asymmetric* deterrence posture—a topic I discuss in more detail below—old habits are hard to change. Even in a best-case scenario, it will take years to reorient Taiwan's military toward asymmetric battle concepts after it spent generations planning and preparing for a symmetric war. Therefore, if China attacks in the near future, it is unlikely that Taiwan's soldiers, sailors, and air personnel will be ready, equipped and trained to fight in accordance with these new concepts.

Training

Taiwanese military training, at least within the army, leaves much to be desired. Conscripts spend five weeks in basic training, followed by another eleven weeks undergoing follow-on training for their military occupational specialty. These sixteen weeks constitute the entirety of their time on active duty. Worse yet, the training is not sufficiently rigorous. Recruits spend more time listening to administrative briefs, practicing close order drill, and doing yard work than they do learning basic combat tactics, techniques, and procedures, first aid, or land navigation.[32] Unit-level field training among active duty units is not much better. Exercises are highly scripted.[33] Junior officers fear failure and try to avoid passing "bad news" up the chain of command. Senior officers micromanage their subordinates, often obsessing over tasks that Western militaries delegate to non-commissioned officers. In fact, seasoned American observers—as well as some retired Taiwanese officers—are skeptical that the army is capable of changing this top heavy, highly centralized command culture anytime soon.[34]

Taiwan's navy and air force appear better trained. For a variety of reasons, these services do not face the same challenges as the army. Although hierarchical relations and centralized command and control are endemic to Taiwanese military culture, ship captains and jet pilots invariably exercise more latitude and autonomy when operating than their peers on the ground. These services are also smaller than the army (about half the size) and have fewer conscripts to train and manage.[35] Finally, because the navy and air force handle the PLA's "grey zone" intrusions, the increased demand for air and naval intercepts has likely provided both services with invaluable operational experience and exposure to PLA tactics, techniques, and procedures.[36]

Reserves

I have thus far focused on Taiwan's active duty army, navy, and air force. While active duty units will do most of the initial fighting in a worst-case invasion scenario, the cross-Strait military balance is such that if PLA assault units make it onto the beach—or beyond—Taiwanese reservists will need to quickly augment their active-duty counterparts on the ground. Taiwan's reserve force is therefore of critical importance to both Taiwanese war plans and cross-Strait deterrence.[37]

Unfortunately, there is a strong consensus among analysts and expert observers that absent a major reform, Taiwan's reserve force will prove ineffective against all-out invasion. Of the 2 million reservists Taiwan can theoretically mobilize in a crisis, [38] only 300,000 or so are actually required to participate in regular refresher training under current regulations.[39] Moreover, this training is grossly insufficient to ensure Taiwan's reservists will be ready to rapidly mobilize and fight under combat conditions. At present, those reservists who are required to attend refresher training are only obligated to do so for five days every two years. Worse yet, reservists waste most of this training attending "Power Point" briefings and filling out administrative paperwork.[40] Many reservists do not even know if they are subject to this training requirement, nor is it hard to acquire a waiver on the rare occasion they are

"called up". Perhaps most troubling of all, it is not clear that the MND takes its reserve force seriously. There are rumors that the army does not even have enough rifles to arm all of its reservists. It is therefore doubtful that more than a fraction of its reservists will prove combat credible in a worst-case invasion scenario.

Reserve reform is thankfully a top priority for the Tsai Administration. President Tsai prominently referenced reserve reform in her second inaugural address. Five months later, the MND reorganized Reserve Command directly under the Army (and created corresponding reserve commands for each theater commands), organized a new Defense Mobilization Bureau, increased the number of reservists recalled for annual training by 140,000 per year, and instituted policies to create an annual training requirement and to increase the length of each annual training period to 14 days.[41] President Tsai has also promised that frontline reserve units will receive the same equipment as active duty units. The administration hopes these reforms can be fully implemented by 2023.[42]

Morale

Taiwan, and its armed forces, also has a morale problem. Military service is not prestigious and does not confer the same social status in Taiwan that it does in the United States. Many older Taiwanese people, especially those who identify as pan-Green, associate the military with Kuomintang (KMT) rule. High profile hazing incidents have turned many younger Taiwanese off to military service. Far too many see the military as a career last resort rather than a respected path to social mobility and opportunity. It is little wonder that Taiwan is still struggling to meet its recruiting quotas even as a growing percentage of Taiwanese claim that they would be willing to defend Taiwan in the event of war.[43]

Contrary to the opinion that today's youth in Taiwan are "too soft", the lack of rigorous and realistic training may actually be making the problem *worse*. Many conscripts and reservists think their training is so lacking in rigor that it is a waste of time. Such views may reflect—or drive—a broader skepticism about the degree to which Taiwan's military is ready to protect the island against invasion. For example, one recent public opinion survey by National Chengchi University found that over 70% of those surveyed doubted that Taiwan's armed forces could successfully defend Taiwan.[44] The 2019 Taiwan National Security Survey similarly found that only 15% of the 1,120 respondents said that they would either "fight" or "join the army" in response to an invasion.[45] By comparison, 25% said that they would "let it be." 13% claimed they would flee the island.[46] Such views are deeply problematic, because they suggest that Taiwanese resolve could "break" before its military forces are actually defeated—or even have a chance to get into the fight. They also raise the stakes if China tries to resort to coercive military action short of all-out invasion despite the fact that missile strikes, a blockade, or the seizure of an outlying island are, by themselves, an existential threat to Taiwan's autonomy.

As is the case with reserve reform, the Tsai Administration is taking steps to address social resilience. For example, the DPP organized a series of public seminars on national defense in four major cities this past December.[47] Prominent defense experts, such as former Chief of the General Staff Admiral Lee Hsi-min, and up and coming politicians like Enoch Wu, have likewise been going around the island sponsoring talks and panels on civil defense and emergency response. The need to improve public awareness of Taiwan's military preparations likely explains why, as Professor Shelley Rigger points out, President Tsai spends so much time wearing a helmet and flak jacket in public.[48]

Is hope on the horizon?

With the introduction of the Overall Defense Concept (ODC) in 2017, it looked like Taiwan's military was belatedly shifting toward a posture that was both more appropriate to Taiwan's threat environment and which might start to address many of the aforementioned gaps and shortfalls. In broad terms, the ODC seeks to adopt a multi-layered, asymmetric strategy and a corresponding posture consisting of large numbers of small things.[49]

The Tsai Administration has thrown its full support behind the ODC.[50] Unfortunately, the concept's future is in doubt. A number of high-ranking uniformed officers and senior defense officials are not "on board" with the ODC.[51] This resistance, for lack of a better term, seems to stem from a combination of interpersonal animosity, principled disagreement, and bureaucratic inertia. Regardless, it appears increasingly unlikely that the MND will implement ODC—or another genuinely asymmetric alternative force posture[52]—with the sort of urgency that Taiwan's threat environment might otherwise indicate. These senior officers and officials (most of whom are retired officers) are undermining the shift by creatively interpreting the term asymmetric so as to justify their pursuit of clearly symmetric weapons—like M109 Paladins—or the acquisition of small numbers of very expensive asymmetric platforms, such as the indigenous diesel submarine (IDS). Chinese "grey zone" provocations likewise serve as a reason to focus on high-profile intercept and surveillance missions despite the burden such intercept missions impose on budgets, maintenance, and readiness.[53]

Despite its vocal and public support for defense reform, the Tsai Administration also seems unwilling or unable to force the MND to adopt the ODC—or another genuinely asymmetric alternative—with greater urgency than it has thus far. As a practical matter, the DPP does not have a deep "bench" of military experts and defense officials who can translate President Tsai's top-level political guidance into a concrete and actionable plan; monitor its implementation; and overcome internal resistance among senior officers and defense officials (many of whom lean KMT).[54] Nor does Taiwan's defense establishment have the institutional equivalent of the U.S. Department of Defense's Office of the Secretary of Defense, which might otherwise allow the Tsai Administration to more effectively monitor and supervise the MND. As a political matter, it is not clear that the Tsai Administration has strong incentives to expend the political capital necessary to force many of these changes. President Tsai must satisfy domestic constituents who either may not support some of the more radical (and costly) steps needed to rapidly shore up Taiwan's defense posture (such as a return to conscription, a significant increase in annual reserve training, or a major increase in defense spending) or who profit from the production of high-end platforms (such as the Taiwanese shipbuilding firms working on the indigenous diesel submarine program). Nor does it help matters that the United States habitually sends mixed signals and generates moral hazard, both in terms of U.S. defense firms lobbying for the sale of inappropriate conventional platforms (such as amphibious assault vehicles and main battle tanks), and proposed legislation to offer Taiwan explicit security guarantees without establishing clear expectations about what Taiwan must do to provide for its own defense.[55]

A question of time

Even if the Tsai Administration somehow manages to overcome these obstacles so as to swiftly reorient the MND and the armed forces towards a more effective warfighting posture, there is still the issue of time. It will take years just to acquire platforms and capabilities *already in the production and/or foreign purchase pipeline*. To offer just a few prominent examples:[56] the air force will not receive the last of its F-16A/B upgrades until 2023. (The Obama Administration notified Congress notified about the deal in 2011). Although the sale of 100 Harpoon Coastal Defense Missile Systems was

announced in October 2020, they will not start to arrive until 2022. In a best-case scenario, the first IDS will not set sail until 2025. The last M1A2 main battle tank will reach Taiwan in 2027. Truly innovative capabilities, including as micro-missile boats, semi-submersibles, and drone swarms, will take even longer to research, to design, to build, and to field in large numbers. Therefore, even with a "full court" press to acquire a range of genuinely asymmetric capabilities, most are unlikely to come online until the middle of the decade at the earliest.

It is also important to remember that procuring and fielding the "right" weapons is only the first step in the transformation process. Doctrine, training, logistics, maintenance, and command culture must also change—radically in some cases—to ensure that Taiwan's servicemen and women will not put their new weapons to old uses (and that their weapons will work and have plenty of ammunition). These necessary, but hard to observe, changes take years to implement. Nor can we assume that Taiwan's military services are proactively "leaning forward" into these sorts of reforms, given the degree to which active duty units are already struggling with training, maintenance, logistics, and decentralized command and control.

In light of these time and resource constraints, I believe Taiwan can generate the greatest "return on investment" in terms of enhancing deterrence by prioritizing sea denial and its ground combat doctrine.

Sea denial

Focusing on sea denial capabilities exploits a key requirement for any amphibious invasion: in order to invade and occupy Taiwan, China must send most of its troops and equipment by sea. Sea denial capabilities will, at best, keep PLA assault units from reaching Taiwan. At worst, they can buy time for Taiwan—and the United States if it decides to intervene—by complicating China's landing plans, forcing it to divide its invasion fleet, and increasing the chance that assault units will arrive scattered and disorganized.

I am not in a position to predict how long it will take Taiwan to acquire enough of these weapons—and to undertake the doctrinal, organizational, and training reforms needed to ensure Taiwanese military units can use them effectively in combat—so as to deter aggression.[57] However, it seems clear that Taiwan can build its existing sea denial capabilities *faster* than it can achieve similar improvements in the air or on the ground. Taiwan already has many such weapons (including its existing inventory of over 1,100 Harpoon and Hsiung Feng III missiles anti-ship missiles, or its the *Tuo Jiang*/*An Ping*-class corvettes) and is already in the process of acquiring more.[58] Moreover, sea denial weapons are relatively inexpensive. For example, Taiwan could buy roughly 1,600 Harpoon anti-ship missiles for the same (likely inflated) price that it paid for 66 F-16V fighter jets. Taiwan is also able to build almost all of these weapons on its own, saving money and stimulating domestic manufacturers in the process.

Ground combat doctrine

If sea denial represents Taiwan's first line of defense, it stands to reason that denying an invader the ability to take and hold ground represents the island's last line of defense. Unfortunately, in addition to the aforementioned issues with Taiwan's ground combat forces, neither the ODC, nor its plausible alternatives, outlines a plan for what the army should do if the PLA makes it off the beach[59] (which itself assumes that the first large-scale insertion of PLA ground forces will occur on the beaches). Even if a Chinese invasion force gains a foothold on Taiwan, China still cannot attain its ultimate

goal—political control over the island—until it establishes physical control over the Taiwanese people. A properly organized and employed ground defense can prevent the PLA from *rapidly* establishing and exercising population control, thereby presenting Taiwan's government—and the United States—with a *fait accompli*. Again, at best, the prospect of waging a drawn-out ground campaign will buttress deterrence, convincing Beijing not to attack in the first place. At worst, a prolonged ground defense will buy time for the United States to intervene. It will also force China to surge additional forces across the Taiwan Strait, creating opportunities for interdiction and horizontal escalation—for example, by supporting unrest in areas where China must inevitably divert or pull paramilitary units to support its efforts in Taiwan.

Taiwan should prioritize a wholesale reform in how its ground combat units (active duty and reserve) train and fight so as to prepare them to wage a prolonged campaign against an invader across the depth of the island. It may want to also consider creating a Territorial Defense Force similar to those found in Estonia, Lithuania, and other countries that face a proximate invasion threat.[60] Preliminary analysis suggests that such forces can deter aggression.[61] Regardless, the MND should begin working on the problem-set now, since it will take a long and sustained effort to revise doctrine, improve training, and instill the sort of decentralized command and control culture necessary to redress this longstanding Achilles' heel in Taiwanese defensive planning.

Policy recommendations

A robust Taiwanese deterrence posture benefits Taiwan and the United States. Although there are limits to what the United States can do to help improve the island's defenses against invasion, Congress should nevertheless consider at least three measures:

First, insist on contingent arms sales.

In other words, the United States should only sell Taiwan weapons that are congruent with a genuinely asymmetric posture (as defined by the United States); and all such sales should be contingent on Taiwan's continued progress toward adopting genuinely asymmetric posture. Taiwan is of course free to adopt its preferred defense posture, and to buy whatever weapons it wants. But the United States is likewise free to say no. The Taiwan Relations Act simply requires that the United States "provide Taiwan with arms of a defensive character" and that such defensive articles and services be made available "in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability."[62] It does not specify that the arms recipient can define what is necessary for self-defense. Moreover, because the United States might one day decide that it is necessary to defend Taiwan from attack by sending American troops into harm's way, it is in our interest to ensure that Taiwan is doing everything in its power to provide for its own defense. Conditional arms sales will also help the Tsai Administration take the bureaucratically painful and politically costly steps associated with reform. The annual Department of Defense report on Taiwan arms sales and asymmetric capabilities required by section 1260A of the 2021 National Defense Authorization Act can serve as a useful metric for calibrating such conditionality.[63]

Second, stop sending mixed messages to Taipei.

Conversations between deeply intertwined and vibrant democratic partners are inevitably "noisy." Nevertheless, the United States can and should do a better job of clearly signaling its unified and unambiguous support for asymmetric reform. As it stands, Taiwanese elected officials and senior

offices have every right to be irritated by the fact that the United States seems to keep changing its mind, moving the goal posts, and sending contradictory signals about the types of reforms it wants. Clear signaling will also help prevent reform opponents from "cherry picking" the messages they want to hear while ignoring the ones they do not. Moves like the recent decision to sell Taiwan Mk-48 torpedoes, which the Tsai Administration immediately held up as clear evidence of US support for IDS, exemplify the problem.[64] To this end, Congress should do what it can to coordinate clear and consistent messaging—especially regarding arms sales—at the highest-level possible. It may therefore be desirable to ask the Biden Administration to undertake a comprehensive, top-down policy review of U.S.-Taiwan relations. Of course, the United States must send positive signals as well. Congress can also provide support for grassroots non-governmental organizations, such as Forward Alliance, which are trying to build public support for national security reform and improve social preparedness and resilience.[65]

Third, recommend that the U.S. military develop operational plans that complement Taiwan's asymmetric posture.

One source of internal resistance to the ODC comes from the understandable concern that an asymmetric posture is overly passive and reactive, such that if Taiwan adopts the ODC, but the United States subsequently proved unable or unwilling to intervene on its behalf, Taiwan might struggle to escalate or to retaliate.[66] The United States can assuage these concerns by making it clear that its war plans are designed to serve as a counterpart to Taiwan's asymmetric posture. Specifically, by holding out and absorbing as much Chinese military power as possible, Taiwan can buy time for U.S. forces to intervene while exposing vulnerabilities that U.S. forces can exploit. Combined exercises and war planning can help. In fact, the risk of divulging or leaking operational plans could actually prove more of a feature than a bug. The entire point of an asymmetric posture is to let China know what it will face if it attacks, while convincing it that there is little it can do to preempt or neutralize thousands of anti-ship missiles and tens of thousands of well-trained and well-equipped ground troops.

Thank you again for the opportunity to testify before you today. I look forward to discussing ways the Commission can enhance deterrence in the Taiwan Strait.

[1] I would like to thank Matthew Stinson for his research assistance, as well as Dr. Alexander Lanoszka and Mark Christopher for feedback on earlier drafts. All views—and errors—in this written testimony are mine alone.
[2] Ian Easton, *The Chinese Invasion Threat: Taiwan's Defense and American Strategy in Asia* (Arlington, VA: Project 2049 Institute, 2017): 147–167.
[3] By deterrence I mean the ability to impose—or to credibly threaten to impose—more pain and suffering on an adversary than it is willing to bear so as to convince that adversary to maintain the status quo (as defined by the deterring side) when the adversary would rather change the status quo. By credibly, I mean convincing the adversary that you have the *ability* to impose such pain, and the *willingness* to impose it; and that you are also willing to absorb the costs and risks associated with imposing such pain.
[4] Brendan Taylor, *Dangerous Decade: Taiwan's Security and Crisis Management* (London: The International Institute for Strategic Studies, 2019): 43-65.
[5] The earliest such work seems to trace back to Dr. Lin Chong-Pin's work on "concrete jungles" in the early 2000s. See also, William S. Murray, "Revisiting Taiwan's Defense Strategy," *Naval War College Review* 61, No. 3 (2008): 2—28; Jim Thomas, John Stillion, and Iskander Rehman, *Hard ROC 2.0: Taiwan and Deterrence Through Protraction* (Washington D.C: Center for Strategic and Budgetary Assessments, 2014); Michael A. Hunzeker and Alexander Lanoszka, *A Question of Time: Enhancing Taiwan's Conventional Deterrence Posture* (Arlington, VA: Center for Security Policy Studies, 2018).
[6] Here I am referring to a *fait accompli* "island grab" as a standalone operation—a type of so-called coercive "risk" strategy in which Beijing seizes something of value from Taiwan as a way to credibly demonstrate that China can take even more so as to convince Taipei to capitulate without further resistance. This sort of operation is

conceptually and practically distinct from an operation to seize one of Taiwan's outlying islands as a militarily necessary prelude to a full-scale invasion.

[7] Mark Stokes, Kuang-shung Yang, and Eric Lee, *Preparing for the Nightmare: Readiness and Ad Hoc Coalition Operations in the Taiwan Strait* (Arlington, VA: Project 2049, 2020): 3.

[8] Hunzeker and Lanoszka, *A Question of Time*, 50; Easton, *The Chinese Invasion Threat*, 94—141.

[9] James Holmes, "Could China Successfully Blockade Taiwan?" *The National Interest*, August 28, 2020. Holmes, "Could China Successfully Blockade Taiwan?," available at https://nationalinterest.org/feature/could-china-successfully-blockade-taiwan-168035?page=0%2C1

[10] John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton, 2014): 83-137; Holmes, "Could China Successfully Blockade Taiwan?"

[11] Julian Corbett, *Principles of Maritime Strategy* (London: Longmans, Green and Co., 1911; reprint, New York: Dover 2004): 187.

[12] Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China, 2020: Annual Report to Congress* (Arlington, VA: Department of Defense, 2020), 114.

[13] Tanner Greer, "Why I fear for Taiwan," *Scholars Stage* (September 11, 2020). Available at https://scholars-stage.blogspot.com/2020/09/why-i-fear-for-taiwan.html. By way of comparison, the allied landing on D-Day involved 7000 landing ships and craft inserting 130,000 soldiers by sea, with another 24,000 arriving by air, against 40,000 defenders in the area of operations. According to at least one unofficial estimate, the PLA currently only has enough amphibious capacity to land roughly 15,000 soldiers and their vehicles in a single lift, while delivering an equal sized force by air at the same time. Gav Don, "Persuade, Invade, Blockade: What Is Beijing's Best Strategy to Reunify Taiwan," *BNE Intellinews*, November 30, 2020. Available at https://www.intellinews.com/persuade-invade-blockade-what-is-beijing-s-best-strategy-to-reunify-taiwan-197533/. Using publicly available data from the 2020 *Military Balance* report and other sources, "back of the envelope" math suggests that the PLAN could lift twice that number of troops (assuming every amphibious ship is fully operational; has either adequate landing craft for ship-to-shore operations, the ability to "self-beach", or access to a suitable seaport of debarkation; *and is carrying its maximum capacity of troops, which likely means not carrying any vehicles*). In any case, even this number of troops is likely still too few to for an initial wave given the size and complexity of the mission, and the fact that not all will make it ashore.

[14] Paul Huang, "Taiwan's Military is a Hollow Shell," *Foreign Policy*, February 15, 2020. Available at https://foreignpolicy.com/2020/02/15/china-threat-invasion-conscription-taiwans-military-is-a-hollow-shell/

[15] Off the record discussion, August 2020. See also, Huang, "Taiwan's Military is a Hollow Shell."

[16] Whitney McNamara, "Challenges to Taiwan's Shift to All-Volunteer Force," in Bonnie Glaser and Matthew P. Funaiole eds., *Perspectives on Taiwan* (Washington, D.C.: Center for Strategic and International Studies, 2018): 48-51.

[17] Stokes, Yang, and Lee, *Preparing for the Nightmare*: 22.

[18] By comparison, South Korean conscripts serve for 19 months. Israeli conscripts remain on active duty for 24.

[19] Huang, "Taiwan's Military is a Hollow Shell."

[20] These numbers are taken from The International Institute for Strategic Studies, "Chapter Six: Asia," *The Military Balance*, 120, no.1: 311-313; Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China*, 164-166; Central News Agency, "Taiwan to Extend Defensive Perimeter to 300-500 km by 2025: Think Tank," *Focus Taiwan*, January 10, 2021. Available at https://focustaiwan.tw/politics/202101100009

[21] Paul Huang, "Taiwan's Military Has Flashy American Weapons But No Ammo," *Foreign Policy*, August 20, 2020. Available at https://foreignpolicy.com/2020/08/20/taiwan-military-flashy-american-weapons-no-ammo/

[22] Stokes, Yang, and Lee, *Preparing for the Nightmare*: 37 & 39.

[23] For example, before to the First World War the British government told munitions manufacturers they should be prepared to produce 7 million bullets per week. When the war started, the British government's first requisition was for 176 million bullets. Similarly, British artillery units deployed to France with one thousand shells per gun. Artillery commanders quickly discovered that their guns could fire this entire allotment in just over an hour of combat. See Paul Kennedy, "Britain in the First World War," in *Military Effectiveness*, Vol. 1, ed. Allan R. Millett and Williamson Murray (Boston: Allen & Unwin,1988), 34; War Office, *War Establishments: Part I, Expeditionary Force, 1914* (London: HMSO, 1914), 6, Z216, Joint Services Command and Staff College Archives, Shrivenham; and Jonathan B. A. Bailey, *Field Artillery and Fire Power* (Abingdon, UK: Routledge, 2004), 118.

[24] Wendell Minnick, "How to Save Taiwan From Itself," *The National Interest*, March 19, 2019. Available at https://nationalinterest.org/feature/how-save-taiwan-itself-48122

[25] Off the record discussion, February 2019.

[26] Ibid., 39.
[27] Staff Writer, "Chinese incursions highest since 1996," *Taipei Times*, January 4, 2021. Available at https://taipeitimes.com/News/front/archives/2021/01/04/2003749901
[28] Ben Blanchard, "Taiwan's Armed Forces Strain in Undeclared War of Attrition with China," *Reuters*, September 26, 2020. Available at https://www.reuters.com/article/us-taiwan-security/taiwans-armed-forces-strain-in-undeclared-war-of-attrition-with-china-idUSKCN26H08X
[29] Barry R. Posen, The Sources of Military Doctrine: France, Britain, and Germany between the World Wars (Ithaca, NY: Cornell University Press, 1986): 13–14; Austin Long, The Soul of Armies: Counterinsurgency Doctrine and Military Culture in the US and UK (Ithaca, NY: Cornell University Press, 2016), 21; Benjamin Jensen, Forging the Sword: Doctrinal Change in the U.S. Army (Palo Alto, CA: Stanford University Press, 2016), 4.
[30] Greer, "Why I fear for Taiwan."
[31] Hunzeker and Lanoszka, *A Question of Time*, 20.
[32] Greer, "Why I Fear for Taiwan"; Off the record discussions, February 2019 and February 2021.
[33] This and what follows are from off the record discussions conducted in February 2019, January 2021 and February 2021.
[34] When I asked one subject matter expert whether Taiwanese army units would be capable of employing decentralized command and control, they replied that it might be realistic to expect the army to allow general-officer level commanders to exercise such discretion.
[35] The International Institute for Strategic Studies, "Chapter Six: Asia," 311.
[36] Whether this experience and exposure is worth the price in terms of maintenance and readiness is another matter.
[37] Michael Mazza, "Time to Harden the Last Line of Defense: Taiwan's Reserve Force," *Global Taiwan Brief* 5, no. 8 (April 22, 2020). Available at https://globaltaiwan.org/2020/04/vol-5-issue-8/
[38] Open source estimates as to the actual size of Taiwan's reserve force vary dramatically, typically ranging from 1.5 to 2.5 million. See Ian Easton, Mark Stokes, Cortez A. Cooper, Author Chan, *Transformation of Taiwan's Reserve Force* (Santa Monica, CA: Rand, 2017); Minnick, "How to Save Taiwan From Itself"; The International Institute for Strategic Studies, "Chapter Six: Asia," 311.
[39] Stokes, Yang, and Lee, *Preparing for the Nightmare*: 22.
[40] Minnick, "How to Save Taiwan From Itself."
[41] https://www.cna.com.tw/news/firstnews/202010070041.aspx
[42] Off the record discussion, February 2021.
[43] Wu Su-wei, "More than 77 percent willing to Fight in the Event of an Invasion by China: Poll" *Taipei Times*, October 25, 2020. Available at https://www.taipeitimes.com/News/taiwan/archives/2020/10/25/2003745764. Not every public opinion survey is as sanguine about Taiwanese resolve. For example, an August 2020 survey by the blue-leaning Chinese Association for Public Opinion found that less than half of those surveyed were willing to fight in a war against China. See Michael A. Hunzeker and Dennis L. Weng, "The Painful, But Necessary, Next Steps in the U.S.-Taiwanese Relationship, *War on the Rocks*, September 24, 2020. Available at https://warontherocks.com/2020/09/the-painful-but-necessary-next-steps-in-the-u-s-taiwanese-relationship/
[44] Stokes, Yang, and Lee, *Preparing for the Nightmare*: 12.
[45] We must take these results with a grain of salt, as the responses were open ended. The prompt was "What will you do if war breaks out etween Taiwan and the Mainland?" 2019. Accessed at http://www.taiwansecurity.org/app/news.php?Sn=15761. Opened ended responses translated by Dr. Lu-Chung Weng.
[46] Other surveys paint a more optimistic picture. For example, a July 2018 poll by National Chungchi University found that roughly 30% of respondents said they were willing to tolerate more than 50,000 casualties in a war against China. Yao-Yuen **Yeh, Charles K.S. Wu, Austin Wang, and Fang-Yu Chen, "Are Taiwan's Citizens Willing to Fight Against China?" *The Diplomat,* March 22, 2019. Available at** https://thediplomat.com/2019/03/are-taiwans-citizens-willing-to-fight-against-china/**. That said, asking someone "how many casualties are you willing to accept" may not accurately tell us whether the interviewee is her or himself willing to be one of those casualties. We must take all of these surveys with a grain of salt, given the role that Chinese disinformation may be playing; and the fact that respondents know that China is paying attention to the results.**
[47] Central News Agency, "DPP to Hold National Security Seminars in Four Major Cities," *Focus Taiwan*, November 29, 2020. Available at https://focustaiwan.tw/politics/202011290007
[48] Shelley Rigger, "Hearing: Taiwan and the United States: Enduring Bonds in the Face of Adversity," U.S. House of Representatives, Committee on Foreign Affairs, Subcommittee on Asia, the Pacific, and Non-proliferation, December 10, 2020. Available at https://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=111118

[49] For an in-depth overview and analysis of the ODC, see Drew Thompson, "Hope on the Horizon: Taiwan's Radical New Defense Concept," *War on the Rocks*, October 2, 2018. Available at https://warontherocks.com/2018/10/hope-on-the-horizon-taiwans-radical-new-defense-concept/; Hsin-Biao Jiang, "The Logic of the Strategic Thinking and Defensive Measures of the Overall Defense Concept of Taiwan," *Institute for National Defense and Security Research Defense Security Brief* 9, No. 2, December 2020: 77-79; and Lee Hsi-min and Eric Lee, "Taiwan's Overall Defense Concept, Explained," *The Diplomat*, November 3, 2020. Available at https://thediplomat.com/2020/11/taiwans-overall-defense-concept-explained/

[50] Tsai Ing-wen, "Second Inaugural Address," May 20, 2020. Available at https://english.president.gov.tw/News/6004; See also Tsai Ing-wen, "Transcript: President Tsai Ing-wen Discusses the Diplomatic, Security, and Economic Challenges Facing Taiwan," August 12, 2020. Available at https://www.hudson.org/research/16300-transcript-president-tsai-ing-wen-discusses-the-diplomatic-security-and-economic-challenges-facing-taiwan

[51] Off the record discussions, August 2020, January 2021, and February 2021.

[52] The MND will reportedly publish a new Quadrennial Defense Review in March 2021, and a new National Defense Report in October 2021.

[53] Off the record discussion, August 2020.

[54] Off the record discussions, August 2020 and January 2021.

[55] Michael A. Hunzeker and Brian Davis, "The Defense Reforms Taiwan Needs," *Defense One*, August 10, 2020. Available at https://www.defenseone.com/ideas/2020/08/defense-reforms-taiwan-needs/167558/

[56] This and what follows is from U.S.-China Economic and Security Review Commission, *2020 Report to Congress* (Washington, D.C.: U.S. Government Printing Office, 2020): 464; Stokes, Yang & Lee, *Preparing for the Nightmare*: 25-26; Central News Agency "18 F-16A/B Jet Fighter Upgrades Completed" *Focus Taiwan*, December 3, 2020. Available at https://focustaiwan.tw/politics/202012030023.

[57] At least one subject matter expert estimates that it could take up to three years for Taiwan to acquire a sufficient inventory of sea denial capabilities in light of budgetary and procurement cycles. Off the record discussion, August 2020

[58] Matt Yu and Joseph Yeh, "Taiwan Aiming to Buy Coastal Defense Missile System from US: Official," *Focus Taiwan*, May 28, 2020. Available at https://focustaiwan.tw/politics/202005280011; Matteo Scarano, "Update: Taiwan Launches First 'Fast Minelayer" for ROCN," *Janes*, August 7, 2020. Available at https://www.janes.com/defence-news/news-detail/update-taiwan-launches-first-fast-minelayer-for-rocn; Off the record discussion, August 2020

[59] Mazza, "Time to Harden the Last Line of Defense."

[60] Hunzeker and Lanoszka, *A Question of Time*, 94—102.

[61] Lionel Beehner and Liam Collins, "Can Volunteer Forces Deter Great Power War? Evidence from the Baltics," *Journal of Strategic Security* 12, no. 4 (2019): 50-68.

[62] 1979 Taiwan Relations Act, Section 2, b, 5 and Section 3. Available at https://www.ait.org.tw/our-relationship/policy-history/key-u-s-foreign-policy-documents-region/taiwan-relations-act/

[63] https://www.govinfo.gov/content/pkg/BILLS-116hr6395enr/pdf/BILLS-116hr6395enr.pdf

[64] Kelvin Chen, "Foreign Minister Says Arms Sales Symbolize US Commitment to Taiwan," *Taiwan News*, May 22, 2020. Available at https://www.taiwannews.com.tw/en/news/3938728

[65] https://nong.tw/events/

[66] It is admittedly hard to see how Taiwan's current defensive posture solves this problem either, since many of its existing high-cost, high-visibility platforms are vulnerable to first strike and/or it does not have enough of them to engage in a prolonged conflict without help from the United States.

COMMISSIONER GOODWIN: Thank you, and thanks to all the witnesses. We'll begin the questioning with our Chairman, Commissioner Bartholomew.

CHAIRMAN BARTHOLOMEW: Thanks very much, and thanks again to our witnesses. I'm interested, I guess, in unconventional warfare operations, but I want to define them just a little bit differently, which is -- we've had a tendency to talk about military-civil fusion when it comes to technological innovation, but I'm wondering if you could talk a little bit about how you would see the PLA using civilian assets in any conflict with Taiwan, whether that be using state-owned enterprises, whether it be using the fishing fleet, telecommunications.

How would you see them sort of fusing what is technically civilian activities or enterprises with any PLA action against Taiwan? I'll offer that to everybody.

MR. HENLEY: If I may start, the PLA concept of operations for how to get that many troops across the Taiwan Strait includes massive use of civilian shipping, both cargo ships, roll-on/roll-off ferries, and all -- any other assets, including a lot of small vessels, but a lot of large vessels that will need to be going to a port rather than supplying troops to across the shore.

They have a very large bureaucratic apparatus in the National Defense Mobilization Committee, part of whose mission is to organize all these civilian assets, shipping, transportation assets, electronic repair assets, communications assets, into militia units to be mobilized in support of military operations. It's a long discussion, but I'll stop there.

DR. CUNNINGHAM: I will add some thoughts on this particular point, but just to begin by noting that the military and civilian fusion concept has a sort of long history within the PLA. And it has, I think, focused more on the technological in the past, and it remains a work in progress exactly for how it's going to be implemented to be broader going forward to include some of these sorts of personnel issues.

But the point I just wanted to add is that I would imagine that these assets would be used more in support rather than combat roles, in part because, especially from a personnel perspective in the areas that I touched on, especially the sort of cyber area, the PLA has experienced its own issues with command and control and with obedience to directives and oversight in that area.

And so I would anticipate that these capabilities would be used more in a support role than necessarily a combat one.

CHAIRMAN BARTHOLOMEW: So let me ask, then, Dr. Henley, if indeed the plan here, right, is to put a lot of personnel on so-called civilian ships and start shipping them over, how does the U.S. respond? I mean, unless there's some sort of a declaration of war, how do we react to large numbers of people, soldiers, whomever, being placed on civilian ships and being moved across the Strait?

MR. HENLEY: This movement across the Strait wouldn't start until the conditions are set from the PLA's perspective, and setting those conditions involves a very intense fire-strike campaign against targets in Taiwan. I think at that point we will have gotten past the question of whether we're at war or not.

CHAIRMAN BARTHOLOMEW: All right. I think with that, I'll yield back the rest of my time.

COMMISSIONER GOODWIN: Thank you.

Commissioner Borochoff?

(Pause.)

COMMISSIONER GOODWIN: Commissioner, you're still muted.

COMMISSIONER BOROCHOFF: Forgive me.

Mr. Henley, I was struck by the fact that you said that if we don't defeat the blockade, we lose the entire conflict, but no one wants to talk about the blockade. So I kind of have a two-part question for you.

The first one is why does no one want to talk about it? And secondly, what steps would you take right now to either get people talking or create whatever necessary plan we have to have to defeat that? Because listening to you, you'd think it's going to happen.

MR. HENLEY: If there's a war, it's going to happen. Unless China wins the war quickly, there will be a long blockade. As for why people don't want to talk about it, it's not fun. It's hard. It's unsatisfying. Sinking ships is fun. Thinking about how to clear minefields when you're under heavy fire is not fun. It doesn't involve the kind of assets that the services are most fond of, like aircraft carriers and tanks and fighter jets and stealth bombers. There may be a role for stealth bombers.

Taiwan doesn't want to think about it because they don't want to think about anything beyond these kind of -- the first week of the war. Frankly, neither do we. As my colleague, Dr. Hunzeker, was saying, Taiwan has no plans or anything beyond not letting them get a foothold on the beach.

COMMISSIONER BOROCHOFF: So --

MR. HENLEY: What he's talking about is what if they get the foothold and drive inward? What I'm talking about is what if they fail to get the foothold but nonetheless continue the blockade?

COMMISSIONER BOROCHOFF: So would either of our other two witnesses like to comment on that? Dr. Hunzeker?

DR. HUNZEKER: So I agree that the quarantine and blockade scenario is something that (audio interference).

COMMISSIONER BOROCHOFF: I think we're only hearing about every other word, Mike. I'm so sorry. We may have lost you.

VICE CHAIRMAN CLEVELAND: Jameson, can Mr. Hunzeker call in? Would that be easier?

MR. CUNNINGHAM: Yes. We'll do that.

COMMISSIONER BOROCHOFF: Dr. Cunningham, would you like to comment on that while he calls in?

DR. CUNNINGHAM: I would -- just to comment on the point of why it is that people don't necessarily -- are not talking about this particular contingency, I think there's been a lot of focus on the potential for a Taiwan conflict to escalate very quickly rather than the United States and China making choices about how Taiwan -- U.S. allies making choices about how they execute this conflict that attempts to keep a limit on the intensity.

And so I think this focus on the potential for the conflict to escalate to nuclear threats or nuclear use can distract away from considering some of these other options where the conflict endures for longer but at a lower level of intensity in the way that Mr. Henley has outlined.

COMMISSIONER BOROCHOFF: I understand.

Dr. Hunzeker, are you with us now, or -- I think not.

DR. HUNZEKER: Can you hear me now?

COMMISSIONER BOROCHOFF: Yes.

DR. HUNZEKER: Okay. Let's -- I think I'm coming in on both my phone and my

computer. I would say just very briefly, if you can hear me, number one, I agree wholeheartedly more thought needs to go into the blockade quarantine scenario. But, number two, we should balance that with the consideration it is not easy to undertake a blockade, especially if Taiwan has sufficient arsenals of anti-ship missiles. That creates standoff problems.

And secondly, that does give the United States' regional partners options in terms of blockade running, that then flip the escalation challenge onto Beijing because it would have to make the decision to potentially engage civilian relief efforts by U.S. ships and/or allied partner ships.

COMMISSIONER BOROCHOFF: Thank you. I appreciate it. We're out of time. I hope I hear some more about the military-civil fusion. I yield the last ten seconds.

COMMISSIONER GOODWIN: Thanks, Commissioner Borochoff.

Vice Chair Cleveland?

VICE CHAIRMAN CLEVELAND: Thank you, and thank you to the Chairs and staff for putting together a wonderful hearing.

I have two questions. I'm very interested in the decision-making process in Beijing, and I would like your assessment of whether or not the PLA or the Politburo -- how they interact, how they would interact in making a decision on invasion. Would one be more or less inclined to exercise restraint?

It seems that, Mr. Henley, you've described an increasing operational readiness. And that seems to be matched with more aggressive policy statements from General Secretary Xi. So I'm curious about that decision-making process, what you think would propel Beijing forward in a conflict.

And then, Dr. Cunningham, you made a comment about the fact that -- in your written testimony that China's citizens are increasingly dependent on the internet. And that raised for me questions about -- none of you have spoken to, if we are in a war -- as Mr. Henley was saying, a blockade would mean a war -- none of you have spoken to the likelihood or the process by which we might strike targets on the mainland, and in particular targets such as sort of the electronic backbone and/or use cyber capabilities as a response.

So I'm interested in your assessment of the likelihood and the strategy of shifting the focus from defending Taiwan to taking action on the mainland. Thank you.

MR. HENLEY: Well, on the decision-making in Beijing, they -- the very strong preference among all Chinese leaders is not to have to use force, to achieve their objectives in Taiwan without the use of force, because that avoids a lot of -- many, many downsides that are associated with the conflict that would be devastating to China's economy and to China's strategic objectives for decades to come afterward.

What would make them decide they must use force is a conclusion that the nonmilitary approach cannot succeed, that time is not on their side, that if they don't use force they will lose Taiwan forever.

They were very close, in fact, probably had that viewpoint between the Belgrade bombing and roughly 2004, and thought that a conflict with the United States over Taiwan was likely in the near term. They decided in roughly 2004 that was not the case. So when they get into that mindset is when things get dangerous.

As for strikes on mainland targets, the Chinese absolutely assume that we will do so.

VICE CHAIRMAN CLEVELAND: Mr. Henley, am I hearing you say that the PLA and Politburo are like-minded in terms of a likely decision? And I'm interested, Mr. Hunzeker and Dr. Cunningham, in your perspectives on this as well as -- I'm -- it's the mechanics of the

decision-making that I'm interested in, since we don't seem to know a lot.

MR. HENLEY: We don't, and I'll defer to the other two.

DR. HUNZEKER: I hope I'm coming through.

VICE CHAIRMAN CLEVELAND: Yes.

DR. HUNZEKER: Okay. So, assuming I am, one thing I would just like to inject into the consideration is it need not necessarily be the case that strikes against the mainland come from the United States. And, in fact, I think a lot more work and exploration needs to be done into thinking about ways that Taiwan can acquire ground-based missile capabilities that could reach targets inside of China.

It would be escalatory regardless of which side or which actor or partner fires those missiles, but I certainly think it would be less provocative for those to come from Taiwan, more understandable, less likely to lead to inadvertent escalation. And I do think that it's something the United States should think about that provided Taiwan has already made asymmetric preparations, that it can do more or make more progress in things it's already doing to acquire those ground-based cruise missile capabilities.

VICE CHAIRMAN CLEVELAND: Dr. Cunningham, do you want to speak to the cyber issues?

DR. CUNNINGHAM: Of course, assuming that we have an appropriate amount of time yet. I would note very quickly that I think it's very likely that U.S. operational concepts will involve both kinetic and non-kinetic strikes on mainland targets, and the PRC leadership has been concerned increasingly for the last decade that its own critical infrastructure targets, both civilian -- in particular civilian -- are vulnerable to those kinds of attacks because of the way they have increasingly embraced the internet. And they have developed a capability to retaliate to those kinds of attacks.

So one might expect that the United States homeland might end up being targeted symmetrically for that kind of an attack. But I'll finish just by saying there's a degree of uncertainty about how effective those kinds of attacks would be on the PRC mainland as well as any they might conduct in retaliation, both in terms of their second-order effects going beyond what was intended as well as their first-order effects not having the kinds of impacts that either side might like.

So I think very likely, but perhaps with a high degree of uncertainty, is other types of strike.

VICE CHAIRMAN CLEVELAND: Thank you.

COMMISSIONER GOODWIN: Thank you.

Commissioner Fiedler?

COMMISSIONER FIEDLER: I -- we've had a lot of technical discussions about military capabilities. In the end, it seems to me that the will of both sides are critically important, one; two, that the Chinese calculation has to be that they must win quickly, and therefore launch an attack -- a series of attacks that are comprehensive, that break the will of the Taiwanese population, and that they cannot sustain a long-term invasion or stalemate internationally with the implications for their economy and whatnot.

Now, the question of the will of the United States is also meaningful in the response. And that seems somewhat questionable given our political situation at the moment. Am I wrong in thinking that these things matter?

DR. HUNZEKER: I believe that these matter tremendously. At the end of the day, it really is human decision, and the decision will involve estimates of both capability and resolve.

And in many respects, though, I think those two are related, especially for Taiwan. I do not think that most American defense analysts -- I actually don't think most Taiwanese voters think that Taiwan's current defensive preparations are inherently credible.

Therefore, I think that undermines Taiwanese resolve. So that's the reason a lot of American analysts have long been recommending a genuinely asymmetric, multilayered posture, because it takes the surprise fait accompli off the table and ensures that a conflict will last longer than Beijing probably prefers.

Beijing will take that more credibly. I assume the United States will take that more credibly. And the Taiwanese people, I think, will have more faith in their own defensive preparations, which will improve their resolve, all of which I think has a mutually beneficial impact on cross-Strait deterrence.

COMMISSIONER FIEDLER: Yes, Fiona?

DR. CUNNINGHAM: Thank you, Commissioner, for the question. So I would just note that, currently, the PLA describes its main contingency as fighting informatized local wars, which are limited wars. And they have certainly written in a lot of their doctrinal discussions of local wars about the need for war control or effective control, so essentially trying to keep the war short, limited in geographical scope, and limited in parties, and while being ready that a war might drag on, also being willing to terminate it if war objectives haven't been achieved if that is what the national interest overall demands.

So that's something, certainly, that is within the scope of PLA writings about this problem.

MR. HENLEY: I would say that the PLA strongly prefers to win quickly. But they -- but China must not lose this war if the war starts. And so if they are being defeated, they have to fall back on long-term strategies rather than surrender or accept a settlement that is not a political victory for them.

They have to -- whatever settlement there is, they must be able to sell it as a political victory. And we must allow them to sell it as such, or else they can't stop fighting.

COMMISSIONER FIEDLER: But doesn't that argue for extremely comprehensive initial attack?

MR. HENLEY: Yes --

COMMISSIONER FIEDLER: Cyber on the grid, water, not -- fire strikes, okay, against key military targets, scaring the bejesus out of the population of Taiwan, which lives in very concentrated spaces.

MR. HENLEY: Yes, I agree with that.

COMMISSIONER FIEDLER: Before we can respond. Do we know -- do we sense how long our response time would be effective?

MR. HENLEY: There you're getting into U.S. military planning, which we can't discuss in an open session.

COMMISSIONER FIEDLER: How about just quick or not?

MR. HENLEY: Well, it's no secret it takes a long time to get a lot of stuff across an ocean.

COMMISSIONER FIEDLER: Right. So --

MR. HENLEY: So we can get some stuff there quickly, but if you're talking about to actually defeat the Chinese invasion force, getting that much materiel there is going to take weeks if not months.

COMMISSIONER FIEDLER: Thank you. We're over time. Thank you.

COMMISSIONER GOODWIN: Thank you, Commissioner Fiedler. I'm going to jump in.

Dr. Hunzeker, I wanted to discuss with you something that you touched on in your written testimony about sub-invasion options, which could include Chinese seizure of outlying islands, limited cyber or missile attacks, or a blockade.

And in your testimony, you showed skepticism that they would do this in detail, while U.S. policymakers should remain focused on the worst-case full-invasion scenario. There certainly are a lot of commentators and panelists that we'll hear from later in the day that appear to agree with you that it is, for China, an all-or-nothing proposition.

But some seem to suggest a nuance there in that China might not have to force complete unification to declare a campaign against Taiwan a success, at least short of a Taiwan declaration of independence. If Chinese leadership could frame their actions as effectively and successfully punishing Taiwan, they might be able to accept such half measures.

So my question is -- first would welcome your reaction and the rest of the panel's reaction to that notion, but also get a response to the suggestion that -- would the sub-invasion options make it more or less likely to achieve their ultimate political objective of unification? Or does it complicate -- would it ultimately complicate those efforts?

DR. HUNZEKER: So this is a terrific question, and I'm sure many reasonable people would disagree. Nevertheless, I truly believe that the United States and Taiwan need to make the all-out invasion the pacing threat for a few reasons. One, any of the sub-invasion scenarios, cyber strikes, missile strikes, decapitation strikes, grabbing an outlying island -- none of these are sufficient to break the resolve of the Taiwanese people, provided the Taiwanese people are willing to stand up and fight.

The only way to subdue and occupy and pacify an island of 23 million people is to surge hundreds of thousands of troops, if not more, for a prolonged campaign. All of these sub full invasion scenarios can't do that. If grabbing an outlying island or launching missiles or a big cyber strike is sufficient to break the will of the Taiwanese people, then to be frank, I don't think that there's a defensive strategy in the world that can solve that problem.

I do, however, believe, number one, if Taiwan is prepared for all-out invasion, it actually gives it plenty of options to deal with all of these other sub conventional -- so it's sort of a lesser included set of threats.

And, number two, to the degree that the Taiwanese people believe at the end of the day you may have grabbed an island, you may have wrought some destruction in Taipei and other major cities, but we are resolved and we know that to really break our will, you've got to send hundreds of thousands of troops, and you can't do that at a price you're willing to pay -- I think that actually increases the chance that instead of being broken in response to one of these sub conventional threats -- or, sorry, sub-invasion threats -- then instead, it actually causes the Taiwanese people to double down their resolve, which just exacerbates the problem facing Beijing.

COMMISSIONER GOODWIN: Dr. Cunningham or Mr. Henley?

DR. CUNNINGHAM: I will add just very briefly that I would side with the analysts that you cited, Commissioner, who see potentially more nuanced ways in which the PLA might think about conducting or ending a conflict that does not go particularly well.

But I believe that these decisions are going to be very context-specific on how the contingency begins, how it progresses, and what the domestic political situation is like in China at the time in ways that are quite difficult to anticipate.

COMMISSIONER GOODWIN: Thank you.MR. HENLEY: I would also add that it's a three-sided game here. It's not a question -- it's not only a question of what would China accept in the wake of a military conflict. It's what would Taiwan accept and what would the United States accept.

It may very well be that there is a political settlement that China could accept as victory and stop fighting. The question is, could Taiwan accept that after having been subjected to the kind of punishment they've been subjected to? Could we accept that at that point?

COMMISSIONER GOODWIN: Thank you.

Next up is Commissioner Kamphausen.

COMMISSIONER KAMPHAUSEN: Thank you very much to our hearing co-Chairs and to our panelists. You've given us a great deal to think about.

Mr. Henley, my questions are really for you. And, first, appreciate the opportunity to thank you for your many years of distinguished service to our country focusing on this complex set of issues. And you've given much of your, if not most of your, professional life to considering the questions before this panel. And so I take your testimony today as profoundly insightful.

Let me ask the implications of it, and they're related to our Vice Chair, Cleveland's, questions, but may be slightly tangential. So if the PLA has achieved initial capability, as you judge they have, and if the foreseen military costs of an attack on Taiwan invasion effort are not, as you say in your testimony, the most important reason by far, unquote, and if the PRC goes to war, the decision is, quote, made in full acceptance that the war will be economically devastating to China, unquote. Then I wonder if there's any deterrent value in your recommendations to improve suppression of air defense capabilities and anti-mine-laying capabilities.

Let me continue. If the sea and anti-mine effort are a way to win the post-failed-invasion blockade phase of the war, is there any pre-conflict deterrent value, military deterrent value, of the United States and Taiwan demonstrating those capabilities?

Or, put a final way -- and this is really related to the long-standing discussions that Commissioner Cleveland and I have -- is there any potential for the PLA to tell Xi Jinping and the Politburo Standing Committee that they couldn't win either, as you suggest, the invasion or, if the U.S. were to demonstrate the capabilities to defeat a blockade -- if the PLA were to say -- is there any possibility that they would say to the leadership, we can't win the invasion or the post-failed-invasion blockade phase?

Is there any possibility of that happening? In other words, is there any conventional military deterrent value in what the United States and Taiwan might do?

VICE CHAIRMAN CLEVELAND: Far better said than I said it.

MR. HENLEY: A very important and complicated question. I guess the underlying issue is whether -- is what it is that deters China from conducting this operation. What deters them from using military force against Taiwan?

Is it the fact that it would be a very difficult operation with a high chance of military failure? Or is it that military force is not the best way to achieve their desired outcome and that the associated costs, separate from the costs of losing the military conflict -- the associated costs are much higher than any perceived benefit?

As you can tell from the way I phrased it, I think that's the case. I think that there is -- their deterrence calculus, if that's the right word, revolves not around the military balance but around the likelihood of achieving their desired outcome by various alternative means. And the military means is less likely to achieve their desired outcome, and the costs of the military means

are enormous.

However, they have to be capable of military -- imposition of their will on the Taiwan people by military force in order for those other approaches to work because Taiwan can be deterred from certain actions by the threat of military force. And also, of course, they have to have a backup plan in case plan A, the peaceful or the nonviolent approach, doesn't work.

So I guess what I'm saying is, to your first question, do U.S. military preparations deter China from attacking Taiwan? No, I don't think they do. I think that what we have to do is get ready to fight and win that war if necessary. But that doesn't significantly change the deterrence calculus from China's perspective.

I'm sorry I've used up all the time.

COMMISSIONER KAMPHAUSEN: Thanks very much. If we have another round, I'd appreciate the opportunity to continue this discussion, Commissioner.

COMMISSIONER GOODWIN: We're actually doing pretty well with time if the other witnesses would want to jump in here.

No? All right. Senator Talent?

COMMISSIONER TALENT: Thank you, Commissioner, and I want to thank the witnesses for very intriguing testimony.

Mr. Henley, I think I would like to follow up on Commissioner Kamphausen's questions to you. So I tend to agree with your assessment that the PLA, in Beijing's judgment, may have achieved sufficient capability to carry out the mission against Taiwan. But you seem to base that --

And then you go to the next question, which is, okay, if there's a war, it's going to be long and we have to be able to block -- to break the blockade. Even if we have been able to threaten or sink most or all of their assets in the Strait and the South China Sea -- and you quote Michele Flournoy, and she says, look, if we can threaten all those assets at the same time, that will deter them. And you say, no, it won't.

But I like your opinion on the question of whether we can indeed threaten those assets. You mention that we're good at shooting targets, ships and planes, et cetera. And we are. But we've done that in environments that were not very competitive or that we could make uncompetitive pretty quickly. And that isn't going to be the case here.

So I'd like your assessment on whether we could prevail in that initial phase before we get to the blockade.

MR. HENLEY: Well, you've really got two different operational environments to consider. One environment is outside the air defense umbrella of the advanced air defense systems along the Chinese coast, so out beyond Taiwan out into the Western Pacific.

I'm reasonably confident that, with difficulty, the U.S. Navy can prevail over the Chinese Navy operating far from the Chinese coast. And so we'll succeed -- with heavy losses on our side, we'll succeed against the PLA out there.

COMMISSIONER TALENT: Is that inside the second island chain?

MR. HENLEY: No, outside -- well, yes. Well, out to the second island chain -- from the first island chain to the second island chain. Beyond that, the PLA Navy can't even get to the fight, so it's not even an issue.

COMMISSIONER TALENT: Right. Right. MR. HENLEY: Inside the first island chain, which is roughly the same thing as inside the air defense umbrella, it's a very different matter because then we've got to rely on long-range standoff weapons that we can launch from outside that umbrella or stealth platforms that can go in, can penetrate the umbrella,

and do the strike.

That's a lot harder, but it's in our wheelhouse. It's the kind of stuff we know how to do; it's just a matter of effort and engineering and procurement and training and operations. I think we can -- we can sink anything big that floats if we prepare well enough to do so. Problem is, that doesn't win the war.

COMMISSIONER TALENT: Well, but you say procure. So what time horizon are you thinking about for us to acquire these capabilities? I mean, the Chinese have, as you mentioned, a 20-year buildup optimizing their force exactly for this, right? And we just went through the defense sequester, and many of our investments were not optimized for this kind of conflict in the first place.

So I'm just -- I'm skeptical with some of your claims. I just want to -- you're the expert, not me. But I'm really not certain that out to the second island chain, that we should be as confident as you say.

MR. HENLEY: Well, you know vastly more than I do about the procurement plans of the U.S. armed forces. I wasn't intending to make a judgment on whether we would succeed in doing that. I was merely saying that the things that it takes in order to do that are things that we know how to do and can do if we choose to do them.

COMMISSIONER TALENT: Okay. So at least we're prepared and we have experience to put up the best fight that we can put up, as opposed to the blockade situation, which we're not even thinking about.

MR. HENLEY: Yes.

COMMISSIONER TALENT: Fair enough.

Thank you, Mr. Chairman. I'll yield back. If there's a second round, I have a question for Dr. Cunningham.

COMMISSIONER GOODWIN: All right. Thank you, Senator.

Commissioner Wessel?

COMMISSIONER WESSEL: Thank you. Thank you all today. Thank you to the hearing Chair and co-Chair, and welcome to our new members, as our current Chair welcomed them earlier today.

I've been on the Commission for a while, and we have over the years always sort of said, when is a Taiwan scenario realistic? How far out is it? When should we anticipate that China may be ready to advance its claims?

What I'm hearing today, and also in light of China's actions in Hong Kong last year, makes me think that the threat is very real and the threat is now, that China has the capabilities to advance its interests should it want, that we heard earlier that it may take weeks for us to supply, you know, whether we have the willingness to engage and also engage for a long period of time in a blockade or other scenario.

Help me through this. Are the Chinese ready to go now? What warning signs, if any, do you think we should be looking for? Is our presence in the region with overflights with transits sufficient? What would you do now? Is the threat here today? And I'd like to hear from each of the witnesses.

Dr. Cunningham, do you want to start?

DR. CUNNINGHAM: I'll start very briefly just by stating that I would assess the PLA still thinks that it has some weaknesses in bringing to bear in some of these operations, in particular its ability to carry out joint operations. I mentioned this in my testimony with regard --

COMMISSIONER WESSEL: Right.

DR. CUNNINGHAM: -- to the information operations campaign. This is still an unknown quantity as to exactly how these capabilities would be integrated to the effects that are written about in some of these PLA texts and, again, how they would be integrated with the rest of the PLA's joint warfighting capabilities to kind of conduct these kinds of operations.

So I think there are still some question marks over their capabilities in that space. And, as Mr. Henley pointed out, it will depend very much on the -- their deterrent calculus of whether they can achieve their objectives with other kinds of means.

So, again, I think it will depend on whether or not certain opportunities or crises create opportunities where the PLA feels and the PRC feels like it has an opportunity to act.

COMMISSIONER WESSEL: Dr. Hunzeker, do you want to go next?

DR. HUNZEKER: Sure. So, in my estimation, the PLA still suffers from an incredible gap or deficiency in terms of amphibious lift. Again, this assessment is predicated on the assumption that it's the all-out invasion scenario that would truly be the challenge we need to worry about.

A back-of-the-envelope estimate's somewhere between 15 and 30 thousand troops is about all the PLA could lift in a single push, especially the first one. Just by way of comparison, on D-Day, the United States landed 130,000 troops over the course of 24 hours.

And so there is a major gap there that I think would need to be addressed before the Chinese would feel comfortable that they could undertake an all-out invasion, unless, in my estimation, they miscalculate and think that one of these lesser sub-invasion scenarios could break the will of the Taiwanese people.

COMMISSIONER WESSEL: Thank you.

Mr. Henley?

MR. HENLEY: Well, there's a lot more they need to do to be fully capable. Their helicopter program is way behind. Their heavy transport aircraft program is behind. Those are both due to problems with their aircraft engine program, which has been a disaster for decades and they have no chance of getting better.

We've been arguing about amphibious lift for ten years. My brief position is that the Chinese -- the PLA's had time to build whatever it felt it needed to build by 2020. They built less than some thought they should. Either they failed to build as much as they wanted to build, which would be a pretty dramatic event, or they built what they wanted to build and it just didn't happen to match what we thought they might need. So that's a complicated discussion, but it revolves around civilian shipping.

COMMISSIONER WESSEL: Okay.

Dr. Hunzeker, you had another point? I -- if I can use my time on that, go ahead.

DR. HUNZEKER: Just briefly, I wanted to address the other part of your excellent question, which has to do with early warning and early indicators. I am not privy to the type of information or intel about what capabilities we have in theater right now, but I think it suffices to say whatever we have, we should get more of it.

Undertaking an all-out invasion would be a massive campaign which would take weeks, if not months or longer, of preparation. And it would be very difficult regardless of how the PLA plans to get across the Strait -- very difficult to hide these types of preparations.

And so I think (audio interference) which would give us options if we're prepared to take them.

COMMISSIONER WESSEL: Thank you.

COMMISSIONER GOODWIN: Thank you, Commissioner.

Commissioner Wong?

COMMISSIONER WONG: Well, first of all, it's a joy to be here and be on the panel. Thank you for all the witnesses for the rigor and the attention you've paid to all your testimony.

I guess my first question goes to Mr. Hunzeker. You talked about the gap you see in doctrine, training, and culture with the Taiwan military. One way to get -- to change that culture at least quicker is mil-to-mil cooperation and training, joint exercises, with a military power that has that expertise.

Right now, our policy, the U.S. policy, is not to do that, or to the extent we have mil-to-mil contact, it's fairly minimal. But in your view, what's the level and the frequency and at which level, whether it's flag officer or lower down -- what kind of mil-to-mil cooperation would be necessary and on what timeline to expedite the change in doctrine and culture that we need in the Taiwan military?

DR. HUNZEKER: It's an excellent question. I wholeheartedly agree that I think mil-to-mil cooperation and training is one of the only ways we'll be able to increase these sorts of capabilities quickly, at least in the short run. In my estimation, I don't know that there's an upward bound -- if we're taking cross-Strait dynamics out of that, I don't know that there's an upper bound to how much would be enough.

I think the flag level, I think at the battalion level, I think at the company level, some of the biggest challenges to executing denial operations are that it requires decentralized command and control. I've worked with the Taiwanese military while on active duty, and I don't think that the culture is where it needs to be. And I think a lot of this takes the opportunity to see what decentralized command and control looks like in person, in the flesh.

So I would wholeheartedly endorse any and every amount of mil-to-mil cooperation and training on a rotational basis, even if we almost permanently had rotating troops there. Again, though, that gives in to issues of political sensitivity that the administration would have to make decisions on in terms of what it would be willing to undertake.

COMMISSIONER WONG: Right.

DR. HUNZEKER: But if it's willing to engage in those types of activities, the more the better.

COMMISSIONER WONG: Okay. And a follow -- or a second question for you. My understanding is that there are certain times of the year where it is easier or perhaps only possible to do the type of amphibious invasion that will be necessary to overtake Taiwan, roughly a four-to-six-week period in the spring and in the fall.

I guess my first question is, is that true? And if it is true, are there certain kind of strategic actions that can be taken to plus-up readiness, presence, whatever it may be, during these time periods to make it even harder and to enhance deterrence in these windows? And include not just the Taiwan military's efforts, but perhaps upping U.S. presence in the vicinity, U.S. military presence and perhaps even some diplomatic visits to make these periods even politically, as well as militarily, harder for the PRC.

DR. HUNZEKER: So, yes, I think that's right. My understanding is that there are fairly narrow windows of opportunity, given weather, tidal currents, and things like that, to undertake an amphibious operation of the size and scope that would be necessary to invade the island. I also agree that it would make sense to up preparations and activity during those time periods in order to enhance and increase deterrence.

And, to circle back to your last question, those moments or critical openings or

vulnerabilities would be the perfect opportunity to have as many American troops over there as possible conducting mil-to-mil relations and training to help both shore up their capabilities but also to act as a deterrent in its own right.

COMMISSIONER WONG: Thank you. With my time remaining, I guess this last question of mine goes more to Mr. Henley.

You talked a lot about blockade, and it's a fascinating discussion and a fascinating paper. But I wonder if there's a concept here or some thought given to perhaps not blockade for blockade, but China itself has certain vulnerabilities, some import vulnerabilities, whether it's in energy or, in certain years, the necessity to purchase foodstuffs for their people.

What is the PRC worried about as far as, if there is a conflict of this sort, if they are implementing a blockade of Taiwan, what are the vulnerabilities other powers might look at to enhance pressure on the Chinese economy and their own people from the import perspective?

MR. HENLEY: Well, China certainly benefits from access to the international markets. But, remember, it's a continental-sized economy. If they were totally sealed off from the entire rest of the world, they would last a lot longer than Taiwan would, and probably they could last indefinitely.

Energy supplies are an issue for them, but they have some domestic energy sources. They fully expect that we will blockade them in the event of a conflict, that we will, through a variety of means, including military force, attempt to totally isolate them from the rest of the world economy.

If they go to war, as I have kind of said a couple times -- if they go to war, they will have gotten past the point of accepting that cost, that pain that comes with it. And you can't really ratchet that up much higher, because part of that pain is the survival of the Chinese Communist Party is threatened in the event of a war because if they lose that war, they probably cannot sustain their hold on power.

So the pain meter is pegged at that point, and further cost imposition is not a mechanism for bringing this conflict to closure.

COMMISSIONER WONG: Thank you. I think I'm over my time, so I will yield to the Chair.

COMMISSIONER GOODWIN: Thank you, Commissioner.

We have some additional time left over for a second round. I know -- I believe Commissioner Borochoff and Commissioner Kamphausen, as well as Senator Talent, expressly indicated that they had some additional questions.

Exercising the discretion of the Chair, I'll first turn it over to my co-Chair, Senator Talent, if he wants to take his time now.

COMMISSIONER TALENT: Thank you, Commissioner. Yeah, I had a question for Dr. Cunningham.

So you mentioned in your testimony the Chinese developed their cyberspace/electronic warfare capabilities, at least initially, to give them some asymmetric advantages against the United States. So, given the changes in the Cross-Strait balance that have worked so heavily in their favor, I'm wondering if you have any ideas for how we might use our capabilities in that area to work some asymmetric advantages against, in deterrence in that fashion.

DR. CUNNINGHAM: So I think that the benefit here from the perspective of Taiwan and the United States is that previously, when the PRC was developing some of these capabilities, especially in the cyber domain in the early 2000s, it had very little dependence upon that domain. And so there wasn't very much that the United States would have necessarily been

able to strike at on the Chinese mainland.

But the PLA, and Chinese society more broadly, has become much more dependent. So this is certainly an area in which they are now vulnerable, and they are now expecting that they will face similar sorts of challenges. So I think the United States and Taiwan probably don't need to do too much more to signal that these kinds of attacks might be coming in those areas because the PLA is expecting them in that manner.

So I think that they're, in many ways, already concerned about attacks in that manner. But because they are looking to use those capabilities to put pressure on a conventional conflict as well, I think that is the area where we can expect a little bit more restraint from the PLA in light of that blowback they might receive from using those capabilities, and we might start to see them focusing those capabilities more on how they can enhance conventional operations rather than those high-value targets that will likely create those escalatory pressures.

COMMISSIONER TALENT: Thank you.

COMMISSIONER GOODWIN: Commissioner Borochoff?

COMMISSIONER BOROCHOFF: Also for Dr. Cunningham, you mentioned military-civilian fusion. And that comment always interests me when anyone brings it up, and I'm curious as -- if you have a few examples in your mind when you talk about it.

DR. CUNNINGHAM: Of course. So some of the examples that I cited in my written testimony involve, for example, electromagnetic spectrum management, which is something that telecommunications employees in some Chinese companies have been involved in as part of PLA militias. So that would be one example.

The PLA has written in some of its research articles looking at successful examples of civil-military fusion in the past and the creation of special loans in Shanghai and Beijing where high technology sectors were operating to create that kind of hardware, I believe, in particular that would provide spin-on for China's own indigenous information technology area.

So there are sort of two sort of concrete initiatives. And I'd note that civil-military fusion or a similar concept, which is slightly different wording in Chinese, comes up in descriptions of both space as well as cyber capabilities, buildings, but with very little detail of exactly what that would entail in the space domain.

So they would be two examples I'd give.

COMMISSIONER BOROCHOFF: So is there open source material out there that directly ties, for instance, those pulse weapons to specific companies that are receiving money from both sides of the spectrum, civil and military?

DR. CUNNINGHAM: So I would have to take that question on notice and will provide you with an answer to the best of my ability in follow-up.

COMMISSIONER BOROCHOFF: Will do.

MR. HENLEY: If I can inject a brief comment, as Dr. Cunningham said in her presentation, civil-military fusion is just the latest manifestation of a theme that has been part of the Communist movement since its inception in the early '20s. And, really, it's part of the effort to cope with the changing nature of the Chinese political and economic system.

In Maoist China, civil-military fusion was simply, this is what we do because we are all -- belong to the government. And now they have to develop new mechanisms to achieve the same goals that they've had throughout their history.

COMMISSIONER BOROCHOFF: Thank you very much. That was enlightening. I appreciate it.

COMMISSIONER GOODWIN: Thank you. Before I turn it over to Commissioner

Kamphausen, Vice Chair Cleveland had a comment.

VICE CHAIRMAN CLEVELAND: I just wanted to add a little levity to an otherwise sober conversation. An unnamed colleague of yours, Mr. Henley, sent me the following text because I was talking about how sobering your testimony was.

And he said, well, there's a difference between juridical and intuitive analysts. If a General sent me to the pond to see if there were geese, I might come back and say, sir, there are geese. I found goose down, a wing, goose poop, and eggs. Lonnie would come back and say, we'll know if there are geese in three or four weeks when those eggs hatch and we do DNA tests. That's the difference.

So he -- it was an enthusiastic vote of confidence in your cautious and thoughtful judgment. So I wanted to pass that along before turning over to Mr. Kamphausen. You can guess who sent it.

MR. HENLEY: Could have been anybody.

VICE CHAIRMAN CLEVELAND: I think that reflects the assessment.

Thanks, Carte.

COMMISSIONER GOODWIN: Sure thing.

Commissioner Kamphausen?

COMMISSIONER KAMPHAUSEN: Thank you. I'd like to continue with Mr. Henley.

I've long been of the persuasion that the PLA's military -- best military advice to the Chair of the CMC and to the Politburo Standing Committee was of a limiting sort. In other words, when asked the question, can you do these missions, if the PLA said, we -- the likelihood of success is at a range below the threshold that the political leadership judge to be reasonable, then the mission might not be undertaken.

I'm understanding from you today that to the extent that was ever true, it is much less true today. Is that a fair rendering, Mr. Henley, of your view? That's just a prelim to the next question.

MR. HENLEY: In that case, yes, I think it's fair.

COMMISSIONER KAMPHAUSEN: So that, then, wants me to ask the question, is it possible that achieving initial capability, as you've put in your testimony, may well constitute achieving the necessary capability altogether?

In other words, I hear the beginnings of an argument that we are returning to a phase in Cross-Strait relations where the most important deterrent of the PRC has returned to the strategic level and the political level, to the extent it ever left, and that it was only necessary for the PLA to achieve this initial capability to -- in order for that return to take place.

MR. HENLEY: From a pure deterrence perspective, that might be right. But they might be called upon to execute these operations, and if they start this war, they really don't want to lose it. They can't afford to lose it. And if they went to war today, there would be a pretty good chance that they wouldn't succeed militarily.

Now, military success is not the criteria for victory in the Chinese view of the world. In fact, they believe themselves to have been victorious in every conflict they've ever been in, including the Korean War, when outside observers would conclude that militarily it wasn't necessarily a victory. But nonetheless, strategically, politically, it was an absolute victory from China's perspective.

So the ability to prevail militarily is not the question. The question is, can the application of military force achieve our political objectives? But, nonetheless, if you get your

ass kicked, you may not have achieved your political objectives. So they need to be more able, more capable, than they are now.

They will continue building capabilities relevant to a Taiwan conflict and specifically focused on a Taiwan conflict, as Senator Talent said earlier, that this has been the focus of Chinese force development since at least May 1999 and will continue for the indefinite future.

So it may be true that they wouldn't necessarily need to do anything more from a purely deterrent perspective, but they will do a great deal more.

COMMISSIONER KAMPHAUSEN: That makes a lot of sense. I mean, we see this sort of incrementalism across the board and the accretion of PLA capabilities, right? That if they do it well, they will continue to do it well.

It's the discussion we had two decades ago about, what is the target for how many short-range ballistic missiles you want to have? And the answer is, well, there is no bottom. There is no end state. We're good at it, they're cheap, and we think they will achieve some value against Taiwan. So there is no, necessarily, target number. That's very helpful.

I guess the last question, and more to tee it up and then ask if we can do a more -- have a more fulsome exchange and questions for the record, it deals with the topic of punishment. So the PLA actions against Taiwan in the category of punishment alone -- this is a discussion I've had with Admiral Lee.

You can prepare for scenarios except for the one in which the PLA's sole purpose is to make you pay for not adhering to what they want to see. What's a quick thought or two about that? And then we'll follow up with questions for the record.

MR. HENLEY: Well, that's certainly on the menu of options for use of military force, is coercive use of military force, and, as the Chinese would phrase it, use of military force to prevent independence as opposed to use of military force to compel unification.

So that's been on the menu of options, certainly, since the mid-2000s. And they deemed themselves ready to do those operations, those infliction-of-pain operations, by about 2008. And U.S. analysts agreed with them on that.

COMMISSIONER KAMPHAUSEN: Thanks. Last point. I would date the focus on the U.S. to Cross-Strait crisis in '95, '96, maybe a little bit earlier than the Belgrade events when I was stationed in Beijing. I didn't see it as a directing part of it. I think it was already underway by then.

MR. HENLEY: I agree, but May of 1999 was a serious inflection point in that curve.

COMMISSIONER GOODWIN: Thank you.

Chairman Bartholomew?

CHAIRMAN BARTHOLOMEW: Thanks very much, and thank you to all of our witnesses. It's been a really interesting and, I guess, troubling -- it's difficult to look at these topics without being troubled.

But I just find myself wondering, how much longer can the PLA leadership sort of -- I mean, are they being honest with the political leadership in terms of, you know, we're not able to do this and do this successfully yet? How much longer can they do that?

I mean, I could see a scenario where the response is, you know, you guys are just milking us for all this money to do all of this development. When are you going to be able to actually do what it is that we think is important for you to do?

It just doesn't seem to me like this can go on for years and years and years before they will be expected to actually do something and do it successfully. Can you talk a little bit about the dynamics that might be taking place in terms of that? I'll open that to anybody who wants

to weigh in.

MR. HENLEY: Sorry for hogging the microphone. They have a very methodical, programmatic approach to this. They have five-year plans and ten-year development plans and twenty-year acquisition plans. And they are -- and this is a big part in my argument, that they're ready in 2020, because in 2005 they decided what they needed to do by 2020 and have done it. They've decided what they need to do going forward, looking forward to 2035 as the current midterm objective.

And I have no doubt that they will execute according to plan. Some things don't work out as expected, especially, as I mentioned, with aircraft engines. That keeps failing on them, and that has ramifications in all sorts of other programs. But, in general, they are executing successfully.

CHAIRMAN BARTHOLOMEW: But, Dr. Henley, if their plan doesn't allow them to achieve what this goal is supposed to be, how do the plans get modified? Or how useful or good are those plans, right? I mean, you mentioned that in terms of 2020, and when you were mentioning that, I kept thinking, but are they doing this in a void? Because it's not as though we are sitting still while they are doing those things.

So I guess, again, I'm just sort of questioning them -- the value or maybe even the assessment of this. And how much longer -- how much more space do they have to be able to say, well, you know, we can do it, but we can't do it successfully?

MR. HENLEY: I don't think that is their assessment. I don't think that they believe themselves incapable of accomplishing this mission.

CHAIRMAN BARTHOLOMEW: Dr. Cunningham?

DR. CUNNINGHAM: I would just add two very quick points here, which is to say that there is an economic pacing element to this. Mr. Henley brought up the point about 2020, and if I recall correctly, the leadership that was setting those goals for 2020 was pacing those changes and improvements within the PLA to what the economy could sustain at that point.

So that's one way I think in which the political leadership does have some acceleration and deceleration over the pace at which the PLA is able to achieve its objectives. And the other is resistance to some of the organizational changes that were necessary for the PLA to be able to execute the kinds of joint operations they would need to conduct some of these things. And that was an organizational and political log jam that cleared about roughly, what, seven years ago with the start of the PLA reform.

So they're, I think, two other points that are just worth considering.

CHAIRMAN BARTHOLOMEW: Dr. Hunzeker, anything to add?

DR. HUNZEKER: No. I would defer to my fellow panelists on this.

CHAIRMAN BARTHOLOMEW: All right. Thank you.

COMMISSIONER GOODWIN: Folks, that has us wrapping up a couple minutes early, unless there are any additional questions from the Commission.

I want to thank the panel for their time and their excellent testimony today. And we will take a one-hour break for lunch and reconvene at ten after 1:00 for our second panel.

(Whereupon, the above-entitled matter went off the record at 12:08 p.m. and resumed at 1:11 p.m.)

PANEL II INTRODUCTION BY SENATOR JAMES M. TALENT

COMMISSIONER TALENT: I'd like to welcome everybody back to the second hearing in our 2020 report cycle, and our second panel in this hearing, which will explore the political considerations which inform Beijing's willingness to use force against Taiwan and also those that inform Taipei's defense strategy.

We have three witnesses on the panel, I'll introduce all three of them at once, as our practice is. And then, we'll start with Dr. Mastro.

We will hear first from Dr. Oriana Skylar Mastro. Dr. Mastro is a Center Fellow at Stanford University's Freeman Spogli Institute for International Studies, where her research focuses on Chinese military and security policy, war termination, and coercive diplomacy.

She also serves in the United States Air Force Reserve, for which she works as a strategic planner at INDOPACOM and as a Senior Non-Resident Fellow at the American Enterprise Institute.

Prior to joining Stanford, she was an assistant professor of security studies at the Edmund A. Walsh School of Foreign Service at Georgetown University. She holds a B.A. in East Asian studies from Stanford and an M.A. and Ph.D. in politics from Princeton University.

Next, we will hear from Dr. Kharis Templeman. Dr. Templeman is a Visiting Fellow at the Hoover Institution and a lecturer in East Asian studies at Stanford University.

His areas of expertise include Taiwan politics, democratic transitions and consolidations, parties and elections and political economy of defense in Taiwan. He's also a member of the U.S.-Taiwan Next Generation Working Group.

Prior to joining the Hoover Institution, Dr. Templeman was a social science research scholar at Stanford University's Institute for International Studies. He holds a B.A. in political science from the University of Rochester and a Ph.D. in political science from the University of Michigan.

So, we are Stanford heavy on this panel, which is fine.

Finally, we will hear from Mark Cozad. Mr. Cozad is a Senior International Defense Policy Analyst at the RAND Corporation. His work at RAND focuses on military and security issues in East Asia, including major power competition, the development of joint operation concepts among major militaries, and how foreign powers perform military net assessment.

Before joining RAND, Mr. Cozad served in both the military and intelligence Communities, including stints as the assistant deputy director of national intelligence for the President's daily brief and the defense intelligence officer for East Asia.

He holds a B.S. in political science from the Air Force Academy, an M.S. in history from George Mason University, and an M.S. in strategic intelligence from the Defense Intelligence College.

We're grateful to all the witnesses for being here and for your testimony. I'd like to remind you to keep your remarks to seven minutes.

We'll start with Dr. Mastro and then we will recognize commissioners in reverse alphabetical order. Dr. Mastro?

OPENING STATEMENT OF ORIANA SKYLAR MASTRO, CENTER FELLOW WITH THE FREEMAN SPOGLI INSTITUTE FOR INTERNATIONAL STUDIES AT STANFORD UNIVERSITY AND NON-RESIDENT SENIOR FELLOW AT AEI

DR. MASTRO: Thank you, Commissioner Talent, Commissioner Goodwin, for providing me the opportunity to testify today on the precarious state of deterrence across the Taiwan Strait.

All the views I am going to express today are my own and do not represent those of any of the institutions with which I am affiliated or have been affiliated.

My bottom line assessment is that cross-Strait deterrence is arguably weaker than at any point since the Korean War.

Impressive military modernization on the part of China, U.S. failure to build robust coalitions to counter Chinese regional aggression, and Xi Jinping's personal ambition all have coalesced to create a situation for Beijing in which the benefits of using force more and more are becoming so high that they outweigh the costs.

The first issue I want to address is the conditions under which Chinese leaders would then initiate a conflict over Taiwan.

I think it's relatively uncontroversial to say if Taiwan were to do something like declare independence, China would use force to reverse that decision, at the very least, and probably even push for reunification once it used force to reverse that decision.

So, this idea that a policy or an action taken by Taipei or even the United States could potentially precipitate a conflict has been the main concern, I think, for the past two decades.

But the situation has changed. I believe the greatest threat now is that Beijing will launch a military operation to force, quote, reunification, in their words, irrespective of Washington or Taipei's policies or actions.

So, the good news of this is I think that Beijing is waiting for the most favorable moment, and thus will not be pushed by smaller slights, such as U.S. visits or arm sales, before it makes a move. It will only make a move when it's ready.

So, unless Beijing is ready to take Taiwan by force, its leadership is going to carefully calibrate any responses to other U.S. or Taiwan actions, as long as those aren't independence, and they will try not to escalate to war.

The bad news is that when Xi Jinping is confident that his military can win that war across the Strait, I think he's going to go for it.

So, what determines whether or not he's confident? It's hard to say what his assessment of current military capabilities are. In my testimony, I lay out some of the key components of Chinese military modernization program to today.

But the bottom line is, their main goal has been to develop the capability to conduct joint operations, precisely the type of joint operation needed to launch an amphibious assault against Taiwan.

And a key part of that program was just completed last year, and a spokesperson for Chinese Ministry of National Defense has said that they have basically completed these national defense and military reforms.

We also know that just in November, they revised their strategic guidelines for only the fifth time in history, to incorporate their new focus on joint operations. So, more and more, it seems that there is this increasing confidence that they could do it.

And it's not only Chinese thinkers, it's also the United States and people in the United

States that think that a potential clash between the United States and China over Taiwan could likely result in a U.S. defeat, with China completing, in the words of a RAND study, they could complete an all-out invasion in, quote, a finite time period measured in days, not weeks.

Chinese strategists do recognize the United States' vast military capabilities, but their conventional wisdom is that because of China's proximity to Taiwan, their corresponding access to operational resources, and how resolute they are, the relative balance, the local balance of power has shifted in China's favor.

So, the bottom line is, for the first time in history, Xi Jinping is going to have at his disposal a military capable of forcing unification.

So, while many Western observers, like myself, think that they might be able to do so in about five years, Chinese military leaders have told me personally they think they'll be ready in a year or two.

So, this doesn't mean that I think they're going to go for this now. I think what it means is that they're going to want to conduct more and more realistic and joint operational exercises, put their capabilities to the test, and then, in a couple years, when they're confident, then they'll do it.

So, one of the things is, in this hypothetical scenario, what can the United States do? Well, first and foremost, I think deterrence by increasing the cost to Beijing is unlikely to work. Deterrence by denial is really only the way forward.

I believe if you told Xi Jinping that he could have Taiwan, but he would lose his navy, he would still go for it. So, deterrence by denial means the United States military could physically stop them from doing this, and that would have the hugest impact on Chinese thinking.

Obviously, if the United States could also put together a coalition that was not only short-term for the Taiwan contingency, but if Beijing thought an attack on Taiwan meant that there would be a countervailing coalition of U.S. and U.S. allies that would contain its rise for the long-term, they would also think those costs too high.

I think those two scenarios in the short-term are relatively unlikely, unfortunately. And so, right now, what people focus on is U.S. resolve and how to signal resolve.

The problem is that U.S. resolve and what we say about what we're willing to do with Taiwan can often work at cross-purposes with deterrence.

In a hypothetical conflict over Taiwan, how China escalates force is most dependent on this expectation of U.S. involvement, but not in the way we think.

If China doesn't expect U.S. resolve to intervene and then the U.S. doesn't directly support Taiwan, I think we'll see China pursuing a graduated military approach. They'll start with lower level attacks, maybe missile attacks, maybe a partial blockade, and only move to an amphibious attack if Taiwan doesn't capitulate.

If, on the other hand, they do expect U.S. intervention, because U.S. efforts to signal our resolve have been so successful, I think Beijing goes to the highest level of violence as quickly as possible to try to accomplish a fait accompli before the United States intervenes. This could even include Chinese attacks on U.S. bases in the region.

In my testimony, I outline more the reasons why I think the Chinese leadership is pessimistic about the prospects of peaceful reunification.

Polling in China, as well as numerous speeches by Xi Jinping, suggests that both Xi Jinping and the Chinese public are growing more and more impatient. I think this is why he has said he doesn't want to pass down the issue generation to generation and he's likely to move to fully resolve it during his tenure.

So, what are some of the recommendations that I would make, given this bleak picture?

U.S. policy needs to focus on shaping Chinese perceptions about their ability to successfully absorb Taiwan through military means. This means that changes need to be mainly made to U.S. military capabilities, not to U.S. policy.

Any move to end strategic ambiguity, as some have argued, I do not think will enhance cross-Strait deterrence and actually might make it even more difficult for the United States to defend Taiwan.

We need significant changes in U.S. capabilities that focus on intelligence, surveillance, and reconnaissance capabilities, to ensure the United States gets adequate warning of an impending Chinese attack, to increase U.S. resiliency in the region, and augment firepower in the Strait.

Lastly, on firepower, I really do believe that if China launches an attack, they have considered all costs, it has considered the possibility of U.S. intervention, so the only thing that prevents China from absorbing Taiwan is brute force.

This means things like pre-positioning networks of missile launchers and armed drones near Taiwan and dispersing U.S. force posture through, I would say, smaller islands, as well as through the first and second island chain.

The last two points I'll make on recommendations is, I think it's important to improve Taiwan capabilities, but we have to keep in mind that this buys the United States time, nothing else. Taiwan is never going to be able to defend itself alone against mainland China, even with all the asymmetric capability in the world.

And the last point is, I think we should ask the Congressional Research Service to conduct a study of U.S. war termination behavior.

The focus of my testimony has been on political and strategic factors influencing Chinese decision-making, but I think one of the main issues is that the United States has a historical tendency towards mission creep and maximalist demands.

If we find ourselves in a conflict, the United States might not be willing to go to the pre-war status quo and might demand, for example, Taiwan independence once blood and treasure have been lost.

This is exactly the type of scenario that could lead to escalations to levels of violence the United States is not willing to absorb, including nuclear conflict. Thank you.

PREPARED STATEMENT OF ORIANA SKYLAR MASTRO, CENTER FELLOW WITH THE FREEMAN SPOGLI INSTITUTE FOR INTERNATIONAL STUDIES AT STANFORD UNIVERSITY AND NON-RESIDENT SENIOR FELLOW AT AEI

Statement before
the U.S.-China Economic and Security Review Commission
on "Deterring PRC Aggression Toward Taiwan"

The Precarious State of Cross-Strait Deterrence

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Commissioner Carte P. Goodwin and Commissioner James M. Talent, thank you for providing me with the opportunity to testify today on the crucial topic of the political and strategic dynamics underpinning cross-strait deterrence.

Cross-strait deterrence is arguably weaker than at any point since the Korean War. Impressive Chinese military modernization, US failure to build robust coalitions to counter Chinese regional aggression, and Xi Jinping's personal ambition all coalesce to create a situation for Beijing in which the benefits of using force seem to potentially outweigh the costs. I support this assessment in my response to the commission's specific questions below.

Under what circumstances would Chinese leaders initiate a conflict over Taiwan? What actions or developments could deter or precipitate a decision by Chinese leaders to initiate conflict? Are there any true "redlines" that would prompt this decision?

These questions allude to two different pathways to conflict. The first is the perceived need in Beijing to *respond* to a situation. The risk that Taipei or Washington crosses a redline that precipitates conflict has been a concern for decades and used to be the only realistic pathway to conflict. For example, if Taiwan were to declare independence, China would undoubtedly use force to reverse the decision at the very least—and potentially push for 'reunification.' In case we needed reminding, the Chinese Ministry of Defense clearly stated on January 28, 2021, that "Taiwan independence means war."[1]

But the basic argument in my testimony is that the situation has changed. The greatest threat now is that Beijing will launch a military operation to force 'reunification,' irrespective of Washington's or Taipei's policies or actions. Beijing is waiting for the most favorable moment and thus will not be pushed by smaller slights such as US visits or arms sales to make a move before it is ready. China has economic and diplomatic means through which to punish Taiwan, and limited military action, such as punitive missile attacks on military facilities, could be used for signaling purposes. But, unless Beijing is ready to take Taiwan by force, its leadership will carefully calibrate responses to US or Taiwan actions so as not to escalate to war.

When will China initiate "armed reunification"? Simply put, Xi Jinping will initiate a conflict to Taiwan to unite with the mainland if he is confident China will succeed.

While military balances and outcomes of military operations are notoriously hard to assess and predict, China's military has made significant strides in its ability to conduct joint operations in recent years, a capability necessary to launch an amphibious attack on Taiwan.

China's massive military reform program, which Xi launched[2] shortly after coming to power in 2012, plans for China's military to be "fully modern" by 2027.[3] Senior Col. Ren Guoqiang, a spokesperson for China's Ministry of National Defense, has claimed that "China has basically completed the national defense and military reform of the leadership and command systems, scale, structure and force composition, which promoted the joint operations of the Chinese military to a new stage."[4] On November 7, 2020, the People's Liberation Army (PLA) revised its strategic guidelines, for only the fifth time in its history, to incorporate this new focus on joint operations.[5] Chinese military writings are replete with examples of how to contribute to joint

operations capability, such as ensuring a complementary logistics system.[6] Because of these reforms and the modernization of Chinese equipment, platforms, and weapons, China could prevail in cross-strait contingencies even with US intervention. China's advantage greatly increases if the United States does not get advanced warning to prepare and amass more capability in the region. Accordingly, many experts believe the Chinese strategy most likely to lead to a mainland victory is a quick knockout, a scenario in which China takes Taiwan before even the most resolved United States could act decisively. Recent war games jointly conducted by the Pentagon and RAND Corporation have shown that a military clash between the United States and China, especially over the Taiwan issue, would likely result in a US defeat, with China completing an all-out invasion "in a finite time period, measured in days to weeks."[7]

Chinese sources also highlight that the PLA is well prepared for the Sino-American conflicts and confrontation over the Taiwan issue.[8] The multiple large-scale military exercises (at least nine) conducted simultaneously in the Yellow Sea, the South China Sea, and the Bohai Gulf by the PLA in August 2020 are considered a credible demonstration of its ability to conduct complex, intense joint operations. While Chinese strategists acknowledge the US's vast military capabilities, the conventional wisdom is that due to China's proximity to Taiwan and corresponding access to resources[9] and China's resolute stance[10] on the Taiwan issue, the relative military balance of power in the region is considered favorable to Beijing.[11]

This shift in the balance of power is due largely to China's improved anti-access/area denial networks and its strides in cyber and artificial intelligence. In the words of Michèle Flournoy, "In the event that conflict starts, the United States can no longer expect to quickly achieve air, space, or maritime superiority."[12] As Beijing hones its spoofing and jamming technologies, it may be able to interfere with US early warning systems and thereby keep US forces in the dark. Worryingly, other analysts have concluded that Chinese interference with satellite signals is only likely to grow more frequent and sophisticated.[13] China also possesses offensive weaponry, including ballistic and cruise missiles, which if deployed, could destroy US bases in West Pacific in days.[14] Finally, the US intelligence community warns that "China has the ability to launch cyber attacks that cause localized, temporary disruptive effects on critical infrastructure—such as disruption of a natural gas pipeline for days to weeks—in the United States."[15]

The bottom line is that for the first time in Chinese history, Xi will have at his disposal a military capable of forcing unification. While many Western observers think China will be able to do so in the next five to eight years, Chinese military leaders have told me that they will be ready within a year. It is telling that, in Xi's first order to China's armed forces in 2021, he emphasized the importance of "full-time combat readiness" and said the PLA must be ready to "act at any second."[16] As long as the United States continues to talk about, but does not make, significant changes to improve its force posture in the region, China can afford to wait until later in Xi's tenure to give its military more realistic, joint operational practice.

In other words, I would worry less about US policy precipitating a conflict and more about putting in place the military means necessary to stop China from using force against Taiwan.

What preconditions does China consider necessary for success in a military campaign against Taiwan? Do Chinese leaders believe they need to successfully land troops on Taiwan, and if

so, to what extent does that deter them from initiating a military campaign? Following the outbreak of armed conflict in the Taiwan Strait, how could China escalate its use of force against Taiwan's military or against intervening U.S. forces? Under what circumstances would China consider attacking the U.S. homeland, and how would it do that?

China has many military options with using force against Taiwan. According to an authoritative Chinese text,[17] there are four main campaigns for which China is preparing: (1) Joint Firepower Strike Operations against Taiwan (大型岛屿联合火力突击作战), (2) Joint Blockade Operations against Taiwan (大型岛屿联合封锁作战), (3) Joint Attack Operations against Taiwan (大型岛屿联合进攻作战), and (4) Joint Anti-Air Raid Operations (联合反空袭作战).[18] According to experts, the first scenario would consist of the PLA employing missile and air strikes to disarm Taiwanese targets.[19] The second scenario would consist of the PLA employing tactics ranging from cyberattacks to naval surface raids to cut Taiwan off from the outside world. The third scenario would presumably follow the successful completion of the first two scenarios and would involve an amphibious assault on the island. The last scenario would specifically counter American forces deployed in the nearby region.

In a hypothetical conflict over the Taiwan Strait, how China escalates force is most dependent on its expectations about US involvement. China also has many tools of statecraft to punish or hurt Taiwan in ways that may not meet the threshold of US involvement. But here I focus on the scenario in which China seeks to pressure Taiwan into giving up its de facto independence and being absorbed by Beijing.

If China does not expect US intervention, and US direct military support for Taiwan is not forthcoming, Chinese leaders will prefer a graduated coercive military approach. Chinese leaders could start with a joint missile campaign, hitting military and government targets before expanding to civilian ones. An economic blockade is another option that would harm civilians more indirectly. Even if Chinese forces initiated a broader attack on Taiwan's military, in particular naval and air forces, the goal may still be to inflict enough damage to force capitulation so that an amphibious attack is not necessary to achieve 'reunification'. If China's leaders assess that Taiwan's capitulation will not be forthcoming with any amount of cost imposition, then they will shift to a joint island landing campaign (登岛战役) to take Taiwan by force. As mentioned, China is also preparing for joint anti–air raid operations involving offensive operations against American units near the mainland and in the Western Pacific.

But this scenario is predicated on the expectation and reality of US failure to intervene. If Beijing thinks the US is likely to intervene on Taiwan's behalf, then time becomes the pivotal factor. Chinese military strategists believe that if you let the United States fight the way it is used to, which includes time to mobilize and amass firepower in theater, then victory is unlikely.

Thus, if Chinese leaders believe the US is likely to intervene, they are more likely to move quickly to the highest level of violence that the scenario requires to force Taiwan's capitulation to Beijing's demands before the US can intervene. If China's objective in the scenario is unification (versus punishing Taiwan or compelling a reversion to the status quo) and it expects US intervention, then it will preemptively hit US basing in the region to cripple Washington's ability to respond.

In other words, US deterrence and defense are working at cross purposes. The more credible our deterrent, the more convinced Beijing is that the US will intervene on Taiwan's behalf, and the more likely Chinese leaders are to escalate rapidly and hit US forces in the region in their opening salvo. But if there is a possibility that the United States will stay out, Chinese strategists would avoid such a move, as it would inevitably bring the United States into the war. In this scenario, as China focuses on compelling Taiwan's capitulation at lower levels of violence, the United States would have time to mount an adequate defense.

Chinese leaders do not necessarily have to force complete unification to present a military campaign as a success. I imagine Xi will be cautious about what he publicly promises to give himself flexibility. As long as the United States does not push for Taiwan' independence as part of the war termination agreement, Beijing can accept half measures. One option, for example, is to seize some Taiwan controlled islands that China also claims such as Matsu,[20] Pratas,[21] Itu Aba (of the Spratlys),[22] and Quemoy/Kinmen.[23] In certain scenarios, just using force to punish Taiwan may be sufficient.

My main concern with escalation dynamics is the United States. The United States is loath to return to the status quo before a war after blood and treasure have been sacrificed to the cause. If China uses force against Taiwan, US leaders may want a war termination settlement that sufficiently punishes Beijing for this action—likely by demanding concessions on Taiwan's political status that Beijing will not make. In this scenario, Beijing will turn to its tendency for disproportionate escalation to bring about an end to the war on its terms.[24] China will start by increasing the costs on US military forces in the region; if that does not work, they will consider civilian targets in the United States. However, due to range limitations, China has limited conventional options[25] for hitting the US homeland, and I do not believe they would use nuclear weapons first.[26] Therefore, the most likely paths are cyber or counterspace attacks that inflict enough pain to create bottom-up pressure on the US government to stop the war, but not the physical damage that could harden the resolve of the American public.

Does Beijing believe that long-term political, economic, and military trends in cross-strait relations are favorable or detrimental to its objective of unification with Taiwan? How urgent a priority is unification with Taiwan when compared to Beijing's other national interests? Does Beijing perceive a "window of opportunity" during which it must act to assure unification? Do Chinese leaders really want unification, or would they be content to maintain the status quo and prevent de jure independence?

There are objective reasons for Chinese leaders to be more pessimistic about the trends toward peaceful unification (the idea that economic integration between Taiwan and the mainland will prevent conflict or even convince Taipei that unification is in its best interest).[27]

On the most basic level, it is not working. Recent polls show the people of Taiwan are less interested in unification and prefer either the status quo or independence.[28] A survey in May by Academia Sinica, a research institute, found that only 23 percent of Taiwan residents regarded China as a "friend of Taiwan," compared with 38 percent a year earlier.[29] The younger generation, born after Taiwan transitioned to democracy, has known nothing but the freedoms it currently enjoys and is more reluctant than the older generation is to give them up for what

Beijing has to offer. China sees the recent reelection of Tsai Ing-Wen as a sign of troubling trends on the "rogue" island. China's 2005 Anti-Secession Law[30] mandates an armed 'reunification' if peaceful 'reunification' is not possible, and Chinese leaders are concluding that it is not.

Moreover, maintenance of the status quo is no longer desirable for Chinese leaders. Xi has publicly called for concrete movement toward 'reunification,' an explicit demand that stakes his legitimacy on progress in that direction. By doing so, he moved the goalpost from preventing Taiwan independence, which means living with the 40-yearlong status quo, to an actual change in the nature of the cross-strait relationship, which is substantially less achievable without the use of force. Xi Jinping has stated[31] multiple times his position that his program of national rejuvenation cannot be complete without 'reunification.'[32] His ambition to "resolve the Taiwan issue" during his tenure is common knowledge among the Chinese people, and Xi has suggested he is more willing than his predecessor, Hu Jintao, was to use force. While Hu's rhetoric emphasized cross-strait friendship and peaceful 'reunification', Xi has publicly stated, "We do not promise to renounce the use of force and reserve the option to use all necessary measures."[33] Additionally, in a major speech, Xi articulated that "the long-existing political discrepancy is the root cause of cross-Strait instability, it cannot go on generation to generation."[34]

Xi also seems to be ruling over a Chinese population that is losing patience, though it's unclear whether this is because of elite statements or a more organic nationalism. A recent *Global Times* poll revealed that around 70 percent of mainlanders support war to unify Taiwan, and 37 percent of them think it best if war occurs in three to five years.[35] (The next most popular answer is one to two years, with only approximately 10 percent saying unification can wait for more than 10 years.) Furthermore, 64 percent of mainlanders think a full-scale war should be anticipated to unify Taiwan, and 72 percent of them think China would definitely win. Luo Yuan, a major general in the Chinese military, recently said that China's leaders "can only follow the will of all Chinese nationals [and] realize reunification by force,"[36] should Taiwan refuse to cede to Beijing's leadership.

The Donald Trump administration's moves to strengthen US-Taiwan relations also created a sense in China that time was of the essence. Over the past four years, the administration approved more than $17 billion worth of arms sales to Taiwan.[37] In March 2020, Trump signed into law the Taiwan Allies International Protection and Enhancement Initiative Act, requiring the State Department to report to Congress on measures taken to improve diplomatic ties to Taiwan.[38] August and September saw visits from the highest-ranking US government officials to visit Taiwan since 1979.[39] Shortly before Biden took office, then-Secretary of State Mike Pompeo relaxed restrictions on meetings between US and Taiwanese officials.[40] These actions have contributed to Beijing's calculations on when to push for Taiwan unification. As one recent op-ed making the rounds put it, "Resolution of the Taiwan issue cannot be rushed, nor can it be delayed for long."[41]

While Chinese commentators note that the Biden administration favors a more cautious approach to cross-strait relations, Beijing is certain that the US is going to try to use the Taiwan card to contain China's rise.[42] The reelection of Tsai Ing-Wen also fueled the sentiment that Taiwan was pulling away from Beijing,[43] requiring an intensification of the "anti-separatism fight."[44] These

developments have not created a "closing window of opportunity" logic, but they serve as constant reminders of the failure of the Communist Party to resolve their most pressing national issue. Because of these reasons, Wu Qian, director and spokesman of the Information Bureau of Ministry of National Defense, argues China is highly vigilant[45] on the cross-strait situation and is well-prepared for possible military actions.[46]

The commission is mandated to make policy recommendations to Congress based on its hearings and other research. What are your recommendations for congressional action related to the topic of your testimony?

US policy needs to focus on shaping Chinese perceptions about their ability to successfully absorb Taiwan through military means. This proposition implies several things for US strategy.

Changes Need to Be Made to US Military Capabilities, Not US Policy. Ending the US policy of strategic ambiguity as some have argued would do little to affect cross-strait deterrence.[47] The pivotal issue is not US resolve. Chinese leaders will be assuming US intervention when making their calculus. The main question will be whether Xi and other top leaders think the PLA can prevail despite US intervention. Any extreme US policy changes, to include stationing US troops in Taiwan or helping Taiwan acquire nuclear weapons, would most certainly cross Beijing's redlines and compel a military response before such changes were implemented.[48]

Changes in US Capabilities Should Focus on Intelligence, Surveillance and Reconnaissance (ISR); Resiliency; and Augmenting Firepower in the Strait. If the United States does not get adequate warning of an impending Chinese amphibious attack on Taiwan, the US military is unlikely to be able to stop a Chinese fait accompli. Because of this, Adm. Philip Davidson has recently advocated for securing about $1 billion to build an over-the-horizon radar in Palau and the Homeland Defense Radar–Hawaii, which could track ballistic missiles, and about $2 billion for "a constellation of space-based radars with rapid revisit rates," to improve US regional force posture.[49] Draft legislation calling for $378.6 million to "enhance indications and warning, sensor packages, the development of future intelligence, surveillance and reconnaissance platforms, and interoperable processing, exploitation, and dissemination architectures for the United States Info-Pacific Command" is a crucial step to address current shortfalls.[50] US Indo-Pacific Command should be given top priority for overhead national assets to ensure constant monitoring of Chinese airfields and ports of embarkation as well.

On resiliency, the US military has been undergoing reviews of the resiliency issue for almost a decade. I believe a hybrid approach of large, concentrated bases in key allied countries with small dispersed bases scattered across informal partners[51]—some within the first island chain and others outside it—is the best path to pursue. In addition to enhancing resiliency, such a force posture would also greatly enhance deterrence because China is more sensitive to threats of horizontal escalation (that other countries would get involved) than vertical escalation (higher levels of force).

Lastly, firepower. China is likely resolved. If it launches an attack on Taiwan, its leadership has considered all the costs. It has considered the possibility of US intervention. The only thing that prevents China from absorbing Taiwan is brute force. The United States needs to pre-position

networks of missile launchers and armed drones near Taiwan.[52] As Bridge Colby has previously argued, more long-range munitions, especially anti-ship weapons, positioned in places such as Guam, Japan, and the Philippines (and ideally smaller island states in the second island chain) "would help make the US ready to blunt the initial waves of the Chinese amphibious fleet and air-assault elements."[53] If Chinese leaders know that their forces cannot physically make it across the strait, short of a declaration of independence, they will not consider trying.

Improving Taiwan Capabilities Is Important to Buy US Time, but Nothing Else. Taiwan will never be able to defend itself alone against mainland China, even with all the asymmetric capability in the world. Policymakers should encourage Taiwan to reform its strategy to embrace asymmetric approaches and encourage Taiwan to invest in cheap, expendable, mass-produced weapons systems.[54] But the main objective is to add a defense layer in case the United States does not get enough early warning to amass forces before China launches its invasion. These approaches are not an alternative to US defense of Taiwan.

Ask Congressional Research Service to Conduct a Study of US War Termination Behavior. The focus of this testimony is on the political and strategic factors influencing Chinese decision-making. While avoiding conflict is an important objective, ensuring that any war that does break out is as short and limited in violence as possible (and the US wins) is equally important. The US has a historical tendency toward mission creep and maximalist demands that undercut these goals. If a war breaks out over Taiwan, the United States needs to be prepared to return to the pre-bellum status quo, even if militarily victorious. If the US demands Taiwan independence after a military victory, either we will be stuck fighting China for decades or Beijing will escalate to levels of violence we are unwilling to match or absorb.

Notes

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OPENING STATEMENT OF KHARIS TEMPLEMAN, RESEARCH FELLOW, HOOVER INSTITUTION AT STANFORD UNIVERSITY

VICE CHAIRMAN CLEVELAND: Jim, you are muted.

COMMISSIONER TALENT: Sorry about that. Dr. Templeman?

DR. TEMPLEMAN: Good morning, all right. Thank you for inviting me here to appear before you today.

I have been asked to cover quite a lot of ground in my written testimony, so in my oral remarks, I'm going to focus on what I think is my comparative advantage in this hearing, and that is how to assess Taiwan's will to fight?

So, will to fight is a vague concept and assessing it is a hard thing to do rigorously, but we do have at least three kinds of data we can observe to give us some purchase on this question.

First off, public opinion. Second, budgets. And third, willingness to serve in the military. So, let me go through these one-by-one.

Public opinion. There are a lot of surveys of defense and security related issues conducted every year in Taiwan, and I'm not going to go through them in detail here, but simply, I will note that when you look at the general patterns that appear consistent across these surveys, they support four key observations.

First, Taiwanese on the whole are not very confident about their own military's ability to defend the country, especially alone, against an attack by the PRC. There's a great deal of pessimism in Taiwan about the ability of their own armed forces to protect Taiwan.

Second, they are generally much more confident in their own fellow Taiwanese. About two-thirds to three-quarters, depending on the survey, think most others would actively resist a PRC attack or support those who do. And their own willingness to resist is closely correlated with their estimates of how many others also would do so.

Third, the majority of Taiwanese, anywhere from two-thirds to three-quarters, again depending on the survey, indicate a willingness to participate in the defense of Taiwan, but only as long as the U.S. is also involved. If the U.S. is not involved, the share in public opinion surveys typically drops well below half.

So, U.S. participation in the defense of Taiwan has not only a practical element to it, but an important psychological and morale boosting element, a spine-stiffening one, if you will.

And fourth, the majority of Taiwanese remain confident that the United States actually would intervene to stop a PLA invasion. And, critically, even if Taiwanese leaders themselves triggered an attack by declaring independence, most Taiwanese still think the United States would intervene in that scenario.

So, to sum up, Taiwanese believe that the U.S. will also be involved, most Taiwanese are willing to resist, most think others will too, but if they believe the U.S. will not intervene, then most will not be willing to resist.

Beliefs about our presence in the Western Pacific are actually, then, a critical variable in the Taiwanese will to fight.

The second item or second way to assess Taiwan's will to fight is to look at its defense budgets over the years. Until recently, these data have suggested a very half-hearted commitment to defending itself.

So, starting in the mid-1990s, Taiwan's defense budget, in real terms, flattened out and it was almost exactly the same for 20 years. It declined, therefore, as a share of GDP from about five percent in 1994 to about two percent in 2016.

Last year, Taiwan spent, in real terms, roughly what it spent in 1994. Meanwhile, of course, the PRC spent over 25 times what it spent in 1994.

We all know that Taiwan cannot keep up with the PRC's defense increases, which have generally been in proportion to GDP growth, but what is more striking is Taiwan's relative decline even compared to other states in the region. For instance, in 1989, Taiwan spent about two-thirds of what South Korea spent on its military. In 2020, it spent less than one-third.

Put bluntly, going by budgets, Taiwan looks like it has been shirking on its own defense.

However, and this is important to note, this has changed significantly in the last four years. Taiwan's announced defense budget has increased in local currency terms by about 40 percent, from 321 billion NT in 2016 to about 453 billion in 2021.

And related to that, the share of the central government budget going to defense has climbed back above 20 percent. That's to a level that it has not been at since 1999.

That is at least a start and it suggests that under President Tsai Ing-wen, Taiwan is committing significantly more resources to its own defense than it has in the past.

Third type of data we can use to assess will to fight is willingness to join the military. And, here, the patterns are not, in general, particularly encouraging.

In 2012, the Ma Ying-jeou administration in Taiwan approved a phase-out of conscription, to be replaced by an all-volunteer force. This transition has been repeatedly delayed, so that today all able-bodied men are still required to serve at least four months, not enough time, unfortunately, to learn much of use or to develop them into a capable reserve force.

The main reason this transition has been repeatedly delayed is shortfalls in recruiting. Put simply, most young Taiwanese have no interest in joining the military and their brief time as conscripts does not typically change their minds. So, most young people see the military as a path of last resort. It's a career that they will pursue only if they have no other options.

So, we observe a contradiction in Taiwan. Young Taiwanese are the most pro-Taiwan, anti-China, pro-democracy, and pro-independence of any generation, but the large majority would never consider volunteering to join the military if they have a choice.

This might, might be changing as a potential confrontation with the PRC looms larger, as the military threat becomes more salient, and as the military in Taiwan acquires new high profile platforms that raise the prestige of military service.

But this is an area that, frankly, requires a great deal of additional work from the Ministry of National Defense and Taiwan's civilian leadership to improve the public image of the military and to strengthen Taiwan's training and reserve system.

In the short time I have remaining, I just want to make one recommendation, I want to pull one out from my remarks. And that is to strengthen the credibility of U.S. commitment to Taiwan through non-military ties.

The ability to deter a Taiwan Strait crisis rests crucially on beliefs that the U.S. would act to counter PRC coercion because it is in our own interest to do so.

That belief, in my view, has weakened in Asia over the last four years, in part because the previous administration put up barriers to trade and pulled out of the TPP. One way to reverse impressions that we will not be committed to Asia is to re-engage in regional trade negotiations.

And so, as one example, I think the USTR should open bilateral trade negotiations with Taiwan as soon as is feasible. And if there is an attempt to get back into the CPTPP, the Biden administration should use the leverage this opportunity offers to insist on Taiwan's participation in membership negotiations as well.

With that, I'll conclude my remarks.

PREPARED STATEMENT OF KHARIS TEMPLEMAN, RESEARCH FELLOW, HOOVER INSTITUTION AT STANFORD UNIVERSITY

Kharis Templeman: Witness Testimony

Testimony before the US-China Economic and Security Review Commission

Hearing on

"Political Calculations Underlying Cross-Strait Deterrence."

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February 18, 2021

Introduction

Commissioner Goodwin, Commissioner Talent, members of the commission, thank you for inviting me to appear before you today to discuss Political Calculations Underlying Cross-Strait Relations. I have been asked to comment on Taiwan's defense strategy, assessments of the Taiwan public's "will to fight," and long-term political, economic, and military trends in cross-Strait relations. My testimony draws on workshops and private meetings I have been a part of over the past several years, as well as recent survey data on Taiwanese public opinion and other open-source materials.

Bottom line up front: I believe that the greatest threat to Taiwan over the long run is not the growth of China's hard military power but instead its sharp power—and especially its expanding economic influence and concomitant rising leverage over the rest of the region. I worry that by focusing narrowly on the cross-Strait military balance, we in the United States risk overlooking other equally serious long-term threats to Taiwan's freedom, prosperity, and survival as a de facto independent state.

Clearly, the military challenge that China poses to Taiwan should not be taken lightly, and it is critically important for the US to work with our friends and partners in the Western Pacific to strengthen Taiwan's ability to defend itself against the possibility of invasion.

But it is also important to recognize that the challenges China poses to Taiwan are broad and multifaceted, and that its toolkit extends well beyond hard military power to encompass diplomatic pressure, economic coercion, and a growing array of disinformation and influence operations. Beyond our hard-power strengths, the United States does not currently have a particularly strong toolkit of our own to counter Beijing's rising influence in the region. Thus, a central objective of the broader US Free and Open Indo-Pacific strategy should be to expand and diversify the ways in which we exercise influence on behalf of our allies and partners in the region—including, but not limited to, Taiwan—and to think more carefully about how we might counter China's attempts to refashion the region's political and economic arrangements beyond FONOPS and other brute displays of military force.

1. Taiwan's Defense Strategy

For many years, Taiwan's defense strategy was based on the assumption that it could maintain a qualitative military advantage over its adversary across the Strait, even as it faced a massive quantitative disadvantage. Taiwan's development into an economic powerhouse gave it the industrial and financial foundation to support this strategy, and its access to overseas weapons suppliers allowed it to supplement its own indigenously developed systems and platforms with leading technology and equipment acquired from abroad. Though its own population was dwarfed in size by mainland China's, the imposition of a universal conscription with a two-year service requirement allowed the Ministry of National Defense (MND) to maintain a force of at least half a million at any one time, with all able-bodied men who had completed their service remaining part of a large reserve pool that could be called up to supplement the regular armed forces in the event of a national emergency.

Taiwan's relative advantage in the cross-Strait military balance peaked in the mid-1990s. At that point, the MND's overall defense budget was roughly one-half of that of the People's Liberation Army (PLA). As the demand for arms fell in the wake of the Cold War, Taiwan also enjoyed significant bargaining power and was able to sign major arms deals with suppliers from several countries at relatively low prices. Notable sales included 150 F-16s (announced in 1992) and 8 Knox-class destroyers (1990s) from the US, and 60 Mirage fighter jets (1992) and 6 Lafayette-class frigates (1991) from France.

Then, three things changed. First, the PRC economy boomed, while Taiwan's slowed. Along with 20 years of double-digit growth rates in mainland China came significant increases in military spending. The PLA's annual budget grew from twice the size of Taiwan's in 1992 to over 25 times in 2019. It is worth noting that, at least until very recently, these budget increases have been in proportion to China's economic expansion: defense spending in the PRC has consistently hovered around roughly two percent of GDP for the last two decades. Nevertheless, given the rapid pace of economic growth, these additional fiscal resources have been sufficient to support an ambitious program of military modernization and upgrading, which has substantially eroded the qualitative advantage Taiwan's armed forces used to enjoy over the PLA. It has also allowed defense planners in the PRC to develop an increasingly sophisticated array of ways to threaten US forces were they to attempt to intervene in a Taiwan conflict.

The second change was that Taiwan transitioned to full democracy. In 1996, President Lee Teng-hui won the first direct presidential election in Taiwan's history, defeating challengers from the pro-independence left and the pro-unification right. Lee's successful campaign was based in part on promises to expand social welfare programs and increase infrastructure spending. Responding to pent-up electoral demands, the central government rolled out a universal health insurance plan in 1995, followed later that decade by more generous and comprehensive social security and unemployment benefits programs. It also poured additional money into the construction of mass transit systems, highways, and a high-speed rail line.

At the same time, Taiwan's defense budget flatlined. Unlike social welfare or infrastructure, spending on the military was not a vote-winner for presidential candidates or legislators. In addition, the opposition Democratic Progressive Party (DPP), long suspicious of the military's

close association with the ruling Kuomintang (KMT) during the martial law years, was a persistent critic of the MND and favored cuts to the defense budget. After the DPP candidate Chen Shui-bian won the 2000 presidential election, military spending, and especially arms procurement from the United States, became a partisan issue. Ironically, the parties' roles were reversed from the 1990s: while some in the DPP still viewed arms sales as a waste of money and a sop to politically influential US defense contractors, it was the KMT that emerged as the strongest critic of increased defense spending and special budgets for new weapons. The KMT-led legislature blocked, froze, or cut items from the MND's budget, while some of its leading legislators derided US arms sales as an unnecessary and dangerous provocation of Beijing. Chen's successor, Ma Ying-jeou of the KMT, acknowledged the problem of declining defense budgets and pledged to raise military spending to at least three percent of GDP, but the outlays for defense instead continued to decline in real terms over his eight years in office. By 2016, Taiwan's actual military spending had fallen to under two percent of GDP, and its annual defense budget of roughly US$10 billion was in real terms below that of 1994.

Electoral pressures also led the legislature to support a reduction in the length of conscription: first from two years to one year six months, then to a year, and then to only four months. In 2012, President Ma approved an MND plan to transition to an all-volunteer force and end conscription entirely by 2016. This plan was broadly popular and won support across party lines. However, the final implementation of the all-volunteer force has been repeatedly delayed due to consistent recruiting shortfalls, and as of 2020 all able-bodied Taiwanese men of military age are still required to complete four months of service.

The third change was China's growing international influence. Up through the early 1990s, many countries were willing to sell arms to Taiwan over vociferous objections from Beijing. By 2000, however, the PRC's ability to apply diplomatic and economic pressure to other countries had grown to the point where no other major arms exporter besides the United States was willing to risk the wrath of Beijing to approve new weapons sales to Taipei. Over the same time period, the approval process in the US for new sales to Taiwan became increasingly politicized and irregular over time, under both Republican and Democratic administrations.

Together, these trends have fundamentally reshaped Taiwan's strategic defense environment. The days when the Taiwan military could realistically seek to maintain air and sea superiority in the Taiwan Strait, and to prevail in any limited, conventional conflict with the PLA, are gone and are not coming back. Taiwan's increasing diplomatic isolation, slowing economy, aging population, and looming fiscal obligations mean that the country can no longer support a military capable of deterring an attack from mainland China using conventional means.

The Overall Defense Concept (ODC)

The adaptation of Taiwan's national defense strategy to this new reality has lagged far behind a recognition of these worrisome trends. While decision-makers in the security and defense establishments have included elements of "asymmetric warfare" in strategy documents for at least a decade, the most important shift occurred in 2017, when Taiwan's Chief of General Staff, Admiral Lee Hsi-ming, proposed a fundamentally new approach that became known as the Overall Defense Concept (ODC). If fully and successfully implemented, the ODC offers a

realistic framework for how to successfully deter and, if necessary, defeat an attempted PLA invasion of Taiwan.[1]

The ODC builds on a recognition of three fundamental facts about the cross-Strait relationship. The first acknowledges the sobering reality that the resource and capability gap between Taiwan and the PRC is now already quite large, and that it will only continue to widen over the next few decades. As I noted above, Taiwan's military is facing significant resource constraints and must operate in an environment where its chief adversary has not only huge quantitative advantages but also increasingly large qualitative ones as well. Taiwan simply no longer can hope to "win" or even fight to a draw in a conventional war of attrition with the PRC.

The second fact is more encouraging: while Taiwan's armed forces will not be able to win a conventional fight with the PLA, they also do not need to in order to preserve Taiwan's freedom. Instead, they need only to be able to deter and, if necessary, defeat an attempted invasion and occupation. Under Xi Jinping, China's ultimate goal is to achieve the political annexation of Taiwan into the PRC and place it under the control of the Chinese Communist Party (CCP). The PLA can already strike targets in Taiwan, and there is little that Taipei would be able to do to prevent a missile barrage from devastating much of the island's critical infrastructure. That threat has been enough to prevent Taiwan's leaders from pursuing a declaration of *de jure* independence, but—critically—it has *not* been enough to compel political talks or to force Taiwan's people to accept unification under the so-called "One Country Two Systems" formula that Beijing favors. Instead, to achieve its ultimate political objective, the CCP needs not only the ability to impose costs on Taiwan's leaders and people but also the capacity to invade, topple the Taiwanese government, put down any remaining resistance, and establish a new political regime that is beholden to Beijing and has at least the passive acquiescence of the large majority of Taiwan's people.

That is a much, *much* tougher objective to achieve than lobbing missiles at Taiwanese runways or seizing ships headed for Taiwanese ports. It requires establishing air superiority in the skies over and around the island and effective control over the waters of the Taiwan Strait for at least several days, and more likely weeks on end. It requires preparing and protecting the transports that will have to move tens of thousands of troops across the Strait, and the logistical capacity to support and reinforce them regularly once they are ashore. It requires operating in territory that heavily favors the defenders, including the densely populated urban and suburban landscapes of Taiwan's west coast and the rugged and mountainous interior. It requires the location and elimination or capture of all remaining organized resistance, and the subjugation of a hostile population of over 23 million people.

Moreover, a successful invasion of Taiwan would also require doing all this while at the same time delaying or deterring an intervention from the United States. The threat that a US response poses to the invasion objectives means that the PLA needs to put a big premium on speed—ideally presenting the rest of the world with a *fait accompli* before an effective response can be

[1] See Drew Thomson, "Hope on the Horizon: Taiwan's Radical New Defense Concept," War on the Rocks, October 2, 2018 https://warontherocks.com/2018/10/hope-on-the-horizon-taiwans-radical-new-defense-concept/; Lee Hsi-min and Eric Lee, "Taiwan's Overall Defense Concept, Explained," *The Diplomat*, November 3, 2020, https://thediplomat.com/2020/11/taiwans-overall-defense-concept-explained/

rallied and sufficient forces moved into position—and on surprise, perhaps by disguising an invasion attempt and pre-emptively striking American military targets that would be expected to intervene. But an invasion attempt the size of the one needed to take and hold Taiwan would be very difficult to disguise, as it requires calling up forces from around the country and putting them on board slow transports in ports all across coastal Southeast China—activity that would almost certainly be detected well in advance of an attack. Moreover, a pre-emptive attack would probably have to target not only forces on American soil but also sites in Japan, where the nearest US forces are based. In other words, were Chinese leaders to seriously contemplate launching an invasion of Taiwan, they would not only have to hope the PLA could pull off an enormously complex, logistically and tactically challenging operation the likes of which it has never before attempted, but also be willing to risk getting into a global conflagration involving not only the United States but also Japan, actively supported by other regional military powers.

Further complicating the political calculus for a Taiwan contingency is the all-or-nothing nature of the challenge. Any military campaign short of a full invasion and occupation does not resolve the "Taiwan problem" in the CCP's favor, and in fact probably makes the prospect of political unification even more remote. For instance, the seizure of offshore islands (Taiwan-held Spratly Island and Taiping Island (Itu Aba) in the South China Sea, and the Taiwan-controlled territories of Kinmen and Matsu off the coast of Fujian Province are the most obvious) would do nothing to advance the goal of unification while alarming China's neighbors, rallying the Taiwanese public against the Chinese threat, and accelerating the development of an anti-China coalition among the region's military powers—led, most likely, by the members of the Quad. Similarly, a PRC-imposed sea and air blockade that attempts to force political concessions out of Taiwanese leaders is not likely to succeed quickly, if ever—but it will rile up other countries with important trade ties with Taiwan, destabilize the region's economies, and rally domestic and foreign public opinion behind Taiwan's leaders.

Thus, nothing short of successful occupation will resolve the "Taiwan problem" in a way that satisfies the CCP's objectives. Taiwan's ODC makes this fact explicit, and builds a defense strategy around it. It defines "winning the war" not as fending off missile attacks, breaking blockades, or defending offshore islands, but rather as preventing the CCP from exerting political control over the island of Taiwan. This means that Taiwan does not need to possess the offensive firepower to project force well beyond its territory and to go head-to-head with the PLA. It only needs to maintain capabilities that enable it to foil an attempted invasion of the home island.

The ODC also recognizes a third fact: given the current state of military technology, playing defense is a lot easier—and cheaper—than playing offense. Building and maintaining a force that can project offensive firepower over long distances to achieve military aims is extremely expensive. By contrast, the force needed to defend effectively against such attacks is, in general, far cheaper and simpler to field.[2] Thus, rather than acquiring the latest-generation fighter jets, the ODC calls instead for prioritizing the acquisition of small, cheap, and mobile anti-aircraft and anti-ship weapons systems, including mobile radar platforms, precision-guided munitions,

[2] See Eugene Gholz, Benjamin Friedman & Enea Gjoza, "Defensive Defense: A Better Way to Protect US Allies in Asia." *The Washington Quarterly* 42(2): 1717-189.

coastal defense cruise missiles, man-portable air-defense systems, and high-mobility rocket systems. And rather than investing in new large, conventional warships, the ODC gives priority to fielding small fast attack craft and missile-assault boats that can ply the littoral waters and hide among Taiwan's fishing fleet, as well as investing in new mine-laying capabilities. In combination, these capabilities can be acquired and deployed within the MND's limited budget, while still greatly complicating PLA planning for an invasion.

Implementation of the ODC in Practice

In public statements, Taiwan's civilian and military leaders have expressed strong support for the ODC as the guiding framework for Taiwan's national security strategy. President Tsai herself has on multiple occasions endorsed the concept and pledged to adapt Taiwan's procurement and training priorities to its requirements.

Nevertheless, Taiwan's recent military acquisitions have not been fully consistent with the emphasis on "asymmetric systems" that is so central to the ODC. For instance, in the last two years, Taiwan has purchased 108 M1A2 Abrams tanks (at a cost of US$2 billion) and 66 F-16V fighter jets ($8 billion) from the United States, and begun construction on eight domestically-produced diesel-powered submarines (at a total estimated cost of $8 billion.) For a country with an announced defense budget in 2021 of only US$15 billion, these are major outlays that threaten to eat up much of the MND's procurement budget for years to come.

There are at least three public justifications for these deviations from the core priorities of the ODC. First, Taiwan's armed forces have to meet a variety of important peacetime missions as well, including patrolling Taiwan's nearby airspace and waters. Indeed, the ODC itself acknowledges the importance of these missions and calls for maintaining a "low quantity of high-quality platforms" to meet them. From this perspective, the F-16V purchase, in particular, has considerable merit; the large majority of Taiwan's fighter fleet is more than 20 years old, and it is facing increased wear and tear as PLA air force incursions into Taiwan's ADIZ have become routine over the last two years. F-16s already make up the bulk of Taiwan's air force, so the additional planes can be smoothly integrated into Taiwan's existing fleet without much additional cost. Second, the acquisition of high-profile, "prestige" weapons systems provides a boost to military morale and increases public confidence in the armed forces. The Taiwanese public has long harbored significant doubts about how the military would fare in a conflict with the PRC—concerns that are routinely amplified by CCP influence campaigns—so the purchase of new military hardware has significant domestic propaganda value. Third, arms sales from the United States have an additional benefit—they are a high-profile signal that the US remains committed to Taiwan's defense and willing to bear the costs imposed by the PRC in order to continue that support.[3]

Another, more problematic driver of Taiwan's procurement decisions is inter-service rivalries. It is not an accident that the three most recent big purchases of "prestige" systems have each gone to a different service: the Abrams tanks to the Army, the submarines to the Navy, and the F-16Vs to the Air Force. In the context of the ODC, it does not make sense to devote scarce procurement

[3] On this point, see Tanner Greer, "Taiwan's Defense Strategy Doesn't Make Military Sense – But It Does Make Political Sense," *Foreign Affairs* September 17, 2019, at: https://www.foreignaffairs.com/articles/taiwan/2019-09-17/taiwans-defense-strategy-doesnt-make-military-sense

funds to new tanks. But in the context of inter-service rivalries, tanks are the Army's top priority, and in the traditional competition between services, its "turn" to acquire a top priority had finally come around. Hence the purchase of tanks, which, in the event of a PLA invasion, are vulnerable to air attack and will find it difficult to maneuver into position around the rice paddies and fish ponds of Taiwan's western mud flats.

The decision to build an indigenously designed submarine is another example of sub-optimal allocation of scare resources. Taiwan currently has only four submarines, two of which date back to the 1950s and are used mostly for training purposes. These boats would be of little consequence in a cross-Strait conflict. Upgrading the submarine fleet has long been a top priority for the Navy, which has argued that fielding submarines is consistent with the "asymmetric warfare" concept. But unlike tanks or fighter jets, submarines could not be purchased from a foreign supplier. The US no longer makes diesel submarines, so could not sell them to Taiwan. And other countries which do were unwilling to incur the political and economic costs of selling them over China's objections.

Thus, the MND ended up deciding to support the domestic manufacture of submarines. There are at least three problems with this decision. First, Taiwan's defense companies have no previous experience building submarines, so the MND has had to help them develop the capacity to do so from scratch. As a consequence, the indigenous diesel submarine (IDS) program will require a lot of learning and troubleshooting of the inevitable problems that emerge during construction. Second, the cost of the submarine program is conservatively estimated at $US 8 billion over the next decade—that is, roughly three-quarters the size of Taiwan's *annual* defense budget. It is a huge outlay in relative terms. Third, even if construction proceeds according to plan, the earliest Taiwan will launch a new submarine is in 2025, and at full build-out will be able to maintain and operate only 8 vessels.[4] An equally effective deterrent could be achieved via a much larger number of small fast attack craft equipped with anti-ship missiles and able to disguise themselves in Taiwan's 200-odd fishing ports.

The IDS program is a good illustration of the crucial tradeoffs that the MND faces in its procurement decisions: between cost-effectiveness and prestige. There is a long-standing bias among the military brass for prestige weapons, and powerful political and bureaucratic interests continue to favor these over smaller, cheaper, and more resilient platforms. Thus, despite the compelling rationale laid out by the ODC for buying "a large number of small things," and President Tsai's strong public endorsement of this approach, there are still strong incentives within the armed forces to favor more conventional weapons systems and training. Absent consistent outside pressure, either from civilian leaders in Taiwan or the United States, the MND is likely to shrink from making the tough budgetary trade-offs that the ODC calls for over the long term.

2. Assessing Taiwan's "Will to Fight"

[4] See Michael A. Hunzeker and Joseph Petrucelli, "Time for Taiwan to Scrap the Indigenous Diesel Submarine," *The Diplomat*, November 30, 2019, at: https://thediplomat.com/2019/11/time-for-taiwan-to-scrap-the-indigenous-diesel-submarine/

In the event of a conflict between Taiwan and the PRC, a crucial variable is the Taiwan's people's own willingness to defend their country. This is a difficult outcome to measure directly and consistently, relying as it does on answers to hypothetical questions. Nevertheless, we do have several kinds of evidence from which we can attempt to assess the resilience of Taiwan's government, military, and ordinary citizens in the face of PRC aggression. These include public opinion data, enlistment patterns, and annual budgets.

Public Opinion: Taiwanese Have Confidence in the US but not Their Own Military

There is a wealth of public opinion data on Taiwanese attitudes toward security and defense issues. The gold standard in public opinion research on these issues is the Taiwan National Security Survey (TNSS), conducted regularly since 2002 by the Election Study Center at National Chengchi University, Taipei.[5]

TNSS has routinely asked several questions of relevance to this discussion. These data provide a mixed picture of Taiwan's resilience in the face of threats from the PRC. Taiwanese have tended in recent years to have a rather negative view of the military's ability to protect Taiwan in the event of a PLA invasion. For instance, in the most recent survey, fielded in the fall of 2020, only 33 percent of respondents believed the military would be able to adequately defend Taiwan on its own, while 60 percent believed it would not. This skepticism is broadly consistent with responses from previous years.

In contrast, a much larger share of respondents expressed confidence in their fellow Taiwanese. When asked what they thought others would do in the event of a PRC attack against Taiwan, a large majority – 72 percent – thought most people would "resist." Only 20.5 percent of respondents thought otherwise.

The majority of Taiwanese also have confidence in the United States to protect Taiwan. In the 2020 survey, 67 percent of respondents agreed that the US would send forces to respond if a PRC attack were unprovoked, and 52 percent believed it would still act to defend Taiwan even if an attack came as a result of a declaration of independence.

These data are consistent with findings from another prominent survey conducted by the Taiwan Foundation for Democracy (TFD) in 2019. That survey reported that 68.2 percent of respondents said they would "fight for Taiwan" if the PRC used force to attempt to achieve unification. Notably, the share expressing this view was slightly higher in the 20-29 age group who would be most likely to bear the consequences of a war with China: 72.5 percent of respondents in this group said they would fight to defend Taiwan.[6]

Another useful piece of evidence comes from a set of survey experiments that the political scientist Austin Wang conducted in 2018 and presented at a conference held at Stanford University.[7] In one experiment, Wang divided respondents into three groups. The first was asked

[5] Data available at: https://sites.duke.edu/pass/taiwan-national-security-survey/
[6] See Taiwan Foundation for Democracy survey at: http://www.taiwandemocracy.org.tw/opencms/english/events/data/Event0790.html
[7] See "Monitoring the Cross-Strait Balance: Taiwan's Defense and Security," pp. 22-23. Available at: https://www.kharistempleman.com/uploads/1/5/8/5/15855636/monitoring_the_cross-strait_balance.pdf

only about their willingness to resist. The second was told that 82 percent of Taiwanese had said they would resist, while the third was told only 18 percent of Taiwanese said they would. At baseline, 50 percent of those in the first group expressed a willingness to resist. Willingness to resist increased to 60 percent among the second group, and dropped to 40 percent among the third group. This result suggests that a collective response from Taiwanese to a Chinese attack will depend to some degree on what ordinary Taiwanese believe their fellow citizens will do.

In another experiment, respondents were divided into four distinct groups, and asked whether they would fight against a PRC attack. Each group was given a different scenario based on whether the attack was triggered by a declaration of independence in Taiwan and whether the United States indicated it would intervene on Taiwan's behalf in the conflict. Somewhat surprisingly, the most important factor was whether the United States would intervene—willingness to fight was not affected much, if at all, by whether a declaration of independence triggered an attack.

In sum, these data are consistent with three key findings. First, Taiwanese on the whole are not very confident about their own military's ability to defend the country alone against an attack by the PRC. Second, they are on average much more confident that most of their fellow compatriots would actively resist an attack—and their own reaction is likely to depend on how many others follow through on that resistance. And third, the majority of Taiwanese remain confident that the United States would intervene to stop a PLA invasion, even if Taiwanese leaders themselves triggered an attack by declaring independence, and are willing to participate in the defense of Taiwan as long as the US is also involved.

Behavior: Young People Don't Want to Join the Military

If the majority of Taiwanese express a willingness to resist a PLA invasion and confidence that their compatriots will also remain willing to fight in the face of PRC aggression, their actual behavior tells a rather different story. Since the transition to an all-volunteer force (AVF) was first announced in 2012, the MND has consistently failed to meet its recruitment targets and has repeatedly had to push back the end-date for mandatory military service.[8]

In order to attract and retain volunteers, the MND has significantly increased pay and benefits to the point where they are very competitive with civilian employment. For example, those personnel who are stationed outside the main island of Taiwan, such as Taiping Island (Itu Aba) in the South China Sea, have received increases in hardship pay of up to 60 percent. Those who re-enlist for an additional three years after their four-year terms are completed are eligible for an NT $100,000 bonus (approximately USD $3,000, or one-fifth of Taiwan's median income). Improvements in living facilities and other benefits, including lifelong learning opportunities, have also been implemented.

Nevertheless, as of 2018, the MND had filled only 82.5 percent of its authorized strength. To meet its target of 90 percent by 2020, the MND increased investments in its recruiting centers,

[8] Much of this section is drawn from "Monitoring the Cross-Strait Balance," pp. 25-28.

introduced or expanded ROTC programs on college campuses, and strengthened relationships with high schools.[9]

The biggest challenge to recruitment is the relatively low prestige of Taiwan's military. As I noted above, a large majority of respondents in recent surveys have "little or no confidence" that the Taiwanese military could prevail in a fight with the PLA. A more fundamental problem is that military service has little cachet in contemporary society and is viewed by many young people as a career of last resort. The low social status of military service creates a particularly challenging environment for recruitment, and the MND has been forced to offer aggressive and competitive salaries and benefits to attract volunteers.

This problem has not gone unnoticed. Elite signals of support for Taiwan's military personnel are generally quite good. President Tsai, for instance, has visited a military establishment on average once a week during her presidency, and she routinely praises the importance of military service and the armed forces' readiness to defend Taiwan.

Nevertheless, the MND's consistent struggles to meet annual recruitment quotas suggest that, in practice, young Taiwanese are wary of military service and less willing to make sacrifices to defend their country than public opinion surveys might indicate. Alternatively, the public opinion data could support a more positive takeaway as well: that if mass public support for, and confidence in, the military were to increase, a much larger share of Taiwanese might then be willing to volunteer to serve in the armed forces.

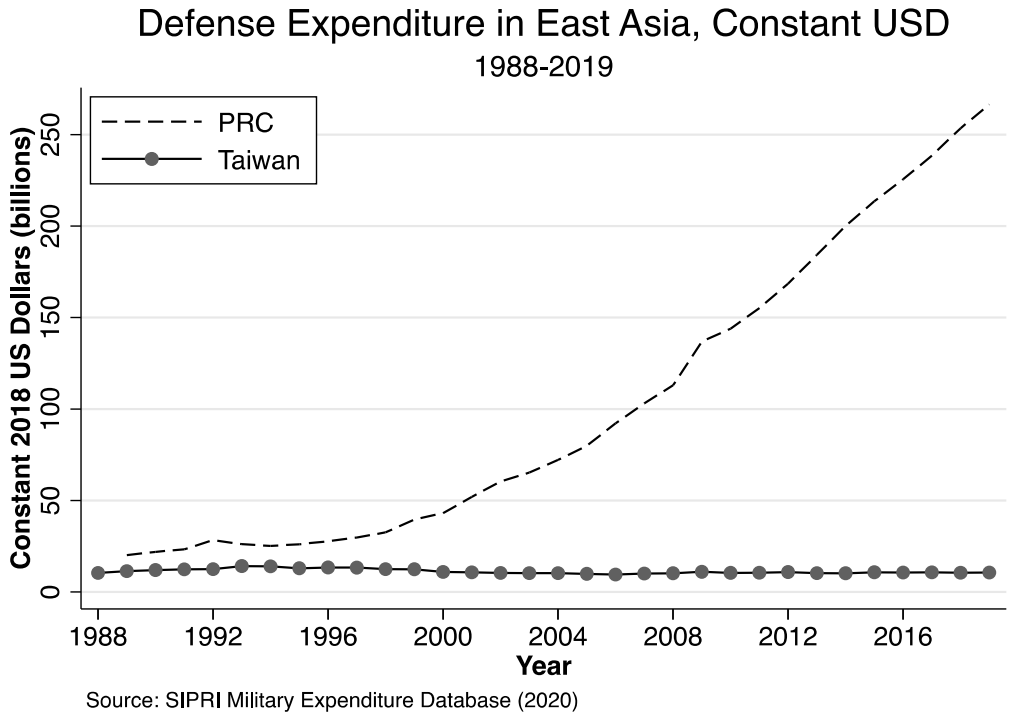
Budgets: Taiwan's Share of Spending Going to Defense Is Lower than Peer States

Budgets are a reflection of priorities. In a democracy, drafting an annual budget requires making hard tradeoffs between competing goals and, typically, different political constituencies. The way that the Taiwanese government has allocated resources across different categories of spending over the years can tell us a great deal about how this political process has actually played out, and how national defense has measured up against other priorities.

Figure 1 below shows Taiwan's realized defense-related annual spending from 1988 to 2019, plotted against the PRC's. The picture here is stark: from a ratio of less than 2-to-1 in 1990, the PRC's defense spending has rapidly increased over the past 30 years, while Taiwan's has remained stagnant, so that the ratio in 2019 is more than 25-to-1 and continuing to grow with each year. This resource gap is the most fundamental reason why the defense strategy that Taiwan pursued in the 1980s and 1990s is no longer feasible today.

[9] For more on recruitment problems, see Paul Huang, "Taiwan's Military is a Hollow Shell," *Foreign Policy*, February 15, 2020, at: https://foreignpolicy.com/2020/02/15/china-threat-invasion-conscription-taiwans-military-is-a-hollow-shell/

Figure 1.



In Figure 2 below, I have plotted defense spending as a share of GDP for Taiwan, the PRC, and three peer countries: Japan, South Korea, and Singapore. Here the decline in overall share of GDP going to defense over time in Taiwan appears especially striking when contrasted with the other four countries. In 1988, when Taiwan was still at the beginning of its gradual transition to democracy, its spending on national defense led the region at over 5% of GDP. But by 2006, it had fallen further faster than any other country, to a shade over 2% of GDP, where it has remained more or less ever since. As I noted above, this decline in defense spending was driven to a great degree by the electoral demands unleashed by Taiwan's democratization. Unlike social welfare and infrastructure spending, there was not an electorally influential constituency that favored military spending. As a result, elected leaders increasingly shifted resources away from the defense budget and into other areas.

Even if we take into account the effects of the transition to democracy and the changing political economy of defense over this period, Taiwan still looks like an outlier in the region. Despite facing what is arguably the most serious existential threat in East Asia, Taiwan in 2019 actually spent less on defense as a share of national GDP than every country except Japan. The military's share of GDP in Taiwan was even slightly lower than in the PRC, and has been since 2016.

South Korea provides a particularly revealing contrast, as Figure 3 shows. In many ways, Taiwan and South Korea are close cousins. Both began as anti-communist dictatorships, linked in defense alliances to the United States. Both were heavily militarized and oriented from their earliest years toward defending against an existential external threat. Both grew rapidly during the 1960s through the 1990s, fueled by export-oriented industrialization. Both transitioned to democracy at about the same time and over the same period, beginning in the last 1980s and

concluding in the 1990s. And both face similar demands for social welfare spending, and similar demographic challenges.

Nevertheless, South Korea has consistently spent at least 2.5 percent of GDP on defense, in contrast to Taiwan, and it has not phased out conscription. Instead, the gap between South Korea and Taiwan's defense expenditures has widened over the last 25 years. In 1994, Taiwan spent roughly 2/3 of Korea's annual defense appropriation. In 2019, it spent less than 1/3. The comparison with Korea suggests that Taiwan can and should do more than it has in recent years to provide for its own defense.

Figure 2

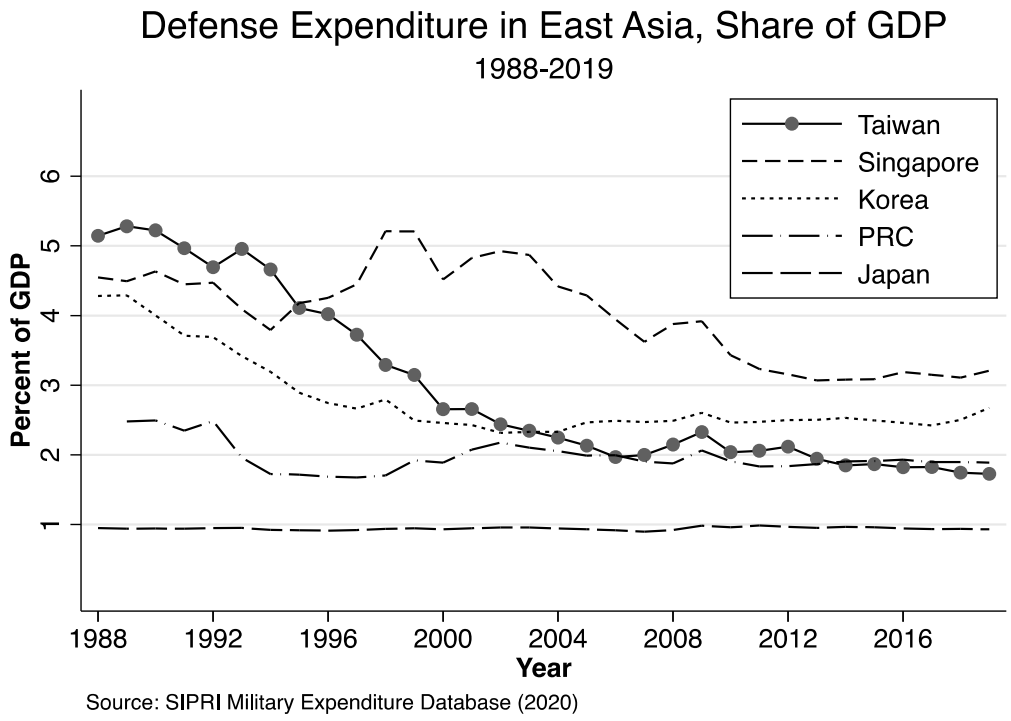
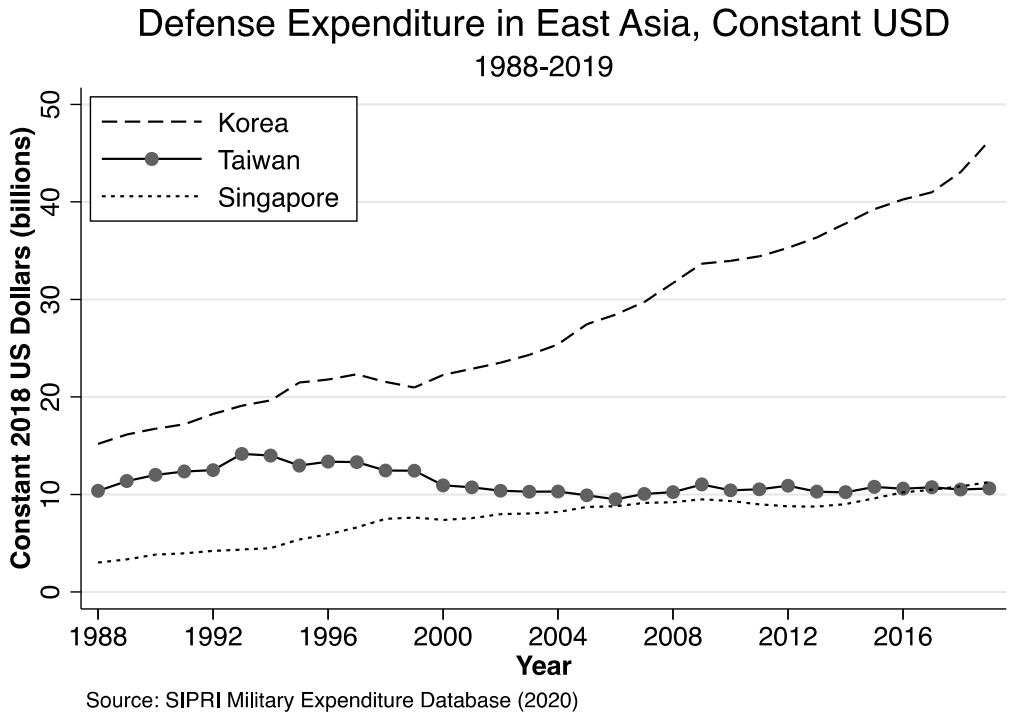


Figure 3.



3. Non-Military Threats to Taiwan's De Facto Autonomy

In my view, the greatest threat to Taiwan's long-term survival as a de facto independent country and liberal democracy stems from China's growing sharp power, not its hard power. Taiwan faces a serious external military threat, and it is right to take that threat seriously. But, as the Overall Defense Concept demonstrates, with the implementation of a realistic strategy and coherent policies, Taiwan can for decades to come effectively counter the PRC's hard power threat and deter an invasion or attack.

Moreover, Taiwan's vibrant civil society, deepening democratic values, and growing sense of civic nationalism provide the foundation for a resilient democracy and support for a more robust, democratically constituted armed forces. Revamping and raising the prestige of military service and bolstering the resources available for Taiwan's defense are difficult political challenges, but ones that, with far-sighted leadership, can be achieved. These are all steps that Taiwan's leaders can take on their own, without needing outside support from the United States or other countries.

What is more difficult to change, and will likely require significant external support in the face of concerted PRC pressure, is Taiwan's economic vulnerability and diplomatic isolation. On the former, despite efforts by the Tsai administration to shift trade and investment away from mainland China and toward Southeast Asia, roughly 30 percent of all of Taiwan's total trade is still with the PRC, reaching US$150 billion in 2018. Taiwan is heavily trade dependent, and its integration with the mainland economy presents an increasingly serious security vulnerability. Beijing has not been shy in other cases about using the economic leverage its huge market gives

it to try to advance its political and diplomatic objectives—as, for instance, it has recently done by delaying or blocking a variety of Australian imports as "punishment" for that country's call to investigate the origins of the COVID-19 virus. To date, the PRC's use of economic leverage over Taiwan has been much more subtle; Beijing risks fatally undermining what remains of its long-standing policy of using economic attraction to increase pro-unification sentiments on the island if it moves too far too fast. But it is not hard to imagine a switch in strategy, one that uses Taiwan's economic dependence on mainland markets to pursue a much more aggressive and openly coercive economic pressure campaign against a leader that Beijing decides it does not like.

In the long run, Taiwan's ability to resist such economic pressure depends on developing a more diversified set of trading partners and integrating more fully with other advanced economies in the region—perhaps by winning membership in regional trade agreements. The problem it faces here is that Beijing is on the verge of wielding veto power over Taiwan's entry into the most promising new economic arrangements, as well. China is a founding member of the Regional Comprehensive Economic Partnership (RCEP), and therefore can directly block any attempt by Taiwan to join. But it also threatens, via its influence over one or two of the founding members of the Trans-Pacific Partnership, to wield a veto over Taiwan's membership in the successor to that group, the CPTPP. Membership in the latter, especially, would serve deepen Taiwan's economic and regulatory ties to other countries in the region. If, during the next four years, the Biden administration decides it is interested in joining the CPTPP, it would do a huge favor if it insisted that Taiwan be included in accession negotiations at the same time. With US backing, Taiwan's shot at winning membership would be considerably better, and its long-term economic future more secure.

Further integration with other regional economies is also important for Taiwan because it faces a looming demographic crunch. As in South Korea, Singapore, and Japan, the country's fertility rates have plunged, and it is quickly transitioning to a "super-aged" society; there are currently twice as many 40-year-olds as 10-year-olds. Because of its rapidly aging population, Taiwan's economic prosperity will be increasingly dependent on trade-fueled demand, perhaps supplemented by an increase in immigration. Mitigating and managing this demographic decline will be made easier if Taiwan remains open to the rest of the world and well-integrated into a developing trans-Pacific economic community.

4. Recommendations for Congress

1. Recommend or mandate that the Department of Defense take a more active role in advising Taiwan on procurement, doctrine, and training, consistent with the stated objectives and approach of the Overall Defense Concept. External pressure from the United States may be necessary to overcome bureaucratic resistance within the Taiwanese military officer corps and ensure scarce defense resources are being allocated in a cost-efficient manner.

2. Encourage the Department of Defense to deepen and expand opportunities for Taiwanese soldiers to train with American counterparts, both in Taiwan and the United States. One early step to signal this change would be to invite Taiwan to participate in this year's RIMPAC

exercises. This training would not only be beneficial to Taiwanese military personnel, it would also help raise the profile and prestige among a domestic audience. DoD personnel might also be encouraged to advise Taiwan on developing a more robust system of unit-level reserves, capable of mobilizing on short notice.

3. Recommend that the US government expand cooperation between Taiwanese agencies and their US counterparts to meet "unconventional" security threats. In particular, Taiwan has considerable expertise in Chinese influence operations, and it is the most important remaining source of uncensored Chinese-language news and political commentary in the world. Working with the Taiwanese to better understand and counter the expansion of Chinese sharp power has the potential to pay significant dividends for both sides. Other promising areas to expand cooperation in might include cybersecurity, disaster relief, fisheries management, and infectious disease control.

4. Recommend that the USTR open bilateral trade negotiations with Taiwan as soon as is feasible. Taiwan needs economic gestures of support as well as military ones, and bilateral trade talks would be a clear sign of deepening cooperation. If the Biden administration eventually decides to re-commit to negotiations for the CPTPP, use the leverage this opportunity offers to insist on Taiwan's (and South Korea's) participation in membership negotiations as well.

OPENING STATEMENT OF MARK COZAD, SENIOR INTERNATIONAL DEFENSE RESEARCHER, RAND CORPORATION

COMMISSIONER TALENT: Thank you, Dr. Templeman. And I lost my connection there for a minute and was able to get back in, but I want to flag Commissioner Goodwin on that, because if I lose it, you can take over. I was able to get back in. So, Mr. Cozad is next.

MR. COZAD: Good afternoon, and thank you, Co-Chairs Talent and Goodwin, members of the Commission and staff. It's an honor to testify before this Commission on the factors shaping China's use of force calculations against Taiwan.

My testimony focuses on Beijing's confidence in the PLA, its anticipated international reactions, and China's leadership perspectives on risk and escalation.

The recommendations in my testimony are based on a concern that our understanding of PLA capabilities, and by extension, our assessments of Beijing's confidence in those capabilities, remains biased towards directly observable quantitative and organizational factors that downplay the qualitative factors behind PLA readiness and proficiency.

PLA systems and warfare concepts rely on improvements in these qualitative areas. The PLA is a learning, thinking organization and has devoted significant resources and talent to military science research, experimentation, concept development.

Its research findings, both positive and negative, offer deep perspectives on PLA modernization. We must acknowledge these self-assessments without discounting their likely impact on Beijing's risk calculations and confidence in military action.

In terms of recommendations, the United States Government needs to maintain its focus on China as a national security problem, and devote the resources necessary to understanding all elements of PLA modernization.

It is not enough to simply throw money and people at these problems. We must maintain focus over time. Otherwise, we will continually have to rebuild our knowledge and rediscover things once known and since forgotten.

Second, we need to think about our deterrence posture in a way that accounts for PLA weaknesses. If Beijing does see a major war as a possibility and harbors questions about the PLA's capabilities in these scenarios, U.S. deterrence messaging from across the whole of government needs not only to be focused on our capabilities and PLA vulnerabilities, but also acknowledge our willing commitment to our allies and partners.

Similarly, we also need to develop a better understanding of PLA weaknesses and how these weaknesses affect PLA capabilities and Beijing's confidence in the PLA, beyond shows of force and course of signal.

A significant portion of our PLA analysis is devoted to cataloging and counting new equipment, plotting organizational relationships, and highlighting PLA strengths. These are all critical areas, but studying PLA self-evaluations could allow a more focused consideration of PLA vulnerabilities and how those vulnerabilities might be exploited.

Understanding these self-assessments is also critical to understanding potential boundaries and limits that may impact Beijing's decision to use force.

Lastly, researchers and analysts in the United States routinely focus on deception as a key pillar of Chinese strategy. This is an important, yet under-explored topic. The topic is particularly relevant because PLA publications have discussed the use of deceptive practices to mask weaknesses in order to enhance deterrence.

If the PLA self-assessments discussed in this testimony are accurate reflections of

Beijing's concerns, the PLA would benefit greatly from covering up these shortcomings and amplifying those areas on which we have tended to focus, most of which involve areas of progress and strength.

The PLA's modernization successes over the past three decades are well-documented and have led to a significant imbalance between the PLA and Taiwan's military. They have also raised concerns that our military advantage has eroded to the point where some question our ability to prevail in a war with China.

Based on these trends, many assume that Beijing has considerable confidence in the PLA's capabilities to achieve China's objectives in most conflict scenarios, particularly if the United States were not involved.

However, there are several indications that Beijing still has reservations about the PLA's capabilities and readiness and the progress of its modernization programs.

These concerns are especially significant when viewed in the context of scenarios in which the PLA might have to confront the United States. The military power which the PLA holds as the leader in informatized warfare.

The PLA does not see modern warfare as a simple comparison between individual weapons and platforms. Rather, the PLA views it as a contest between opposing operational systems. Informatized warfare relies on the use of advanced information systems, data gathering and fusion, (audio interference) operational systems survival, and success requires timely, accurate, and reliable information to enable integration, joint action, continuous assessment, and timely decisions. Each of these areas is at the core --- (Telephonic interference.)

These are overarching themes in the PLA's own self-assessments that signal persistent challenges and concerns.

New PLA operational concepts are a significant departure from the mechanized, attrition-based view of warfare that permeated PLA thinking for much of the PRC's history.

These new concepts, by design, require decentralization, initiative, adaptability, and transparency up and down the chain of command. PLA leaders, including Xi Jinping, recognize the challenges these factors present to the PLA's organizational culture.

If we accept these assessments as genuinely reflecting PLA perspectives, it appears that Beijing sees weaknesses in several areas critical to its systems warfare aspirations.

Although the PLA's recent reforms remove multiple stovepipes that hindered PLA responsiveness, namely placing strategic management responsibilities under the CMC and creating theater commands, the PLA has highlighted several systemic shortcomings in areas such as personnel development, command proficiency, political reliability, experience, and readiness, among others.

Internal discussions at multiple levels in the PRC have captured these general themes.

While notable, it remains unclear how Beijing weighs these self-assessments in its evaluations of PLA strengths and weaknesses in its use of force decision-making. Based on PLA activity over the past several years, Beijing appears to be much more willing to wield the PLA's growing capabilities than at any time in the past three decades.

Most of these situations, which include shows of force and grey zone operations, are designed to avoid putting the PLA in positions that might result in direct confrontation, while still demonstrating China's capability and resolve.

In these cases, Beijing assumes a relatively low level of risk that an inadvertent encounter or unforeseen action might lead to escalation.

On the other hand, discussions about the PLA's systemic problems highlight what appears to be Beijing's concern about much more challenging scenarios in which the PLA might have to face an adversary like the United States or some other determined enemy.

In these cases, Beijing will be forced to decide on a level of risk it is willing to assume in a conflict where it lacks the confidence in the PLA and consider whether its objectives might be pursued more effectively with other strategies and tools in less immediate timelines.

Thank you and I look forward to your questions.

PREPARED STATEMENT OF MARK COZAD, SENIOR INTERNATIONAL DEFENSE RESEARCHER, RAND CORPORATION

Testimony

Factors Shaping China's Use of Force Calculations Against Taiwan

Mark Cozad

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Factors Shaping China's Use of Force Calculations Against Taiwan

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The People's Liberation Army's (PLA) primary modernization and planning priority since 1993 has been Taiwan. That year, the Central Military Commission (CMC) approved the *Military Strategic Guidelines for the New Era*, a document that served as the PLA's baseline military strategy until 2015.[3] In the last few years, the PLA has expanded its operational focus by developing systems and capabilities that will enable it to more effectively assert the influence of the People's Republic of China (PRC), intimidate rival maritime claimants, and defend against challenges to China's territorial claims around its extensive periphery.[4] Despite these developments and a growing recognition that the PLA must be capable of supporting China's increasing international interests and presence, Taiwan remains the PLA's main strategic direction—a designation that dictates its priority relative to other potential planning scenarios and hot spots.[5] The Chinese Communist Party's (CCP's) sense of urgency regarding Taiwan has only increased with the ascendance of Taiwan's Democratic Progressive Party and major shifts in Taiwan's public opinion regarding questions of national identity and willingness to resist China.[6] A core element of China's perceptions of its own ability to influence Taiwan is Beijing's assessment of PLA capabilities and efficacy in times of crisis. Although Beijing has a wide range

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[2] The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.
[3] See David Finkelstein, "China's National Military Strategy: An Overview of the 'Military Strategic Guidelines,'" in Roy Kamphausen and Andrew Scobell, eds., *Right-Sizing the People's Liberation Army: Exploring the Contours of China's Military*, Carlisle, Penn.: Institute for Strategic Studies, May 2007, pp. 82–87.
[4] Information Office of the State Council, *China's Military Strategy*, reprinted by Xinhua, May 26, 2015.
[5] Mark Cozad, "The PLA and Contingency Planning," in Andrew Scobell, Arthur S. Ding, Phillip C. Saunders, and Scott W. Harold, eds., *The People's Liberation Army and Contingency Planning in China*, Washington D.C.: National Defense University Press, 2015, pp. 15–32.
[6] Kat Devlin and Christine Huang, "In Taiwan, Views of Mainland China Mostly Negative: Closer Taiwan-U.S. Relations Largely Welcomed, Especially Economically," Pew Research Center, webpage, May 2020; and Timothy Rich and Andi Dahmer, "Taiwan Opinion Polling on Unification with China," *China Brief*, Vol. 20, No. 18, 2020.

of tools, the PLA's military capabilities are a foundational element, and they shape the range of options available to China's political leaders.[7]

In this testimony, I argue that even though Beijing's confidence in all elements of PRC national power has increased significantly over the past two decades and continues to grow, Chinese political leaders probably remain cautious about the PLA's ability to execute high-intensity operations, most notably a major campaign to force unification with Taiwan. Even though the PLA has made great strides over the past two decades, military publications, official statements, and reform programs suggest that its modernization has not progressed as rapidly as Beijing thinks necessary in several areas critical to fighting modern wars.[8]

Beijing's Confidence in the People's Liberation Army and Use of Force Considerations

The PLA's successful modernization and development over the past three decades is well-documented and undisputed.[9] Today's PLA is vastly more capable now than in 1996, when the Taiwan Strait Crisis occurred. The PLA has made major improvements in advanced systems, a growing percentage of its force uses modern weapons, and it has greatly enhanced its cyber, space, and long-range precision strike capabilities. The PLA also has devoted significant attention to developing its doctrine and tailoring new operational concepts to the requirements of fighting modern wars; at the same time, it has embarked on programs to improve command and control, develop its personnel, and improve training.[10] These changes are behind today's significant imbalance between the PLA and Taiwan's military. In addition, many observers in the United States are gravely concerned that U.S. military advantages are eroding at a dramatic pace, and these observers are calling into question the United States' ability to prevail in a war with China.[11]

It is unlikely that the PLA's advantage over Taiwan's military or the PLA's progress relative to the U.S. military will diminish at any point in the near future, particularly in quantitative terms. Indeed, these problems will become more pronounced as the PLA continues to integrate modern platforms, weapons, and information systems into its inventory. *China's Military Strategy*, published seven months before the PLA's announcement of major reforms at the end of 2015, outlined several CCP-directed modernization goals.[12] Any assessment of Beijing's confidence in the PLA should address these goals, which encompass a wide range of modernization concerns, including service mission areas, capabilities development, information systems, personnel, and operational concepts.[13]

[7] Yimou Lee, "U.S. Denounces 'Coercion' as China Conducts Drills near Taiwan," Reuters, April 15, 2019.
[8] Dennis J. Blasko, "PLA Weaknesses and Xi's Concerns About PLA Capabilities," testimony before the U.S.-China Economic and Security Review Commission, February 7, 2019.
[9] One of the most comprehensive studies documenting this trend line is Eric Heginbotham, Michael Nixon, Forrest E. Morgan, Jacob L. Heim, Jeff Hagen, Sheng Tao Li, Jeffrey Engstrom, Martin C. Libicki, Paul DeLuca, David A. Shlapak, et al., *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996–2017*, Santa Monica, Calif.: RAND Corporation, RR-392-AF, 2015.
[10] Edmund J. Burke, Kristen Gunness, Cortez A. Cooper III, and Mark Cozad, *People's Liberation Army Operational Concepts*, Santa Monica, Calif.: RAND Corporation, RR-A394-1, 2020.
[11] Christian Brose, *The Kill Chain: Defending America in the Future of High-Tech Warfare*, New York: Hachette Books, 2020; and "Strait Shooting: Defending Taiwan Is Growing Costlier and Deadlier," *The Economist*, October 8, 2020.
[12] State Information Council, *China's Military Strategy*, 2015.
[13] State Information Council, *China's Military Strategy*, 2015.

In this testimony, I examine general themes in Beijing's assessment of the PLA's strengths and weaknesses.

Based on overall trends in the cross-Strait balance and the PLA's progress in developing capabilities to counter the United States, Beijing should have considerable confidence in the PLA's capability to achieve its overarching objectives in most conflict scenarios, particularly if the United States is not involved. However, there are several indications that Beijing still has reservations about the PLA's capabilities and readiness and the progress of its modernization programs. These concerns are especially significant when viewed in the context of scenarios in which the PLA might have to confront the United States—the military power which PLA publications hold up as the benchmark for informatized warfare.[14] The PLA sees modern warfare as extending beyond comparisons of individual weapons systems and platforms. Instead, it is a contest between opposing operational systems that requires integration, joint action, adaptability, continuous assessment, and timely decisions, all based on accurate information.[15] This informatized warfare relies on the use of advanced information systems, data gathering and fusion, and command automation tools to enable joint operations and systems warfare. These three concepts—informatization, joint operations, and system warfare—are central to what the PLA calls its "preparation for military struggle."

Internal PLA discussions reveal systemic problems slowing the PLA's progress toward fielding an informatized military.[16] PLA publications point out that institutional and organizational shortcomings limit the PLA's ability to effectively implement operational concepts that emphasize systems warfare and joint operations. These (sometimes stark) self-assessments suggest that Beijing might lack confidence in the PLA's ability to achieve CCP objectives in a variety of military operations including a military campaign to force unification with Taiwan.[17]

Some PLA evaluations require net assessment and comparative analysis, particularly when considering force structure, weapons systems, and concepts of operation. However, PLA self-evaluations often address qualitative issues, such as personnel quality, decision making, reliability, and command. These evaluations deal heavily with internal PRC and PLA issues of demographics, organizational culture, and differing cognitive styles. According to the PLA's logic of systems warfare, operational systems' strengths and weaknesses can only be understood in relationship to an opposing system, and PLA modernization imperatives—such as informatization, jointness, and systems warfare—cannot be realized without qualitative intangibles, such as capable personnel and efficient, effective command.[18]

Overall, Beijing views the PLA's increasingly modern maritime, air, and missile forces as critical strengths that enable it to perform several key missions in any Taiwan conflict involving the United States. A variety of space, cyber, and intelligence, surveillance, and reconnaissance (ISR) capabilities maintain situational awareness over large areas of the region,

[14] For recent examples of applied studies, see Dong Lianshan, ed., *Target-Centric Warfare: The Path to Achieving Victory in Future Warfare*, Beijing: National Defense University Press, 2015; and Wang Yongnan, *Exploring the Essentials of Gaining Victory in System Warfare*, National Defense University Press, 2015.
[15] For one of the earliest references from PLA military education literature, see Xue Xinglin, ed., *Campaign Theory Study Guide*, Beijing: National Defense University Press, 2001, p. 66.
[16] See Blasko, 2019, for a discussion of the "two incompatibles" and the "two big gaps."
[17] Wang Yongnan, 2015, pp. 1–27; and Liu Wei, ed., *Theater Joint Operations Command*, Beijing: National Defense University Press, 1st ed., 2016, p. 106.
[18] These imperatives are outlined in *China's Military Strategy* from 2015. The modernization areas are also outlined by Xi Jinping. See "Full Text of Xi Jinping's Report at 19th CPC National Congress," *Xinhua*, November 3, 2017.

monitoring U.S. force deployments, targeting U.S. and Taiwan forces, and helping PRC leaders and commanders obtain critical wartime information.[19]

China's relative proximity to Taiwan amplifies these strengths. The PLA has numerous options to hold at risk major U.S. bases, logistics hubs, and command and control facilities throughout the region because of the extended reach of PLA precision strike capabilities. The PRC's advanced integrated air defense system is capable of protecting PLA forces moving to embarkation points. Similarly, PLA forces operating in the region are much closer than U.S. forces to their home ports and bases, maintenance facilities, and resupply and logistics facilities. In recent discussions of future U.S. concepts of operations, PRC military researchers noted the PLA's progress in holding U.S. forces at risk. They contended that the PLA's regional antiaccess/area denial (A2AD) capabilities have forced the United States to adopt new operational concepts that emphasize distributed lethality to ensure survivability.[20] Some PLA observers view this development as a potentially dangerous shift that will limit the PLA's ability to find and target U.S. forces.[21] Others question the United States' ability to use these concepts on a scale necessary for countering the PLA's force posture in a major conflict.[22]

These substantial strengths, dispositional advantages, and highly favorable trend lines only tell part of the story. Beijing also sees weaknesses in several key areas, as highlighted by *China's Military Strategy* and the PLA's reorganization, which was initially implemented in 2016. These problem areas include personnel, command, experience, readiness, proficiency, and the pace of technological modernization.[23] The migration of strategic management responsibilities to the CMC and creation of theater commands removed multiple traditional stovepipes that were seen as bureaucratic hindrance limiting PLA responsiveness. [24] These developments were intended to help the PLA better plan and respond to regional contingencies. Despite these necessary reforms, recently the PLA has highlighted several systemic shortcomings related to command ability, political reliability, and overall proficiency in areas critical to modern warfare. PLA internal discussions at multiple levels—from General Secretary Xi Jinping to military science publications—frame these concerns using a series of slogans that capture general themes.[25] One of the most substantial issues covered by these slogans is the need to develop capable commanders and staffs for the planning and coordination functions necessary for conducting integrated joint operations and systems warfare. The PLA has designed educational programs for these shortfalls, but command and leadership remain persistent themes in Beijing's discussion of the PLA's weaknesses.

[19] Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China 2020: Annual Report to Congress*, Washington, D.C., 2020, p. 115.
[20] Han Yi and Chu Xin, "Divide Troops And Set Fire, Fight On All Ships—Analysis of the U.S. Military "Distributed Lethality" Concept," *Defense Technology Review*, May 2018; and Hu Bo, "U.S. Military Maritime Strategic Transformation: 'From Sea to Land' to 'Return to Sea Control,'" *National Security Research*, March 2018. I would like to acknowledge and thank my RAND colleague Mike Bond for making me aware of these sources.
[21] Yi Liang and Lu Yang, "United States Navy Equipment Technology for 'Distributed Lethality' Concept," *Journal of Naval University of Engineering*, February 2018, p. 1.
[22] Wang Yongnan, 2015, p. 16.
[23] Phillip Charles Saunders, Arthur S. Ding, Andrew Scobell, Andrew N. D. Yang, and Joel Wuthnow, eds., *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms*, Washington, D.C.: National Defense University Press, 2019.
[24] Edmund J. Burke and Arthur Chan, "Coming to a Theater Near You," in Phillip Charles Saunders, Arthur S. Ding, Andrew Scobell, Andrew N. D. Yang, and Joel Wuthnow, eds., *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms*, Washington, D.C.: National Defense University Press, 2019, pp. 246–247.
[25] Blasko, 2019.

Although the PLA has developed several new programs to train its commanders, new rigorous evaluation processes for its training and exercises, and new concepts of operation, Beijing remains concerned about the PLA's overall level of experience and proficiency. As early as 2001, the PLA was experimenting with its ability to perform integrated joint operations and conduct systems warfare. PRC leaders, including Hu Jintao and Xi Jinping, have identified these as critical requirements for future wars. The PLA has made substantial progress in both areas, but most PLA concepts are still in development and would require deep changes in PLA thinking to work. One of the most basic milestones in developing joint operations was expanding command staffs to include commanders and staff officers from all of the services and service arms; before this, the PLA relied solely on personnel from the ground forces. In this respect, the PLA has shown great, albeit slow, progress. However, the command and operational requirements for new concepts are substantially different from how the PLA has operated in the past. In particular, these concepts require a highly adaptable force, commanders empowered and willing to make decisions, and the delegation of authority from higher to lower levels.[26] PLA publications discussing these new concepts highlight these problems with the slogans of the "two incompatibles" and "five incapables."[27] For these new concepts to be successful, planning and decisionmaking are critical. Beijing's push to develop training programs highlights the PLA's recognition of the problem, but the PLA still lacks practical experience, and its organizational culture has trouble balancing political reliability and individual initiative.[28]

The PLA's lack of recent experience and its recent efforts to incorporate unexpected events into exercises and training scenarios raise questions about Beijing's view of PLA adaptability.[29] However, experience also can be a negative force. Experience does impart valuable lessons both for the nation undertaking an operation and outside observers, such as the PLA. However, the lessons learned may not be the right lessons for future wars. The PLA's lack of timely real-life experience may not be its biggest issue; rather, its ability to adapt to new situations may be more critical.

Finally, Beijing is worried about readiness and the pace of technological modernization. As mentioned previously, the PLA has improved its readiness significantly simply by having force structures in theaters close to potential hot spots, such as the Indian border and North Korea. Focused planning and training in individual theaters also contribute to improved readiness. Likewise, the PLA is a considerably more modern force from a technological standpoint than it was just a decade ago, and more of those capabilities are now available to theater commanders. However, persistent concerns on the part of PRC senior leaders are

[26] Burke et al., 2020, pp. 15–20. Several PLA publications written by experts who have been involved with these processes, as well as PLA media ventures designed to popularize these concepts, have highlighted the significant challenges facing the PLA in these areas. In 2013 the PLA produced a movie, titled *Target Locked*, to present the challenges of integrating a new operational concept into the PLA's organizational culture.

[27] See Blasko, 2019, p. 17. The "two incompatibles" slogan highlights that the PLA does not meet the requirements of winning local wars under informatized conditions and the requirements for carrying out its historic missions at the new stage of the new century. The "five incapables" highlights that PLA commanders cannot judge the situation, understand the intention of higher authorities, make operational decisions, deploy troops, or deal with unexpected situations.

[28] Joel Wuthnow and Phillip C. Saunders, "A Modern Major Genera: Building Joint Commanders in the PLA" in Phillip Charles Saunders, ed., *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms*, Washington, D.C.: National Defense University Press, 2019, pp. 294–296.

[29] Michael S. Chase, Jeffrey Engstrom, Tai Ming Cheung, Kristen Gunness, Scott W. Harold, Susan Puska, and Samuel K. Berkowitz, *China's Incomplete Military Transformation: Assessing the Weaknesses of the People's Liberation Army (PLA)*, Santa Monica, Calif.: RAND Corporation, RR-893-USCC, 2015; p. 48, 76.

reflected in such self-assessments as the "two incompatibles" and the "two big gaps"—both of which highlight PLA perceptions that it "does not meet the requirements of winning local wars under informatized conditions" or that it does not have capabilities comparable to "the level of the world's most advanced militaries."[30] The PLA's difficulties realizing its informatization goals and lingering concerns about its overall state of modernization raise questions for Beijing about whether the PLA's progress has been rapid enough. When coupled with efforts to improve training—a longstanding concern and problem for the PLA—Beijing may have reservations about the types of conflicts it is willing to pursue based on the PLA's progress.

It is unclear how Beijing weighs the PLA's strengths and weaknesses in its decisionmaking process. Based on PLA activity over the past several years, Beijing appears to be much more willing to wield the PLA's growing capabilities than at any time in the past three decades.[31] Most of these situations—frequently described as *gray zone* operations—are designed to avoid putting the PLA in positions that might result in direct confrontation;[32] Beijing assumes a relatively low level of risk that an inadvertent encounter or unforeseen action might lead to escalation. The intent is to avoid confrontation by operating below the threshold that would trigger a kinetic response, particularly from the United States or its allies. The PLA's increased technological capability and growing inventory of state-of-the-art weapons systems also appear to contribute to Beijing's growing sense of confidence.

On the other hand, discussions about the PLA's systemic problems highlight what appears to be Beijing's concern with the PLA's ability to fight an adversary like the United States. PLA publications continue to highlight command and integrated operations as core weaknesses in the PLA's ability to effectively and efficiently operationalize its most important technical capabilities and weapon systems.[33] The PLA's current and emerging concepts of operation depend on advanced planning, targeting, synthesis, and decisionmaking capacity. These dependencies are a massive and underappreciated departure from the mechanized, attrition-based model that the PLA has relied on since the PRC's founding. The PLA's recent reforms were an important first step and necessary follow-on to the PLA's foundational work on systems warfare; however, these reforms are incomplete and the required changes to the PLA's organizational culture are significant. As PLA self-assessments demonstrate, there are still numerous reservations and concerns regarding the PLA's progress in these areas.

In addition, the PLA still has shortfalls in key operational areas necessary for a campaign to subdue and occupy Taiwan. Amphibious and airborne lift capabilities remain limited.[34] Sustainment and the capabilities necessary for urban combat on Taiwan also raise questions about the PLA's ability to gain and maintain control of critical terrain and infrastructure if PLA forces are able to develop a lodgment and expand their area of control.[35] Similarly, there are questions about whether the PLA's weapons inventory is adequate for a protracted conflict. The PLA's push for efficient use of weapons is based on improved ISR, targeting, and assessment.[36] It is a centerpiece of the PLA's understanding of the high consumption rates associated with

[30] Blasko, 2019, p. 17.
[31] "China's Half-Loving, Half-Threatening Pitch to Taiwan Doesn't Work," *The Economist*, October 22, 2020.
[32] Lyle J. Morris, Michael J. Mazarr, Jeffery W. Hornung, Stephanie Pezard, Anika Binnendijk, and Marta Kepe, *Gaining Advantage in the Gray Zone: Response Options for Coercive Aggression Below the Threshold of Major War*, Santa Monica, Calif.: RAND Corporation, RR-2942-OSD, 2019.
[33] Liu Wei, 2016, p. 106.
[34] Office of the Secretary of Defense, 2020, p. 118.
[35] Office of the Secretary of Defense, 2020, p. 114.
[36] Dong Lianshan, 2015, p. 130.

noncontact operations. PLA researchers recognize the challenges of effectively targeting new U.S. operational concepts centered on distributed lethality. Ultimately, Xi Jinping's recent call to accelerate modernization timelines could be interpreted as a more aggressive desire to expand the PRC's national power. An alternative, and possibly more accurate, interpretation could read it as a sign that China's military reforms—regardless of their substantial progress—have not proceeded quickly enough for Xi.

Based on the nature of PLA weaknesses, a key question in our understanding of China's calculations regarding the use of force against Taiwan is how Beijing's views of the PLA's weaknesses might shape or constrain its decision to take military action against the island. Framing for this question should center on both political and military considerations shaping any use of force decision from Beijing. First, there is the question of whether internal PRC political pressure would force Beijing's hand. This would likely entail political considerations regarding the CCP's credibility if it failed to act or failed to achieve its objectives in a Taiwan-related crisis. Second, there is the question of which actions, if any, Beijing would see as forcing its hand. Recent discussions on red lines, such as an independence referendum or changes in United States policy that would appear to recognize Taiwan's sovereignty, would likely create internal pressure for the CCP to maintain its credibility. It is uncertain what type of action would compel Beijing to consider the use of force, let alone a decision to force unification with Taiwan; however, in certain cases, the internal political forces that would drive Beijing to use force might also create a climate in which China's leaders would be willing to accept significant risk largely because they believed they had little or no choice but to act or face the CCP's potential demise.

In an environment like Taiwan, in which perceptions of China have grown markedly more negative and a majority of Taiwan's population says it will fight against China if needed, these political and military challenges would likely weigh heavily on any decisionmaking process in which Beijing would contemplate the use of force to unify Taiwan. The possibility of placing an inexperienced, untested military with widely acknowledged shortcomings into an environment that is intensely hostile toward China and which would involve the support of the United States would force Beijing to weigh the costs of action against the consequences of inaction. These decision factors would force Beijing to consider what other options might be available while reserving the use of force for only the most desperate and dire situations. Ultimately, the stakes for this fight would go well beyond Taiwan unification. They would involve a confrontation to decide which of the world's two most significant powers would emerge on top.

International Reactions and Escalation Management

The United States' reaction is another critical variable in Beijing's thinking about the use of force. The issue of American political will is often raised in U.S. discussions about conflict scenarios; however, outside of China's English-language press, PLA media does not indicate that Beijing has doubts about the United States' will to defend Taiwan. Based on PLA campaign theory, force posture, weapons systems, and concepts of operation, Beijing almost certainly assumes United States involvement in a Taiwan conflict.[37] Although Beijing views the United States as a declining power, PRC publications still portray the United States as willing to jealously guard its place in the international system and use force to achieve its interests.

[37] Wang Houqing and Zhang Xingye, eds., *The Science of Campaigns*, Beijing: National Defense University Press, 2000; Zhang Yuliang, ed., *The Science of Campaigns*, Beijing: National Defense University Press, 2006; and Shou Xiaosong, ed., *The Science of Military Strategy*, Beijing: Military Science Press, 2013.

Similarly, the PLA still views the United States as the benchmark for joint operations, systems warfare, informatization, fifth-generation technology, and command and control capabilities.[38] In addition, the PLA continues to have significant respect for United States cyber, space, ISR, air, and maritime capabilities. Ultimately, the PLA's views of its improving capabilities, discussions about challenges in new U.S. operational concepts, and Beijing's view of its localized advantages do not translate into a dismissal of U.S. capabilities. The PLA recognizes that the United States possesses considerable strength that can be deployed globally with the support of a vast network of global bases, allies, and partners.

Beijing has long expected that conflict with the United States would require significant mobilization of national power. These perceptions emerged in the early 1990s and gained momentum following the NATO bombing of the former Yugoslavia. The PLA's key takeaway from that conflict was the concept of noncontact operations—avoiding direct contact between ground forces and instead emphasizing long-range precision strikes to destroy an enemy's war potential and diminish its political control. The PLA took several actions to counter this new style of warfare. During the mid-1990s, the PLA developed its "joint anti-air raid campaign," an operation designed to employ both offensive and defensive assets to limit an enemy's ability to build forces around China's periphery. This campaign marked the initial development of Chinese A2AD capabilities. After Kosovo, Beijing directed a series of efforts to defend against advanced U.S. capabilities, bolstered its civil defense programs, and pushed forward to develop a national defense mobilization system.[39]

The growth of Chinese national power in all dimensions has provided Beijing with many tools for influencing international opinion, particularly among U.S. allies and partners. Although these messaging campaigns and attempts at retribution have often been counterproductive, they have demonstrated China's willingness to assertively use its influence and power to achieve the outcomes they desire even when dealing with U.S. allies. The extent to which Beijing sees these factors at play in conflict scenarios involving Taiwan is uncertain. As recent events have demonstrated, Beijing has faced few, if any, repercussions in response to its human rights abuses against the Uighurs; the imposition of the national security law in Hong Kong; and provocations in the South China Sea, on the Indian border, and near Taiwan. Although Beijing appeared to temper its response to Hong Kong protests early in 2020, later in the year, when the world was distracted by the global pandemic, Chinese leaders cracked down harshly. Because of China's increasing global influence, particularly its economic and trade relationships, Beijing appears increasingly confident in its ability to prevent states from acting against China's interests. There is no evidence that Beijing believes that it can completely undermine U.S. alliances and partnerships, but it does believe that its stronger economic relationships and proximity to Taiwan will complicate any decision to actively support the United States in a Taiwan conflict. Currently, it is highly unlikely that fear of international blowback would deter China from taking action.

Chinese researchers have long recognized the importance of controlling escalation; however, they are realistic about their ability to do so. Early PLA work on *war control* highlighted the importance of managing escalation as a core strategic command function.[40] Ultimately, Beijing believes that major power conflicts run the risk of escalation on many fronts

[38] Wang Yongnan. 2015, p. 32.
[39] Burke et al., 2020, p. 3.
[40] See Xiao Tianliang, *On War Control*, Beijing: National Defense University Press, 2002; and Peng Guangqian and You Youzhi, eds., *The Science of Military Strategy*. Beijing: Military Science Press, 2001, p. 213.

and that de-escalation could be extremely difficult for both sides. In a conflict, off-ramps might not be readily available, based on the political drivers that led Beijing to decide on using force in the first place. In the unlikely situation in which China decides to use force against Taiwan without an immediate political crisis compelling it to act, finding an off-ramp might be less difficult. Limiting the use of force to destruction of key infrastructure and forces would allow Beijing to regroup and declare success, as it did in Vietnam in 1979. In the much more likely event that Beijing decides to use force based on a *perceived* crisis, PRC internal politics and the need for the CCP to maintain its political standing may make it more difficult to find off-ramps.

Conclusions and Policy Recommendations

Several U.S. publications have highlighted PLA challenges with modernization and reform.[41] In several cases, these reports are based on PLA sources voicing concerns about systemic problems within China's military establishment. Beijing has increased confidence in the PLA, but its remaining concerns raise questions about how much political risk China's leaders are willing to accept if faced with a decision of whether or not to use force. Beijing's questions about the PLA's progress in areas of informatization, joint operations, and systems warfare are central to understanding whether the PRC sees itself as capable of confronting the United States and its allies in a conflict over Taiwan.

I have four policy recommendations for consideration as the United States develops the concepts and capabilities necessary for 21st-century major power competition. First, the United States government needs to maintain its focus on China as a national security problem. Continued congressional oversight is necessary, including hearings with administration officials to ensure a continued focus on China. We have been slow to build our China expertise and the capabilities required to fight the type of war that China believes it will have to fight. If PLA research on U.S. operations since the end of the Cold War is any indication, Beijing views a future war with the United States as an expansive, devastating conflict that will require national mobilization. Researchers have focused on issues such as China's National Defense Mobilization System and civil-military fusion, but there seems to be little appreciation or preparation on the part of U.S. planners for the actions that this type of conflict with China might entail.

Second, focus on deterrence. If China does see a major war as a possibility, U.S. deterrence messaging from across the whole of government needs not only to be focused on our capabilities, but also acknowledge our will and commitment to our allies and partners.

Third, we need to develop a better understanding of PLA weaknesses and how these weaknesses affect PLA capabilities and Beijing's confidence in the PLA beyond shows of force and coercive signaling. A significant portion of PLA analysis is devoted to cataloging and counting new equipment, plotting organizational relationships, and highlighting PLA strengths. These are all critical areas, but studying PLA self-evaluations could allow serious consideration of PLA vulnerabilities and how those vulnerabilities might be exploited. To spur this kind of review, Congress could consider directing studies of PLA self-evaluations and PLA deception capabilities in a future National Defense Authorization Act.

Fourth, researchers and analysts in the United States routinely discuss deception as a key pillar of Chinese strategy. This is an underexplored topic, especially considering the role assigned to it in Chinese strategy by many U.S. researchers. The question is particularly relevant because PLA publications have discussed the use of deceptive practices to mask weaknesses to

[41] Chase et al., 2015; Saunders et al., 2019; and Blasko, 2019.

enhance deterrence. If the PLA self-assessments discussed in this testimony are accurate reflections of Beijing's concerns, the PLA would benefit greatly from covering up these shortcomings.

COMMISSIONER TALENT: Okay. Thank you, Mark. Commissioner Wong, are you in a position to ask questions or would you prefer to go a little bit later? I noticed you --

COMMISSIONER WONG: I'm in a good position to, and my assistant who was here on my left is now gone, so maybe I'll be at a loss for words without her. So, two questions.

The first one, I want to talk and ask a little bit about the role that Taiwan's international space -- connectedness, diplomatically, economically, politically in the international arena, how that factors into Chinese decision-making on using force to overtake the island.

There's a general feeling, or maybe some intimations from some, that advocating for Taiwan's role in the world is provocative or may induce China to be more aggressive than it otherwise would be.

I take a different view of that. I view China's attempts to isolate Taiwan, to cut off its international space, as in a sense preparing the battle space. The fewer connections Taiwan has to other partners, the fewer incentives there are for partners around the world to come to Taiwan's aid, to support or take a position if there is military action towards the island.

So, in a certain sense, expansion of Taiwan's role in the world is, in a sense, an expansion of deterrence, at least that's my general view.

I guess my question, maybe to Ms. Mastro or others, is whether that is logical, in your view? And if so, what are the follow-on kind of priorities, not just for the United States, but for the world in creating more space for Taiwan, to create more connections to affect the Chinese decision-making?

DR. MASTRO: I'll go ahead and start. I think your assessment is correct, from a number of viewpoints, if I can highlight.

The first, based on my testimony and following off of what Mark said, until the PLA, until Xi Jinping is confident that his military can succeed, they're not going to use force, unless some major change happens, like Taiwan declares independence.

And I don't think increasing international space for Taiwan meets that threshold. So, I don't think it increases our risks of conflict.

And on the other hand, I think I only briefly mentioned it in my testimony, because of time, horizontal escalation or the threat of involving more players is the number one deterrent to Beijing.

If they thought that they would not only be fighting the United States, but they'd also be fighting U.S. allies and partners, I think then they would think that the costs to their rise and to their, in their words, national rejuvenation, might be too high.

The issue is right now, our allies and partners are not onboard with supporting the United States and the Taiwan contingency, I think to the degree that many assume.

I am calling from Sydney, Australia today, and I don't mean to put Australia in the hot seat, but here, the main discussion is that this would be a war of choice for the United States, of which Australia has no obligation to play a part in, because of how connected they are with China.

So, I think that increasing connectivity between Taiwan and other countries and players in the region would have a huge effect on the likelihood that those countries would support U.S. operations in defense of Taiwan, thereby enhancing the deterrence against Beijing.

COMMISSIONER WONG: Thank you. And at the risk of going over time, one more question, maybe to Ms. Mastro and also to Mr. Templeman. You brought up, Ms. Mastro, this

idea of this debate over strategic ambiguity versus strategic clarity.

My understanding is a part of the strategic ambiguity rationale was, A, to discourage any kind of provocative actions from Taiwan to, perhaps, declaring de jure independence and also to incentivize them to make the proper defense investments that they needed over the past 30-40 years that this policy's been in place.

And if that is the case, or if as Mr. Templeman said, it might be actually having the perverse effect of discouraging the willingness of the Taiwan people to fight if they don't think America is with them. So, perhaps it's having the wrong effect, actually, in practice.

And, furthermore, Ms. Mastro, you talked about China's main calculus here is whether it can win a war. And I know you're down on the idea of strategic explicitness or clarity, but it would seem to me that that does add at least some increased probability of a loss on the part of China, if we went with a strategic explicitness.

So, I'm not sure where I fall on this question, but I wanted to kind of put those thoughts out there for you and Mr. Templeton, maybe to flesh out a little bit, maybe, the argument against changing the policy, just so we fully understand it.

DR. MASTRO: Well, I'll just be very brief, because I think Mr. Templeton will have more on this. But in terms of the defense, the actual war planning will be harder with strategic clarity, because China's going to fight a different war then.

If they think the United States is 100 percent going to intervene, then they're going to hit the United States first and we will not have the assets in-theater available and operational to defend Taiwan. So, we need the warning, but I think also the problem then is, China hits us first.

But if they think, they're uncertain about the U.S. response, they're going to start with low level campaigns and give the United States the time we actually need to start moving forces in so that we could adequately defend Taiwan once things escalated.

And so, it's for those operational reasons, while I get the strategic logic you're putting out, my focus is mainly on the operational reasons why strategic clarity would make it harder for the United States to defend Taiwan in the eventuality of a conflict.

COMMISSIONER WONG: I think we're over time, but Mr. Templeton, I don't know if you have a 20-second thing, if I --

DR. TEMPLEMAN: Yeah, let me give you my elevator answer to this. I don't think we should abandon strategic ambiguity, for three reasons.

One is, it is provocative to Beijing in a way that destabilizes the cross-Strait relationship.

Second, Taiwan needs some urgency in strengthening its own defense and I think if we make a clear, unequivocal commitment to defend Taiwan, a lot of that urgency kind of leaks away.

And third, entrapment is still a problem. That's the other side of strategic ambiguity, we want to avoid entrapment.

And Tsai Ing-wen will not always be the president of Taiwan. I think she's been a great leader of Taiwan for the United States, but whoever succeeds her may not have the same kind of calculations and cautious approach to Taiwan relations and we need to avoid being drawn into a conflict because of some provocative action by an elected Taiwanese leader.

COMMISSIONER WONG: Thank you.

COMMISSIONER TALENT: Commissioner Wessel, and after him, I'm going to go right to Commissioner Scissors. I'll ask my questions at the end. Commissioner Wessel?

COMMISSIONER WESSEL: Thank you. Thank you all for being here and for

participating from so far away.

I want to pull on a thread from Commissioner, the first part of Commissioner Wong's question and ask if each of you can give me an idea of what the last year and a half has meant in terms of China's leadership's views of the U.S. resolve.

And by that, I mean the questions of what happened in Hong Kong and the aftermath, what's happened in Xinjiang and our responses to that, both the tail-end of the Trump administration and the beginning of the Biden administration.

Dr. Templeman, if we could start with you, just in terms of what has the last year meant, if anything, to the views of the Taiwanese people about U.S. resolve, intentions, et cetera? And then, for your two colleagues.

DR. TEMPLEMAN: Right. So, for the U.S., I'm not sure that the Hong Kong and Xinjiang crackdowns are particularly relevant to the Taiwan case. In both of the former cases, the CCP controls those territories already, they're imposing a stronger political crackdown.

For the Taiwan case, they don't control Taiwan. And so, most Taiwanese do not see the fail of the U.S. to act in a way that prevents a crackdown or somehow responds to a crackdown as a sign that we're weak on Taiwan or that we won't intervene.

What it has changed, I think, is Taiwanese views of the nature of the CCP and it has basically killed any last vestige of a one-country two-systems model in Taiwan.

The idea that you could join up with a Beijing-led government that would respect its promises to give Taiwan a vast amount of political autonomy are just non-credible. They've never been particularly credible, but looking at Hong Kong now, everybody can point to that and say, one-country two-systems doesn't make any sense.

And so, I think the real shift has been to make Taiwanese even less willing or less interested in discussing political unification in the near-run.

COMMISSIONER WESSEL: Do either of your colleagues have a comment?

MR. COZAD: I do, this is Mark Cozad.

COMMISSIONER WESSEL: Please.

MR. COZAD: The past year and a half have reinforced in the minds of a lot of Chinese leaders about what they had already perceived as the U.S.'s decline. And I think over the past year and a half, that message has been strongly reinforced in their minds and they believe that it's a trend that will continue for the foreseeable future.

Now, the counterpoint to that is that I don't think that they see in any way that that diminishes the problem presented by the United States for their aspirations in the region, in particular in relationship to Taiwan and their use of force decision-making.

I think in any case, in a lot of respects, they find that declining power is also going to be much more dangerous. And I think that's one of the reasons why we see increased numbers of Chinese coercive activities, is in part an effort on their part to signal an attempt to deter what they see might be increasingly provocative actions on the part of the United States.

So, again, I think that they see that trend, something that will continue into the future, but I don't think that that is any sort of comfort to them in their calculations on use of force.

COMMISSIONER WESSEL: Dr. Mastro, any comments?

DR. MASTRO: Just to emphasize points that have already really been made. I think there was a longstanding debate in China about whether or not the United States was going to allow China to rise, right?

The United States said if they did so peacefully, we would accept it, but there was always some debate about this among Chinese leaders, but also Chinese scholars.

And I think now that debate has largely ended and the viewpoint is that, not only with the move to strategic competition, but also some of the positions, in particular Trump administration's movement on Taiwan, I don't mean to suggest there's a window of opportunity logic here, but I think they have come to the strong conclusion that the United States is not going to welcome a stronger China.

They don't see it as a result of their behavior, they see it as a result of shifts in power. So, from the Chinese viewpoint, no matter what they do and how they behave, the United States will now be against them, and this creates a very difficult situation for shaping Chinese behavior.

And on the U.S. decline, I completely agree with Mark that they see the U.S. decline, I'll just point out that in the 1990s, they also thought that there was going to be this movement towards multi-polarity, but because the United States took different courses of action and strengthened its position in a number of ways, the Chinese then reevaluated that position and, therefore, reevaluated their policies.

So, I don't think it's too late yet to shape Chinese thinking on those issues.

COMMISSIONER WESSEL: Thank you.

COMMISSIONER TALENT: Commissioner Scissors?

COMMISSIONER SCISSORS: Thank you. I have a comment on Kharis's point about trade and then, a question for Mark and Oriana, probably especially for Oriana, because I'm jumping off of her opening remarks.

Comment about Kharis is, I agree entirely that we should be starting trade talks with Taiwan. Starting them does not mean completing them, it does not mean engaging in an empty trade exercise for political reasons, it has to produce a good outcome.

In our role as advising the Congress, what the Commission might do, in my view is, get into more detail, not just endorse the trade talks, but say, here are the problems we're going to have with the Taiwanese, here are the things that we need to make concessions on, here are the things we're not going to make concessions on.

And the more detail Congress gets into, the more helpful that is to USTR, rather than just saying, hey, start the talks with Taiwan, because USTR, under any administration, needs assurance that they're going to get Congressional support, rather than a vague statement and then, they encounter real issues and the signers of the letter say, well, wait a minute, I didn't mean that agreement.

So, the more detail we can get into, the better. And if there's time, Kharis, I'd be happy to hear your thoughts.

But the question is for Oriana and Mark, and it takes off on Oriana's point, which I will now stretch into infinity.

Xi Jinping's personal ambition has become more of a factor in cross-Strait relationships, and I think, it obviously became more of a factor when he became party secretary, but I think it's going to become more of a factor, in my opinion, as he goes farther along and is trying to retain various positions.

Corresponding to that is something Oriana hinted at, what we would see as Chinese national costs become less important. He doesn't care about Chinese national costs, he care about him, right?

Oriana said, and I don't mean to put words in her mouth, if the navy's gone and he gets Taiwan, a lot of Chinese leaders might say, that isn't worth it, but Xi Jinping might say, yes it is, because I got Taiwan and you can deal with the navy later.

So, this wild oversimplification brings us to the possibility that we need to think about

deterring Xi rather than deterring China or the PLA. And I welcome thoughts on, any thought on how to deter him in particular.

And I would also welcome a thought about the time horizon. I, as knowing something about Chinese politics, very little about the Chinese military, am concerned that as Xi goes on, not in the 2022 party congress, but in 2027, and certainly if he's still around the 2032 party congress, he is going to be looking more and more to be aggressive and need to be aggressive to hold on to the position that he wants.

So, I would like Oriana or Mark or both to talk about, is deterring Xi something we need to think about? If so, a thought about how to do that and some indication of, is this problem going to get worse or better from the standpoint of Xi's personal ambition?

DR. MASTRO: Thank you for that question. I think Mark will probably touch on this more, but the number one thing is to shake his confidence in the military.

He -- while we sit here, and as Mark said, understanding the soft modernizations, how they can perform? Are troops going to listen to orders? Are they going to run towards bullets instead of away from them? Those are very hard things to assess.

And we don't know 100 percent, and I agree with all of Mark's comments about how we should get better at that, but Xi Jinping also does not know 100 percent.

And so, some moves, like instead of demonstrations of force, if the United States took some actions that then the Chinese military didn't notice, stealth actions, and then we communicated to Xi Jinping, guess what, we were here and your military did not tell you we were here, or in other ways shape his expectations about how much confidence he can have in what his military leaders are telling him, I think that imposes a significant degree of caution.

And to the point about his ambition, some people say, oh, maybe he could just start talks with Taiwan, he doesn't need the reunification. This is just anecdotal, but talking nowadays on Zoom with colleagues and friends in China, he has convinced the Chinese people that he will reunify, in his words, right, reunify with Taiwan in his tenure.

I don't know why he would have created that impression with the Chinese people if he had sort of no desire to move towards that. So, I also think it's going to get more and more dangerous and he's going to get more and more aggressive.

And I think also that people underestimate the benefits of defeating the United States. You lose your navy, fine, but you get Taiwan, and guess what, if you defeated the United States, you are now the hegemon of Asia, right?

So, the benefits are becoming higher and higher and I think, actually, the cost, especially if other countries do not get involved and there's no economic costs for more than five to seven years, are getting lower and lower.

COMMISSIONER SCISSORS: Mark, brief comments, please?

MR. COZAD: Yes. I think focusing on Xi is the right direction, because his imprint on Chinese modernization over the past several years can't be overstated.

I mean, a lot of the things that we had expected and had been waiting for for a long time, in particular the 2015-2016 reorganization, are things that required somebody with his political clout to be able to do. And those were absolutely essential for getting the PLA into a place where it was more capable for the future.

One thing that I would say on deterrence though, is that the biggest elements of our shaping of China, particularly from a military standpoint, have been in areas that really had absolutely nothing to do with China at the time.

The first Gulf War, Operation Allied Force, the second Gulf War all had major impacts

on the way the Chinese thought about military modernization and the types of tools that they needed.

One of the things right now that I think is imperative for the United States is to be able to go back, recapitalize, and focus on building that capability and demonstrating that capability, not through operations, but from the redevelopment of our training programs, the redevelopment of our training centers, and building that proficiency in a way that's credible.

The types of stories that we have on a regular basis, or have had in the past couple of years, I should say, with accidents in the Navy, particularly in the Pacific, have not helped with our credibility. And I think those things are major issues.

The same thing goes for procurement programs. Long lag times on procurement programs and slow downs and causing decisions down the road that diminish capability are really, really critical for how China views our capabilities in the region. Sorry for the long-winded answer.

COMMISSIONER SCISSORS: Thanks to both witnesses. I'm out of time.

COMMISSIONER TALENT: Yes, those were great questions. Commissioner Kamphausen?

COMMISSIONER KAMPHAUSEN: Thanks to our panelists; it's been a terrific panel so far. My questions are really for Dr. Mastro, and it's good to see you.

You make a pretty compelling case that the conditions have changed such that the greatest threat now, as you say in your testimony, is that Beijing will launch a military operation to force reunification.

I take it that, from your testimony, that you judge the improvement in joint operations of a PLA that is generally more prepared than it has ever been, the ability to keep the U.S. in the dark through a variety of means, and then, broader cyber capabilities are what have allowed you to conclude that the situation is changing.

So, my first question is, is there anything in addition to that that you would say lends itself to the change in the situation?

DR. MASTRO: I would just add the soft modernization aspect of it, right? So, the initial steps was the ability of China to impact U.S. operations, that was the sort of A2/AD structure, the fact that they can blind the United States.

The second step was to be able to project power themselves. And this was the development of certain equipment and platforms, landing docks, et cetera, et cetera, so that they could actually project power to Taiwan.

And then, the third part was really this ability for the services to work together, because an amphibious assault requires air power and sea power working together.

And as Mark alluded to, China was an army-dominant country. You had the army making decisions about procurement, you had the army doing plans for Taiwan, and it really took a leader like Xi Jinping to come in and basically throw out that whole system and put in a new system.

So, the organizational reforms, I think are critical, and they have moved to this more joint construct, at least in terms of their organization and in terms of their doctrine.

The real question is now, when push comes to shove, do they work together efficiently?

And this is why I do think that even though some Chinese military say now they're, quote unquote, ready, I think they might want to do some more exercises and maybe even limited operations in an amphibious realm to test these capabilities before they go for the big prize, which is Taiwan.

So, that's why I also think the South China Sea is somewhat related, because you do have these sort of smaller islands, a lot weaker countries, like Vietnam, which are not U.S. allies, that China could try to put some of their capabilities to the test over the next couple of years, to refine any issues that they see before they try to go for Taiwan.

So, I would say the soft modernization and organizational reforms are an additional component.

COMMISSIONER KAMPHAUSEN: You go on in your testimony to say that Chinese leaders do not necessarily have to force complete unification to present a military campaign as a success. What's an incomplete unification look like?

DR. MASTRO: I was trying to address this issue that some people have raised, which is once China starts, is there any way that they can stop? Like, are there domestic political pressures such that they will fight to the death, even if they're going to lose?

And I don't think that's the logic in Beijing. I think, instead, if they start moving towards Taiwan and things don't go the way they expect, they can, for example, take one of the outside islands and say, well, our goal was to have this territory and Taiwan will come another day.

I think Xi Jinping can spin it and it's smarter for him to do that versus completely lose, because as I mentioned, if he does lose, I think the United States would then put demands on him that would be politically unacceptable.

So, I think some of the things might be, taking other islands that are currently occupied by Taiwan and saying that's a first step, would be one way that Beijing could off-ramp from a full-on reunification.

COMMISSIONER KAMPHAUSEN: This is consistent with what Mr. Henley said earlier today, that the PLA will keep going until it is in a situation where it can claim a political success to military operations.

And so, I think your argument that seizure of an offshore island could be constituted or could be represented as completing unification, at least at some level, might be the logic for Beijing.

But, I guess the last thing, what are the implications of an incomplete unification? What are the implications, in your mind, of the seizure of an offshore island as the endpoint, after which Beijing declares success?

DR. MASTRO: I think this really highlights the point of, that this is an iterative game, right?

We always think China tries to take Taiwan and then, the United States does something and then game over. But China can do this over and over and over again, right? And how many times is the United States going to respond? And as you mentioned, how is that going to impact the strategic environment?

Maybe after China successfully uses force, gets one of these islands, and there's no real international punishment, for example, for this, then they're even more emboldened and the U.S. role in the region is even more weakened.

Or maybe the United States says, well, at least we defended Taiwan, so our allies and partners are more confident in us and our position strengthens.

I think it completely depends on how both sides play it, in the end.

COMMISSIONER KAMPHAUSEN: Thank you.

COMMISSIONER TALENT: Mr. Templeman, I think your testimony was somewhat to the contrary on the effectiveness of seizing islands. So, I'm going to give you a couple minutes

to enlighten us on your views.

DR. TEMPLEMAN: Yeah. So, I guess I have a bit of a disagreement with my Stanford colleague here.

I don't think any military action that does not result in the annexation, the political annexation of Taiwan is going to improve the chances of winning the next round.

So, if the PLA seizes an offshore island, if they seize Jinmen or Matsu or they seize Pratas or Taiping, what that does in Taiwan is end any debate about Beijing's intentions. It's clearly a military threat to Taiwan. It accelerates, as quickly as possible, a rearming in Taiwan. Conscription is almost certainly reimposed.

And not only the effect on Taiwan, but the effect on allies and partners in the region. I imagine Japan is going to be quite nervous if an offshore island that is in Taiwan's control gets seized.

Suddenly, Japan-Taiwan military cooperation doesn't look like a bridge too far. And the strengthening of the Quad as a military alliance looks like a much more probable, it accelerates that.

And so, I just don't see the logic behind seizing one island as a kind of incremental step to taking Taiwan. I think it makes the actual invasion and occupation of Taiwan much, much harder. And so, it's an all or nothing proposition, in my view.

COMMISSIONER TALENT: All right. And I'm sure you'll have a chance to respond later on if you want to, Dr. Mastro. Or if you want to get a word in, Mr. Cozad, on that issue. Somebody else will probably raise it. And I'm just saying, all the panels, we seem to have different opinions about it, so we welcome anything you have to say.

But right now, we're going to go to Commissioner Goodwin.

COMMISSIONER GOODWIN: Thank you, Commissioner. Dr. Templeman, I'll remain with you. I was fascinated by your testimony regarding the wealth of public opinion polling and data in Taiwan.

And specifically, the one focus group you touched on in your written testimony that indicated that the biggest predictor of the willingness of Taiwan people to fight would be the question of whether the U.S. would intervene.

And to me, it kind of returns us to Commissioner Wong's question, which you did touch on a little bit, and this notion of retaining strategic ambiguity or providing more strategic clarity.

It seems as though some of the criticism of providing more clarity is that the Chinese may view that as supporting Taiwan's independence. And my question is, isn't it likely the Taiwanese may view it the same way?

That is, if we made a clear pronouncement as to when, under what circumstances we would respond with force on Taiwan's behalf, what impact would that have on the internal political attitudes in Taiwan and could it create a dynamic where there would be increasing pressure on Taiwan's leaders to move towards independence?

And then, as a related question, is there any public opinion polling data on that precise question?

DR. TEMPLEMAN: Yeah. The last question, I'll have to get back to you on, I'm not sure, I'd have to do some investigation on it.

But the broader point about strategic ambiguity versus clarity and its effect on Taiwan public opinion, I think that declaring strategic clarity, it's a symbolic action that Beijing would have to respond to in some way.

And so, it actually hurts Taiwan's own interests. Beijing has already been coercing

Taiwan quite a lot. If we declare clarity, we are going to defend Taiwan, they're going to have to ratchet up in some way, shape, or form. And that ultimately puts Taiwan in an even tougher position.

So, I think that's one cautionary note. The second is just to reiterate the real urgency in Taiwan is rearming, to rebuild their forces in a way that is consistent with the Overall Defense Concept.

And if we clarify, we'll be there for the Taiwanese, no matter what, then the pressure on the top military brass, especially, to follow through with the Overall Defense Concept and adopt an asymmetric approach, kind of, it's lifted a bit.

And so, I worry that our own -- there's going to be this tendency to relapse into old patterns, because they've always assumed that the U.S. would be involved. If we clarify that, great, the U.S. deterrent is all we need, we don't have to do anything to change our behavior on our own side.

And so, I think we risk a certain amount of free-riding on the Taiwan side if we clarify our own intentions.

And then, finally, on entrapment, again, the next Taiwanese leader could well be more pro-independence, could be more pro-unification, could be like Tsai Ing-wen, I don't know.

But the clarity in our own pledge to Taiwan's defense gives that next leader a certain amount of leeway that the current leader does not have to provoke Beijing. And I worry that we would end up in a similar situation to what we ended up in in the early 2000s with Chen Shui-bian as president.

So, I don't think it's in the U.S. interest to give kind of a blank check to a Taiwan leader by saying that, under most circumstances, we will come to defend Taiwan.

COMMISSIONER GOODWIN: Thank you.

COMMISSIONER TALENT: All right. Thank you, Senator Goodwin. And next is Commissioner Fiedler.

COMMISSIONER FIEDLER: So, I was not particularly encouraged by your discussion of the polling data about the will of the people of Taiwan, especially if you throw on top of that bullets and blood, okay, which is what would happen in any attack.

We have not talked about the American will and whether or not what exists is not strategic ambiguity, but actual ambiguity. I'm not so certain that the American people are prepared to defend Taiwan. Maybe some of us are, okay, for good reason, but I'm not sure the American people are.

And given the interdependence that we have with China economically, I'm less sure. So, for instance, we don't produce our own pharmaceuticals, we've been at the pandemic for a year and we're still having trouble producing PPE ourselves, and you're telling me that we're all this great country that can respond at a huge distance in a way that is going to discourage a survival mentality from a Chinese leader?

I haven't heard anything encouraging here. This is not just about -- it seems to me -- just about technological weaponry capacity. I think will -- political will is critical, and I don't see it. I don't see it in Taiwan and I'm not sure I see it in the United States.

And that is a reading that Xi Jinping is probably making. Any comments? Oriana?

DR. MASTRO: Yeah, I'll just -- this is a very complex issue. The first thing I'll say about China is, they used to think that the United States had no resolve to fight.

In the 90s, a lot of this was based on experiences with Somalia, Bosnia. But since then, Chinese strategists have changed their mind or they've become more confused, because they

write, Taiwan is not of critical interest to the United States.

But it's more strategically important than Afghanistan, than Iraq, and the United States has been there for decades, right? So, there is a debate in China about how predictable is the U.S. willingness to fight?

On the other side of it, I think there's a difference between the U.S. people and the U.S. military. I would say without a doubt, the United States military has the resolve to fight and has long understood the potential sacrifices that that requires.

Polling data shows that the American people are usually supportive of any conflict at its initial starting point, like 60 to 70 percent. The question is, how long is this going to drag out?

And I think if China did attack the United States first, that also changes the calculus. Now, all of a sudden, we have like a Pearl Harbor type of scenario, in which we were just hanging out at Kadena and then Americans died.

So, I do think it's going to be hard to predict how the scenario unfolds, but if it is the case that China attacks the United States, or if it's the case that we can make this war short in duration, then I think we don't have to worry as much about the American public's fickleness about its willingness to fight. But that's two very big ifs.

MR. COZAD: If I may add to that, I don't think the way that the Chinese publications that I've looked at have cast it in a way where China and the United States are both looking at the same objectives.

China's fight is about Taiwan. In their mind the U.S. -- in their fight --- in our fight in any future Taiwan conflict, is not about Taiwan, it's about our place as the leading global power and maintaining that place.

So, they're very different stakes and I don't see them as necessarily thinking about us and our will in the context of strictly Taiwan, it's much larger than that. And I think it's about our place in the world. And they've pretty consistently talked in these publications about believing that the United States was going to be in this fight for that very reason.

COMMISSIONER FIEDLER: Dr. Templeman?

DR. TEMPLEMAN: Yeah. So, I think you've got the crux of the matter, you've really raised it. And that is, is it in the American interest in the long-run to defend Taiwan against the PRC?

And I think there are a couple things we can do to make our commitment to defend Taiwan more credible to Beijing. One is our economic integration with Taiwan and Taiwan's economic integration with the other non-Chinese countries in the region.

If Taiwan is a critical supplier of --- just to pick an example at random -- silicon chips, the most advanced ones, which come from Taiwan these days, that is an important reason why it's important not to have Taiwan be under PRC control. And so, that enhances our own commitment, the credibility of our own commitment to defend Taiwan.

Taiwan also is pretty interdependent with the Chinese economy as well, and interested, under the current administration, in trying to lower that dependence and reorient it towards other countries in the region. And anything we can do to enhance those efforts, with Japan, with the United States, with Korea, with Southeast Asia, I think, and build a more interconnected web between those countries, means that our credibility, our commitment to Taiwan is strengthened.

The last thing I'll say is that Taiwan is important not just to the United States, but the other countries in the region, especially Japan. My colleague just mentioned Kadena Air Base, that's in Japan, that's Japanese territory.

And so, if there is actually an attack attempting to kind of preemptively strike U.S. targets

in order to ensure that an invasion occurs successfully, that attack also means going after U.S. assets in other territories and countries, including Japan, and potentially bringing Japan into a war.

And so, the ability of other countries, our allies and partners, to be leveraged to support Taiwan's defense I think is an under-explored part of this deterrence picture.

COMMISSIONER FIEDLER: Thank you.

COMMISSIONER TALENT: I'm sorry. We'll have to cut it off, that was really interesting, but we need to go to our Vice Chairman, Commissioner Cleveland.

VICE CHAIRMAN CLEVELAND: Mr. Cozad, I am particularly interested in your comments about deception. And I am old enough to remember CCD practices in the Soviet Union.

So, I wonder if you would elaborate a little bit on what you think are areas that we might focus on and give some attention to when it comes to possible patterns of deception.

You mentioned that there were weaknesses that they were trying to address by putting -- I think you said the strategic management under the CMC, but that there were problems with personnel, political reliability, readiness, and command.

I'm not sure I see the linkage with deception with those issues, but I wonder if there are areas where you could identify where you see this as a relevant consideration?

MR. COZAD: Yes. So, if we look at the assessments that we do of Chinese military capabilities that are heavily focused on technology and numbers and types of capabilities, and then we look at the, I would say, less understood, less explored areas that they have talked about in terms of their self-assessments.

I believe Dennis Blasko was in front of the Commission last year and presented on the slogans that they use, but there's a whole raft of other literature that talks about their self-assessments from their experimentation efforts that are really critical to developing those capabilities.

If we look at those two together, they're not saying the same things. They are talking about -- or where we can see areas of significant progress, but we also see areas where they have major problems.

When we talk about the personnel problems, those are not always things that are readily apparent or regularly discussed in front of the United States' audiences. I think the same things are there for decision-making, for command, for responsibilities like planning and staffs.

So, I think one of the things we really need to focus on are what are those underlying concerns, how much of a concern are they, and what are they actually not talking about -- not necessarily trying to deceive us in an active sense of deceiving us, but maybe deceiving us in the sense that they're not talking about it in a way that we can get to.

So, that's a fairly subtle difference and we usually think of deception as being things that are actively being presented to us that are not correct, and I don't think that's necessarily the case. In a lot of cases, it's them presenting things to us that reinforce those messages.

So, for instance, are flights and demonstrations done by the Chinese really something that show a greater degree of confidence? Or if we go back and we look at some of these concerns that are done in these self-assessments, are they things that may show insecurity?

And I think that's a very difficult question to get to because there are a lot of biases that are involved. But I would say, in my experience as an analyst, we talk about deception being important, we've done actually very little study of how it's practically implemented.

VICE CHAIRMAN CLEVELAND: Thank you. Dr. Templeman, I'm interested in your

comments about the budget, commitments in the budget, and the direction that that's heading.

We had testimony earlier today from Mr. Hunzeker saying that U.S. arms sales should align with a doctrine or an approach of asymmetry.

And I'm wondering, given what you presented in terms of there are ongoing peacetime missions that are critical to Taiwan that have led to some rivalries between services, I'm wondering what your view is of the idea of a policy approach that emphasizes asymmetrical capabilities and that our policy or our arms sales should reflect that?

And anybody else can comment.

DR. TEMPLEMAN: Yeah. So, I'm happy to address that question. I agree with the presentation in the previous panel.

I think the U.S. should take a more active role in basically deciding what we sell to Taiwan and making sure that it aligns with the Overall Defense Concept and the emphasis on many cheap things that can be deployed and can be mobilized quickly, deployed all over the island, rather than a handful of large expensive targets that take ten years to build.

So, I think -- I understand the political dynamic for why Taiwan is trying to develop, for instance, an indigenous diesel submarine, but I think ultimately that's a costly misuse of resources that could be better deployed elsewhere.

And if the U.S. is on the hook to defend Taiwan, then we have a right to, I think, be more involved in Taiwan's doctrine and acquisition strategies.

So, I think we haven't gone far enough and I would recommend that we push the Pentagon to take a more active role in advising the Taiwanese on what they buy, what they prioritize.

VICE CHAIRMAN CLEVELAND: It might risk --

DR. MASTRO: If I could just chime in --

VICE CHAIRMAN CLEVELAND: -- the same rivalries -- yes, please.

DR. MASTRO: The same argument could be made of the United States and our procurement and our emphasis on various -- I completely agree with Dr. Templeman, but one of the main issues in U.S. defense of Taiwan and countering China in general is our obsession with these big, exquisite systems and what we really need is saturated firepower in the Strait, which is not what we're going to get with aircraft and with surface vessels.

VICE CHAIRMAN CLEVELAND: You took the words right out of my mouth. I was going to say that there are rivalries on both sides of the Pacific when it comes to the ability of the services to coordinate an effective strategy. So, thank you. Commissioner Talent.

COMMISSIONER TALENT: That was very enlightening. Commissioner Borochoff, it's your turn. And then, we'll go to our Chairman. And then, there should be time for me to ask questions.

COMMISSIONER BOROCHOFF: Hi. I was particularly impressed by Dr. Mastro's comments about what I would call the psychological aspects of trying to influence Xi's opinion about his own military by thinking ahead as to how to effectively unmask some of those military weaknesses.

And then, Mr. Cozad, you talked a bit about the deceptive practices, basically, that are intentional by the PLA to cover up their weaknesses.

And I'm curious, really for all of you, to tell me, is there something that we can do that's specific to influence what Xi thinks about his military and possibly achieve what you're all talking about? How do we unmask those weaknesses publicly, in his mind?

DR. MASTRO: Well, so, I can give you just a few examples. I think this should be a

goal of sort of every aspect of the U.S. military. So, if you ask specific units, can you come up with some things you can do, I'm sure you'll get much more detailed responses.

But just for example, in our interactions, our mil-to-mil interactions with the Chinese, when the Chinese engage in unprofessional behavior, our narrative is that they should stop doing these things they're not supposed to do.

I would change that narrative to say, we give China a pass, because your military on average doesn't have a sixth grade education and apparently are incapable of following orders, and that's just what backwards militaries are like, right?

That should be the narrative, and that would, I think, really upset Xi Jinping and that would probably get them to change their behavior. So, I think we have to think a bit on this deterrence side of, like, what do we want him to believe? And so, in our maritime consultative talks, that should be what we say.

And also, the focus on demonstrations of force, a lot of it is their awe of U.S. ISR, right? But a lot of the engagements we do in the region are, we send a bomber contingent or fighters to an air show, we don't sit down with allies and partners and show the awesomeness of our ability to collect, process, and disseminate information. I think that's really what the Chinese military cannot do to a great degree.

So, I think one recommendation might be to ask the military to come up with these specific examples throughout the whole organization that are parallel to what we do to -- how to really hammer home this narrative with the Chinese.

COMMISSIONER BOROCHOFF: And is there somebody that's actively doing what you, Mr. Cozad, said? Which is, trying to devise an actual study about the deceptive weakness, the deceptive practice that they're executing? You say people talk about it, is anybody actively doing this?

MR. COZAD: I am not aware of any type of study along those lines. That would be a very hard study to do, in part because, again --

COMMISSIONER BOROCHOFF: Because they're deceiving us?

MR. COZAD: -- they're lying about capabilities and what exactly is the deceptive practice, so.

COMMISSIONER BOROCHOFF: Okay, thank you.

COMMISSIONER TALENT: Thank you, Commissioner. And I'll recognize our Chairman, Commissioner Bartholomew.

CHAIRMAN BARTHOLOMEW: Thank you, and thank you, again, to our witnesses for interesting testimony and thoughtful discussion.

One of the things -- this is more a comment than anything and then I have a question -- is that when I hear about unmasking weaknesses, I always think it's important that we exploit them and don't necessarily point them out, because what I get concerned about when we point out weaknesses in China's military is that we're giving them a roadmap of what it is that they need to fix. So, just making that comment.

And then, I think what I'm going to ask is pretty controversial. We say, of course, that Beijing assesses that they're not capable of fighting and winning in a Taiwan conflict but that they would do it if Taiwan declared independence. Meanwhile, we believe that they are getting better and better and better at it.

So, as Taiwan -- as the people of Taiwan are getting more -- it's a de facto independence, isn't it. There's more of a sense of we are Taiwanese, we are not Chinese, a whole generation of young people who don't identify as Chinese, but identify as being from Taiwan.

I just find myself wondering, would they be better off declaring independence now than waiting while Beijing gets better and better at the ability to fight and win? Thoughts anybody? Yeah, Dr. Mastro?

DR. MASTRO: I'll just chime in to emphasize your first point. I think people do not realize that there is real tradeoffs between deterrence and defense, across the board.

A lot of things we do to enhance deterrence undermines defense, right? You might want to point out a weakness to convince China not to go for Taiwan, but then they can fix that weakness. So, this is an issue operationally across the board.

The problem is, if Taiwan declares independence, I don't think the United States will come to Taiwan's aid. I think that will be seen as kind of an unprovoked sort of movement towards independence, the United States is less likely to support them, allies and partners definitely will not.

Now, the other sort of question is maybe a vaguer question, is now a better time than later? And all I can say to that is, I really do hope that the United States does get its act together on some of these force posture questions to be able to reestablish our deterrent.

And then, who knows what ten years holds. There could be changes in technology that allows the United States to have massive and persistent firepower from long ranges. So, it's hard to predict and I just hope that there are some movements in technology, political, strategic environments that allows the deterrent to hold beyond Xi Jinping's tenure.

CHAIRMAN BARTHOLOMEW: Dr. Templeman, you had something, I think?

DR. TEMPLEMAN: Yeah. So, that's a nice provocative question, I have lots of thoughts about that, I'll try to condense them into just a couple here.

The first is that there's a huge difference between imposing costs on Taiwan for some kind of provocative action that they take. So, the PLA has been able to strike targets in Taiwan for years, right, and impose -- do a tremendous amount of damage. And that has been developed precisely to act as a deterrent against a declaration of independence.

There's a big difference between that, though, and actually invading and successfully occupying and annexing Taiwan to the People's Republic of China. That second task is much harder to accomplish, as we've discussed.

And the downside risks to that, to Xi Jinping and the CCP, I think are huge. If they fail -- and I may disagree a bit with my colleague from Stanford on this -- if they fail, the security of the CCP itself is at stake.

If Taiwan declares independence and the U.S. provides a security blanket that's effective as the result of a failed invasion, then they've lost Taiwan forever. And it's not obvious to me that Xi Jinping would be able to hold on in power if he did that.

So, the downside risks of a war of -- what is now a war of choice to attempt to invade Taiwan are huge relative to the possible war of necessity you would have to engage in if there was a declaration of independence from Taiwan.

CHAIRMAN BARTHOLOMEW: Sorry, I was going to ask Mr. Cozad, any thoughts?

MR. COZAD: Sorry, I had to find my mute button. I agree with that last point. I think the political risk there is significant.

And I don't know that China is necessarily beholden to a timeline. I mean, they can adapt those timelines and they've shown flexibility with doing that in the past.

What concerns me in a scenario like that is what it would actually do to some of those remaining areas in PLA development that are still hanging out there.

And one of the things that has been talked about is this idea of peace disease that has

been permeating the PLA and some of the bureaucratic hurdles that remain.

That could remove any last remaining problems with getting through some of those issues and really energize the PLA and the PRC in a way that we haven't seen yet. And so, I think that could definitely be a very dangerous scenario.

CHAIRMAN BARTHOLOMEW: All right. Thank you, all. I'll turn it over to Senator Talent.

COMMISSIONER TALENT: Thank you. I will go now and we might have a couple minutes for a second round, particularly if our witnesses might stay over a little bit, so anybody with the burning questions, please.

Mr. Cozad, I want to focus a little bit on you -- or on your testimony. You emphasize a lot and have talked a lot about the incapabilities of the PLA regarding joint operations. And I became convinced when we had a hearing on this a year or two ago that they really do believe that they have significant operational problems.

On the other hand -- and I think the Chairman just touched on this -- I'm not really comfortable with the idea of deterrence hanging on that. That, well, you know what, if they get their act together, they have the force structure, they have the plans, they have the advantage of proximity.

And I just want to know how comfortable you are, that's -- with that. That's question one.

And question two, I think follows. So, Dr. Mastro, in her testimony, discussed some things that we could do to increase deterrence in the short-term. Get a whole lot more precision munitions in-theater -- although we don't really have them, we'll have to produce them first. Strengthen our ISR, command and control communications, it's pretty brittle now.

She also mentioned hardening -- of course, we've been talking about this for a long time, but trying to make certain our bases could continue operating. I would add to that -- because I think we need more force posture in there -- trying to get more ships in-theater. I think it will also make it much easier to get allies to go along if they see us more often in more places.

So, do you agree with those steps to increase short-term deterrence? And are you concerned that our defense policy is oriented too much towards a sort of what Mackenzie Eaglen and AEI called the barbell strategy a few years ago, where we're buying current readiness, buying it back after the sequester days, and buying future readiness, but kind of acting like the rest of this decade, everything's going to be fine without us doing anything. So, have at it.

MR. COZAD: Okay. In response to your first question, no, I'm not comfortable at all with our assessments of deterrence hanging on the PLA's perceptions of its own capabilities.

Because, once again, and depending on the difference scenarios, we've talked only about Taiwan. We have other scenarios that can be very problematic, whether that's on the Korean Peninsula, potentially, or against India or in the South China Sea, where China has a lot more capabilities and a lot more straightforward tasks that plays to its own strengths. So, I'm not comfortable with that at all.

I think one of the things that can enhance deterrence -- based off of our understanding of what those weaknesses are -- are focusing on our own operational concepts and capabilities in ways that emphasize the disparity between our ability to do certain things and the Chinese ability to do certain things.

I won't get into too many of them, but we've talked a lot about experience. And experience is something we have to be very careful with, but adaptability is a really big issue related to experience. It's not that you have to have direct experience in a given type of

operation, but you have to have a force capable of adapting to different conditions.

And again, I think that's a really important factor. And if the United States is able to show that type of adaptability and also show new concepts of operations and new modes of operations that really emphasize these areas the PLA has problems with, targeting, ISR, data fusion, command decision-making, then I think that will go a long way to enhance deterrence.

I don't think us standing around and just simply acknowledging that these weaknesses exist really does anything for us.

In terms of force posture questions, I would agree with everything that Dr. Mastro had mentioned in there. I think really one of the critical areas for us to get to is really this need for long-range pushes and strikes.

The Chinese understand that future wars are going to be very high consumption, particularly for PGMs, and we really need to have an overwhelming advantage in those based on the size of the Chinese force that's going to be available.

And also, the potential branches and sequels that we're going to -- that we will probably have to consider and pursue in a future conflict, whether that's mainland strikes, whether that's larger elements of mobilized forces under China's mobilization plan.

And lastly, I think the point is a very good one in terms of the barbell diplomacy. I think that we really need to have an eye towards the future. And, again, looking at those types of concepts and technologies that are going to enable us in the areas where the PLA sees themselves as having weaknesses.

We're already coming at it with a certain advantage, in that the fifth generation technologies, the advanced technologies, are things that we have helped develop and things that we've really been able to grow into over time.

In my mind, it's uncertain whether or not the Chinese have been able to do that yet, and as we can continue to press those advantages in the coming years and over the next decade, I think that's going to be really critical to us maintaining advantages.

COMMISSIONER TALENT: Okay. But just to be clear, you're not saying we shouldn't do things to strengthen short-term deterrents that we have available, like long-range precision strikes?

MR. COZAD: No, not at all. I think we definitely need to invest much more heavily in long-range precision strikes.

COMMISSIONER TALENT: Okay. Thank you. All right. We do have a couple of minutes -- or we could end it. Does anybody have -- yes, Commissioner Wong, I saw your hand first.

COMMISSIONER WONG: Thank you. Thank you, Chairman Talent. Maybe this goes to Mr. Templeman and perhaps Ms. Mastro, going back to the point on the discussion on strategic clarity versus strategic ambiguity.

I think it makes a lot of logical sense that there are unfortunate incentives for Taiwan in terms of its investment in its defense capabilities, and perhaps the incentive to take a destabilizing political move, particularly if it's not Tsai Ing-wen in power.

But I think that makes sense if the American change in policy happens in kind of a unilateral fashion without consultation.

And the way this would happen, I mean, in practice, would likely be with strong consultation with the Taiwan government, and possibly some at least notification and consultation, if they'll do it, with the Beijing government, and come with, I would imagine -- although I haven't really thought it through -- contingent -- or conditions on coordination on

certain arms purchases, as well as conditions on maintaining calm waters and refraining from provocative actions on the part of the Taiwan government, if they see it as beneficial for them to have strategic clarity rather than ambiguity.

And we could also have some discussion with China on the exact contours of the guarantee.

With that knowledge, I mean, with that knowledge that there was going to be some discussion and perhaps some conditions, does that change your view of how this might operate on its advisability?

COMMISSIONER TALENT: Did you want to direct that at anybody in particular, Alex?

COMMISSIONER WONG: Sure, Mr. Templeman.

COMMISSIONER TALENT: Okay.

DR. TEMPLEMAN: Sure. So, at the risk of getting too caught up in terms here, I think we can do a lot of that without declaring that we have abandoned strategic ambiguity. In fact, we already have done some of that, we've reversed a lot of the self-imposed restrictions on contacts between the two sides.

We can do a lot that's practically important without saying, we absolutely will come to Taiwan's defense under these conditions. And I think we don't want to box ourselves in for the long-run to specify what those conditions are now.

So, I would still urge maintaining strategic ambiguity as a kind of overall position on our approach to Taiwan. But playing around with some of the parameters and the margins and working closely with the Taiwanese to figure out, in practical terms, what is most beneficial to strengthen their own defense.

And we can do that, I think, without provoking the Chinese with a kind of highly symbolic dramatic statement that we have changed the policy that's served us well for the last 40 years.

COMMISSIONER WONG: Thank you. Chairman Talent, you're on mute.

COMMISSIONER TALENT: Thanks, Alex. Well, we're now a minute over, we have another panel. So, of course, we may have some questions for the record. Thanks to all the witnesses very much, this was a really informative panel.

And we will start up in ten minutes. At 2:52, Senator Goodwin will introduce the next panel. So, we'll take a break for ten minutes.

(Whereupon, the above-entitled matter went off the record at 2:42 p.m. and resumed at 2:55 p.m.)

PANEL III INTRODUCTION BY SENATOR CARTE P. GOODWIN

COMMISSIONER GOODWIN: Welcome back. We're back for our third and final panel of the day, which will explore U.S. capabilities to intervene in a conflict as well as changes to U.S. policy and force posture that may be required to maintain stability in the Taiwan Strait.

First, we're happy to welcome Captain Thomas Shugart, who is an adjunct Senior Fellow in the Defense Program at the Center for New American Security, where his research focuses on undersea warfare and maritime competition, military innovation and acquisition, and the broader military balance in the Indo-Pacific.

Captain Shugart served over 25 years in the Navy, where he last worked in the Defense Department's Office of Net Assessment. He also served as a submarine warfare officer, deploying multiple times to the Indo-Pacific and commanding the nuclear-powered fast attack sub USS Olympia from 2013 to 2016.

Captain Shugart is also the author of the 2017 study First Strike, China's Missile Threat to U.S. Bases in Asia, and his writings have appeared in a wide variety of outlets.

He holds a B.S. in mechanical engineering from the University of Texas at Austin, as well as a master's in national security and strategic studies from the Naval War College. Welcome, Captain.

Next, we're happy to welcome Dr. Bonny Lin to the panel. She is a political scientist at the RAND Corporation, where her research focuses on U.S. defense policy towards China, India, and the Indo-Pacific region.

Dr. Lin served in the Office of the Secretary of Defense from 2015 to 2018, where she was a Senior Advisor for China and Director for Taiwan.

Prior to joining RAND, she also worked at the Lawrence Livermore National Laboratory, the Center for Strategic and International Studies, and the World Bank.

Dr. Lin's publications include co-authored research reports through RAND, including the recently released Regional Responses to U.S.-China Competition in the Indo-Pacific and U.S. versus Chinese Powers of Persuasion, both published in 2020.

She holds a B.A. in government from Harvard, a master's in Asian Studies from the University of Michigan, and a doctorate in political science from Yale. Welcome, Dr. Lin.

Finally, we'll hear from Dr. David Keegan, an adjunct lecturer in the Chinese Studies Program at Johns Hopkins School of Advanced International Studies, where he teaches a seminar on Taiwan and its relations with the United States and Mainland China.

Prior to his academic career, Dr. Keegan served as a Foreign Service Officer in the U.S. State Department for over 30 years, specializing in China, Taiwan, and the Asia Pacific region.

His federal service included stints as the Deputy Director of the American Institute in Taiwan and the Director of the Office of Taiwan Policy in the Bureau of East Asian and Pacific Affairs.

Dr. Keegan holds a doctorate in Chinese history from Cal Berkeley. So, welcome, Dr. Keegan.

Finally, I would also note, we have a statement in the record from Dr. Shelley Rigger, a widely respected expert on Taiwan, professor of political science at Davidson College in North Carolina, which you can find posted on our website.

I want to thank all the witnesses for their testimony and would like to remind you to keep your remarks to seven minutes. And, Captain Shugart, we'll start with you.

OPENING STATEMENT OF THOMAS SHUGART, ADJUNCT SENIOR FELLOW, DEFENSE PROGRAM AT THE CENTER FOR A NEW AMERICAN SOCIETY

CPT. SHUGART: Thank you, Chairman Talent, Chairman Goodwin, distinguished members, thank you for the opportunity to participate in today's hearing. It's a privilege to testify here on matters important to our vital national security interests. I will note that the views I express here are my own alone.

Today, I'll specifically address our ability to deter aggression by China across the Taiwan Strait now and in the future. I'll then examine both sides' military capabilities, points of Chinese vulnerability, and points of uncertainty. Finally, I'll offer policy recommendations that might be considered to help maintain cross-strait deterrence.

When I consider the state of cross-strait deterrence, underlaid in large part by the associated military balance, my assessment is that we're entering a period of deep uncertainty, in stark contrast to the situation of perhaps 20 years ago.

I also see a contrast to the situation that with current trends we seem to be headed towards in ten to 20 years' more time. That is, PRC military domination of Taiwan.

With rough economic parity between the U.S. and China, U.S. efforts to help Taiwan deter Chinese aggression will run up against the clear asymmetry of geography and also national will, given the stakes for China. As such, efforts to deter China must be extraordinarily focused to remain successful.

While both nations have begun to recognize and take action to address the growing scale of the threat -- that is us and Taiwan -- these efforts continue to face impediments to implementation and have thus far been of somewhat limited impact.

The specifics related to cross-strait deterrence that concern me the most aren't those related to Taiwan and PLA forces that directly threaten it. I'm more concerned about China's development of broader capabilities, clearly intended to counter or deter a U.S. intervention to defend Taiwan through the imposition of the threat of prohibitive costs.

These are most visible in the form of China's deployment of large numbers of long-range precision strike ballistic missiles, its growing long-range bomber force, and its very rapidly growing blue water navy. All three of these are detailed in my written testimony.

Put simply, the PLA has been engaged in what could be accurately described as the largest and most rapid expansion of maritime and aerospace power in generations.

In terms of timelines, the mid to late 2020s may be the period of greatest peril, as it will see the trailing edge of a period of mass retirement of late Cold War era U.S. platforms, with continued growth and modernization of China's counter-intervention forces.

This will all occur before many of the most important changes to be implemented by the U.S. and Taiwan begin to bear fruit, but with sufficient time for China to rectify perhaps its biggest capability gap in terms of its ability to invade Taiwan, its sealift capacity across the Taiwan Strait.

That all being said, coercing or invading by sea a free nation of 24 million people -- in particular one backed by what is still the world's most powerful military -- will remain a high bar.

Also, as the PLA stretches its capabilities further from its shores, it is in turn gaining its own new vulnerabilities as it begins to mimic in some ways the traditional American markers of world-class military capability.

The U.S. military has hard-won advantages over the PLA based on experience,

multipurpose and flexible platforms, and difficult to replicate capabilities in key areas such as undersea warfare, stealth aircraft, and the worldwide reach of its naval services.

These advantages will take time for China to erode, though we should remain watchful given recent indications of focused Chinese efforts in these areas.

Considering all these factors, as I said, what I'm left with is a humbling sense of uncertainty as to the state of cross-strait deterrence. For me, the following unanswered questions in this regard come to the fore.

First, will China close its current gap in cross-strait sealift capability? While previous Commission reports have documented the growing integration between Chinese civilian shipping and the PLA -- and I heard this discussed earlier today in testimony -- there may not have been an appreciation for the scale of such integration or the improvements in relevant merchant fleet capabilities in recent years.

For some perspective, China's shipbuilding industry routinely builds more tonnage of ships annually than the United States did at the peak of the emergency shipbuilding program of World War II and China's merchant fleet totals more than seven times the size on a tonnage basis of our merchant fleet at the end of that war when it was supporting huge multi-million man armies across thousands of miles from home.

China's shipyards have also recently commenced serial production of large amphibious assault ships, with three 40,000-ton examples launched within the past two years alone. Will this production rate slow? I don't know, it's unclear.

The next question. In a conflict, would the PLA strike U.S. forces preemptively and at scale, degrading their ability to respond?

Some analysts assess that China is unlikely to do so out of a concern of widening the conflict. However, such an interpretation can minimize a number of factors in Chinese strategic thought, as well as real world evidence which indicates that they are building a force to be able to do so and practicing using it.

These factors and the evidence of further applicability are also discussed in more detail in my written testimony.

As a final unanswered question, how would key weapon system interactions play out? To a far greater extent than in major power wars in the past, the resolution of pure conflicts in the precision strike era may be dramatically affected by individual weapon sensor and information system interactions whose resolution may not be truly known until the shooting actually starts.

Given all these questions and China's desire, as previous panelists have discussed, to assure war control prior to escalation, our deterrent efforts must focus on amplifying uncertainty on the part of the PLA.

As it's a desire to avoid uncertainty and ensure continued internal stability that is most likely to deter China from engaging in armed conflict, efforts to merely impose costs and provide off-ramps may not be enough to deter cross-strait aggression.

With all this in consideration, my specific recommendations on how to attack the PLA's theory of victory, what they call system destruction warfare, are as follows.

First, we should undermine China's potential plans to strike at key U.S. and allied capabilities at the start of a conflict by denying them easy targets within the region, and also by building resilience against command and control disruption.

Next, we and our allies should visibly prepare for protracted war. This could include measures such as stockpiling critical supplies, conducting joint exercises focused on interdiction of Chinese maritime commerce, and designing common and easy to produce weapons and

platforms whose production could be rapidly increased.

Lastly, we should deploy survival munitions at scale that can distinguish and target specific Chinese transport ships. In the event of invasion, we should assume that China would bring all its tools and maritime power to bear, including its coast guard and fishing fleet, as well as civilian fleet maritime vessels.

Our forces -- ours and Taiwan's -- must not only be able to inflict losses on whatever vessels happen to be present during a cross-strait invasion, they must be seen as able to strike specifically at the landing force, threatening the likelihood of its success.

These recommendations are detailed more thoroughly in my written remarks. This concludes my prepared remarks. Thank you for the opportunity to speak with you today.

PREPARED STATEMENT OF THOMAS SHUGART, ADJUNCT SENIOR FELLOW, DEFENSE PROGRAM AT THE CENTER FOR A NEW AMERICAN SOCIETY

Tom Shugart: Witness Testimony

FEBRUARY 18, 2021

TESTIMONY BEFORE THE U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

Hearing on Deterring PRC Aggression Toward Taiwan

Trends, Timelines, and Uncertainty: an Assessment of the State of Cross-Strait Deterrence

BY

Thomas H. Shugart III
Adjunct Senior Fellow, Defense Program
Center for a New American Security

I. Introduction

Chairman Talent, Chairman Goodwin, distinguished members of the Committee, thank you for the opportunity to participate in today's hearing. It is a privilege to testify here on matters that are important to the vital national security interests of the United States and Taiwan, as well as those of our other allies and partners.

I will specifically address the ability of the United States and Taiwan to deter military aggression by the People's Republic of China (PRC) across the Taiwan Strait, both now and in the future. I will then examine PRC and U.S. capabilities, points of vulnerability for China (this term hereafter referring specifically to the PRC), and important points of uncertainty. Finally, I will offer policy recommendations about some of the steps that might be considered to improve cross-Strait deterrence, in the hopes of avoiding what would be, were it to occur, a catastrophic conflict for all concerned.

II. Status, trends and timelines in the cross-strait deterrence

When I consider the state of cross-Strait deterrence, underlaid in large part by the associated military balance, my assessment is that we are entering a period of deep uncertainty. This is in stark contrast to the situation of perhaps twenty years ago, when I would have unhesitatingly predicted failure for the PRC in any attempt to invade, blockade, or bombard Taiwan. It is also in contrast to the situation that, absent significant changes in current trends, we seem headed towards in ten to twenty more years' time: PRC military domination of Taiwan. That we could be headed toward that situation should be unsurprising given the larger strategic environment. With rough economic parity between the United States and China, over a longer timeline U.S. efforts to prevent military coercion or invasion of Taiwan will run up against a clear asymmetry of both geography and national will, given what the stakes mean to China. As such, efforts to deter China must be extraordinarily focused on the parts of both the United States and Taiwan to remain successful. To date, they have not been. Instead, some of the United States' focus has been lost to distractions from Russia and the Middle East, while Taiwan's focus has at times wandered to investments in conventional "status" weapon systems such as fighter aircraft and armored vehicles, instead of the capabilities genuinely needed to deter a Chinese invasion. While the United States and Taiwan have begun to recognize and take action to address the growing scale of the threat from China, doing so specifically in the 2018 U.S. National Defense Strategy and in Taiwan's Overall Defense Concept, these efforts continue to face institutional inertia as well as impediments from those who would be negatively affected by their implementation. As such, they have thus far been of somewhat limited impact in terms of their implementation.

The ongoing trends related to the cross-Strait military balance that concern me the most are not those directly tied to comparisons between Taiwan and Taiwan-adjacent forces of the People's Liberation Army (PLA). Rather, I am most concerned about China's development of broader regional capabilities which are clearly intended to counter or deter a U.S. intervention to defend Taiwan (or other U.S. allies) against Chinese aggression through the imposition of prohibitive costs, or the threat thereof. These are most visible in the form of China's deployment of large numbers of capable precision-strike Intermediate Range Ballistic Missiles (IRBMs), its growing long-range bomber force, and its rapidly growing blue-water navy.

In my estimation the mid-to-late 2020s may be the period of greatest peril for a failure of cross-Strait deterrence. This timeframe will see the trailing edge of a period of mass retirement of late-Cold War-era U.S. platforms, combined with the continued growth and modernization of China's counter-intervention forces. In particular, the retirement of the Navy's oldest cruisers, at nearly the same time as that of its four guided-missile submarines (SSGNs), will result in a significant drop in the available number of vertical-launch missile tubes that could be deployed in support of a Taiwan intervention. This will occur before many of the most important China-focused changes implemented by the United States and its allies begin to bear fruit, but after sufficient time has elapsed for China to rectify perhaps the biggest capability gap that it faces in terms of its ability to invade Taiwan—its capacity for sealift across the Taiwan Strait.

III. PRC capabilities to deter or deny U.S. intervention in a cross-Strait conflict

In an effort to prevent or deter U.S. intervention in a cross-Strait conflict, the PLA has been engaged in what could be accurately described as the largest and most rapid expansion of maritime and aerospace power in generations. Based on its scope, its scale, and the specific capabilities being developed, this buildup appears to be designed specifically to threaten or hold at arm's length U.S. forces in the western Pacific. Some of the most obvious manifestations of this can be seen in three specific areas:

1) **The rapid growth of the PLA's long range missile force:** Probably the most well-known threat to U.S. and allied forces in the western Pacific is the huge arsenal of precision-strike conventionally-armed ballistic missiles fielded by the Chinese PLA Rocket Force (PLARF). Already by far the world's largest, this force continues to grow at a rate that only makes sense for the purpose of threatening U.S. forces throughout the region. This is most apparent in China's force of DF-26 IRBMs, arguably one of the crown jewels of the Chinese military. Specifically, the Department of Defense's 2020 China Military Power report recently revealed an apparent more-than-doubling, in a single year, of China's inventory of DF-26 launchers. We know from Chinese TV footage that DF-26 units practice reloading missiles routinely, and that the missiles have different warhead types that are swappable. Thus, if each of the 200-odd launchers had only one reload missile available (and there may be well more than that), this would eventually mean an IRBM force of more than 400 missiles, nearly all configurable to anti-ship or land-attack missions, including nuclear strike.

   Given that China's DF-26 missile has been known about for several years, one might be tempted consider its deployment to be already "baked in" to considerations of cross-strait deterrence, and of the U.S.'s ability to intervene in a conflict. But the apparent scale of the IRBM force's expansion matters: going from what had been dozens of medium-range missiles, to what instead may be *hundreds* of much longer-range ones, will drive changes on a number of different levels. Quantitative changes of this magnitude can drive qualitative effects in a number of ways.

   First, the number of available Anti-ship Ballistic Missiles (ASBMs) could broaden the PLARF's anti-ship mission from what has been thought of as a "carrier-killer" role to a broader and more generic "ship-killer" mission. China itself describes the DF-26 as capable against large *and medium-size* ships. With so many more ASBMs at hand, smaller groups or individual warships–such as destroyers, and especially logistics ships–could become "ASBM-worthy". In a similar vein, given the ability to swap the DF-26's warheads to a land attack mission, a more massive

force of them could complicate the execution efforts such as the U.S. Marine Corps' Expeditionary Advanced Base Operations (EABO) concept. As long as China maintains a robust space-based radio-frequency sensing capability, ground units that transmit via means such as radar, drone control equipment, or command-and-control (C2) circuits, could be subject to attack by submunition-equipped IRBMs anywhere within the First and Second Island Chains.

Another way in which a DF-26-equipped PLARF could change things would be through its much greater reach, in particular the specific additional areas that it could strike. In the Philippine Sea, areas of relative sanctuary beyond the range of the shorter-range DF-21 lie well within range of the DF-26 (See Figure 1). These areas have mattered in how American and allied defense thinkers have looked at the regional anti-access/area-denial challenge (A2/AD, a term that did not originate in China), having previously posited the ability to operate forces reasonably safely outside the First Island Chain as a means to enable episodic operations closer-in to defend locations such as Taiwan. Looking further southwest, Chinese strategists have obsessed since the early 2000s over the "Malacca dilemma", referring to the vulnerability to interception of China's oil imports from the Middle East. With large numbers of IRBMs, the PLA could have the ability to strike U.S. and allied warships attempting to maintain such a blockade across southeast Asia. And similar missile coverage could extend across the vital sea lanes leading from the Middle East to Asia and Europe, with coverage extending from PLARF bases in western China (see Figure 2).

One factor specifically related to Taiwan that may be supporting the PLARF's growth in long range missiles is the apparent deployment by the PLA Ground Force (PLAGF) of a new long-range Multiple Launch Rocket System that appears capable of ranging either much or all of Taiwan, depending on the variant. By putting weapons in the hands of the PLAGF that are capable of conducting strikes across Taiwan, some of the shorter-range units of the PLARF may be able to convert to longer-range missiles, accelerating the transition of the PLARF from a force mostly focused on striking Taiwan with short range ballistic missiles (SRBMs) to one focused on broader goals such as deterring or denying U.S. intervention in potential conflicts across the Indo-Pacific.

To be sure, as has been discussed by the U.S. Navy's leadership before, the range arcs of the PLA's missiles are not impenetrable, and the PLARF is not the first A2/AD challenge that the Navy and Marines have dealt with. There will, without a doubt, be a back-and-forth between seeker and jammer, hider and finder, that will mitigate - to a degree - the threat of the PLARF's long range missiles. But it is hard to deny a substantially increased level of risk, and over a much larger area.

The challenges discussed above are by no means restricted to U.S. maritime power projection, as the story is perhaps even worse for land-based tactical aircraft and bombers. Ships are at least moving targets, whereas fixed land bases exist at a known latitude and longitude, only a few keystrokes away from targeting. In 2017, a colleague of mine and I at the Center for a New American Security estimated that a pre-emptive Chinese missile strike on U.S. bases in Asia could crater every runway and runway-length taxiway at every major U.S. air base in Japan, and

destroy more than 200 aircraft on the ground. We also estimated that, in addition to shorter-range missiles, an inventory of approximately 60 DF-21 medium-range ballistic missiles would be necessary to conduct such a strike.[1] Considering the National Air and Space Intelligence Center's recent estimate that China now possesses "approximately 350" medium and intermediate range ballistic missiles, the threat appears to have become graver than we estimated.[2]

In addition, since we issued our report in 2017, open-source imagery now indicates that China's ballistic missile forces may be developing the ability to target specific U.S. high value aircraft. This previously unpublished imagery (see Figure 3), from the PLARF's ballistic missile impact range in western China, shows the use of what appears to be a mock target specifically designed to imitate a parked E-3 Sentry airborne early warning and control aircraft (AWACS). While previous aircraft targets at this test range were mostly older Chinese models, sufficient to test the efficacy of ballistic missile warheads targeted at a specific location, the use of a mock target built to represent a specific U.S. aircraft type (no other nation in the region operates them) may indicate the development of a warhead with the capability to recognize and home in on specific aircraft, rather than having to blanket an entire airfield with munitions. If operationalized, this advance could reduce the number of missiles required for the PLARF to destroy key aircraft at U.S. and allied airfields throughout the region.

2) **The modernization and growth of China's long-range bomber force:** In recent years, China has also dramatically increased the capability of its force of long-range strike aircraft. China has the world's only operating bomber production line (see Figure 4), which has been producing brand-new, long-range aircraft seemingly purpose-built to strike American and allied bases well away from China's borders, and to overwhelm U.S. carrier strike groups.

Before the last decade, China's bomber force had fairly limited capabilities. Centered around the Xi'an Aircraft Company's H-6, a dated copy of the Soviet-era Tupolev Tu-16, its aircraft only carried a small number of missiles of fairly limited capability and could deliver them to a limited range. This began to change in 2009 with the introduction of the H-6K, a major redesign and update of the basic airframe. Equipped with completely new engines and avionics, the H-6K enjoys a much longer combat radius (about 3500km), and is capable of carrying three times the number of missiles (6 compared to 2 each in previous versions), with each land-attack cruise missile having a much longer range compared to previous versions.

Incorporating the improvements provided by the PLA Air Force's H-6K, the PLA Navy has gained its own maritime strike-focused version of the aircraft—the H-6J. First seen in 2018, the H-6J is capable of carrying 6 YJ-12 long-range supersonic anti-ship cruise missiles (ASCMs), again three times as many as its predecessor. More recently, China revealed the development of a new model, the H-6N, which is capable of aerial refueling and carries a single, air-launched

[1] Thomas Shugart and Javier Gonzalez, "First Strike: China's Missile Threat to U.S. Bases in Asia" (Center for a New American Security, 2017), 13.
[2] "2020 Ballistic and Cruise Missile Threat" (Defense Intelligence Ballistic Missile Analysis Committee, 2020), 25.

ballistic missile, with what appears to be a hypersonic glide vehicle. While it is as yet unclear what targets the H-6N's new missile is intended to strike, with the range extension provided by refueling, the reach of China's bomber force will grow ever further.

It is important to note that it is not only in individual platform capability that China's bomber force has been improving, but also in numbers. China is not merely replacing older bombers with improved ones; it appears to be growing the size of the force as well. Prior to the introduction of the H-6K, most estimates were that China's H-6 inventory was in the mid to low-100s, with a total production run since the early 1960s of about 200 aircraft. In order to attempt to determine the approximate size of China's bomber force, over the last several years I conducted two surveys of available commercial satellite imagery, using open-source lists of Chinese bomber bases. These counts, which did not include any aircraft in flight, in hangars, deployed to secondary airfields, or otherwise missing from imagery, produced results of just over 200 aircraft in 2018, and more than 230 in 2020. Given that China has a number of recently-built or upgraded H-6 bases which have shelters for their aircraft, the actual numbers may be higher if bombers have already been assigned there and parked under cover. In any case, while a handful of aircraft in these totals may have been tankers or training aircraft, it is clear that China's bomber force likely now numbers well over 200, and has been growing substantially since production of the newer H-6 variants commenced. When combined with its potent conventional ballistic missile force, China's long-range striking power will be vastly greater than would be necessary to deal with any regional challenger, and seems clearly directed at gaining the ability to deny U.S. forces the ability to operate with reasonable risk at ranges from which they could deliver effective support to Taiwan.

3) **China's world-class naval expansion:** In addition to its growing regional air and missile strike forces, in recent years the PLA Navy has been engaged in a naval buildup unlike any seen since the U.S. "600-ship Navy" effort of the 1980s. Xi Jinping has declared on more than one occasion that China must have a "world-class naval force",[3] and a program of naval construction appears to be underway to make that a reality. As an example, during the five years of 1982-1986, the U.S. Navy procured 86 warships;[4] over the years 2015-2019, China appears to have launched the same number. As a predictable result, the U.S. Department of Defense recently revealed that China's navy is now the "largest navy in the world" in terms of the sheer number of ships (see Figure 5).[5] Chinese shipyards have been seen churning out large numbers of warships, including aircraft carriers, state of the art multi-mission destroyers, and cruisers that are the world's largest current-production surface combatants (production of the U.S. Navy's larger, but more lightly-armed, Zumwalt-class destroyer has been truncated at three hulls). This naval buildup does not appear to be unbalanced in nature, as China has also been constructing modern at-sea replenishment ships and amphibious assault ships to carry its rapidly-expanding Marine Corps.

[3] "President Xi calls for establishment of world-class naval force," CGTN, April 12, 2018.
[4] "Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress", Congressional Research Service, January 26, 2021.
[5] "Military and Security Developments Involving the People's Republic of China 2020", U.S. Department of Defense, Sep 1, 2020.

Many commentators have pointed out, and not incorrectly, that China's warships have been on average much smaller; that the U.S. Navy remains much larger in terms of its overall tonnage, i.e., the sheer heft of the force. Assuming that combat power at sea has a somewhat comparable density among modern warships, tonnage may indeed be a better measure than the number of hulls.[6] But by that measure the trend lines are little better. By my calculations, from 2015-2019 China launched almost six hundred thousand tons of warships, roughly fifty percent more than the United States launched over the same time period (see Figure 6). While the U.S. Pacific Fleet is currently much larger than the PLA Navy by tonnage, my rough calculations indicate that, on current trend lines, the PLA Navy will reach near-parity on this basis as well in fifteen to twenty years. Given that there are ongoing or planned major expansions both at the primary shipyard that builds China's surface combatants and aircraft carriers, and at the one that builds its nuclear submarines, it seems that the pace of Chinese naval shipbuilding is unlikely to slow over the long-term.

In summary, when one considers a Chinese military that includes a highly capable and rapidly growing blue-water navy, the development of a large force of long-range strike aircraft, and an ever growing and highly threatening ballistic missile force, it hardly seems like a defensive force intended only to uphold Chinese sovereignty and local interests, prevent piracy, etc. Rather, China's military seems like a force being forged specifically to deter or prevent U.S. military intervention in a scenario such as a cross-Strait conflict.

IV. U.S. capabilities and PRC vulnerabilities in a cross-Strait conflict

Even given the ominous developments discussed above, coercing or invading by sea a free nation of 24 million people–in particular one backed by what is still the world's most powerful military–will remain a high bar for the PLA. Additionally, as the PLA stretches its capabilities further away from its shores in search of power projection, it is in turn gaining its own new vulnerabilities as it begins to mimic in some ways the traditional American markers of world-class military capability.

1) **U.S. capabilities to intervene in a cross-Strait conflict:** The U.S. military has hard-won advantages over the PLA based on operational and warfighting experience, flexible and multi-purpose platforms, and difficult-to-replicate capabilities in key warfare areas.

   First, the U.S. military has gained extensive experience conducting real-world combat operations over decades of conflict in the Middle East and Central Asia, whereas the PLA has had little combat experience since its invasion of Vietnam in 1979. At sea, the U.S. Navy has had generations of experience operating worldwide, whereas the bulk of the PLA Navy typically stays within the home waters of the western Pacific, with smaller numbers of ships dispatched on missions such as anti-piracy patrols in the Red Sea. All of this should provide a level of flexibility and capability for U.S. forces to respond to uncertain circumstances, something that may not be matched within the PLA. This may be true, in particular, in cases where units of

[6] Factors that could cause this to be more likely would include similarities in warship design and capability, sufficiency of fleet logistics, and the state of personnel and materiel readiness. Factors that could cause divergence might include significant differences in munitions capability and magazine depth, effectiveness of C2 and fleet employment, and the ability to cope with battle damage.

both sides may lack guidance from above due to disrupted communications. One countervailing factor to consider is the possibility that U.S. experience gained mostly fighting insurgents in permissive environments will be of little utility (and perhaps even negative utility) in knowing how to fight a major war against a peer competitor.

While some observers have applauded China's apparent focus on asymmetric means of fighting, such as the use of artificial intelligence, unmanned systems, and ballistic missiles, we should keep in mind that the multi-purpose nature of U.S. power projection platforms may also help to provide operational flexibility in a cross-Strait conflict. As a specific example, consider the Navy's Arleigh Burke-class destroyer. This modern U.S. surface combatant, the evolutionary winner of centuries of warship development, can engage in diverse mission areas such as long-range anti-aircraft defense, strike warfare, anti-surface warfare, and anti-submarine warfare. If cut off from communication, it can use its own sensors to locate and attack enemy targets and defend itself and others; if its information systems are affected by cyber-attacks, there are personnel onboard who can take corrective measures to patch and restore them to service. By contrast, a battery of ground-based missiles has no significant capability to detect targets or to defend itself; if cut off from communication, its military capability is reduced to near-zero. If unmanned combat systems are similarly cut off from communication, their capability may also be severely affected, at least in the absence of truly forward-leaning lethal autonomy. While it is difficult due to classification and other factors to characterize the struggle that would surely take place to gain a command and information advantage in a cross-Strait conflict, what we can be sure of is that such efforts would be taking place on both sides, with mutual degradations of these functions likely to result. Over the course of a longer cross-Strait conflict such as a blockade, an extended bombardment, or a stalemated invasion, this seems likely to favor U.S. and allied forces due to their greater flexibility and operational experience.

Benefiting from decades of investment, the United States also holds significant military advantages in areas such as undersea warfare, stealth aircraft, and the worldwide reach of its naval forces and Marine Corps. These areas, particularly technically-demanding ones such as submarine quieting and stealth technology, will take time for to China to erode, though we should remain watchful given recent indications such as China's apparent building of a new class of submarines, as well as the forthcoming debut of China's own long-range stealth bomber. Working against these U.S. military advantages, over time the cost of individual platforms on which the U.S. military relies has gone up, with resulting reductions in the numbers available given other resource pressures such as ongoing combat operations and rising personnel costs. As a result, as some of the last waves of late-Cold War U.S. platforms retire, the U.S. military is seeing ongoing reductions in the number of combat-capable platforms available, with looming retirements of some of the Navy's most capable surface combatants, a mid-2020s trough in the number of nuclear-powered fast attack submarines, and an Air Force aircraft inventory whose average age has increased to almost 30 years. While the Navy, for one, has a plan to increase its numbers in coming years, much of the technology supporting its proposed use of unmanned vessels is still developmental in nature, with deployment at a meaningful warfighting scale still years away and without certainty of success. The level of budgetary support to achieve fulfillment of this plan also seems somewhat uncertain given budget pressures in the wake of the

COVID-19 pandemic, as well as congressional mistrust in the wake of troubled programs such as the Littoral Combat Ship and Zumwalt-class destroyer.

2) **PLA vulnerabilities in a Taiwan scenario:** As has been documented in this commission's previous reports, perhaps the greatest vulnerability that China faces in its ability to bring Taiwan to heel is an apparent lack of sufficient amphibious sealift capability to deliver and sustain an invasion force that could defeat Taiwan's ground forces. Taiwan's added focus on developing its own A2/AD capabilities, as delineated in its Overall Defense Concept, would help to exacerbate this limitation by focusing on the use of weapons such as mines and ASCMs to inflict losses on PLA amphibious forces. The actualization of this can be seen in Taiwan's ongoing deployment of supersonic HF-3 ASCMs both at sea and ashore, as well as a planned purchase of as many as 400 subsonic Harpoon ASCMs from the United States. Additionally, in recent years the U.S. Department of Defense has developed or purchased a number of new ASCMs such as the Maritime Strike Tomahawk (MST), Naval Strike Missile (NSM), and Long Range Anti-Ship Missile (LRASM) in an effort to rapidly increase its ship-killing capabilities in the wake of decades of relative neglect of this mission area. It has also embarked on efforts to upgrade existing Harpoon ASCMs and has re-introduced their use onboard U.S. attack submarines.

   More points of PLA vulnerability are likely to emerge as China continues to develop the capability to engage in long-range power projection, as the forces that it will need to do so will become subject to interdiction in manners similar to those that that have provoked concerns about the vulnerability of U.S. power projection platforms. Put simply, if one desires to go somewhere over the sea or through the air, one will have to leave the protective clutter of the earth, as well as the protective umbrella of defensive coastal sensors and weapon systems, and become subject to detection and attack on the open sea or airspace. More specifically, China's new aircraft carriers and large amphibious ships will make lucrative targets for U.S. attack submarines, having to venture into deep water if they are to project power outside of China's near seas. China's nuclear submarines are noisy and still limited in numbers, and thus also would be subject to detection and destruction after they leave their home waters. The level of support required for China's large bomber fleet will probably limit them to a relatively small number of known fixed bases and avenues of approach, making them also subject to destruction in flight on their way to distant targets. The relevance that all of this has for a Taiwan scenario is largely related to how far PLA power projection forces will be able to push back U.S. and allied forces, and what costs China may suffer in doing so as its newer, prestige platforms come under threat.

V. Points of uncertainty

Considering all of the factors discussed above–extraordinarily rapid advances in Chinese military capabilities; enduring U.S. and allied strengths, as well as new warfighting initiatives; and the difficulty of coercing a proud, democratic nation like Taiwan–what I am left with is a humbling sense of uncertainty as to the spectrum of possible results in a cross-Strait conflict. We should remind ourselves that there has not been a major power conflict, particularly at sea, within the last 75 years. Entire generations of weapon systems have come and gone without seeing significant use in peer combat. As a specific data point, it bears considering that the only currently commissioned warship in the U.S. Navy that has sunk another warship in combat is the USS Constitution, from the War of 1812.

To provide some perspective for when one hears confident predictions about how a major U.S.-China war would play out, keep in mind that during the last major power war in the Pacific, most platforms involved ended up being used for quite different purposes than that for which they were originally designed. Battleships, intended to be the main striking force of both sides' navies, ended up being used mostly for shore bombardment and anti-aircraft defense, with aircraft carriers (thought to be most useful as scouts) taking the place of the striking arm of the fleets. U.S. submarines, intended mostly for scouting and attrition of enemy battlefleets, ended up being focused on sinking merchant ships and strangling the Japanese economy. The B-29 bomber, which was originally developed to interdict fleets in mid-ocean from bases in the continental United States, ended up mostly being used to firebomb Japanese cities.[7] Considering this, we would do well to exercise humility in our planning for the future, and do what we can to ensure that the forces that we do deploy are as resilient and flexible as possible.

With this sense of uncertainty in mind, in my assessment the following unanswered questions come to the fore regarding the future military balance and state of cross-Strait deterrence:

1) **Will China close its gap in cross-Strait sealift capacity?** While some may take comfort that China may appear to lack sufficient amphibious lift to conduct a cross-Strait invasion, this is not a factor upon which Taiwan's defense should rest, as China may be able to close this gap faster than may be commonly understood.

   First, while previous commission reports have documented the growing level of integration, as part of China's Military-Civil Fusion effort, between the Chinese civilian shipping industry and the PLA, some may not appreciate the scale of such integration or of the improvements in relevant merchant fleet capabilities in recent years. Take for an example the case of Bohai Ferry Group, the primary Chinese ferry operator across the Yellow Sea. As described by the manager of the group (a Communist Party Deputy), in recent years the group has constructed 7 new large roll-on/roll-off passenger ships specifically built to national defense requirements, has used them to transport military equipment more than 40 times, and has increased its ferries' vehicle capacity by a factor of 100 over the last 20 years. This sort of vehicle transportation capability could contribute significantly to China's overall sealift capacity, in a manner not normally accounted for by assessments of the PLA Navy's amphibious fleet.

   Next, we must consider that given the scale of its status as the world's largest shipbuilder, as well as the fact that its prime shipyards are dual-purpose producers of civilian and military vessels, China may be able to build sealift capacity fast enough that we may already be within the window of strategic surprise with respect to China's capability to conduct a successful cross-strait invasion. That is, China may be able to increase its sealift capacity, one of the last missing pieces in its ability to invade Taiwan, faster than Taiwan and the U.S. may be able to make strategic changes in response, given the typical pace of change within our democratic systems. For some perspective on the Chinese shipbuilding capacity to which I am referring, during the emergency shipbuilding program of World War II, which supported massive, mechanized armies in two theaters of war thousands of miles from home, U.S. shipbuilding production peaked at

[7] Ian Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945* (New York: W.W. Norton & Company, 2020), 335.

18.5 million tons annually,[8] and the United States finished the war with a merchant fleet that weighed in at 39 million tons.[9] In 2019, during peacetime, China built more than 23 million tons of shipping, and China's merchant fleet (including Hong Kong's) totals more than 300 million tons. We would also do well to note that China's shipyards have recently commenced serial production of large amphibious assault ships, with three 40,000 ton Type 075 Landing Ship Dock (LHDs) launched within the past two years alone.

Finally, we would be wise to assume that China will bring all of its tools of maritime power to bear in ensuring success in a cross-Strait invasion, including the use of the China Coast Guard, the world's largest such force; and its fishing fleet, specifically in the form of the People's Armed Forces Maritime Militia (PAFMM). In something like the form of a reverse-Dunkirk, we should expect that instead of only dealing with dozens of gray-painted PLA Navy amphibious vessels and their escorts, we would likely see a Taiwan Strait flooded with many hundreds of fishing boats, merchant ships, and Coast Guard and Maritime Safety Administration vessels. It is worth noting that Chinese PAFMM vessels have already been seen using radar reflectors and other tools to increase their radar signatures to resemble that of larger vessels;[10] in the event that U.S. and Taiwanese weapons such as ASCMs and torpedoes are unable to effectively distinguish between key amphibious assault ships and all of the other vessels that may be provided as decoys, we may find the number of anti-ship weapons able to be brought to bear to be lacking, especially given what are likely to be vigorous Chinese efforts at jamming, spoofing, and missile defense.

2) **In a conflict, would the PLA strike U.S. forces preemptively, degrading their ability to respond?** As China's ability to strike U.S. forces in the region has grown, some analysts have continued to assess that China is unlikely to quickly strike major U.S. bases and forces in the region, out of a concern that such a move would widen a conflict in a way that China would not desire. This may be true, with the United States and its allies able to marshal and disperse forces before major damage is done, thereby retaining sufficient military capability to respond meaningfully in support of Taiwan during a cross-Strait conflict. An optimistic reading of Chinese strategic documents would support this view, focusing on China's statements that its doctrine of "active defense" is largely defensive in nature, that its preferred concept of "war control" would seek to keep a crisis below the level of military conflict, and that it would in any case seek to minimize the spread of any such conflict to additional countries.

Such an interpretation minimizes a number of factors which indicate that, in some situations, China may indeed opt for large-scale and crippling pre-emptive strikes against U.S. forces and bases in the region. First, as other analysts have pointed out, China's strategic writings advocate, in cases where conflict seems inevitable, "seizing the initiative early, through rapid, violent, and possibly pre-emptive attack."[11] The nature of precision strike weapons, coupled with the relative

[8] "U.S. Shipping and Shipbuilding: Trends and Policy Choices", Congressional Budget Office, August 1984.
[9] Thomas Cochran, "How Many Tons of Ships Do We Have Now?", in *EM 25: What Shall We Do with Our Merchant Fleet?* (January 1946).
[10] Michael McDevitt, *China as a Twenty-First Century Naval Power* (Annapolis: Naval Institute Press, 2020), 215.
[11] Alison Kaufman and Daniel Hartnett, "Managing Conflict: Examining Recent PLA Writings on Escalation Control" (CNA China Studies, 2016), 68.

difficulty of replacing modern and sophisticated weapon systems, has also created powerful first-mover advantages in going first—and going big—in a conflict. This factor is amplified by what seem to be additional offense-dominant, first-mover advantages in the cyber and space domains. Finally, and perhaps most obviously, the PLA appears to be putting significant resources into building just such a strike force, as discussed above, and has been seen exercising and testing it accordingly.

3) **How would key weapon system interactions play out?** To a far greater extent than in major-power wars in the past, the resolution of peer conflicts in the precision-strike era may be dramatically affected by individual weapon, sensor, and information system interactions whose resolution may not be truly known until the shooting actually starts. Given the smaller numbers of platforms, the accuracy of individual weapons, and the relative difficulty of replacing all of them, the consequences of the interplay of jammer versus seeker, sensor versus signature, and hacker versus data stream are likely to propagate from the tactical to the operational and perhaps strategic level in ways not seen before. As one specific and obvious example, a conflict where China's ASBMs could be consistently made to miss through the use of jammers might be a completely different war than one where that was not the case. We should expect to be surprised, and the ability to adapt quickly may well be the key to victory.

VI. Policy recommendations

Given the scale of the problem—deterring the invasion of a small island nation by its far larger and implacably hostile neighbor—and in light of the scale of China's ongoing improvements in military capability (with Taiwan's main source of support coming from thousands of miles away), the United States and Taiwan must carefully focus their efforts to ensure continued deterrence of cross-Strait aggression. Specifically, given China's likely desire to ensure "war control" prior to escalation, deterrent efforts must focus on denying China confidence that military aggression against Taiwan would succeed.

Influenced by a Marxian belief in correct processes and scientific principles, China's strategists are thought to believe that "crises and wars need to be controlled" out of a concern that "an uncontrolled war could derail China's economy and in the process foster widespread domestic discontent and instability that would threaten the legitimacy of the Chinese Communist Party".[12] It is this factor–the desire to avoid uncertainty and ensure the stability of the CCP–and not the prospect of known costs, that is most likely to deter China from engaging in armed conflict. Assuming that the primary goal of U.S.-Taiwan policy continues to be deterrence of a cross-Strait conflict, we should therefore encourage measures that are likely to raise the uncertainty of success in the minds of Chinese leadership, seeding doubt as to whether the PLA can establish effective "war control" at the level of armed conflict and thus delaying a decision to move up to the next level of conflict in the continuum that it sees between peace, a "quasi-war" struggle, and open conflict.[13] Efforts to merely impose costs and "provide off-ramps" to deter a conflict may not be enough, as China's

[12] Burgess Laird, "WAR CONTROL: Chinese Writings on the Control of Escalation in Crisis and Conflict" (Center for a New American Security, 2017), 6.
[13] Kaufman and Hartnett, "Managing Conflict", 20-30.

strategists have indicated that China's core interests, such as its claim to sovereignty over Taiwan, "must be protected, presumably even at a high cost".[14]

To succeed, efforts to create uncertainty in the minds of China's leadership must directly attack the PLA's theory of victory, which is based on waging "system destruction warfare"–efforts to paralyze and destroy an enemy's operational system–and which the PLA would intend to actualize via "system-vs-system operations featuring information dominance, precision strikes, and joint operations." These operations would focus on disruption of U.S. and allied information flow, attacking command and control, reconnaissance, and firepower capabilities and networks; and disrupting the time sequence and tempo of our operational architecture.[15] Of note, a perfect example of such efforts would be the potential capability to single out and strike high-value command and control assets like the E-3 Sentry AWACS aircraft, as discussed above.

With these factors in consideration, my specific recommendations for how to attack the PLA's theory of victory—thereby reducing the PLA's confidence in initiating a cross-Strait conflict—are as follows:

1) **Undermine China's plans to strike at U.S. and allied command and control and firepower capabilities at the start of a conflict:**

   As a general axiom, planning for a cross-Strait conflict against the PLA should *not* rely on any of the following to succeed:
   - Units or forces that require anything but episodic communication or data flow (for example, unmanned vehicles that rely on consistent human oversight to do their job, particularly given current policy restraints on lethal autonomous weapons).
   - Any important fixed and hard-to-repair facility on or within the Second Island Chain (for example, fixed fuel tanks, headquarters buildings, repair facilities, and fixed communications equipment).
   - Assuming that political considerations may require letting the PLA shoot first, any non-stealthy and non-dispersed platforms within DF-26 range at the beginning of a conflict (for example, aircraft on the ground at major U.S. and allied bases, valuable ships within ASBM range, and non-dispersed air and missile defense assets). To be clear, this applies specifically to the beginning of a conflict, when the PLA has a peacetime-quality targeting picture, and may not apply to forces brought in after conflict has begun and the PLA's targeting picture has been degraded.

   It should go without saying, for those familiar with U.S. military forces and facilities in the region, that on any given day this list describes the bulk of them. This is not to say that forces or facilities that meet this description would not be useful in a conflict with China, or for purposes of peacetime presence operations. But they should not be *relied upon* for victory, or to deter the PRC from taking aggressive military action against Taiwan.

   When Congress is presented with plans and programs that do rely on any of these types of forces, facilities, and capabilities to deter China, hard questions should be asked about how they

[14] Kaufman and Hartnett, "Managing Conflict", 79.
[15] Jeffrey Engstrom, "Systems Confrontation and System Destruction Warfare: How the Chinese People's Liberation Army Seeks to Wage Modern Warfare" (RAND Corporation, 2018), x.

will evade targeting in China's planning for war initiation. Any corrective action that results should not be to take steps to improve survivability, minimize attrition, etc., but rather to find *different* capabilities, to ensure that China's leadership knows that our plans *do not rely on* capabilities that are within their easy reach in the region. Otherwise, the PLA may simply add additional resources (such as building hundreds *more* missiles) to ensure they gain the confidence that they desire to be able to move forward with conflict initiation.

Any fixed facilities or non-dispersed forces that are still fielded within the region must be provided with robust and visibly-exercised defenses against precision strike, such as hardening and robust ballistic missile defense. The point in this case is not to provide a 100% assured, leak-proof defense, but to at least raise some doubt as to whether the PLA's precision strikes would succeed at scale. Network-dependent forces within the region must similarly build resilience against command-and-control disruption via means such as the extensive and well-rehearsed use of independent "mission command", forward-leaning rules of engagement, and capable organic sensors. The PLA must not believe that it can paralyze U.S. and allied forces by cutting them off from command and control and targeting networks, *even if they are wrong in this belief*.

2) **Visibly prepare for protracted war:** In order to undermine China's confidence that it can win by seizing the initiative via a short, violent fait-accompli, or by cutting Taiwan off from the international system, we should take visible action to ensure U.S. and allied preparation for a protracted conflict. This could include measures such as stockpiling critical supplies on Taiwan to ensure support for the population during an extended blockade, conducting joint exercises with allies and partners that are focused on at-scale interdiction of Chinese maritime commerce, and designing common and easy-to-produce weapons and platforms whose production could be rapidly ramped up in the event of a protracted conflict. The last of these could include plans to bring to bear the industrial capabilities of our allies as well, such as the substantial shipbuilding capacity of Japan and South Korea. China must see visible commitment on the part of the Unites States and our allies and partners, and not gain the confidence that it can win via a short, sharp, system-destruction-type campaign.

3) **Deploy munitions at a greater scale that can distinguish and target specific Chinese transport ships:** On a far more granular level, but one that is crucial given the nature of the threat, Taiwan and the United States should deploy large numbers of survivable advanced anti-ship weapons which are capable of identifying and targeting specific vessels. Our forces must not only be able to inflict losses and impose costs on whatever vessels happen to be in the Strait during a cross-Strait invasion attempt; they must be seen as able to strike hard specifically at the landing force, generating uncertainty as to the likelihood of its ability to get ashore.

Munitions that are capable of identifying and engaging specific naval targets already appear to be available in the form of newer ASCMs such as LRASM and NSM; however, under current procurement plans they do not seem likely to be able to be delivered in sufficient numbers to ensure the defeat of a PLA cross-Strait landing. Specifically:

- The NSM is only used by the Navy onboard its Littoral Combat Ships, and potentially onboard amphibious assault ships, either of whose survivability operating within the missile's roughly 100 nautical mile range from the Taiwan Strait would be highly questionable. While the Marine Corps is trying to move forward with plans to deploy the NSM in small ground

units, these missiles would only be able to reach the Strait from Marine units actually deployed on Taiwan; efforts to develop longer-range ground-based anti-ship missiles have quickly run into Congressional opposition.

- While both the Air Force and Navy are moving forward with purchases of LRASM, neither service's current plans seem likely to ensure delivery of sufficient volumes of these weapons to the Taiwan Strait. Specifically, the Navy's LRASMs are all intended to be carried onboard carrier-based F/A-18 strike fighters, whose unrefueled striking range (with Air Force tanker bases potentially under attack) is far less than the range of China's counter-intervention systems. As discussed above, while the Navy is likely to pursue countermeasures to weapons like the DF-26, for deterrence to work the PLA's planners must be aware of and respect those countermeasures' efficacy, otherwise the PLA is likely to discount the threat that carrier-based LRASMs pose to an invasion force.

  In the case of the Air Force, whose bombers might potentially be able to reach within range of the Strait from outside of the region, planned purchases of LRASM currently total less than 180, only roughly 10 sorties worth of munitions if the bombers were loaded to capacity. Given the likelihood of some percentage of bomber losses to defensive fighters, aircraft and missile malfunctions, and what is sure to be a vigorous anti-missile defense over the Chinese fleet, this seems like an insufficient number of weapons to truly drive fear into the hearts of the PLA's planners.

- The Navy is also moving forward with plans to upgrade some of its Tomahawk missiles to provide an anti-ship role via the Maritime Strike Tomahawk (MST) upgrade, which may include an imaging infrared sensor capable of specific target recognition; current plans envision roughly 450 such upgrade kits purchased by the mid-2020s. However, these weapons will be carried mostly on Navy surface ships, whose access within effective range may be problematic, as well as onboard submarines whose numbers and available missile cells will be declining over the period, particularly after the Navy's guided missile submarines (SSGNs) leave service in the mid-2020s.

In order to better increase the uncertainty of the PLA's leaders as to whether an invasion force could succeed in crossing the Taiwan Strait, the deployment of smarter missiles capable of singling out the PLA's most valuable ships should be accelerated and increased in scale, particularly in survivable units such as dispersed ground units, submarines, and long-range bomber aircraft. These units should also begin testing and practicing, in a visible manner, the ability to distinguish and strike specific vessels among crowds of decoy ships, demonstrating focused effectiveness against the combined military-civil effort that the PRC would likely apply to a cross-Strait invasion attempt.

This concludes my prepared remarks. Thank you for the opportunity to present this information to you today.

Appendix: Graphs and Figures

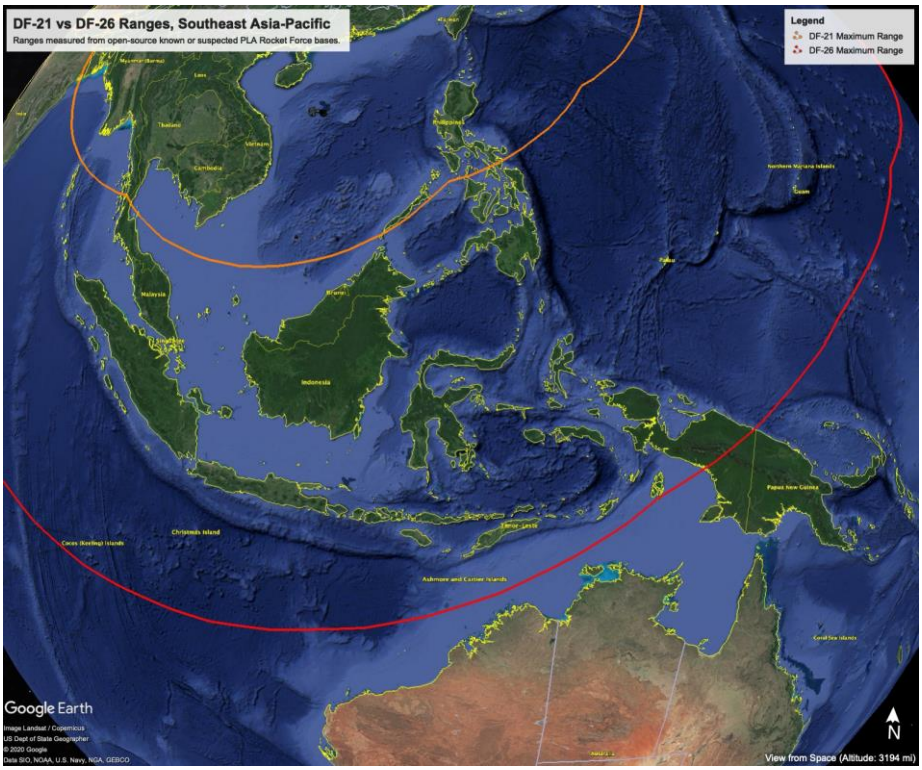

Figure 1: Estimated effective ranges, DF-26 IRBM vs DF-21 MRBM, western Pacific

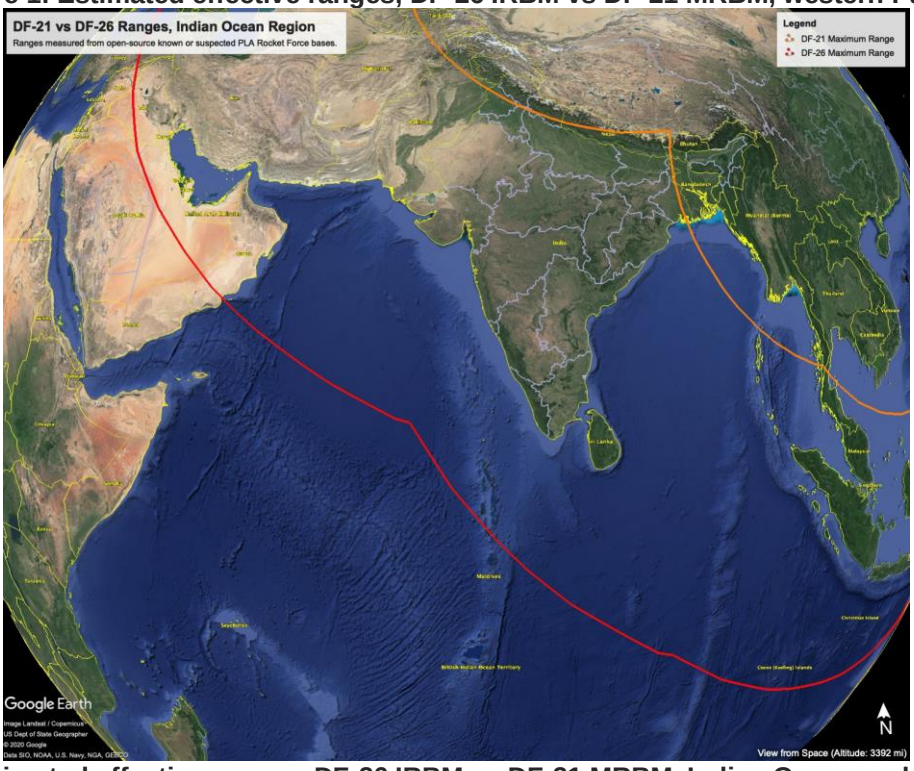

Figure 2: Estimated effective ranges, DF-26 IRBM vs DF-21 MRBM, Indian Ocean and Persian Gulf

Figure 3: Possible mockup E-3 AWACS target, western China. Sources: DigitalGlobe (upper left) and Google Earth (lower right).

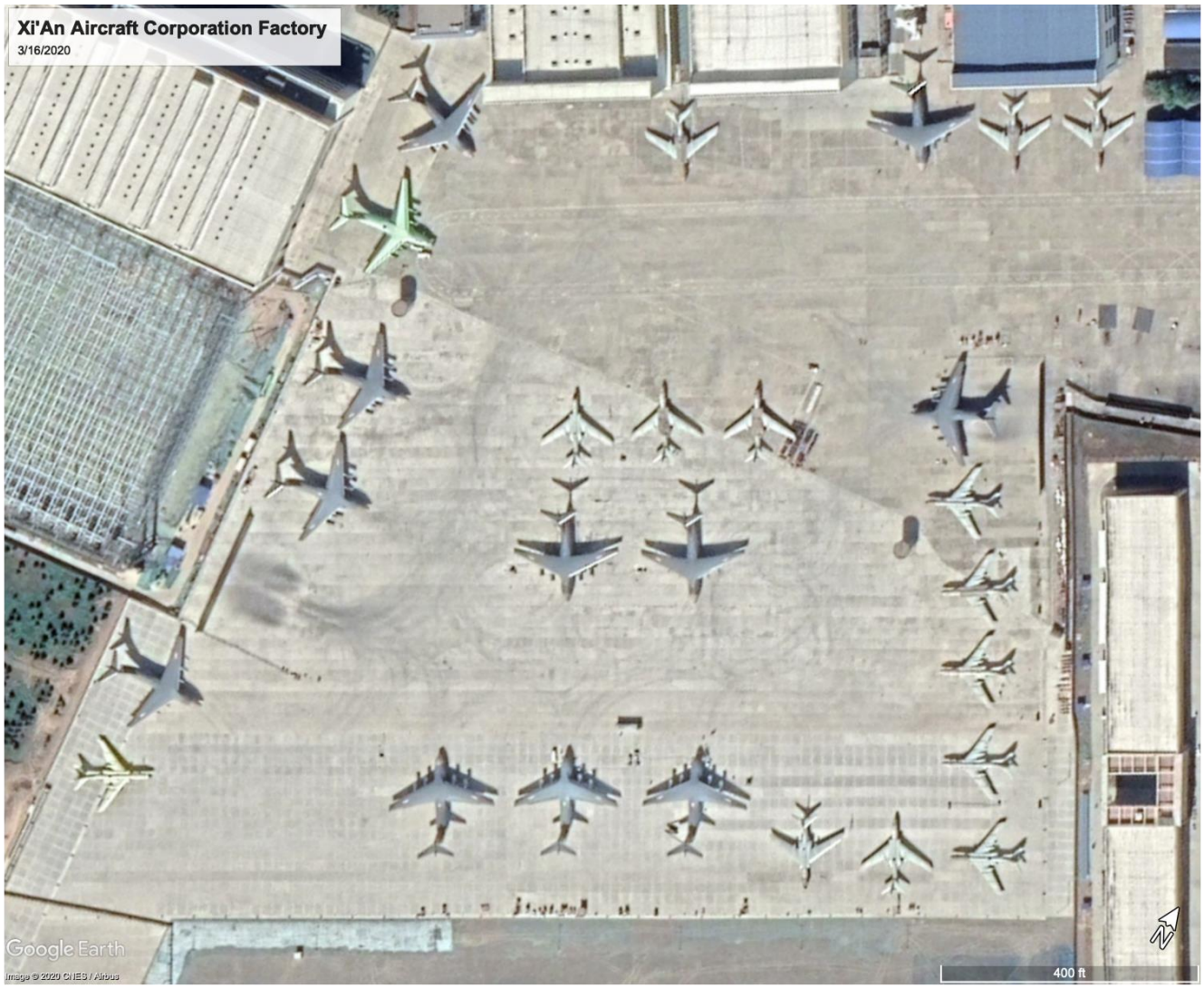

Figure 4: New H-6 bombers and strategic airlift aircraft under construction in Xi'an, China, March 2020. Source: Google Earth.

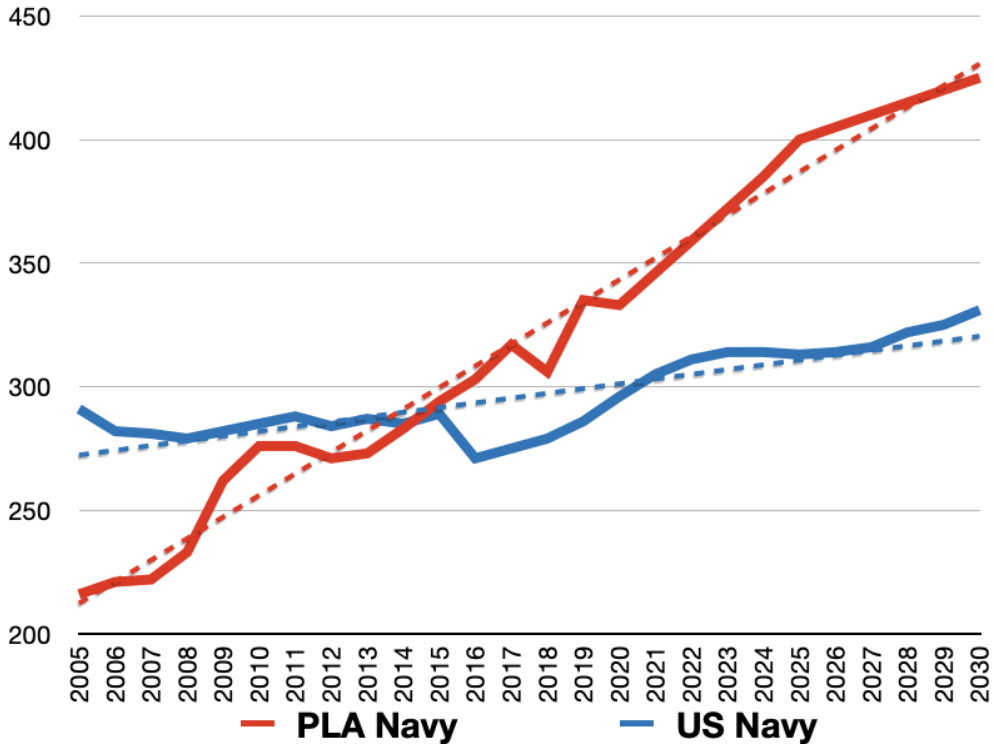

Figure 5: Total battle force ships, US Navy and Chinese PLA Navy (totals past 2020 are estimates)[16]

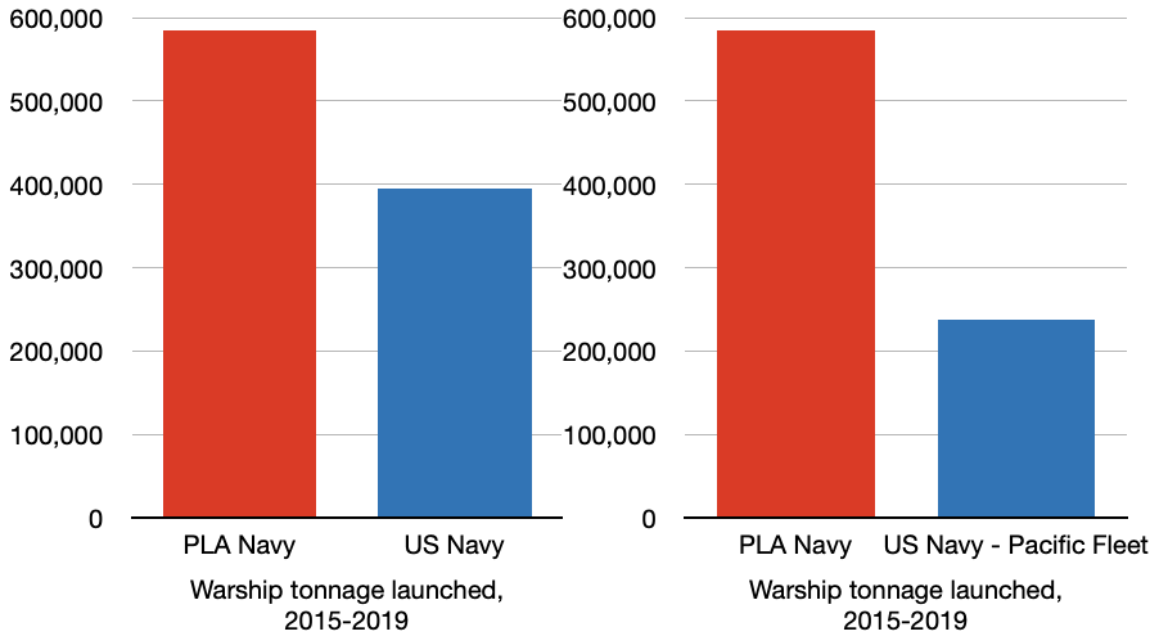

Figure 6: Total warship tonnage launched, 2015-2019. "US Navy - Pacific Fleet" is 60% of US Navy total.[17]

[16] Source Data: Congressional Research Service, "China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress" (dated 27 January 2021), and "Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress" (dated 26 January 2021).
[17] Author's calculations, using data obtained from Janes, Congressional Research Service, the Center for Strategic and International Studies, Google Earth, The Diplomat, and other sources.

OPENING STATEMENT OF BONNY LIN, POLITICAL SCIENTIST, RAND CORPORATION

COMMISSIONER GOODWIN: Thank you. Dr. Lin?

DR. LIN: Thank you. Good afternoon. Thank you for the opportunity to appear before the Commission to present on this important topic.

I will focus my time on discussing three main questions related to how allies and partners view Taiwan, and close with some recommendations, including that the United States should increase consultations with allies and partners on Taiwan and should carefully weigh the costs and benefits of moving away from the longstanding U.S.-Taiwan policy of strategic ambiguity.

Before delving into the questions, let me first caveat my remarks by noting that there is very limited publicly available information on how allies and partners might respond if China attacked Taiwan.

Many countries view discussing any potential roles in a Taiwan conflict as too politically sensitive. As a result, my testimony is based on discussions with regional experts and insights from a recent RAND study on U.S.-China competition for influence.

The first question I would like to address is how U.S. allies and partners in the Indo-Pacific may respond to a Chinese attack on Taiwan. Would they be willing to defend Taiwan?

In general, we should expect allies and partners to be more willing to provide diplomatic assistance. There is likely to be variability in their willingness to provide military aid.

Even some of the closest U.S. allies, such as Japan and Australia, may face constraints that limit their ability to contribute. The United States will likely have to shoulder the majority of the military aid to the island.

Allies and partners are likely to base their willingness to aid Taiwan on four main factors, in addition to any domestic constraint they may face when it comes to using military force.

The first factor is the specific actions taken by both sides. This includes what caused China to attack Taiwan, the size and scale of the Chinese attack, and how Taiwan responded.

The second factor is the importance of Taiwan, particularly compared with how much the ally or partner values its relationship with China. For most countries, China is much more important geopolitically and economically.

Japan is an exception. Tokyo views Taiwan as critical to its security and a Chinese takeover of Taiwan will have significant security implications. Australia is also increasingly concerned about Taiwan.

The third factor is the potential for Chinese retaliation. Many countries are worried that China has range of political, economic, and military means to punish them for supporting Taiwan. There is also concern that a China-Taiwan conflict could be protracted and costly.

The fourth factor is the ally or partner's relationship with the United States, including whether the ally feels obligated to assist the United States due to alliance commitments.

Countries are likely to assess what they may gain if they aid the United States, as well as what they may lose if they do not respond to U.S. calls for assistance.

Here, it is important to point out that regional countries have a lot to lose if they do not side with the United States and if the United States is not able to successfully defeat China in a Taiwan conflict. A U.S. loss could lead to the decline of U.S. power, which could have profound and destabilizing regional ramifications.

Based on these factors, Japan and Australia are the two countries most likely to assist the United States militarily to defend Taiwan, likely allowing the United States to conduct

operations from their military bases and potentially allowing the United States -- and also potentially contributing their own troops to the fight.

India, the Philippines, Singapore, South Korea, Thailand, and Vietnam fall into the more uncertain category. These countries may try to stay neutral or provide limited forms of assistance, such as intelligence sharing, support for limited humanitarian military operations, or logistics support.

The second question I would like to discuss is how regional countries may respond if the United States does not come to Taiwan's defense.

Regional countries view the United States as Taiwan's closest strategic partner and security provider. They are likely to view U.S. inaction as a sign of declining U.S. influence and power in the Indo-Pacific and would likely also question how committed the United States is to defending them.

Regional countries could also see U.S. inaction as signaling acquiescence to rising Chinese power and a potential acceptance of a Chinese sphere of influence in the Indo-Pacific.

The final question that I will only touch upon is how allies and partners may view a U.S.-Taiwan policy shift away from strategic ambiguity.

In general, countries are likely to be more supportive of incremental and lower key options to change U.S. policy such as changing how the United States operates, supports, and engages with Taiwan, without publicly announcing a shift in policy or revising the Taiwan Relations Act or any other public document.

Although allies and partners are unlikely to publicly criticize U.S. policy, they may be wary of higher profile options such as diplomatically recognizing Taiwan. They would be concerned that China could respond strongly and negatively to higher profile options, which could increase cross-strait tensions, U.S.-China tensions, and regional instability.

Let me wrap up by providing a few recommendations.

First, the United States should have more consultations with our allies and partners on key issues like Taiwan. It would be very difficult for the United States to defend Taiwan alone. Most allies and partners are currently reluctant to take a side in the China-Taiwan conflict.

Second, the United States should continue to encourage allies and partners to support Taiwan during peacetime to strengthen Taiwan's ability to resist Chinese pressure.

Third, the United States should continue to stand by Taiwan to support a fellow democracy and to maintain U.S. credibility and influence in the Indo-Pacific. Any U.S. move to clarify its commitments to Taiwan should involve a comprehensive weighing of the potential costs and benefits to Taiwan and to larger U.S. interests.

Should U.S. leaders decide to shift away from strategic ambiguity, embracing lower key options that do not involve discarding the One-China policy or revising the Taiwan Relations Act are likely to lead to a lower risk of cross-strait and U.S.-China tensions.

Finally, the United States should not take any step to clarify its Taiwan policy without first consulting and coordinating with Taiwan.

Thank you for inviting me to testify and I look forward to your questions.

PREPARED STATEMENT OF BONNY LIN, POLITICAL SCIENTIST, RAND CORPORATION

Testimony

U.S. Allied and Partner Support for Taiwan

Responses to a Chinese Attack on Taiwan and Potential U.S. Taiwan Policy Changes

Bonny Lin

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U.S. Allied and Partner Support for Taiwan:
Responses to a Chinese Attack on Taiwan and Potential U.S. Taiwan Policy Changes

Testimony of Bonny Lin[1]
The RAND Corporation[2]

Before the U.S.-China Economic and Security Review Commission

February 18, 2021

As the Biden administration assesses its Taiwan policy, it is important to examine how U.S. allies and partners in the Indo-Pacific may respond to a potential conflict over Taiwan. Support from regional countries will be critical to the U.S. ability to defend Taiwan from an attack by the People's Republic of China (PRC). This testimony is divided into three sections that explore (1) factors that influence the willingness of U.S. allies and partners to aid Taiwan in the event of a Chinese attack, (2) how regional countries may respond if the United States does not come to Taiwan's defense, and (3) how U.S. allies and partners may view a U.S. Taiwan policy shift away from strategic ambiguity.

There is very limited publicly available information on whether allies and partners would intervene in a China-Taiwan conflict. Many regional countries view discussing their potential roles in a Taiwan conflict as too politically sensitive. As a result, this testimony is based on discussions with regional experts and insights from a recent RAND study on how allies and partners position themselves between the United States and China and on the influence the United States and China have over countries in the Indo-Pacific.[3]

Willingness to Aid Taiwan

Although U.S. allies and partners might more readily provide diplomatic assistance (in terms of criticism of PRC use of force) if China attacks Taiwan, there is likely to be variability in their willingness to provide military assistance to Taiwan, and the United States will likely have to shoulder the majority of the military aid to the island. Even some of the closest U.S. allies, such

[1] The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of the RAND Corporation or any of the sponsors of its research.
[2] The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.
[3] Bonny Lin, Michael S. Chase, Jonah Blank, Cortez A. Cooper III, Derek Grossman, Scott W. Harold, Jennifer D. P. Moroney, Lyle J. Morris, Logan Ma, Paul Orner, Alice Shih, and Soo Kim, *Regional Responses to U.S.-China Competition in the Indo-Pacific: Study Overview and Conclusions*, Santa Monica, Calif.: RAND Corporation, RR-4412-AF, 2020, https://www.rand.org/pubs/research_reports/RR4412.html.

as Japan and Australia, may face constraints that limit their ability to contribute. Five overarching factors would likely influence how allies and partners in the Indo-Pacific might respond to a Chinese attack on Taiwan:

- the specific actions taken by both sides, including the Chinese activity and Taiwan's response
- the importance of Taiwan to the ally or partner, particularly compared with China
- the potential for Chinese retaliation and growing Chinese power
- the ally or partner's relationship with the United States and what the United States can provide
- any potential ally or partner's domestic, legal, foreign policy, or other constraints on use of force or involvement in military conflicts.

According to these five factors, Japan and Australia rank as the two countries most likely to assist the United States militarily in the defense of Taiwan, likely allowing the United States to conduct operations from military bases on their territories and potentially contributing their own troops to the fight. India, the Philippines, Singapore, South Korea, Thailand, and Vietnam fall into the more uncertain category. Countries in this latter group may try to stay neutral or provide limited, less conspicuous forms of assistance, such as intelligence-sharing, support for limited humanitarian military operations (such as noncombatant evacuation operations), or logistics support. Depending on the specific geopolitical context, including actions taken by China and what the United States can offer to incentivize or reassure these allies and partners, countries in this latter group may be willing to contribute more.

Specific Actions Taken by China and Taiwan

How the Chinese attack unfolds and how Taiwan responds will be critical to regional assessments of whether to aid Taiwan. Most regional countries do not have official relations with Taiwan.[4] Regional countries are cognizant that China (1) views Taiwan as a core national interest, (2) is set on unification with Taiwan, and (3) views any conflict over Taiwan as an "internal affair." This is likely to contribute to more caution in regional deliberations to assist Taiwan.

The cause of the Chinese attack on Taiwan is likely to shape regional and international responses. U.S. allies and partners are likely to assess which side is more to blame for the unfolding conflict. Did China launch a bolt from the blue? Did Taiwan take a bold new action or move toward independence against Chinese warning? Who is seen as being at fault and how aggressive China has been in the Indo-Pacific region at large are likely to influence whether allies and partners are willing to support Taiwan.

The scale and damage of the Chinese attack is also a determining factor. A massive Chinese military attack on Taiwan resulting in significant casualties, such as launching an amphibious invasion of the main Taiwan island, could generate more regional willingness to assist Taiwan, particularly if significant numbers of allied and partner citizens are killed in such

[4] Taiwan currently has 15 diplomatic allies: Marshall Islands, Republic of Nauru, Palau, Tuvalu, Eswatini, Holy See, Belize, Republic of Guatemala, Haiti, Republic of Honduras, Nicaragua, Republic of Paraguay, St. Kitts and Nevis, Saint Lucia, and St. Vincent and the Grenadines. See Ministry of Foreign Affairs, Republic of China (Taiwan), "Diplomatic Allies," webpage, undated, https://en.mofa.gov.tw/AlliesIndex.aspx?n=1294&sms=1007.

an attack[5]: The Philippines and Vietnam, for example, are two of the countries with the most citizens in Taiwan, and each have over 100,000 citizens working or studying on the island.[6] A more limited attack, such as military action against less populated Taiwan offshore islands, could result in a more muted regional response.

Regional countries are also likely to consider how Taiwan responds to the Chinese attack. Allies and partners may be more inclined to come to Taiwan's defense if the island's response is limited to countering the assaulting People's Liberation Army (PLA) forces, compared to Taiwan engaging in some type of countervalue retaliation (such as striking Chinese cities) that results in significant Chinese civilian deaths that could cause Beijing to further escalate its use of force.

If the conflict widens and escalates, regional countries could become involved if their territories (or claimed territories) are attacked by China or used by China to attack Taiwan. China, for example, could seek to deter or cripple large-scale U.S. and allied intervention by striking early at U.S. or allied military bases. China could also seek to launch attacks on the United States, Taiwan, or coalition members from assets based on disputed South China Sea (SCS) territories and expand Beijing's control of the SCS. Such an expansion of activities in the SCS could draw such countries as Vietnam and the Philippines into the conflict.

Taiwan's Importance

A major factor that allies and partners will likely consider is how important Taiwan is for their country strategically and what Taiwan offers. This could involve assessments of whether maintaining a democratic and independent Taiwan is important for the ally or partner's security and the importance of trade and other exchanges with Taiwan.

Security

On the security side, there is not a common, shared view of the degree of security risk or threat a Chinese attack on Taiwan poses to the Indo-Pacific region. Although regional countries might view an attack as representing Beijing's increased assertiveness and willingness to use force to achieve its objectives, most allies and partners do not view an attack on Taiwan as directly and significantly threatening their security. Many are well aware of the decades of cross-Strait tensions and China's One China Principle, which claims Taiwan as part of China. Regional allies and partners may believe that how China uses military force to address what Beijing perceives to be an "internal issue" (Taiwan) is likely different than how China conducts foreign policy and considers use of force against other countries.

A key exception is Japan, which is geographically located close to Taiwan. A Chinese takeover of Taiwan could have significant implications and complicate Japan's security situation. Beijing's control of Taiwan could enable the PLA to use Taiwan as a forward military presence to increase military activities around the Senkaku/Diaoyu Islands, an ongoing territorial dispute between Japan and China. Chinese occupation of Taiwan brings PLA forces closer to Japanese territories and waters and could threaten the security of Japan's maritime trade and energy routes.

[5] In the event of a Chinese attack on Taiwan, one of the first responses from regional countries may be to evacuate their citizens from Taiwan. How the United States, China, and Taiwan aid such efforts may influence regional decisions to assist Taiwan. This could involve some degree of regional coordination or deconfliction with China.
[6] Keoni Everington, "Migrant Worker Count in Taiwan Climbs to 706,000, Indonesians Largest Group," *Taiwan News*, June 3, 2019.

There is also increasing concern in Australia about the security and larger geopolitical implications of a Chinese attack on Taiwan. Similar to their Japanese counterparts, Australian strategists are worried that a Chinese attack on Taiwan could further enable the PLA to project power beyond the First Island Chain,[7] allowing the PLA to be more active and more assertive in the Indo-Pacific, including by operating in areas closer to Australia.[8] Australia, as well as Japan and other regional countries, may also view a Chinese attack on Taiwan as a challenge to the existing rules-based international order and a threat to democracies in the Indo-Pacific. As a sign of Taiwan's growing importance, Australia and the United States "re-affirmed Taiwan's important role in the Indo-Pacific" in a joint high-level statement that summarized discussions at the July 2020 Australia-U.S. Ministerial Consultations.[9]

Regional countries that have territorial disputes with China, such as India, Japan, the Philippines, and Vietnam, are also likely to recognize that if China were to successfully take Taiwan by force, Beijing could turn more attention to and direct more military resources toward "resolving" territorial disputes against them. It is unlikely, however, that this consideration by itself is sufficient to encourage regional allies and partners to militarily assist Taiwan, particularly given the potential for Chinese retaliation.

Trade and Investment

Beyond security concerns, regional countries are also likely to examine the extent to which Taiwan is important for their economic development. Overall, regional countries are more dependent on China economically than on Taiwan. Regional countries trade significantly more with China, and most also receive more investment from China than from Taiwan.[10] Tables 1 and 2 in the appendix provide a more detailed breakdown of trade and investment.

Potential for Chinese Retaliation and Growing Chinese Power

A critical factor that is likely to discourage allies and partners from assisting Taiwan is the fear of potential Chinese retaliation or punishment. Intervening, particularly militarily, is a strong signal that U.S. allies and partners have picked a side and that they have decided to align with the United States against China. The ally or partner's degree of intervention is likely to determine the extent of PRC retaliation.

China has a wide range of cards to play to punish U.S. allies and partners for supporting Taiwan. Allies and partners may worry that China could increase coercion or pressure against them politically, economically, and militarily. Examples of activities China could undertake include limiting cooperation with allies or partners on issues of top priority or importance to them (e.g., limiting cooperation with South Korea on North Korea); intervening in the domestic

[7] The First Island Chain consists of islands that extend from Japan to Taiwan, the Philippines, and Malaysia. See Andrew S. Erickson and Joel Wuthnow, "Barriers, Springboards and Benchmarks: China Conceptualizes the Pacific 'Island Chains,'" *China Quarterly*, Vol. 225, March 2016.

[8] See, for example, Alan Dupont, "Might Taiwan Be the Next Franz Ferdinand Moment?" *The Australian*, November 22, 2020.

[9] U.S. Department of Defense, "Joint Statement on Australia-U.S. Ministerial Consultations (AUSMIN) 2020," July 28, 2020.

[10] Beyond trade and investment, it is also worth noting that Taiwan plays a critical and dominant role in its ability to make leading-edge semiconductor chips, which are used widely across industries. A Chinese attack or takeover of Taiwan is likely to significantly disrupt this supply. U.S. allies and partners, however, are recognizing their dependence on Taiwan and are taking measures to reduce this dependency, including by asking Taiwan to increase investments in their territories. See Alan Crawford, Jarrell Dillard, Helene Fouquet, and Isabel Reynolds, "The World Is Dangerously Dependent on Taiwan for Semiconductors," Bloomberg, January 25, 2021.

affairs of allies and partners (e.g., supporting separatist or violent extremist groups or increasing PRC influence operations); limiting educational and cultural exchanges, trade, or investment; or escalating tensions over disputed territories.[11] Allies and partners may also fear that China could engage in military strikes against their territories or embrace other types of military operations to limit their ability to support Taiwan or punish them for aiding the island.

There is also regional concern that if China's power (especially its military power) continues to grow, it would be very difficult and costly to defend Taiwan. It might not be in the ally or partner's interest to partake in a costly conflict against a more powerful China. Even if the United States and allies and partners were able to successfully counter an initial PRC attack on Taiwan and deny China from achieving its immediate objectives, Beijing could still remain committed to unification with Taiwan. China could wage a protracted conflict over Taiwan that would challenge and impose significant costs to countries defending the island.

Relationship with the United States

If the United States does not take action to assist Taiwan, it is unlikely that other regional countries would be willing to do so and bear the brunt of potential Chinese retaliation without U.S. support. Because U.S. leadership is necessary to form a coalition to defend Taiwan, U.S. allies and partners are likely to assess their willingness to assist Taiwan in the context of their relationship with the United States. They are likely to consider both the costs and benefits, as follows:

- What are the costs to the ally or partner if it does not assist the United States?
- What benefits or assurances could the United States provide the ally or partner if it joined the coalition to defend Taiwan?

A U.S. decision to use military force to intervene and defend Taiwan is a significant decision, and U.S. political and military leaders would likely have to consider worst case scenarios: that such intervention could result in a larger U.S.-China conflict that could reshape the Indo-Pacific region and beyond. Should the United States decide to use military force to assist Taiwan, the United States is likely to request contributions from allies and partners, given the gravity of the decision. On the military side, the United States may be particularly interested in being able to operate from military bases in Japan and the Philippines because of both allies' proximity to Taiwan.

Costs

Although existing mutual defense treaties do not explicitly require allies to assist the United States in a China-Taiwan conflict (or in any other specific conflict that the United States becomes involved in), U.S. allies are likely to assess that there is a lot for them to lose if they do not side with the United States.[12] Allies may worry that their alliance and relationship with the United States would suffer if they do not contribute, and the United States might scale back military exchanges, training, and aid, as well as general support and cooperation. U.S. partners have similar concerns but to a lesser degree than allies.

[11] It is important to note that China's ability to engage in some of these activities may be limited in a U.S.-China conflict.

[12] For some of the concerns from Australian experts on this issue, see Paul Dibb, "Australia and the Taiwan Contingency," *The Strategist*, February 6, 2019.

U.S. allies and partners may also have to consider the implications to their security and the larger Indo-Pacific region should the United States fail to deter China from escalating a Taiwan conflict or lose a war against China. A U.S. loss, for instance, could lead to the decline of U.S. power and influence in the Indo-Pacific region, and the region could become more dominated by and reshaped to Chinese preferences. U.S. public opinion could also turn against significant U.S. military commitments to the Indo-Pacific region, resulting in the further weakening of U.S. alliances and partnerships. Regional countries might respond to the decline in U.S. influence by investing more in advanced military capabilities, including nuclear weapons programs. These changes could have profound and destabilizing regional ramifications that U.S. allies and partners wish to avoid. Allies and partners may find it is in their best interest to support the United States to ensure a U.S. victory.

Benefits and Assurances

An additional factor that allies and partners would likely consider is what benefits or assurances they may obtain by working with the United States to defend Taiwan. If allies and partners decide to assist Taiwan, they could use their contributions to improve relations and seek preferential treatment or other advantages from the United States. The United States has used political, economic, and military incentives to help convince allies and partners to join U.S.-led military coalitions before. These incentives include, for example, providing allies and partners with geopolitical support; economic aid, trade, and investment; and military aid, sales, or training.[13] Similarly, allies and partners are likely to ask for assurances from the United States, including measures the United States could take to defend the ally or partner if China retaliates (e.g., is the United States able to help intercept potential PLA missiles that might strike the ally or partner's cities or military bases?). These discussions and negotiations are likely to occur via quiet diplomacy and could help encourage U.S. allies and partners to contribute.

Other Domestic Constraints

Finally, allies and partners might face domestic legal or other foreign policy limitations on use of force or involvement in military conflicts. On one hand, for example, any Vietnamese military assistance to Taiwan is likely very difficult and would require Vietnam to discard its Three Nos defense policy of no military alliances, no aligning with one country against another, and no foreign military bases on Vietnamese soil.[14] On the other hand, U.S. requests to access its military bases in Japan for combat operations is likely but not automatic. Although Japan is the U.S. ally or partner in the Indo-Pacific region that is most likely to contribute troops to defend Taiwan, Tokyo's use of its Self-Defense Forces to aid Taiwan would still have to meet three conditions: (1) that the Chinese attack "threatens Japan's survival and poses a clear danger to fundamentally overrun people's right to life, liberty, and pursuit of happiness," (2) "there is no

[13] Geopolitical support could include, for example, helping allies or partners join key organizations, providing allies and partners with more access and intelligence, and elevating or increasing diplomatic exchanges to raise the ally or partner's profile. For how the United States offered incentives to build a wartime coalition, see Barbara Slavin, "U.S. Builds War Coalition with Favors – and Money," *USA Today*, February 25, 2003; and David E. Sanger, "Meanwhile, Back at the Ranch," *New York Times*, May 28, 2003.

[14] For a discussion of Vietnam's defense policy, see Derek Grossman and Christopher Sharman, "How to Read Vietnam's Latest Defense White Paper: A Message to Great Powers," *War on the Rocks*, December 31, 2019; and Derek Grossman, *Regional Responses to U.S.-China Competition in the Indo-Pacific: Vietnam*, Santa Monica, Calif.: RAND Corporation, RR-4412/6-AF, 2020, https://www.rand.org/pubs/research_reports/RR4412z6.html.

other appropriate means available to repel the attack and ensure Japan's survival and protection of its people," and (3) "the use of force will be limited to the minimal extent necessary."[15]

Responses If the United States Does Not Intervene

Although the 1979 Taiwan Relations Act (TRA) does not explicitly guarantee that the United States would use force to defend Taiwan in the event of a Chinese attack, the United States is Taiwan's closest strategic partner and security provider. Regional allies and partners are likely to view U.S. inaction as a sign of declining U.S. influence and power in the Indo-Pacific and would likely also question how committed the United States is to defend them and other countries. Regional countries could also see U.S. inaction as signaling acquiescence to rising Chinese power and a potential acceptance of a Chinese sphere of influence in the Indo-Pacific.

As mentioned earlier, regional countries might respond to a perceived decline in U.S. influence by investing more in advanced military capabilities.

It is important to note that the reverse is not necessarily true: U.S. intervention to defend Taiwan may not cause all or most regional countries to develop closer ties with the United States. Although some countries might seek closer ties with the United States in hopes of strengthening security ties and to assure that the United States would similarly defend them from China, others may wish to maintain their existing relationships or even desire greater independence or distance from the United States to avoid becoming dragged into a U.S.-China conflict over Taiwan.

Responses to Changes in U.S. Policy on Taiwan

There are several ways the United States could change its long-standing policy of "strategic ambiguity" to strengthen its commitment to Taiwan. On one hand, the United States could de facto change how it operates, supports, and engages with Taiwan without publicly announcing a shift in U.S. Taiwan policy or revising the TRA. This could involve, for example, expanding military exchanges and increasing arms sales to Taiwan or bolstering U.S. military presence in the Indo-Pacific region to defend the island. Some of these U.S. activities that increase Taiwan's capabilities and U.S. presence could be relatively low-key or conducted without clear association with Taiwan. They could attract less Chinese and international attention and could be viewed as more-incremental increases in U.S. commitment to Taiwan. As a result, China may not feel compelled to respond to every U.S. action and may only react to select U.S. activities that attract more public attention or are more significant.

On the other hand, the United States could embrace higher-profile approaches to increasing support for Taiwan by publicly clarifying U.S. commitments to Taiwan, a position that some high-ranking former officials have recently argued in favor of. This could be in the form of issuing a public statement,[16] upgrading the U.S.-Taiwan relationship or diplomatically

[15] Jeffrey W. Hornung, *Japan's Potential Contributions in an East China Sea Contingency*, Santa Monica, Calif.: RAND Corporation, RR-A314-1, 2020, p.98, https://www.rand.org/pubs/research_reports/RRA314-1.html.
[16] This could involve fewer changes in U.S. Taiwan policy than recognizing Taiwan or revising the TRA, depending on the nature of the public statement. For example, see Richard Haass and David Sacks, "American Support for Taiwan Must Be Unambiguous," *Foreign Affairs*, September 2, 2020; and Idrees Ali and David Brunnstrom, "Pompeo Lifts Restrictions on U.S.-Taiwan Relationship as Clock Turns on Trump Administration," Reuters, January 9, 2021.

recognizing Taiwan,[17] revising the TRA, or signing a new document or mutual defense treaty with Taiwan. A public statement, whether by U.S. leaders, the White House, or the State Department, could lay out how the administration views Taiwan and any changes to U.S. policy. China, however, might question whether the change would endure for the next or future U.S. administrations. In contrast, the latter options would likely appear to China as more enduring and significant changes in U.S. Taiwan policy. Diplomatically recognizing Taiwan would signal that the United States no longer abides by its One-China Policy, which Beijing views as a precondition for formal U.S.-China diplomatic relations.[18] Such steps as revising the TRA or signing a mutual defense treaty require Congressional action and are likely to remain in place across U.S. administrations.

U.S. allies and partners are likely to view these approaches differently. They are likely to be more supportive of more-incremental and lower-key options as less likely to result in greater regional tensions. Although U.S. allies or partners are unlikely to publicly criticize U.S. Taiwan policy, they might harbor private reservations of higher-profile, public options. They would more likely be concerned that China could respond strongly and negatively, which could increase cross-Strait tensions and U.S.-China tensions and could contribute to greater regional instability. At the same time, allies and partners might view a higher-profile option as a signal of a stronger and more enduring U.S. commitment to Taiwan.

Looking beyond how regional allies and partners may respond, it is important to note that higher-profile options risk escalating U.S.-China tensions and undermining cross-Strait stability more than maintaining it. This is because China is set on controlling and unifying with Taiwan and will likely view the new U.S. policy as supporting Taiwan's independence. Chinese leaders may feel no choice but to respond by increasing pressure or escalating against Taiwan and the United States.

There are likely only marginal gains to be had from clarifying the U.S. defense commitment to Taiwan versus maintaining the current U.S. policy of strategic ambiguity in terms of deterring China from attacking Taiwan. Under the current U.S. policy of strategic ambiguity, China has already taken into consideration the possibility of U.S. intervention in its military planning and, as a result, has amassed significant military capabilities opposite of Taiwan and continues to invest in rapid military modernization.[19] Although China cannot know for sure that the United States will defend Taiwan, its military planners cannot afford to assume the United States will not.[20] In other words, the current U.S. Taiwan policy of strategic ambiguity is probably already playing as large a role as it can in deterring China from attacking

[17] Eric Chang, "US Should Fully Recognize Taiwan, Pressure China: John Bolton," *Taiwan News*, July 3, 2020; and Michael Mazza, "Assessing the Arguments for Immediately Extending Diplomatic Recognition to Taiwan," *Global Taiwan Brief*, Vol. 5, No. 10, May 20, 2020.

[18] Bonnie S. Glaser and Michael J. Green, "What Is the U.S. "One China" Policy, and Why Does It Matter?" Center for Strategic and International Studies, January 13, 2017.

[19] For an assessment of how China's military capability has grown with respect to its ability to engage in a conflict over Taiwan, see Eric Heginbotham, Michael Nixon, Forrest E. Morgan, Jacob L. Heim, Jeff Hagen, Sheng Li, Jeffrey Engstrom, Martin C. Libicki, Paul DeLuca, David A. Shlapak, David R. Frelinger, Burgess Laird, Kyle Brady, and Lyle J. Morris, *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996–2017*, Santa Monica, Calif.: RAND Corporation, RR-392-AF, 2015, https://www.rand.org/pubs/research_reports/RR392.html; and Roger Cliff, *China's Military Power: Assessing Current and Future Capabilities*, New York: Cambridge University Press, 2015.

[20] Timothy R. Heath, "Chinese Political and Military Thinking Regarding Taiwan and the East and South China Seas," testimony presented before the U.S.-China Economic and Security Review Commission on April 13, 2017, Santa Monica, Calif.: RAND Corporation, CT-470, 2017, https://www.rand.org/pubs/testimonies/CT470.html.

Taiwan. Publicly strengthening and clarifying the U.S. commitment to Taiwan would likely only reinforce Chinese planning for U.S. intervention and could strengthen Chinese incentives to strike first against the United States or potential coalition members in a potential Taiwan contingency.[21]

An increased U.S. commitment to defend Taiwan does not shield Taiwan from elevated Chinese coercion. There are many ways that China can ramp up political, economic, and military pressure on Taiwan without resorting to a military attack.[22] Beijing is likely to increase such pressure to punish Taiwan if the United States takes significant steps to strengthen its commitment to the island.

Publicly clarifying a change in U.S. Taiwan policy also has little impact on whether U.S. allies and partners are willing to defend Taiwan from a Chinese attack. Regional countries are likely to base their calculations to assist Taiwan on the factors discussed earlier.

Given the importance of Taiwan to China, publicly clarifying the U.S. position on Taiwan also risks undermining the overall U.S.-China relationship. The United States still seeks to work with China on a variety of issues in the Indo-Pacific region and beyond. U.S. leaders would need to weigh the marginal benefits of a clearer security guarantee to Taiwan versus the loss in Chinese cooperation (and potential rise in Chinese obstruction) internationally.[23]

Implications and Recommendations for the United States

The variability and, to some extent, uncertainty in regional allied and partner willingness to defend Taiwan complicates U.S. defense planning for a potential Chinese attack against Taiwan. Allies and partners may not readily provide requested military assistance, and the United States may need to offer incentives and assurances to regional countries to encourage them to do so. As China continues to increase pressure on Taiwan, the United States would benefit from having more, regular, frank, and private discussions with allies and partners over what they may be willing to contribute in the event of a large-scale Chinese attack on the island. Consultations with key allies and partners will be critical if the United States moves to clarify its security commitment to Taiwan.

The United States should also continue to encourage allies and partners to do more to support Taiwan during peacetime. This could involve allies and partners lobbying for Taiwan's

[21] Chinese President Xi Jinping has repeatedly called on the PLA to be prepared for the worst and to be prepared for war. In recent years, as U.S.-China tensions increased and the United States embraced several higher-profile measures to strengthen its ties with Taiwan, there is growing perception in China that the United States is taking a more aggressive approach toward China that requires China to be more militarily prepared for a potential U.S. intervention. In January 2021, for example, Chinese military aircraft simulated an attack on a U.S. aircraft carrier as the aircraft flew into Taiwan's air defense zone. See "U.S. Aggressive Attitude to China Threatens World Peace: Scholars," *Xinhua News*, July 26, 2020; Ben Westcott, "Chinese President Xi Jinping Tells Troops to Focus on 'Preparing for War,'" *CNN*, October 14, 2020; and Kathrin Hille and Demetri Sevastopulo, "Chinese Warplanes Simulated Attacking US Carrier Near Taiwan," *Financial Times*, January 29, 2021.

[22] Beijing could, for example, significantly restrict cross-Strait trade and exchanges, pressure other countries to further limit exchanges or engagements with Taiwan, increase a variety of military operations near or over Taiwan, quarantine or militarily blockade Taiwan, or seize one of Taiwan's offshore islands.

[23] International issues on which the United States has sought cooperation with China include climate change, counterterrorism and defeating violent extremist organizations, countering the spread of weapons of mass destruction (particularly in North Korea and Iran), stabilizing the global economy, and managing the outbreak of global infectious diseases.

participation in international organizations,[24] increasing or coordinating economic activities with Taiwan,[25] and selling defense equipment and capabilities to Taiwan.[26] The United States could work with not only allies and partners in the Indo-Pacific but also European countries and Canada.

The United States should continue to stand by Taiwan to support a fellow democracy and to maintain U.S. credibility and influence in the Indo-Pacific. If China attacks Taiwan, there is regional expectation that the United States would defend Taiwan even though the United States does not have a treaty obligation to do so. U.S. inaction would have larger consequences beyond Taiwan and could negatively affect assessments of U.S. commitment to the Indo-Pacific region, willingness to counter Chinese aggression, and willingness to defend regional allies and partners.

The 1979 TRA and the long-standing U.S. policy of strategic ambiguity have been successful in and remain critical to deterring China from attacking Taiwan. Any U.S. move to clarify its relationship with or commitments to Taiwan should involve a comprehensive weighing of the potential costs and benefits to Taiwan and to larger U.S. regional and global interests. As part of this assessment, Congress could require in the annual National Defense Authorization Act that the Department of Defense provide an assessment of Taiwan's progress toward achieving its Overall Defense Concept and of the state of U.S.-Taiwan defense ties.[27]

Should U.S. leaders decide to shift U.S. Taiwan policy away from strategic ambiguity, embracing lower-key options that do not involve discarding the U.S. One-China Policy or revising the TRA are likely to lead to a lower risk of cross-Strait and U.S.-China tensions. If the United States decides to publicly clarify its Taiwan policy, it may want to do so after Taiwan has taken more steps to strengthen its resilience against Chinese military pressure and potential Chinese political and economic coercion.[28]

The United States should not take any step to clarify its Taiwan policy without first consulting and coordinating with Taiwan. Clarifications should be accompanied by a clearer understanding or agreement between the United States and Taiwan on what Taipei needs to do for its defense. This could involve asking Taiwan to spend more on defense via smart investments,[29] increasing U.S. consultations with Taiwan to ensure that increased expenditures are effective and in line with the stated goals of Taiwan's Overall Defense Concept, or (as in the case of prior administrations) asking the island to refrain from certain types of activities that may unnecessarily provoke China.

[24] Keoni Everington, "Canada's Trudeau Supports Taiwan's Involvement in WHO," *Taiwan News*, January 30, 2020.
[25] U.S. Department of Defense, "Joint Statement on Australia-U.S. Ministerial Consultations (AUSMIN) 2020," July 28, 2020.
[26] "Focus on COVID-19 Battle, France Tells China After Taiwan Warning," *Reuters,* May 13, 2020.
[27] Lee Hsi-min and Eric Lee, "Taiwan's Overall Defense Concept, Explained," *The Diplomat*, November 3, 2020.
[28] For some of the measures Taiwan could take to increase its military resilience, see Michael A. Hunzeker and Dennis L. Weng, "The Painful, but Necessary, Next Steps in the U.S.-Taiwanese Relationship," *War on the Rocks*, September 24, 2020.
[29] For examples of smart investments, such as highly mobile coastal defense cruise missiles, short-range air defense, defensive naval mines, small fast-attack craft, mobile artillery, and advanced surveillance assets, see David F. Helvey, "Closing Keynote Remarks," U.S.-Taiwan Defense Industry Conference, October 6, 2020.

Appendix: Taiwan and Chinese Trade and Investment with Select Allies and Partners

Table 1 shows trade between select regional allies and partners with Taiwan and mainland China.[30] Regional countries trade significantly less with Taiwan than with China. Singapore and Japan have the most trade with Taiwan as a percentage of trade with China, while India has the least.

Table 1. Select Allied and Partner Trade with Taiwan and Mainland China, 2019

	Total Trade (in $millions)		
Country	With Taiwan	With Mainland China	Trade with Taiwan as a Percentage of Trade with Mainland China
Australia	14,994	162,525	9%
India	5,832	85,616	7%
Japan	69,874	303,943	23%
Philippines	5,179	36,571	14%
Singapore	48,752	100,748	48%
South Korea	31,429	243,463	13%
Thailand	12,177	79,949	15%
Vietnam	19,543	116,935	17%

SOURCE: International Monetary Fund, Direction of Trade Statistics database, accessed January 20, 2021.
NOTE: Total trade includes imports and exports. Total trade for Mainland China does not include trade from Hong Kong or Macau.

The picture is more mixed when examining foreign direct investment (FDI). Table 2 shows the FDI stock that Taiwan and China have in select allies and partners. With the exception of Japan, the Philippines, and Vietnam, China invests more in regional countries than Taiwan does. However, if we also accounted for allied and partner FDI in China versus investments in Taiwan, the picture for Japan changes: Japan has significantly more invested in China (FDI stock of $130 billion in 2019) than in Taiwan (FDI stock of $16 billion).[31]

Table 2. Taiwan and Mainland China FDI Stock in Select Allies and Partners, 2019

[30] If trade with Hong Kong and Macau was added to this total, the total trade figure for China would increase. Of note, Singapore's trade with Taiwan as a percentage of trade with China would decrease, from 48 percent to 33 percent. For most other countries, the change is not significant.
[31] See Japan External Trade Organization, "Japanese Trade and Investment Statistics," accessed January 20, 2021, https://www.jetro.go.jp/en/reports/statistics.html.

	Total FDI Stock (in $millions)	
Country	**From Taiwan**	**From China**
Australia	3,187	38,068
India	789	3,610
Japan	9,219	4,098
Philippines	2,144	664
Singapore	14,252	52,637
South Korea	1,578	6,673
Thailand	4,066	7,186
Vietnam	10,980	7,074

SOURCES: Taiwan FDI from Ministry of Economic Affairs, Investment Commission, "Monthly Report (December 2020)," January 20, 2021. Chinese FDI from Ministry of Commerce, People's Republic of China, *Statistical Bulletin of China's Outward Foreign Direct Investment*, Beijing: China Commerce and Trade Press, 2020.

OPENING STATEMENT OF DAVID KEEGAN, FOREIGN SERVICE OFFICER (RETIRED) AND ADJUNCT LECTURER, JOHNS HOPKINS UNIVERSITY SCHOOL OF ADVANCED INTERNATIONAL STUDIES

COMMISSIONER GOODWIN: Thank you, Dr. Lin. Dr. Keegan?

DR. KEEGAN: Thank you. It is a pleasure to be here. The other witnesses have offered a sobering assessment of the difficulties in deterring Chinese aggression against Taiwan. I have been asked to discuss what U.S. policy is and should be.

The United States' Taiwan policy is premised first and foremost on ensuring a peaceful, prosperous, and secure Taiwan, which supports our broader objective of a stable and open East Asia, South Asia, and Pacific region. This objective is being threatened by three underlying trends.

First, China is becoming more aggressive, more authoritarian, and more frightened by any societies or social forces, internal or external, that are not under its control, and it has become more unstable under Xi Jinping's leadership.

Winning control of Taiwan through military force, if necessary, has become for Xi Jinping the single most important step towards completing the Chinese revolution.

Second, Taiwan is moving toward a more distinctive cultural identity separate from China, and that is leading to increased pressure to achieve legal statehood separate from China. Its presidential election campaign in 2024 could provoke populist leaders to call for changes in Taiwan's legal identity that might provoke Chinese aggression.

Third, the United States' policy towards Taiwan and China has been distracted and incoherent. We may know what is required to advance our objectives toward Taiwan in the region -- principled and consistent leadership -- but we have not done what is required.

To respond to these trends and the crisis they embody, the United States must counter China's threatening aspirations toward Taiwan by honoring our three commitments that have helped secure peace in the Taiwan Strait for 40 years.

First, the commitments we made in the Three Communiques to not challenge the idea of one China.

Second, the commitments we made under law in the Taiwan Relations Act to take practical steps to ensure a peaceful region in the Western Pacific and assist Taiwan's self-defense.

Third, our commitment in the Six Assurances that any steps we take on Taiwan are done in full coordination with the government of Taiwan.

Honoring these commitments will reduce any justification on the Chinese side to accelerate its efforts to coerce Taiwan or any justification on Taiwan's part to declare independence.

Honoring these commitments will require that we strengthen the military capabilities of the United States and Taiwan to deter and counter Chinese aggression, and that we expand our practical cooperation to counter the entire spectrum of non-military coercive options available to China.

At the same time, we should act in a way consistent with our national ideals. For example, we should publicly recognize Taiwan as the epitome of a successful democracy and include it whenever our leaders laud democratic partners around the world.

Just as one example, Taiwan is proof that a democracy -- including a Chinese democracy -- can control the COVID-19 pandemic while still producing economic growth and without

resorting to draconian authoritarian controls. We should say that frequently.

This is what I meant in my written testimony when I called for us to prioritize substance over symbolism while honoring our ideals.

For me, the set of challenges and the difficulties they pose is exemplified in the controversy over the Taiwan contact guidelines, which Secretary of State Pompeo publicly abrogated on January 9 of this year.

The guidelines are not U.S. policy, they are a series of specific guidances provided by Taiwan experts in the State Department and the National Security Council to implement U.S. policy and to help U.S. officials who are not experts stay within the parameters of that policy.

Taiwan is a foreign policy challenge unlike any other and the way in which U.S. officials interact with Taiwan officials sends signals to both Taiwan and China about what our policy is and will be.

The guidance has changed substantially over the past 21 years as conditions have changed, and it has assisted the U.S. and its representatives to maintain the peace in the region and to honor our commitments to both sides and to our ideals.

I've often suggested that a good diplomat must be an optimist, believing that there is a positive way forward if only we can identify and implement it.

I remain an optimist on Taiwan and China. I believe we can maintain the status quo of peace in the Taiwan Strait until a time when the people of Taiwan and the people of China can build a more secure and prosperous future both sides can fully accept.

But securing this cross-strait peace for that period of time will not be easy. Thank you and I look forward to your questions.

PREPARED STATEMENT OF DAVID KEEGAN, FOREIGN SERVICE OFFICER (RETIRED) AND ADJUNCT LECTURER, JOHNS HOPKINS UNIVERSITY SCHOOL OF ADVANCED INTERNATIONAL STUDIES

David Keegan: Witness Testimony

US-China Economic and Security Review Commission
Hearing on "Deterring PRC Aggression Toward Taiwan"
February 18, 2021
Written Testimony
David J. Keegan

U.S. Policy toward Taiwan and China: A Precarious Balance

Thank you for inviting me to testify on U.S. policy toward Taiwan. In order to explain the context for the choices we must confront, I open with a historical overview. I then offer my assessment of policy choices we confront and how we should best address the crucial choices I believe the U.S. must make toward Taiwan and toward the cross-Strait Taiwan-China relationship, keying my analysis to the questions posed by your staff. U.S. management of the cross-Strait relationship is one of the true consistent, though often precarious, successes of U.S. policy since World War II. Our challenge is to maintain and build on that success as both Taiwan and China are changing dramatically.

I would like to begin with the briefest of historical retrospectives. History matters for both China and Taiwan. It defines their expectations of the U.S. and affects their responses to any steps we might take. U.S. policy toward Taiwan and China has been a precarious balance ever since World War II. Between 1945 and 1951, U.S. policy makers debated whether to defend our World War II ally, the Nationalist (Kuomintang, abbreviated KMT) government led by Chiang Kai-shek as it retreated to Taiwan or to stand aside with the expectation that the Chinese Communist Party (CCP) led by Mao Zedong would conquer Taiwan and integrate it into the Peoples Republic of China. There was intensive debate within U.S. policy circles whether to take control of Taiwan as a military base and choke point against China. The eventual decision was not to do so. President Truman announced that we would stand aside, allowing the Chinese civil war to play out regarding Taiwan, only to reverse that decision after the Chinese decided to enter the Korean War. [*]

In the 1950s, '60s, and '70s, the Nationalists on Taiwan and Communists in China built two brutal authoritarian Leninist regimes. They were distinguished primarily by the two very different paths these governments chose toward regime development. The Nationalists chose, with U.S. support, to implement peaceful land reform, a successful economic development, and a slow transition toward a political system that began to include the Taiwanese people and move toward democracy. The Communists implemented a series of disastrous political and economic policies epitomized by the Great Leap Forward and the Cultural Revolution under Mao before Deng Xiaoping abruptly shifted China to a state-led market economic system in the 1970s.

[*] Christensen, Thomas J., *Useful Adversaries* (Princeton UP, 1996), pp. 105-133.

In 1979, the U.S. shifted our diplomatic recognition from the Republic of China on Taiwan to the People's Republic of China in pursuit of our own strategic security. To achieve that, we agreed to step aside once again and accept that Taiwan would eventually be absorbed into the PRC after some sort of transitional period.[†] In a portent of the potential costs of that choice, the announcement of our recognition of the PRC and "de-recognition" of the ROC reached Taiwan on December 16, 1978 as candidates were competing in one of Taiwan's most free elections to that time, a crucial turning point in Taiwan's move to greater democracy. Despite our carefully worded acceptance of the PRC determination to absorb Taiwan in the U.S.-China Joint Communique on establishing diplomatic relations, we never stepped aside as fully as China had sought or Taiwan had feared.

Since 1979, Taiwan transformed itself into one of the most vibrant and stable democracies anywhere, with economic progress to match. Over the past year, Taiwan has proven that COVID-19 can be controlled in a democracy without sacrificing economic growth. In contrast, China has implemented Deng's vision of economic modernization under the absolute control of the Chinese Communist party. Taiwan has long since abandoned the Nationalist hope to unify China and Taiwan into a new Republic of China. It has instead become an autonomous Chinese society and government with a distinctive identity and a mutually beneficial economic relationship with mainland China. China by contrast has reverted to an increasingly brutal authoritarian government at the same time it has become the defining economic growth story of the twenty-first century. China has made the absorption of Taiwan into China a core prerequisite for achieving what it sees as its full national sovereignty. It is preparing a full spectrum of coercive strategies to persuade or force Taiwan and the U.S. to accede to Taiwan's absorption.

While Beijing repeatedly says that Taiwan and China should "reunify" as if they are two halves of a whole that naturally fits together, the two sides have gone through dramatically different historical experiences, which would make any integration or unification extremely challenging. The Chinese Communists present themselves as the force that saved China after a Century of Humiliation, imposed on it by foreign forces, most notably Japan, Britain, and the United States. Taiwan did not experience that same century of humiliation. Instead, it suffered centuries of oppression first with Qing dynasty control, then fifty years of Japanese colonial exploitation, and most recently with two threats originating from the Chinese mainland: the Nationalists' "White Terror" launched on Taiwan beginning with the February 28 incident of 1947, and now the Communists' threat of forceful reunification.

Growing out of these two very different backstories, two fundamental dynamics have driven the cross-Strait agendas of China and Taiwan.

China's cross-Strait agenda and it policy toward the U.S. are based on the conclusion that U.S. protection of Taiwan and the ROC since 1945 is the primary reason that China has not been able to achieve its primary national objective of becoming a fully unified China. To that

[†] Goldstein, Steven M., *China and Taiwan* (Polity, Cambridge UK, 2015), p. 54; Tucker, Nancy Bernkopf, *Strait Talk* (Harvard UP, 2009), p. 120

extent, leaders in Beijing conclude that U.S. actions have undermined the legitimacy of the People's Republic of China and the Communist Party of China.

China's primary objective in pushing for a rapprochement with the U.S. between 1971 and 1982 was to win a U.S. commitment to end its support for the ROC on Taiwan so that Beijing could gain control of Taiwan, remove the ROC, and unify China on its terms. It understood the three joint communiques as signaling our acceptance of that bargain. Beijing believes that we broke our commitment and that it must do everything in its power to punish the U.S. for doing so.

Beijing does not accept that the people of Taiwan should have a voice in what it calls "reunification," any more than the people of Hong Kong had in 1997. The British rule in Hong Kong was not a democratic one in the Chinese view, and there is no reason why China should grant the people of Hong Kong a democratic voice that Britain granted them only as it was walking out the door. The ROC rule under Chiang Kai-shek's Nationalist Party was not a democratic one either, and the civil war should have been concluded between those two authoritarian actors, the Communists and the Nationalists.

Taiwan's cross-Strait agenda is based on how Taiwan has grown increasingly different from China over the past fifty years. The people of Taiwan, both those who came, or whose parents came, to Taiwan with the Nationalists between 1945 and 1950, and those whose ancestors had settled in Taiwan earlier, have come to see the Communists as the latest in a series of outside autocratic threats and have come to see themselves as a separate democratic people. They perceive the U.S. as an essential partner in their effort to preserve their hard-won democracy, prosperity, and stability. At the same time, they distrust the U.S. because they remember the occasions when the U.S. was willing to trade away Taiwan in pursuit of a stronger relationship with China.

This brief history lays out the different expectations that Taiwan and China bring to any cross-Strait exchange and how each side understands the U.S. role. It also makes it clear that U.S. policy toward Taiwan is inescapably embedded in our policy toward China. The US-PRC relationship has grown increasingly confrontational since 2008. Where that relationship once lent stability to an unstable and perilous cross-Strait relationship, it now instead adds increasing instability. Today, the U.S. is confronted with a challenge: how to balance U.S. national interests with the competing objectives of China and Taiwan while remaining true to our commitments and our values. As I will suggest, our choice is clear but striking the balance that will enable us to make that choice a reality will be difficult.

With that, let me offer my assessment of policy choices we confront and how we should best address the crucial choices I believe the U.S. must make toward Taiwan and toward the cross-Strait Taiwan-China relationship. I will do this by addressing some specific policy issues raised to me by the Commission staff in asking me to testify.

1. Is Taiwan's continued autonomy indispensable to U.S. interests in Asia?

Yes. Taiwan matters, as Shelley Rigger explained so well in her book of that title.[‡] Its continued democracy, prosperity, and security matter. Taiwan is the clearest proof that it is possible to govern a Chinese society with Chinese cultural values as an ethical democracy. Taiwan is a counter to the model of Chinese Communist governance as it is manifested in the brutal authoritarianism of the People's Republic of China. It is also a reminder that U.S. support for a regional partner can help build governments and polities that yield increasing democracy, prosperity, and stability as it has done in Taiwan, as well as in Japan and South Korea.

Taiwan contributes to the stability of East Asia through its economic, commercial, and political cooperation, both official and unofficial, with other countries of the region. U.S. support for Taiwan's efforts has advanced U.S. efforts toward regional stability more generally.

Also, Taiwan has undertaken a number of cooperative projects with other countries, often in partnership with the U.S. One particularly valuable effort is the Global Cooperation and Training Framework (GCTF), established by the U.S. and Taiwan in 2015. The American Institute in Taiwan (AIT) describes the program as:

> a platform for Taiwan to share its expertise with partners around the world. Taiwan has world-class experts in a wide variety of fields, including public health, law enforcement, disaster relief, energy cooperation, women's empowerment, digital economy and cyber security, media literacy, and good governance. However, because many international institutions do not allow Taiwan to participate, Taiwan's experts are not able to share their knowledge. The GCTF allows practitioners from around the world to learn what Taiwan has to offer and to strengthen connections between experts in different countries as they tackle 21st century problems that do not respect borders.[§]

We have done all of this together without touching on the incendiary issue of sovereignty.

If Taiwan's continued autonomy is indispensable to U.S. interests in Asia, as I believe it is, it would be catastrophic to U.S. interests if we fail to help protect Taiwan's continued autonomy and China managed to end Taiwan's democratic autonomy through coercive measures, military or otherwise. If Taiwan were coercively absorbed by the PRC, that would signal to the entire world, especially U.S. allies and partners, that the U.S. is not prepared to defend its allies and partners, that it is not prepared to honor its commitments. We committed in all three of the joint communiques with China that we would insist that any change in the status quo, any resolution of cross-Strait differences, must be peaceful. We made that same commitment in legally binding terms when we stated in the Taiwan Relations Act that the U.S. "decision to establish diplomatic relations with the People's Republic of China rests upon the expectation

[‡] Rigger, Shelley, Why Taiwan Matters (Rowman & Littlefield, Lantham MD, 2011, especially ch. 9, "Why Taiwan Matters to America and the World," and the Epilogue, pp. 187-204

[§] **AIT,** Global Cooperation and Training Framework (GCTF) Programs, https://www.ait.org.tw/our-relationship/global-cooperation-and-training-framework-programs-gctf/ , which includes a list of programs undertaken through GCTF from 2015 through November 2020.

that the future of Taiwan will be determined by peaceful means."[**] Finally the U.S. offered Taiwan Six Assurances as we were negotiated the August 17, 1982 communique with China on arms sales to Taiwan, that "the United States would not alter is [sic] position about the sovereignty of Taiwan – which was, that the question was one to be decided peacefully by the Chinese themselves . . .[††]

The Six Assurances were not officially declassified until August 31, 2020.[‡‡] However, they have circulated widely since August 17, 1982, when Assistant Secretary of State used them in briefing both the Congress and the media on the implications of the 1982 Communique. Ever since 1982, they have been a fundamental part of U.S. policy, although U.S. policymakers have often, far too often, shied away from stating the obvious: that these assurances had been made by the U.S. government and that legally they had exactly the same standing as the three communiques, as policy statements of a particular president honored by subsequent presidents.

Finally, let me offer a thought about the values proposition. The U.S. has repeatedly presented itself as having a domestic and foreign policy built upon and supportive of democracy, most recently in President Biden's speech on February 4. Taiwan is a democracy, and if we are to be true to our values, we must insist and take effective action to ensure that its future will be determined democratically by the people of Taiwan. If we choose another approach or step aside and allow coercion to prevail, we have given the lie to the democratic values we claim as fundamental.

1.a. What happens to defense of the first island chain if Taiwan comes under Beijing's control?

The loss of U.S. defense cooperation with Taiwan would break the U.S. dominance of the maritime domain off the coast of East Asia, increase the ability of the PLA and the PLA Navy to assert its expanding domain, and threaten the security of Japan, the Republic of Korea, and other countries along the East Asian littoral.

If Taiwan's control of its sea, air, and land domains is weakened in the face of repeated incursions by China's People's Liberation Army Air and Naval forces, that too would threaten the security of the first island chain. That is exactly what has happened over the past year. Taiwan's ability to maintain such autonomous control has continued to be weakened by PLA incursions and harassment.

An important way to strengthen security along the first island chain would be for the U.S. to sponsor security cooperation between Taiwan and its neighbors along the island chain. Some of these neighbors might be leery of a high-profile military connection with Taiwan, and its

[**] Taiwan Relations Act, section 2.(b)(3) included in: Taiwan: *Texts of the Taiwan Relations Act, the U.S.-China Communieuues and the "Six Assurances."* CRS Report for Congress, 96-246 F, updated July 13, 1998, p. 2 https://www.everycrsreport.com/files/19980713_96-246_7d3050b3b5d1f6e6494434b5bf3e2decdff5d05a.pdf

[††] Ibid. p. 18

[‡‡] American Institute in Taiwan, *Declassified Cables: Taiwan Arms Sales & Six Assurances (1982),* August 31, 2020 https://www.ait.org.tw/our-relationship/policy-history/key-u-s-foreign-policy-documents-region/six-assurances-1982/

impact on their relations with China. Nonetheless, there is a considerable opportunity for low-profile military cooperation that would improve the security of all parties.

Nonetheless, the importance of Taiwan to the security of the first island chain must be qualified. If the people of Taiwan choose freely at some time in the future to establish a much closer relationship with China, the U.S. should not oppose that based on our judgment of the military importance of the island. Such a free choice by Taiwan is unlikely in the near term, with China controlled by a brutal Communist party, but the Chinese Communist party might change, as the Nationalist party on Taiwan did.

2. Characterize the strengths and limitations of the current policy framework for U.S.-Taiwan relations.

The greatest challenge for U.S.-Taiwan relations is that it is intertwined with U.S. relations with China. This intertwining has also led to concerns that the U.S. will treat Taiwan as a "bargaining chip" in our bilateral relations with China.

This has been encapsulated in the assertion that the U.S. has a "One-China Policy" grounded in the three joint US-China communiques, the Taiwan Relations Act, and the Six Assurances. While the Six Assurances have only recently become part of the public U.S. mantra on China-Taiwan relations, they have long been understood to reflect important aspects of the U.S. policy approach. Derived at least in part from these key documents, the U.S. will maintain its "One China Policy."

It is worth clarifying what the term "One China Policy" means. U.S. officials have long stressed that it is different from Beijing's "One China Principle," which insists that Taiwan must become a local jurisdiction under the national control of the PRC.

I have increasingly come to the conclusion that the name of the U.S. "One-China Policy" does not fully reflect its reality. The U.S. acknowledges the People's Republic of China as the legal government of China. It acknowledges, but does not take a position on, the PRC's "One-China Principle" and its claim that Taiwan must become part of the PRC. The U.S. does not take any position on how the dispute between China and Taiwan over Taiwan's future should conclude, with one key exception: the U.S. insists that the dispute be resolved peacefully. The U.S. concern for peaceful resolution is emphasized in all three Joint Communiques, the Taiwan Relations Action, and U.S. policy since then. In a sense, the U.S. "One China Policy" might be better called the U.S. "Cross-Strait Peaceful Resolution Policy."

The Biden Administration will continue to insist on a peaceful resolution, and that requires that the future of Taiwan reflect the will of the Taiwan people. Based on both polls of people on Taiwan and on the evolving positions of both the Democratic Progressive Party and the Nationalist or KMT Party, it is clear that Taiwanese prefer a future in which Taiwan has a relationship with China but is autonomous and unthreatened, in which it may not have an official role in international organizations of states but is able to represent its interests in the international community with respect and dignity.

As part of our commitment to a peaceful resolution, the U.S. will call on China to end what has been a continuing and increasing series of actions that threaten Taiwan. Those have included flights of combat aircraft near Taiwan on an almost daily basis and of naval ships as well. Threatening actions have also included steps against international companies listing Taiwan as a customer or business area on their websites, pressure on countries recognizing Taiwan to switch recognition to the PRC, and a refusal to have any dialogue with Taiwan. All of these steps by China have increased the perception in Washington, both by the Trump and Biden administrations, that Beijing does not accept the idea of a peaceful resolution.

I expect that the Biden administration will implement a more consistent low-key policy toward Taiwan than the Trump Administration. There will be an effort to refrain from high profile gestures to raise Taiwan's relationship with the U.S. toward something approaching official relations, believing that such gestures would tend to increase cross-Strait tensions and make U.S.-China relations more difficult and would not contribute to the U.S. policy of "peaceful resolution."

While neither the Three Communiques nor the Six Assurances have any legal standing beyond the policy commitments of a previous president that have long been endorsed by succeeding presidents, the U.S. choice to honor them signals to leaders in Beijing and Taipei that the U.S. will honor its word. That is not simply a platitude. It is a basis on which those leaders choose their actions. For Beijing that means that we will honor our commitments to treat the PRC as the sole legal government of China, that we will not treat the Republic of China as a legal government and will not reestablish formal diplomatic ties with the ROC, and that we will not support any effort by Taiwan to establish an independent legal position in the international system as a government.

While this approach is in symbolic terms less than some in Taiwan would like, and I appreciate that, it reduces the risk of war across the Strait. It kicks the can down the road, which is inelegant but preferable to conflict. It signals to Beijing that we are not inalterably opposed to a peaceful resolution of cross-Strait differences that might yield a "One China" outcome. Such a "One China" outcome is highly unlikely in the short term, but we must play a long game.

I also expect that the Biden administration will continue to take substantive steps, which will be less visible and less focused on the symbolic, to support Taiwan's role in international organizations that affect the well-being of the Taiwan people and economy. This will include U.S. advocacy for Taiwan's participation in economic and technical organizations such as the WHO and ICAO. It will also include support for Taiwan's cooperative, though unofficial, relations with countries in the Asia-Pacific region, such as South Korea, Japan, and ASEAN. Again, these steps by the Biden administration will be in response to China's steps, in this case to block Taiwan from any constructive international role.

These policy approaches are based on a widespread recognition in the U.S. policy community -- the outgoing Trump administration, the U.S. Congress, and the incoming Biden administration -- that Taiwan and Taiwan's president Tsai Ing-wen have been responsible in their domestic, international, and cross-Strait policies, and that the U.S. should therefore support them. There is

a complementary conclusion that statements and actions by the PRC on Taiwan and cross-Strait relations have tended to be confrontational in recent years.

Let me note one additional element in this confrontation. China initially refused to accept the KMT term "1992 consensus," but it now insists that the Taiwan President Tsai and her Democratic Progressive Party accept that term even though the term was invented as part of a KMT effort to attack the DPP. For the DPP to accept that term under these conditions is impossible in an electoral democracy.

U.S. concerns are reinforced by China's destabilizing moves toward Hong Kong and the South China and East China Seas.

The intensive series of sorties by PLA military aircraft in the Taiwan Strait in the days immediately after President Biden's inauguration have led both Defense and State Department officials to characterize U.S. support for Taiwan as "rock solid." These sorties have only confirmed perceptions among Biden administration officials and members of Congress that, at least in the short term, China is the source of increased tensions across the Taiwan Strait, which the U.S. may need to counter.

In sum, I believe the Taiwan policy of the new Biden administration will maintain a great deal of consistency with past administrations. It will seek to avoid what it perceives as unnecessary confrontational gestures toward China over the symbolism of the U.S. cross-Strait peaceful resolution policy, but it will be inclined to push back against any steps by China that it perceives as threatening Taiwan's peace, prosperity, and stability.

3. What consequences would a change to the United States' longstanding policy of "strategic ambiguity" have for U.S. national security interests?

In one sense, "strategic ambiguity" is dead. China sees no ambiguity in the US position. Ever since the Clinton administration moved U.S. aircraft carriers to the waters near Taiwan in 1996 to express our opposition to PLA missile tests on the eve of Taiwan's first fully democratic popular election for president, China has seen a clear strategic signal from the U.S. that we will act to oppose China's use of military force and any form of coercion.[§§]

If "strategic ambiguity" had any life at all, China's decision to send military aircraft near Taiwan in the days after President Biden's inauguration, and the Biden Administration's blunt response have eliminated that ambiguity once again. As I heard a senior U.S. policy expert on Taiwan say recently, a foreign country never wants to be the first to challenge a new U.S. Administration, and China did exactly that.

Having said that, there are two reasons to keep our declaratory policy of "strategic ambiguity." First, it signals to China that we remain open to a peaceful resolution whatever its outcome.

[§§] Suettinger, Robert L., Beyond Tiananmen (Brookings Institution, 2003), chapter 6 "Crisis Over Taiwan, 1995-96," pp, 200-263.

Second, it makes clear to Taiwan our concern that a succeeding Taiwan president might move toward de-jure independence for Taiwan.

Some have argued that the term "dual deterrence" may be preferable to "strategic ambiguity." I am not sure why. Ambiguity does not diminish deterrence; it enhances it. I recommend we stick with "strategic ambiguity."

4. What consequences would a decision to substantially enhance U.S. defense cooperation with Taiwan have for U.S. national security interests?

Substantive U.S. defense cooperation with Taiwan is essential. The Trump administration authorized a number of important military sales. After a couple of trophy sales a few years ago, most of the recent sales have made essential contributions to Taiwan's deterrent and defensive capabilities. The critical step at this time is for the U.S. to work quietly with Taiwan so that it knows how best to use this equipment and then that it identifies and secures additional capabilities that will further strengthen its defense and deterrence capabilities. We must also work with Taiwan on its broader defense capabilities including its personnel policies, specifically strengthening its noncombatant officer system and its reserves system.

The second half of substantially enhancing our defense cooperation with Taiwan is strengthening our capacity to respond to threats from China in the western Pacific. It is not clear to me that the US military has yet accepted the fact that China is building a military to be a peer competitor to the US and to PACOM. We have said the right things. It is less clear to me whether we are doing the right things. China has made it clear that its military procurement, weapons development, and long-term strategy is intended to prevent the US military from exercising influence within the first island chain. The US may need to rethink its strategy, weapons development, and procurement as well. That may mean stepping away from legacy trophy systems like aircraft carriers and large nuclear attack submarines in order to build and deploy new more agile and lethal systems to counter China.

5. How could changes in the U.S. policy toward Taiwan affect the United States' diplomatic relationship with China?

Such changes could go in one of two directions.

First, we could alter our rhetoric, our declaratory policy, by abandoning our "One China" policy, by changing our unofficial relationship with Taiwan, by moving from "strategic ambiguity" to a "strategic clarity" that confronts China. As I have discussed above, I believe such changes would only diminish our ability to influence the two sides. We should instead enhance our capabilities to counter Chinese coercion and support Taiwan's ability to resist that coercion and play a leading constructive role in the international community while maintaining our current declaratory policy.

Some have suggested that we could take other symbolic steps, such as inviting Taiwan's president to the United States, sending the Secretaries of State or Defense to Taiwan, or sending U.S. military planes or ships to Taiwan. None of these would actually enhance

Taiwan's democracy, prosperity, or security. All would challenge China to take steps to respond, and all of those steps would threaten Taiwan's democracy, prosperity and security. I do not think that is a good bargain.

The second possible policy change would be along the lines advocated by "realist" international relations scholars such as John Mearsheimer, trading U.S. support for Taiwan in return for Chinese concessions on other supposedly more vital U.S. interests. This would be a mistake. Any indication by the U.S. that it would reconsider its commitment to Taiwan in light of China's growing power would be seen as an unmistakable sign of weakness and would encourage China to put additional pressure on Taiwan, the U.S., and on U.S. partners and allies.

It would not advance U.S. interests. On the contrary, it would weaken China's respect for the U.S. and reduce our chances of advancing our strategic objectives. Once again, we would have exposed Taiwan to danger and undermined our values.

6. The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. What are your recommendations for Congressional action related to the topic of your testimony?

Some of the following steps could be expressed through Congressional resolutions. Others would better be part of agency authorization or appropriations bills. Others may most simply be understood as recommendations against action.

There are two declaratory changes we should avoid in our relationship with Taiwan:

1. Don't change our policy our unofficial relationship with Taiwan. Don't renounce or retitle our "One China Policy."

2. Don't renounce "Strategic Ambiguity." To do so, would undermine the basis for our relationship with China. That would only further solidify Chinese perceptions that we will use Taiwan against China. Instead, emphasize "Dual Deterrence," remembering that the exceptionally stable reliable presidencies of Ma Ying-jeou and Tsai Ing-wen may be succeeded by a very different political leadership, including one that might advocate de-jure independence and expect U.S. military backing to protect Taiwan from China.

Neither of these changes to our declaratory policy would strengthen our ability to play a constructive role in Taiwan-China relations or strengthen the democracy, prosperity, and security of Taiwan and its people.

There are two declaratory changes we should make:

1. We should make it clear, consistent with the Six Assurances, that any discussion about Taiwan-related issues with Beijing will only take place after prior consultation with Taiwan, and that we will continue to have an ongoing consultation with Taiwan through the course of any such discussions with Beijing.

2. Every time we praise international examples of responsible democratic leadership in the global community, we should include Taiwan as one of our responsible democratic partners in all global matters, especially in Asia. When we refer to the democracies of Asia, Taiwan should always be mentioned in the first rank with Japan, the Republic of Korea, Australia, and New Zealand.

At least as important as taking these declaratory steps is advancing the quiet hard work that will ensure the peace, security, and prosperity of Taiwan and its people:

1. Take immediate steps to move toward trade and investment agreements with Taiwan. To do that will advance our national interests in diversifying our supply chain and will strengthen Taiwan's resistance against Chinese economic pressure/coercion. Equally important, it will enhance Taiwan's overall security. No country can be secure unless its prosperity is secure.

2. Work with Taiwan to enhance its defense and deterrence capability through the acquisition of large numbers of small capable mobile weapons and sensors that will convince the PLA that a successful military action against Taiwan is not possible.

3. Build a PACOM capability that is obviously far more capable than the PLA while working to rebuild a military-to-military relationship that makes it clear that we do not intend to threaten China's legitimate interests in a secure maritime environment along its coast.

4. Build a mil/mil dialogue with the People's Liberation Army and the PRC Central Military Commission. Such a dialogue may not yield fruits in the short term, but it can build habits so that a productive dialogue is a more available option in the longer term.

5. At a broader level, we should slowly rebuild our political and strategic dialogue with the PRC about a range of issues including Taiwan. This may sometimes be a dialogue of the deaf, but we need to regularize the dialogue for those occasions, which may be rare or sometime in the future, where there are areas of common interest, and we can actually listen and talk together

On a multilateral basis, we should:

1. Reach an understanding with our partners in the Asia/Pacific region that reinvigorates the TPP with the U.S. at its core and Taiwan among its members. (Although this goes well beyond the ambit of my expertise or testimony, I believe that there is need for a Asia/Pacific trade agreement that would improve our domestic economy and establish an economic partnership in the Asia Pacific region.)

2. Work with our other allies and partners in the region so that we, they, and Taiwan form a seamless mutual security network

Again, thank you for inviting me to testify, and I look forward to your questions and our discussion.

PANEL III QUESTION AND ANSWER

COMMISSIONER GOODWIN: Thank you, Dr. Keegan. And thanks to the entire panel. We are going to return to our alphabetical format for commissioners asking questions, and that starts us off with our Chairman, Commissioner Bartholomew.

CHAIRMAN BARTHOLOMEW: I'm just going to pass right now, I might have questions at the end of the group.

COMMISSIONER GOODWIN: All right. We'll move on to Commissioner Borochoff.

COMMISSIONER BOROCHOFF: I just want to say first of all, thank you all for being here today and today has been fascinating for me.

Dr. Keegan, in your written testimony, you commented that, although it's not your primary expertise, you strongly believed in TPP -- the Trans-Pacific Partnership -- and recommended again, separately, that we pursue trade agreements in order to help those places --- or to help Taiwan prosper.

Given your great knowledge about that area, do you think that the surrounding partners that were in it in the past would show interest in that and do you sense that Taiwan would be interested in it?

And then, what leads you to that conclusion? Is it just your general belief that we want to help them prosper or do you have some specific reasons beside that?

DR. KEEGAN: Okay. Well, thank you for the question.

Let me start by saying that from Taiwan's point of view, economic security is national security. And Taiwan recognizes that one of the greatest risks to that economic and, then, national security is being excluded from preferential trade and investment groups in the Asia Pacific region.

And that's why it has been so eager, one, to get a bilateral trade agreement with the United States and, two, to join the CPTPP. That's not going to happen unless the U.S. is part of the TPP and shepherds Taiwan into it.

I believe the other members of the TPP will accede to that if the U.S. pushes. But without U.S. leadership, it's not going to happen.

COMMISSIONER BOROCHOFF: Thank you. Does anyone else wish to comment on that? I'll give back my time to the next commissioner. Thank you very much.

COMMISSIONER GOODWIN: Great, thank you. Vice Chair Cleveland?

VICE CHAIRMAN CLEVELAND: I am feeling less rather than more clear at the end of this day on how regional partners and allies are thinking about a low-grade versus full conflict between the PRC and Taiwan.

I'm interested, Captain Shugart, in your observations about the capability -- and I am not an expert, so I apologize in advance for my lack of skill in asking the question -- but you talked about the DF-26 capability to strike in the -- to prevent a blockade of the Malaccas that the CCP has been thinking about and focused on a strategy of using force to ensure that we can't cut off their supply of oil.

That obviously has implications for our strategic planning, but I'm wondering how you -- or Dr. Lin or others -- are thinking about Singapore and Indonesia and other countries that are now within the strike range of China's IRBMs. I mean, it's -- yeah, I'll just leave it at that.

CPT. SHUGART: Thank you for the question. So, when I think about those secondary -- not secondary, the other regional powers there and China's IRBM force, what I'm struck by is that, clearly, the IRBM force they've built is not built for them.

I mean I think that the PLA would consider those other nations to be a lesser included potential adversary, if they get into some other scrape with them.

It's clearly, just based on the number, the sheer numbers and the capabilities involved, there's only one nation that that could be about, and that's about us.

So would I be worried if I'm one of those other countries within the shadow of that force that I could be coerced by that? Absolutely, of course, because there's no reason why those capabilities can't be applied against them as well.

In terms of the Malacca dilemma, what I think it allows is, we know for decades now, I mean Hu Jintao said it out loud in 2003 or 2004, the Malacca is going to turn, we know that it's natural that they would be very concerned about the security of their sea lines of communication.

And that, to me, is where, when we talk about the possible commitment of other nations in the region, is where they need to think very hard about what life's going to be like in that part of the world, from that regard, if we're not there.

That if they don't back us up and we are ejected, and the PLA Navy continues to grow the way it is, and every single nation in the region is completely dependent upon trade by sea for its existence as a modern economy, they should understand that they will maintain that economy at the pleasure of the PLA Navy.

So that's the kind of calculus that I hope is going on in some of those capitals. Did that answer your question?

VICE CHAIRMAN CLEVELAND: I think that's extremely helpful. And Dr. Lin, I'm interested in your response, because it strikes me that we have heard this morning from Dr. Mastro that there may be either an impulse, or I think she characterized it as many of our regional partners and allies would view U.S. intervention as a war of choice for the United States and they would opt to hold fire, that they might provide humanitarian support or logistical support, but they certainly wouldn't be actively engaged.

And I find, and Dr. Lin, I'm sure you'll comment on this, I find that interesting in the context that there is no way to avoid collateral damage, if in fact China chooses to use its IRBMs in a Malacca strategy, Singapore and -- the consequences of that would be not just immediate, in terms of the military and economic consequences, but as you say, there would be long-term concerns about the U.S. being, at least to me, the U.S. being ejected from the region.

And I'm not understanding I guess why that isn't a compelling argument for our friends and allies.

DR. LIN: Thank you for the question. I guess I'll -- I see several parts to your question, so maybe I can first address the part about in a Taiwan conflict, China spreading the conflict to involve the Malacca Straits.

And as I wrote in my written testimony, I think how regional allies and partners will respond will be highly dependent on how China decides to fight the Taiwan conflict.

If China decides to horizontally escalate and not keep the conflict in the Taiwan Strait and spread it to the South China Sea and the Malacca Strait, I think that provides a lot of reasoning or rationale for our allies and partners who would be concerned of Chinese blocking the Strait or Chinese activities there to be involved.

But I do think, from China's perspective, it would probably be in the Chinese interest to not try to escalate a conflict quickly from the very beginning to involve all these allies and partners.

So to the extent that China is uncertain about whether allies and partners will be involved in the Taiwan conflict, China would likely be -- it would be in China's best choice to focus their

forces against Taiwan and what they assume might be United States intervening and maybe Japan, because of U.S. forces likely power projecting from Japan.

So I think you were talking about different scenarios. In the purely China-Taiwan conflict in the Taiwan Strait, I agree with Oriana in her assessment that a lot of allies and partners currently, and without the U.S. involved in these sort of private negotiations with our allies and partners of what they might be willing to contribute to the fight, I think currently, what we're seeing is they're very reluctant to take a side.

But should China decide to horizontally escalate, I think there's a lot of vested interest in the region to be involved.

But also go back to the point that our colleagues talked about, I think there is a lot to lose in either scenario, whether it's just a Taiwan conflict or a more large regional conflict for all of our allies and partners and they have a lot to lose.

So I think making that point to them, making them recognize that if they do not assist the United States in defending Taiwan, it could be a China-dominated Indo-Pacific order. I think that's a very compelling case to be made to them in our discussions with them. And I do think we need to engage in much more consultations with them about this issue.

VICE CHAIRMAN CLEVELAND: If I was sitting in Singapore, I would be concerned about those missiles, not as a matter of the conflict is underway, but it's a clear and present concern, even now. But I think you've made that point, Captain Shugart. Carte, back to you.

COMMISSIONER GOODWIN: Thank you. Commissioner Fiedler?

COMMISSIONER FIEDLER: Let me take a step back on the allies and partners and combine it with a question of how dependent are we operationally in a Taiwan scenario on allies and partners to begin with?

CPT. SHUGART: Well I suppose I can start to address that. I think for one question is, I mean there's a matter of being engaged and actually engaging in combat. Obviously, that's certainly one level. And then basing is clearly another.

From those two perspectives, I mean I think that, as I said in my testimony, I think there's a great deal of uncertainty as to how things would turn out. I think that -- so it's certainly possible that we and Taiwan alone could succeed without actual combat assistance from other nations.

What I don't think is any doubt that we would be able to succeed without being able to use facilities in the region, whether it's the bases or just general logistical facilities. I don't see any way that we succeed without that.

COMMISSIONER FIEDLER: Yeah.

DR. KEEGAN: May I add one point?

COMMISSIONER FIEDLER: Yeah.

DR. KEEGAN: And that is, I take exactly that point, the operational assistance, the basing assistance, we need from Japan. But at some point in that kind of crisis, we are going to need other nations in the region to be going into Beijing and saying you guys got to find a way out of this.

They have to be part of the diplomatic solution. They're not going to be willing to do that high profile, but they're going to have to do it low profile, so that we can get to the day beyond the crisis.

COMMISSIONER FIEDLER: But I was -- I mean there's a distinction to be made, I think you made it, Captain Shugart, between cooperation and engagement, in our view. But that doesn't necessarily mean that it's going to be the Chinese view.

So if they are, if our allies are necessary for us to operate, and they attack our base in the ally's jurisdiction, then what's the -- it's a specious difference between cooperation and engagement, is it not?

CPT. SHUGART: Well I think to some degree, we have to look in that we may see a different kind of warfare in the event of a large-scale conflict than we have seen before.

We haven't had a conflict between pure states before where you had something like really precise long-range conventional ballistic missiles, we've just never seen that.

So you might have a case where if China's missiles work as advertised or the way it looks like they may be able to work, with the precision that it seems like they may be able to have, they may be able to disable or significantly degrade our forces in the region, without having any significant effects outside of the actual footprint of our bases.

And I think if you're Japan at that point, they may wind up in a situation where when the dust settles, U.S. military capability has been severely degraded, they haven't lost many civilians, maybe none, and at that point, some very difficult decisions may have to be made.

COMMISSIONER FIEDLER: I mean do you think --

DR. LIN: If I could add --

COMMISSIONER FIEDLER: Please.

DR. LIN: Sorry, if I could add to this? You're talking about allies and partners, and I think it would be useful to expand the discussion beyond Japan. When we're talking about Taiwan scenarios, we're also talking about involving, for example, the Philippines, our military bases there.

And I would also add that from our perspective operationally, the more bases that we have and can operate from, the better of a chance we have at being able to execute a successful operation, just because if we're operating only from a couple of bases, those become really easy targets for China.

And from at least my understanding and my assessment of where regional allies and partners are, I think right now, if we were to ask for, say, tomorrow, a conflict broke out, we would probably be able to at most get guaranteed access in Japan and Australia. We're not even guaranteed access in the Philippines right now.

And those are issues that we really should be working with our allies and partners in advance, much earlier before an actual conflict breaks out in the Taiwan Strait.

VICE CHAIRMAN CLEVELAND: What about Korea? We left --

DR. LIN: I didn't mention Korea because if you look at where South Korea's position on Taiwan, South Korea has been very, very reluctant to take a side or position on Taiwan. For South Korea, their main priority and focus is North Korea, and they understand that China has significant leverage on North Korea.

So just looking at the countries in the Indo-Pacific that were willing to support Taiwan and giving Taiwan participation in the World Health Organization or World Health Assembly, there were only a couple of countries in the Indo-Pacific.

Those were Japan, Australia, New Zealand, and several Pacific Island countries. It did not include Korea, it did not include Singapore, it did not include India, and did not include the Philippines either.

COMMISSIONER FIEDLER: I have a hard time imagining a conflict where we don't use our assets in Korea.

DR. LIN: I think it would be a very difficult conflict to execute, and that's where I think the private discussions and negotiations with Korea behind closed doors would probably be

necessary for an understanding.

If you look at what's publicly available in the literature on how Koreans view a Taiwan conflict, it's virtually nonexistent. That reflects how sensitive Korean strategists view this issue, and they don't want to be publicly talking about this issue.

COMMISSIONER FIEDLER: Thank you.

COMMISSIONER GOODWIN: All right. Thank you, Commissioner. I'm going to jump in with a question here.

I know this panel is more focused on U.S. capabilities and force posture in the region, but it certainly touches on a lot of the themes that we've explored already today with regard to the political dynamic in China and the calculus that they would use to make a decision and how we continue to deter conflict.

And Captain Shugart, you mentioned that costs and off-ramps aren't enough to provide effective deterrence.

And as we've heard in our first couple of panels, the first panel witness touched on what he characterized as an unexamined faith in cost imposition as being an effective way resolve the conflict. In that context, he was talking about a U.S. response to an invasion that had occurred.

The second panel, I think witnesses offered some comparable skepticism regarding the efficacy of this notion of cost imposition in deterring that threshold decision to launch an invasion to begin with, noting that it's a new environment and that the decision to invade Taiwan is now less dependent upon potential missteps by Taipei or the U.S. in the PRC's estimation.

And instead it's more dependent on readiness and on Xi's confidence in the same. When they're ready, they're ready, and if they're ready, they might just go.

And my question and what I would like to invite the panel's insight on is, is that really a decision that they would make in that sort of vacuum, based solely on lift capacity or other operational considerations, in full view, acknowledging the devastating economic impact it would have on China and the Chinese economy for decades?

Numerous commentators, including this Commission, have spent a considerable amount of time exploring the pressures that the CCP places upon itself to meet certain economic benchmarks and to maintain certain levels of economic growth, so that it can avoid instability, maintain control, and maintain its legitimacy as the governing party.

So how large does the uncertainty of the economic ramifications of this operation, in addition to being the most audacious and largest amphibious assault perhaps in history, how large do these other economic considerations play in the threshold decision to launch an invasion?

CPT. SHUGART: So that's certainly a tough question. And I think it's changing over time. I think that, I certainly think that -- I mean obviously cost is part of the calculation of whether they're going to decide to do something or not.

I don't think that once they've -- okay, we've got enough ships, we're going to go, I would never subscribe to something quite that simple.

But I think some of the point with the cost imposition not being enough is that if for other reasons, any combination of other reasons, they do decide that they want to go, I think the point is more that just making it hard and sinking certain numbers of ships is not necessarily going to stop them.

As for the economic calculus, I mean that's certainly going to be a big part of it. And I think probably the other panelists can add to that as well, I'm sure.

DR. KEEGAN: If I could just add one thought, and I completely agree with the points

that have just been made.

I have not seen any indication from the Chinese that they are going to move militarily unless there is a step on Taiwan's part that convinces them that peaceful reunification is off the table.

So if Taiwan does something like declare de jure independence, then I think yes, regardless of the military calculus as it stands at that moment, there is going to be a very strong pressure on them to move.

But they have shown a willingness to extend this game for a very long time, and I think in the absence of a reason to reverse course, I think they will continue to pursue peaceful resolution.

COMMISSIONER GOODWIN: Dr. Lin, anything to add?

DR. LIN: I think it is probably in China's best interest to seek reunification through peaceful means, but I guess I have a little bit of difference from my colleague, Dr. Keegan.

I do think China is increasingly ramping up coercion against Taiwan. And it is sort of a tit for tat. And I could see, as this situation escalates, that China might, in the coming years, feel that it has very few options left but to use force against Taiwan.

So I don't actually see -- I do see both sides have to take measures to continue to ramp up the escalation, but I also don't see, for example, necessarily that it has to be that clear of a decision from Taiwan's end, sorry, I mean like a huge step of action from Taiwan's end.

It could just be a gradual escalation that we're seeing now, and we see this for, say, a year or two. And it could create more pressure for Chinese leaders to really think about using force.

But I do believe it is in China's interest to try to seek unification without using force, but I just don't see us on a trajectory that's away from using force. I see us on a trajectory where China is more likely to use force in the future.

COMMISSIONER GOODWIN: Thank you. Commissioner Kamphausen?

COMMISSIONER KAMPHAUSEN: Thank you, Chair, and thanks to our panelists today. Dr. Keegan, my questions are for you, and it's good to see you again.

In your written testimony, you had a nice section about the '92 Consensus and how this is used rhetorically by Beijing in ways counter to U.S. and Taiwan interests. You didn't have a chance in your oral testimony to explain that. Let me offer the opportunity to you to talk a little bit about the '92 Consensus from your perspective.

DR. KEEGAN: Okay. So the meeting in 1992 between unofficial representatives of the PRC and Taiwan was essentially to clear the way so that they could, in 1993, have a meeting on economic interaction and cooperation.

And as part of that, they tried to find some way to come up with some statement about cross-strait political relations that both sides could live with.

And they came up with an oral statement that was made by Taiwan and not challenged by the PRC that both sides agree there is one China, but they disagree as to what it looks like. And that was then the basis on which they were able to go forward, begin the economic cooperation.

In 2000, when Chen Shui-bian was president, that experience was then described by a nationalist party, then an opposition party scholar, as the 1992 Consensus, and China seized on that to redefine the '92 Consensus as one country, two systems.

And given, one, the fact that the term '92 Consensus was used by the opposition party to try to criticize the DPP and box them in on cross-strait issues, and two, that it was redefined by the PRC as one country, two systems, there is simply no way that a DPP president, like Tsai Ing-wen, can ever come out and say, I support or accept the '92 Consensus.

In her inaugural address in 2016, she came about as close as she possibly could to saying I recognize what happened in 1992, and I accept the outcomes of it and let's move forward from that.

COMMISSIONER KAMPHAUSEN: Is there a necessary American policy response? Because the term '92 Consensus is a cudgel that Beijing wields to club Taiwan about the head and shoulders, including the current president. Is there an appropriate American response?

DR. KEEGAN: I would argue we pretty much had a response to that in the way in which we have treated President Tsai Ing-wen.

Since her inauguration and that statement in 2016, the U.S. has been far more supportive of Tsai Ing-wen, certainly than it was with the last DPP president, Chen Shui-bian, and Chen Shui-bian had his own problems, or quite frankly, Ma Ying-jeou.

I think we have given her a lot of respect and a lot of credit for being a constructive and responsible leader, and I think that's a good answer.

COMMISSIONER KAMPHAUSEN: One has the sense, in reading your testimony and then hearing your oral presentation today, that there's a bit of a desire to turn back the clock, that we were in a better position rhetorically at some earlier point in our interactions with both the PRC and Taiwan.

Is that a fair characterization? Would you disagree, would you amplify on that, what are your reactions, Dr. Keegan?

DR. KEEGAN: I believe that a consistent, low key support for Taiwan that does more to make practical changes in the military sphere, among others, is the single most important thing we can do. And we need to be consistent in principle.

I was very pleased in August to see the State Department come out and finally publicly say, hey, here are the Six Assurances, they're ours, because they've been, in fact, part of our policy all along. Taiwan has used them repeatedly, with our concurrence. So I think that is a rhetorical step forward.

And I think we are slowly beginning, and I say slowly, to acknowledge Taiwan's success as a democracy, as an economy, as a country, whatever you want to call it, over the past couple of years.

And so on COVID-19, we have occasionally cited Taiwan as one of the success stories, not often enough. And I think we have -- in terms of our public rhetoric toward President Tsai, given her and her team in the Taiwan government some of the credit they deserve.

So there are some things in the past we did well, but I think at the moment, I like the way it's moving.

COMMISSIONER KAMPHAUSEN: Great. Thank you. I'll have a couple questions for the record for Captain Shugart and Dr. Lin. Thanks for your time.

COMMISSIONER GOODWIN: Thank you, Commissioner. Commissioner Scissors?

COMMISSIONER SCISSORS: My question is for Dr. Lin. She invoked one of the many phrases that cause my knees to jerk. In this particular case, it was consulting with allies. I want -- you didn't have time, and this is not a criticism of your presentation, it's just I want to give you more time.

Which allies are going to be more valuable for the U.S. to consult with? Is it education about our perception of the Chinese threat? Is it demonstrating our commitment? Is it scenario planning?

So I would -- it's clear we need cooperation with allies here. We have some, as you outlined; we would like more. And I'd like you to give us recommendations on, hey, the most

important allies, in your view, are A, B, C, or just A and B, or just A, and the things we need to do with them are D, E, F, or whatever it may be. So some more details on that recommendation please.

DR. LIN: Sure, thank you. And thank you for the question. I think there's a lot we can do on allies and partners, but let me just focus on one aspect, which is preparing for the high end fight.

So if we're only focused or mainly focused on preparing for the high end fight, the allies and partners that we probably want to consult with -- and what I mean by consult is have discussions about what they might be willing to contribute in the event of an unprovoked Chinese attack on Taiwan, where it's clear that China is to blame for this conflict.

I think we would want to focus on the allies and partners which we would probably need basing from to execute a successful Taiwan fight. So again, that would definitely include Japan, probably the Philippines, given the Philippines' close proximity to Taiwan.

We definitely want to think about Australia, given how more willing Australia is to potentially be involved versus other allies and partners in the region.

As mentioned earlier, we definitely want to engage in consultations with South Korea too. And other allies and partners we probably want to potentially involve or consult include, for example, Singapore, if the conflict, for example, spreads to the South China Sea.

And if we're looking beyond Indo-Pacific, we also want to look at our European partners who are becoming increasingly involved in the region. So for example, France, Germany, U.K., as well as Canada.

So there's a lot of allies and partners that we want to bring into the discussion when comes it to talking about Taiwan. And I mention this because it's such a sensitive topic that I'm not really sure we've had these sorts of discussions with them even behind closed doors.

I think it's probably more likely we've had them with Japan, given all that's happened between the United States and Japan, and given that after the 1996 Taiwan Strait Crisis, the U.S.-Japan revisions of the guidelines occurred in 1997, and part of that included taking into account a potential crisis or conflict over Taiwan.

But I'm just not sure we've had that type of discussion with other allies and partners on what they might be willing to do in the case of a Taiwan conflict.

COMMISSIONER SCISSORS: So let me ask a follow-up. In some of those cases, there's a very clear, and you outlined, there's a very clear military dimension. In other cases, it's not as clear. And I'll go to my own strength here.

Is there something we can do to reassure some of China's partners economically -- I mean when we talk about Australia, a wonderful relationship we have with Australia, it's a very awkward situation where we think the Australians might not want to support us on Taiwan because they're so integrated with China.

Well that applies to a considerable extent to Malaysia, Thailand, et cetera. So could you say a little bit about maybe the most effective way to talk with our allies about their fears of economic loss from a conflict?

DR. LIN: Thank you, that's a really good point. So while I focused on the military operational aspect, I think a huge part of how allies and partners think about supporting Taiwan is the consideration of the potential for Chinese punishment. And Chinese punishment, as you mentioned, is not only military, but also economically.

So I actually want to go back to an earlier point about TPP. I think if we had an arrangement like that, where we not only have more trade and economic ties with Taiwan, but

also with our allies and partners in the region, and they're less economically dependent on China, that would be a huge step in making allies and partners more likely to be willing to support the United States in defense of Taiwan.

So there are a range of economic measures we can take to wean allies and partners from increasing dependency on China. And I think that is an important part of the conversation we should be having with our allies and partners.

COMMISSIONER SCISSORS: Thank you. I'll yield back the last few seconds.

COMMISSIONER GOODWIN: Thank you, Commissioner. Senator Talent?

COMMISSIONER TALENT: Thank you, Commissioner. Captain Shugart, I very much appreciated your testimony.

But let me ask you this. If I were still on the Armed Services Committee and I heard your testimony, or I was talking with you about trend lines and -- obviously this is a core interest for China, and in particular, the logistical challenges of defending Taiwan, I think I would say to you, well it looks to me that if we're serious about this, we need to do, writ broadly, three things at the same time.

We've got to continue buying back current readiness, which is still suffering because of the sequester.

We've got to enhance short-term deterrence, and we've talked in -- you have some good recommendations at the end of your testimony about that.

And we have to make a major effort to ensure that we stay on top of the advanced weapon technology that's going to shape the effectiveness of the force 10 or 15 years down the road.

And we have to do all that at once, and we probably can't do that within an acceptable margin of risk without sustained increases in the top line of the Defense budget, such as Jim Mattis recommended a few years ago.

Would you agree with that overall evaluation or not?

CPT. SHUGART: I'd say in general yes. I mean what we're seeing is -- and as I mentioned in my testimony, that in the longer term, what we're seeing is trying to keep China from having the ability to take an island 90 miles from its shore, when we're economic equals, is just going to be extraordinarily difficult over the longer run. I mean it's --

COMMISSIONER TALENT: Right.

CPT. SHUGART: -- over the longer run, when we're both maritime powers, and quite frankly in many ways China is more of a maritime power than we are now, in terms of all the non-naval aspects of maritime power, when you talk about fishing fleet, merchant fleets, et cetera.

So when you put all that together, yes, it's an extraordinarily difficult position that we're going to be in over the long-run, which is why whether some folks in the region get it or not, they're going to probably need to pick sides.

Because it's only by really working together closely and interoperably, and at machine speed interoperability, that in the longer run, I think we're going to be able to, as a unified front, be able to maintain the kind of freedom and open liberal international order we're used to in that part of the region.

COMMISSIONER TALENT: All right. So Dr. Keegan, I anticipated that answer from Captain Shugart, so now I want to turn to you. And I appreciate very much, by the way, your service. Whenever I hear somebody had a career in the Foreign Service, I'm very grateful, I know the sacrifices that entails.

So I mean one question for you, if Secretary Blinken were to give you a call, and you probably know him pretty well, and say look, David, this is bad ground militarily for us to defend. This is extremely difficult, the Chinese are determined to get it; they've optimized their force over two decades to be able to get it. The trend lines are not good, and there's great risk already and growing risk going forward.

And is this a guarantee, whether we make it de facto, de jure, or whatever, is this a guarantee that we're going to be able to make good to the Taiwanese? And if it isn't, if in essence we're getting lured into a fight on terrible ground here, then don't we owe it to them to let them know, look, we just may not be able to be there?

Now this is a provocative question, I'm the last person in the world who wants to take this position, but I also -- and you're a better historian than I am on this, I remember Churchill's speech at Munich, where he said the government didn't take action here in Munich when it could of, and then it gave a guarantee to the Poles, to Poland, when it had no possibility of being able to make it good, right?

So would you just talk about that a little bit? I mean step back and reexamine the whole thing, and say whether you think this makes sense? What do you tell Secretary Blinken over coffee?

DR. KEEGAN: Well the first thing -- thank you for the question, and I wish I didn't have to answer it. But let me give you a couple of thoughts.

The first thing I would say is this is not the United States' problem. This is a problem of the United States, Taiwan, and our partners along the East Asian littoral, and we're only going to succeed if all of us, to some extent, are in it.

And that means, first and foremost, that Taiwan has to pick up its share of the burden. It is taking some first steps, but they are first steps.

I am not a big fan of submarines; I am not a big fan of tanks and howitzers. I'm a fan of the lots of small and lethal and mobile and disposable, but they have to build up their capability, they have to spend the money, they have to build up the capabilities of their military first and foremost. If they're not willing to do that, nothing else can happen.

We need to do the same, and move in the same direction. And we need to work particularly with Japan and also with the other military forces, including Australia, in the region.

They're not going to be willing to come out publicly on a lot of this stuff, but I think with U.S. leadership, we can have quiet discussions and quiet cooperation among Japan, Taiwan, the United States, Australia, probably Singapore, maybe South Korea, at least at an implicit level, but only quietly.

And even then we haven't completely solved the problem. And so painful as it sounds, we need to be talking to the PRC in ways that make it clear to them that we are not going to be provocative, but we're also going to be consistent in what we do.

That one part of our -- whether you call it strategic ambiguity or dual deterrence, is that we have no tolerance for de jure independence from Taiwan.

Now as someone who knows a lot of people in Taiwan, and I have a lot of sympathy for their desire to claim that status, I get it, okay? But the problem is, that is, in the current environment, like it or not, is too risky.

And my question is, does it advance the peace, security, and prosperity of the people of Taiwan? If it doesn't, then I'm not interested.

COMMISSIONER TALENT: I went over. I thank the Chair for indulging me. I'll yield back.

COMMISSIONER GOODWIN: Thank you.

COMMISSIONER TALENT: Thank you, Dr. Keegan.

COMMISSIONER GOODWIN: Next up, Commissioner Wessel.

COMMISSIONER WESSEL: Thank you, Mr. Chair. Thank our witnesses for being here today and for their public service. It is deeply appreciated. Like Senator Talent, we are appreciative of those who spend their lives in seeking to advance the public good, as do those in academia as well, so it is a shared enterprise.

I really, I have to say, am coming out of this somewhat confused. In the sense that, Mr. Keegan, you point out, as I recall, that Taiwan is the most important or unification with Taiwan is the most important step in the revolution.

And we are gauging -- Captain Shugart, you I think said that within five years, but maybe within a year, capabilities will be there for -- China's capabilities will be expanded to be, I don't want to say destructive, but their capabilities will be expanded dramatically.

So for me, it feels like we are engaged in just a calendar watching enterprise in terms of when this may happen.

And there's been discussion, Dr. Lin, you talked about engaging our allies, but for me, if China were to take action, we have very limited time, if any, to engage our allies in support, and China can't afford to lose.

So are we just waiting for the inevitable, or are there other steps we should be taking now and accelerating them to try and, if you will, keep the status quo, potentially in perpetuity? Otherwise, for me, it seems like we're just watching the calendar.

Mr. Keegan, would you like to start?

DR. KEEGAN: Thank you very much. I think you give an apt summary of the situation. I think there are two things to keep in mind.

One is that, you're right, and I made the point that this is -- gaining control of Taiwan from the Communist Party's point of view is completing the revolution. And without that, they don't feel secure in their legitimacy.

At the same time, the cost to any leader of the CCP, and perhaps to the CCP entirely, there is an extremely high cost to moving militarily against Taiwan and failing.

COMMISSIONER WESSEL: Agreed.

DR. KEEGAN: Okay? And so what I think we have to do is make sure that the PLA, when they are asked, if you go tomorrow, will you win? They pause and say, well, boss, the odds might be in our favor, but I'm not sure. And that's going to require a coherent, substantive, and expensive effort on our part, on Taiwan's part, and yes, also on Japan and Australia's part at a minimum.

And all we're going to be able to do with that is we're not going to be able to solve the problem, we're going to be able perhaps, and with some delicate and stubborn diplomacy, kick the can down the road.

And I don't think kicking the can down the road is a bad option. It's certainly better than some of the others.

COMMISSIONER WESSEL: Right. I agree, as long as we have confidence in that. And Captain, any thoughts there?

CPT. SHUGART: Yes, thank you. So first of all, I mean I'd agree that China doesn't want to fight, for sure. I mean there's a huge risk there.

That being said, it doesn't mean that they won't try to get what they want through the use of threat of force. We've already seen this in the region. I mean we see that their willingness

to threaten force to get what they want has expanded as their military capabilities have grown.

Explicitly, for example, Vietnam was driven from conducting drilling in their own exclusive economic zone by direct threats of force against them from China. The Philippines, driven away from Scarborough Shoal by direct threats of force.

So we can expect that. Over time, we've seen that increase with their military capabilities. So as those capabilities continue to increase, we may see that go to a higher level, for example, with Taiwan.

On timing, I think it's probably true that the military may tell them, we're not quite ready yet today, but if we look at military history, we see that there have been plenty of times before where autocratic leaders have had their military tell them we're not ready, and they still go.

World War II, the German Navy was still just getting started with its modernization program, wasn't even anywhere close to ready, and yet their leader decided to go.

From the perspective of what we can do about it, I want to emphasize that Taiwan is defensible. I mean if we make the right moves, and in the shorter term, it's probably going to be more munitions than platforms, it is defensible if we do the right things.

But as the other witnesses have mentioned, like I'm a submariner, I think submarines are great, should Taiwan be buying submarines right now? Probably not.

So if we make the right moves, I think deterrence is still within the realm of possibility, but we have to be more focused than we have been, and we need to move quicker, with a greater sense of urgency, for, again, when I look at Taiwan's defense investments, even with the Overall Defense Concept, just the level of defense investment, it's kind of conspicuously low for the situation that they're in.

COMMISSIONER WESSEL: Dr. Lin, any quick comments?

DR. LIN: Sure, thank you. A quick comment is, I agree with Dr. Keegan that pushing the can of a potential Chinese attack or invasion down the road is probably the best that we can do.

But I also want to point out that even short of a military attack on Taiwan, there are a lot of means that China is already doing to pressure the island, to decrease the island's international space, pressure the island geopolitically, economically and militarily, for example, all of the PLAAF flights across the center line of the Taiwan Strait.

These measures are, from China's perspective, these are Chinese measures they are taking to try to change the island's calculus.

So in addition to focusing on how to defend Taiwan from the main attack or the main fight, we also have to think about all these measures we can do with our allies and partners to defend Taiwan, as well as increase Taiwan's resistance during peacetime.

I worry that if we keep on waiting for the big fight, we might not see it, because we're relatively successful in deterring that, but China has all these measures short of war that China can use in the meantime against Taiwan.

COMMISSIONER WESSEL: Thank you.

COMMISSIONER GOODWIN: Thank you, Commissioner. Commissioner Wong?

COMMISSIONER WONG: Thank you, Chairman. I have a question, just to kind of put a frame and to step back and really put into perspective the import and the urgency and the gravity of what we're talking about today.

I would just like to ask each of the panelists, there's a lot of discussion of the possibility, and perhaps as some would say the inevitability, although I'm not sure if I agree with that, of great power conflict between the United States and China.

Obviously a great power war is what we would like to avoid, and it's a dire situation. But of all the potential flashpoints that could be the precipitating cause of such a war, where would you rank the Taiwan cross-strait situation? Would it be the top one? And if not, what would be the top one? And we can start with Bonny?

DR. LIN: Okay, sure. Very quickly, I would rank Taiwan as the top cause, the top spot.

Mainly because Taiwan is one of -- China has defined Taiwan as a core interest, and China is set on unification with Taiwan, and we, from our perspective, is Taiwan's main security provider.

And we are already seeing this escalation dynamic, particularly in the last year or so. Tensions have been really heating up in the Taiwan Strait. Thank you.

COMMISSIONER WONG: Mr. Shugart, you'd agree with that?

CPT. SHUGART: Yes, I do. I think Taiwan is, I mean just based on the unfinished nature of the civil war, et cetera, for all those reasons, it is.

I don't put the South China Sea anywhere close to the same level, partly because I don't see the Chinese commitment to the South China Sea. To me, it's not really about the South China Sea itself, it's the first step in securing the broader lines of communication and ability to secure their economic means, to be able to be successful in that more vital conflict over their sovereignty that they consider for Taiwan.

COMMISSIONER WONG: Thank you. And Mr. Keegan?

DR. KEEGAN: Three in a row. I think Taiwan is unquestionably -- from Beijing's point of view, this is fundamental to their legitimacy. From our point of view, it's fundamental to our values and our role in the Asia Pacific region. And that's a recipe for confrontation, that we're both going to have work very carefully, with Taiwan's active participation, to avoid.

But I want to add one more thing that worries me, and I know that President Tsai has talked about. And that is, Bonny talked about some of the grey zone tactics.

One of the most obvious is the repeated flights of PLA Air Force planes near Taiwan. And every time they fly near, the Taiwan Air Force comes up and checks them out. There is risk of an accident.

And in the current environment, that kind of accident probably won't play out the way the incident did in 2001, where we were able to talk our way down. That really worries me.

COMMISSIONER WONG: Right. That's a good point. That's a very good point, that miscalculation and accident is the cause of a lot of activity in the past.

Let me move on to a quick second question. In the last panel, there was quite a lot of discussion about the strategic clarity versus strategic ambiguity question. I think all of the panelists in the last panel supported maintaining the current policy.

Bonny, I noted that you specifically advocated for changing that policy. I wanted to give you just a chance to maybe respond to some of the arguments of the last panel, I don't know if you had a chance to hear them.

But some of the top arguments, and very cogent arguments, were that this created bad incentives for Taiwan and perhaps the next leader of Taiwan to make political proclamations that might be destabilizing, and also disincentivize the proper defense investments that the island would need to make.

And another argument was, we can do a lot of the coordination and assurance and other activities with Taiwan currently, and we don't need to explicitly state what our position is.

So I just wanted to give you a chance to maybe expand upon that, so we can hear both sides of the discussion.

DR. LIN: Sorry, I might be disappointing you. My position is actually currently strategic ambiguity is deterring China.

COMMISSIONER WONG: Oh, that -- I misheard you.

DR. LIN: No, I'm sorry, I think what I was trying to mention in my actual written statement was that if we had to choose between lower profile options to clarify our position towards Taiwan versus higher profile options, it's probably better for us to do lower profile options.

So measures, for example, that actually increase Taiwan's defense capabilities, versus just purely symbolic statements that aren't really backed by capabilities or aren't really backed by actions, that if China were to look at, does this increase Taiwan's defense? China might assess it does not, it's just a symbolic statement.

So if you had to choose between the two, I think we need to combine the actions that are not only symbolic, but also have substance behind it, versus just the purely symbolic statements.

COMMISSIONER WONG: Okay, thank you. Sorry for mishearing you.

COMMISSIONER GOODWIN: All right. We'll turn it back over to our Chair, Commissioner Bartholomew, to ask a couple questions.

CHAIRMAN BARTHOLOMEW: Thanks very much. And thank you to all of you.

Captain Shugart, I have to say that while I admire and appreciate the service of all of our people who work in the Armed Forces, I just am in complete awe of people who serve on submarines. I do not know how you guys do it. I was on one once for half an hour and I was just like, let me out of here.

Dr. Keegan, nice as always, our paths have crossed a bunch of different places along the way, nice to see you. And Dr. Lin, thank you. One question for Dr. Keegan, and then one for all three of you.

I mean you're talking about kicking the can down the road, right? But there's certainly -- we've had a lot of people say today that the reason that Beijing hasn't done anything yet about Taiwan or against Taiwan is because they're not confident that they could win, and yet, they are taking all of the steps that they need to do so in modernization.

So I guess I'm just concerned or question how you think that kicking the can down the road when they're improving their ability to do things is actually going to solve this problem? And that's my question specifically for you.

And then for the three of you, we've talked about allies, partners, friends in the region, I'm going to extend it outside the region, but it's been mostly in the context of would they be there if we needed them in a conflict?

And I guess I'd like to hear from you what you think that our allies, friends, and partners should be doing in terms of deterrence themselves, either unilaterally or multilaterally?

Dr. Keegan, kicking the can?

DR. KEEGAN: Okay. And when I finish, you may decide kicking the can was not the analogy I should have used, and if you come up with a better one, let me know.

What I mean is, we want to avoid having the three sides get to the point where we have to have a final resolution, whether it's Taiwan independence, reunification, whatever.

And so we want to give everyone as much latitude as possible to avoid coming to a decision, until a peaceful decision looks to be something that is possible.

And by kicking the can down the road, that includes building up our capabilities in the Western Pacific. It includes working aggressively with Taiwan to support its defense and deterrence capability, and making sure it takes responsibility for that if it expects us to be there.

It includes having a full set of responses to the grey zone threats that the PRC is using, whether it's in military operations adjacent to Taiwan, whether it is pressure on Taiwan's allies, whether it is excluding them from international technical organizations, where they have things they need to support themselves and where they can make a contribution.

Kicking the can down the road for the United States is a very active, very intensive activity. It's not sort of sit by and watch the can drift down.

Let me just transition, if I may, to the question of partners and allies. I think we should be working intensively with the near allies, and I define those really as Japan and Australia, to be supportive of our activity in response to the Taiwan contingency.

We should be planning out as fully as we can what we would need to do and how we would need to do it.

I don't expect other countries in the region or elsewhere to do much that's very useful, but I think we need to talk to them so that they understand what we are about, what we are going to do, and don't find themselves climbing on the PRC bandwagon. That's about as much as I'm afraid we can expect.

CHAIRMAN BARTHOLOMEW: Dr. Lin?

DR. LIN: Sure, thank you. In respect to your second question about what our allies and partners can do unilaterally and multilaterally, I agree with a lot of what Dr. Keegan said.

A lot of what they can do is, for example, even like symbolically supporting Taiwan's involvement in international organizations. I think, for example, a support on that would be very useful, even if they're not, for example, willing to contribute or allow the United States to operate from their military bases in a conflict.

It also could involve, for example, selling Taiwan defense equipment that, for example, the United States does not produce or is not able to sell Taiwan.

There are a lot of small steps that our allies and partners can take that, if added together, can really help increase Taiwan's ability to resist Chinese coercion.

CHAIRMAN BARTHOLOMEW: Captain Shugart, final word?

CPT. SHUGART: Yes, thank you. I would agree with what Dr. Keegan said, I mean in the sense that just that kicking the can down the road is going to be -- will take extraordinary efforts on the part of us and our allies, both in and outside the region.

Within the region, we just need stronger support, given the scale of the threat to the independence of action of all of our like-minded democratic nations in the Western Pacific.

Some of that would look like, for example, be more supportive of dispersed basing. And it seems like every time we try to do something, in many cases, we hear complaints from local communities. And to some extent, our allies have got to get on top of that.

We do need ever-tightening, machine speed interoperability. A conflict of that magnitude is going to be challenging on a good day, and we know from what they have said out loud, that they are going to be attacking our ability to communicate and organize and fight.

So for us not to have that worked out to a far greater degree than I think we do at this point is going to make that ever more challenging.

Outside the region, our allies outside of the region, we're starting to see help from France, Britain, sending support to the Western Pacific. We will need more help from them holding down the fort in their own parts of the world.

It's clear that we're going to have to focus our efforts far more than we have in the past on the Pacific, so they need to have a clear-eyed view of what we're up against, and also, quite frankly, what it's going to mean to them in the event of failure.

Because we should all be clear that a China that can dominate Asia is going to be a China that's also going to be able to dominate parts of the world that affect them too, in the longer run.

CHAIRMAN BARTHOLOMEW: Great, thank you.

COMMISSIONER GOODWIN: All right. Thank you. Vice Chair Cleveland?

VICE CHAIRMAN CLEVELAND: I just have one quick last question. We've talked about the political and security objectives relative to Taiwan.

Is there any compelling economic reason or stakes involved if we lost Taiwan? Innovation, technology, is there any capability unique to Taiwan that would put at risk our security interests or economic interests?

CPT. SHUGART: I would have to say probably the chip industry. I mean that seems to be something that's really, really important, very hard to replicate, very hard to replace, and really very much focused in Taiwan.

I mean imagine if half the oil in the world was in Taiwan, that's kind of where we're at, I think, from that perspective, and what would we think of it then? It would be pretty obvious.

VICE CHAIRMAN CLEVELAND: Thank you. I'm good.

COMMISSIONER GOODWIN: That may wrap us up for the day, unless any other commissioners have additional questions they'd like to pose.

COMMISSIONER TALENT: Can I ask a quick one? I think it's a quick one. Captain Shugart, can you take a minute and talk about the undersea domain? Am I correct in believing we still have a pretty significant advantage there? And how much of a deterrent is that, and do you see that advantage shrinking?

CPT. SHUGART: So yes, it is still definitely an area of significant advantage. It's publicly -- ONI has said out loud, Chinese nuclear submarines are very noisy, and they're still, for the most part, driving around the ones they were when the Office of Naval Intelligence said that.

So I can say here, yes, their nuclear submarines are still pretty noisy, which makes them very vulnerable against what we have. Their diesel submarines are not quite as noisy, but they are certainly improving them over time.

What I'm more worried about is the longer run. We now have open source intelligence, satellite imagery that shows huge expansions to both their nuclear submarine shipyard up at Huludao and also to their diesel submarine shipyard near Wuhan. So they're definitely not just letting that advantage stay there.

We also see the very large numbers of surface warships that they've produced in the last few years. They're almost -- every single one is equipped with modern sonar equipment. I mean their surface ship sonar capability 15 years ago was a joke, and it's not anymore.

So do we have an advantage? Absolutely. Is it strategic? Yes. Is it scary for them? I'm sure it is, depending on how aggressive we chose to be with it. But is it something that they're definitely working on? Absolutely.

COMMISSIONER TALENT: Okay. I may have a question or two for the record for you, also. Thank you, Carte.

COMMISSIONER GOODWIN: Okay. Anybody else? Well seeing none, I want to thank you all for your great testimony today and for your time.

I want to remind everybody that all the testimony and a transcript from our hearing today will be posted on our website.

We'll look forward to seeing everybody again on March 19 at our next hearing on U.S. investments in Chinese companies. Thanks, everybody.

(Whereupon, the above-entitled matter went off the record at 4:21 p.m.)

STATEMENT FOR THE RECORD

STATEMENT OFSHELLEY RIGGER, BROWN PROFESSOR OF POLITICAL SCIENCE AT DAVIDSON COLLEGE

Testimony for the U.S.-China Economic and Security Review Commission
Hearing on Cross-Strait Deterrence
Shelley Rigger, Davidson College

1. What is the effect of the U.S. policy of "strategic ambiguity" on Taiwan? How does this policy promote or detract from cross-Strait stability?

Washington's "strategic ambiguity" policy assumes a rough symmetry of threats to stability in the Taiwan Strait between those posed by the PRC and those posed by Taiwan. The threat from the PRC is that it might try to coerce Taiwan into an unwanted unification deal; the threat from Taiwan is that it might provoke the PRC to military action with a move toward formal, juridical independence. Strategic ambiguity assumes that neither event is impossible, so the US can most effectively deter both actions by keeping each side in a state of uncertainty, which forces each side to plan for the worst-case scenario. The PRC, in other words, not knowing whether and how the US would defend Taiwan, must do its military planning with the assumption that Washington will defend Taiwan energetically. Taiwan, for its part, must assume that it cannot count on US military support if its own actions provoke a military response from the PRC.

Recently, some strategic thinkers have suggested that this policy is outdated, because the threats in the Strait have become asymmetrical; that is, the threat of unprovoked PRC actions against Taiwan is now much greater than the threat of a Taiwanese declaration of independence. In their view, the US should clarify its position to say, unambiguously, that the US will respond to PRC coercion of Taiwan

I disagree with this position for three reasons, in increasing order of importance:

First, Beijing is already putting military pressure on Taiwan; it has many other coercive options that do not constitute direct military action. Some of these are very hard for the US to respond to effectively; if the US tried to do so it might well escalate tensions with the PRC in ways that leave everyone, including Taiwan, worse off. An unconditional commitment to defend Taiwan would require defining which specific measures would activate a US response. That would be difficult, and it would signal to Beijing precisely what to do to pressure Taiwan without crossing Washington's "red line." The PRC's own experience with red lines shows how difficult they are to define, and how constraining they can be, not to the target, but to the country that set the red line. Ambiguity allows for discretion, flexibility, and judiciousness.

Second, we cannot assume that Taiwan's pro-independence constituency will be deterred in the future. An unconditional promise of US support would alter the balance of power in Taiwan's domestic politics in ways that would not serve US interests. Given how costly it would be for the US to intervene in a military conflict in the Taiwan Strait, Washington should be extremely careful about encouraging radical elements within Taiwan. Public opinion data shows that young Taiwanese are more open to independence than other age groups. Perhaps their views reflect youthful idealism, and as they grow older they will become more cautious. With a

US security guarantee, though, maybe they won't. Surveys have shown that higher confidence in the US security commitment is correlated with support for independence. There are plenty of politicians who would be happy to ride voters' naïve enthusiasm to electoral success, putting the US (not to mention Taiwan) in a difficult position.

Third, the US has spent decades alternately cajoling and browbeating Taiwan to devote more resources to its own defense. This is an extremely difficult task for Taiwan's leaders; its population does not support high levels of military spending. Each US arms sale to Taiwan is accompanied by a chorus of criticism claiming that American arms manufacturers are milking Taiwan's taxpayers. That criticism is unfair, but it's an important part of the political landscape that Taiwanese leaders work in. President Tsai Ing-wen has devoted a great effort and much political capital to cooperating with the US to build Taiwan's capabilities. She has also made a greater effort than any Taiwanese leader since Chiang Kai-shek to convey to her own people the necessity for a strong military. An unconditional promise of US military support would, in my judgment, undercut her efforts and end the progress that has been made. It would make it virtually impossible to persuade Taiwanese voters to support investment in their country's military capabilities. Such an action by the US would be a self-inflicted wound. It would reverse hard-won gains for the US and it would make defending Taiwan much more difficult, politically, since Americans (including our armed forces) would perceive Taiwan as free-riding on their blood and treasure. Finally, if we are honest, a declarative promise of military support is not, in fact, a guarantee that the US would intervene, so such a policy could entice an unprepared Taiwan to take an action that would lead to its destruction, which clearly not in the US's interest.

2. How does the Taiwan public view the future of cross-Strait relations? How willing is the Taiwan public to take concrete action, such as serving in the military or supporting increased defense spending, to defend Taiwan's de facto independence, and what is the effect of U.S. policy on this level of commitment?

One of the most confounding aspects of US-Taiwan relations for Americans is the apparent indifference of Taiwanese citizens to the military threat they face. To US policy makers, that threat is the most salient fact about Taiwan. For Taiwanese, though, the military threat from the PRC is background noise. They live under a sword of Damocles, no doubt, but it is a rusty, dusty old sword that has been hanging up there for seventy years. Most Taiwanese rarely notice it. Professional military planners and policy makers look at it all day long, but most civilians assume that because war makes no sense to them, it surely makes no sense to people in the PRC, either.

Military service is not culturally or socially validated in Taiwan as it is in the United States. Many young Taiwanese have told me that their parents use the "threat" of a military career as a spur to work hard in school ("If you don't pass these exams, you'll have to go in the army."). Taiwan has been trying for several years to implement an all-volunteer force, but these socio-cultural obstacles combined with resource constraints have made it impossible to reach recruiting targets. Not all Taiwanese embrace this kind of thinking: a popular young DPP politician, Enoch

Wu, emphasizes his military service as a qualification for public office. Wu's outlook should be applauded, whether it comes from DPP politicians, KMT politicians, or others. Taiwan's political parties would do well to promote veterans within their ranks.

There are two, mutually-reinforcing dynamics that make many Taiwanese families perceive military service as undesirable. First, Confucian cultures prize intellectual/scholarly achievement above martial qualities. Second, Taiwan's history of subjection to a military dictatorship after World War II creates tension between the majority of the population and the military. The military was politicized for decades, which makes it hard to recruit those who do not have a family history of military service. Events like the "mass wedding" of military personnel that took place last year – and especially the publicity given to several same-sex couples that participated – are a clever way to change the perception of military service. They align the military with progressive forces in Taiwan rather than with the "old regime."

Military recruitment and readiness face tough challenges, but Taiwan's leadership is trying to address them. For those efforts to succeed, the US needs to strike a balance. On the one hand, the US should not offer unconditional military support to Taiwan, since this would encourage freeriding – especially given the (not unreasonable) perception in Taiwan that its own capabilities are insignificant when compared to what the US can do. On the other hand, the US should not give the impression that the defense of Taiwan is hopeless. Running down the Taiwan military, claiming that "Taiwanese will fight to the last American" (a phrase I've heard way too often in Washington, DC), mocking Taiwan's leaders for listening to the constituents – this sort of pressure does not help Taiwanese politicians strengthen their armed forces.

My own small contribution to this effort was to write an op-ed for a Taiwanese newspaper in 2019 after the tragic deaths of several military personnel, including General Shen Yi-ming, in a helicopter accident. I praised General Shen's service and sacrifice, and I encouraged Taiwanese for whom military service would be an appealing career to pursue it. I also encouraged parents to support young people who choose a military career. I'm sure it made no difference to anyone, but it was what I could do.

3. How has the Taiwan public responded to Beijing's imposition of the National Security Law over Hong Kong? How could future developments within China's domestic or foreign policy harden or diminish public resolve within Taiwan to resist China's attempts to bring the island under Mainland control?

The Hong Kong crises has riveted Taiwanese, especially young people. For many years after 1997, Taiwanese viewed Hong Kong as irrelevant to their own situation. That changed in 2014 when Umbrella protesters in Hong Kong began linking up with Sunflower protesters in Taiwan. Strong ties were formed, and Taiwanese began paying more attention to developments in Hong Kong. While many Taiwanese are skeptical of protests, the violent police response and absence of political concessions in Hong Kong put the Taiwanese mainstream firmly on side with the Hong Kong protesters. Hong Kong's fate no longer seems irrelevant to Taiwan: it is now viewed as proof that Beijing cannot tolerate an autonomous entity within its borders and will use any

means necessary to crush resistance to totalitarian rule. This, by the way, is not surprising to the average Taiwanese, but the evidence from Hong Kong confirms their suspicions.

In practice, however, supporting the Hong Kong people has costs for Taiwan. First, it's dangerous for Taipei act in ways that can be interpreted as supporting the claim – currently made without evidence by Beijing – that Taiwan is a "black hand" behind the Hong Kong protest movement. President Tsai needs to be careful not to give Beijing ammunition to use against her. In addition, one of the things Taiwan is being asked to do is to let Hong Kongers enter as political refugees and/or immigrants. It remains to be seen how willing Taiwanese will be to admit large numbers of them, especially if their arrival drives up housing prices in Taipei. The economic costs, in other words, fall unequally, and will likely have political consequences.

The Hong Kong situation is hardening views against the PRC. There has not been a lot of polling on this question (I have a survey on this topic in the field now, but no results yet), but my assessment is that Taiwanese sentiment toward the PRC has become much more negative over the past three years. Rising military pressure is one factor. The mainland's declining economic value to Taiwanese – production costs are rising, Taiwanese privilege is disappearing, plus the trade war – is another. Taiwanese also are aware of the growing repressiveness of the PRC state; many Taiwanese who live in the mainland notice increased surveillance, for example. Still, the crackdown in Hong Kong is a major factor turning Taiwanese against Beijing.

4. How might changes in U.S. policy toward Taiwan affect Taiwan government policy and public opinion on how the island should relate to China and whether it should expand its ongoing cooperation with the United States?

I've addressed the military elements already, but I will say something brief about diplomatic and economic policy. On the diplomatic front, it is most important that the US coordinate its policy with Taiwanese diplomats to ensure that Taiwan's interests are not undercut by actions the US intends to benefit them. Economically, the US can help Taiwan elevate its economy and avoid economic marginalization by negotiating high-quality agreements with Taipei. The US also should be careful not to make Taiwan collateral damage in its efforts to shape the PRC's economic practices.

5. The Commission is mandated to make policy recommendations to Congress based on its hearings and other research. What are your recommendations for Congressional action related to the topic of your testimony?

<u>Diplomatic and People-to-People Relations</u>

- Pass the Taiwan Fellowship Act (H.R. 7414, S. 4327). The bill would enable long-term non-military cooperation between the governments of the United States and Taiwan. The Taiwan Fellowship Act will strengthen the bond between the two countries at the working level and be a clear and tangible signal of America's commitment Taiwan and

other democratic partners. As an unpaid advisor to the nonprofit organization developing this program, I strongly recommend passage of this bill.

- Pass immigration reform legislation that would allow international students who earn graduate degrees in STEM fields to remain in the United States to work. Morris Chang, TSMC's founder and CEO, is a China-born US citizen who was educated at Harvard and MIT and began his career at Texas Instruments. He was recruited by Taiwan's publicly-funded Industrial Technology Research Institute (ITRI), from which he launched TSMC. While Chang is the most famous, many of Taiwan's outstanding entrepreneurs and engineering talents have degrees from US universities and experience in US tech companies. Their ability to rotate between the US and Taiwan is a boon to both countries and has enabled the high level of technical cooperation between them. The US should encourage Taiwanese to study and work in the US, and to be a bridge between our countries.
- Pass legislation to increase the number of immigration visas available to Hong Kong people. The US should make its stated commitment to Hong Kongers' human rights concrete by making itself a refuge for Hong Kong people. It will be easier for Taiwan to follow suit if the US leads the way.
- Encourage relevant committee staffers to form relationships with Taiwanese officials in the US that would allow for frank, private dialogue about how Congressional proposals aimed at helping Taiwan would affect Taiwan's interests *as it perceives them*. Taiwanese diplomats should be able to express their concerns about Congressional proposals without fearing they will offend US officials.
- In accordance with the TAIPEI Act, encourage the Biden Administration to advocate for and work to normalize Taiwan's role in international organizations, including the World Health Organization (WHO). Taiwan's extraordinary performance in taming the COVID pandemic makes it especially urgent that it not be excluded from global conversations.
- Enlarge the highly-successful Global Cooperation and Training Framework (GCTF) and other activities that raise Taiwan's international profile.

<u>Economic Relations</u>

- Express bipartisan Congressional support for negotiation of a bilateral trade agreement with Taiwan. While this process will be complex and multifaceted, one area that needs to be addressed is incentivizing new business creation and venture capital investment in Taiwan. The island's economy is distorted by wealth stored in real estate and other non-productive assets, even as start-ups are starved for capital and educated young people search fruitlessly for jobs. External pressure could help Taiwan's leaders push through needed reforms to unleash the country's accumulated capital for a new wave of business creation.
- Encourage the Biden Administration to (re)start US participation in (CP)TPP, with the expectation that Taiwan will become a member.
- Exempt Taiwan's exports from punitive tariffs, including on steel and aluminum and items assembled in China from Taiwanese and other imported components.

- Discourage the Biden Administration from using Taiwan Semiconductor Manufacturing Corp (TSMC) as a weapon against PRC technology companies. TSMC currently enjoys a wide head start over its competitors, but if Chinese tech companies lose access to its chips, their desperation will force them to find a way to buy or steal its technology. Birthing the competitor that will bring down TSMC is something Beijing would dearly love to do, but it would be a disaster for Taiwan and for the US. Allowing Chinese companies to buy the chips they need reduces China's urgency to achieve this goal.
- Ban ractopamine in US meat production. At least 160 countries have banned this chemical. For more than a decade the US and Taiwan battled over the US's insistence that Taiwan accept meat produced using ractopamine. In 2020, Taiwan's president gave in to the US's demand, at great political cost to herself. Now Taiwan's local governments are banning the chemical, and consumers around the world are turning against it. This is a battle that will continue to eat away at US-Taiwan ties until the US finally acknowledges what most of the world already knows: ractopamine doesn't belong in our food.

Military Relations

- Fund attractive opportunities for early-career Taiwanese military personnel to visit the United States (perhaps for English language training) so that they can experience the US armed forces' esprit de corps.
- Ratify the United Nations Law of the Sea Treaty to give the US institutional and moral authority to address the PRC's UNCLOS violations in the South China Sea and elsewhere. The US hobbles its own credibility in this regard by continuing to reject this Treaty, which has been promoted by both Republican and Democratic administrations.

QUESTION FOR THE RECORD

RESPONSES FROM THOMAS SHUGART, ADJUNCT SENIOR FELLOW, DEFENSE PROGRAM AT THE CENTER FOR A NEW AMERICAN SECURITY

Question for the Record: Hearing on "Deterring PRC Aggression Toward Taiwan"

March 15, 2021

Submitted by Senator James M. Talent

To Thomas Shugart:

- How close is the PLA to getting the necessary sea lift for a cross-Strait incursion? How many naval vessels, and what types, would be required for a cross-Strait invasion? By what approximate date will the PLA have produced enough of these vessels to be "ready"?
    - My impression is that currently available PLA Navy amphibious shipping is insufficient to support a landing force to invade Taiwan. The detailed shipping requirements and associated shipbuilding timelines required to fully answer this question with meaningful accuracy are beyond my available sources of open-source, unclassified information. I recommend querying U.S. Indo-Pacific Command (J2), the Office of Naval Intelligence, or the Defense Intelligence Agency to obtain specific data regarding the required shipping to support a cross-Strait landing force, as well as associated shipbuilding programs.
- In what ways might Chinese civilian shipping contribute to China's sea lift during a cross-Strait conflict? What additional steps would China need to take to make use of its civilian sea lift in an invasion scenario, and in what ways are these ships limited?
    - Chinese civilian merchant shipping, which is available in the form of Chinese state-owned shipping companies, could supplement amphibious sealift to transport materials across the Taiwan Strait to captured Taiwanese ports. China has dozens of civilian roll-on/roll-off (RO-RO) ships suitable for use by military units, and "many of the companies operating RO-RO ships have been organized into transport units and are actively cooperating with the PLA."[1] I recommend reviewing "CMSI Maritime Report No. 4: Civil Transport in PLA Power Projection" in detail on this topic, as it is the single most authoritative open-source that I know of on it.
    - In order to utilize civilian shipping to augment the sealift capacity of the PLA Navy, the PLA would have to seize civilian port facilities sufficient for and

[1] Conor Kennedy, "China Maritime Report No. 4: Civil Transport in PLA Power Projection" (U.S. Naval War College, 2019). https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1003&context=cmsi-maritime-reports

compatible with merchant shipping. By my personal review (via commercial satellite imagery) of the port facilities on Taiwan's west coast, there appear to be several large civilian ports that would be compatible with such use. For most of the types of RO-RO ships and ferries in China's merchant fleet, side-pivoting vehicles ramps seem to require only a small intact portion of pier to land vehicles (see Figure 1), which could then be used to expand a seized perimeter. My personal assessment is that, in the absence of completely blocking access by blocking channels leading into Taiwan's west coast ports, Taiwan is unlikely to be able to destroy completely its port facilities to the point that they would be completely unusable to land PLA vehicles from RO-RO vessels. See, for example, the scale of the west coast port facility at Taichung, Taiwan (shown in Figure 2), which would presumably have to be destroyed in its near-entirety to prevent the landing of vehicles.

- In order to utilize China's large container ship fleet to support an invasion of Taiwan, China would need to seize or construct cranes to offload containers. I do not have specific expertise on the availability or ease of construction of container-capable cranes.

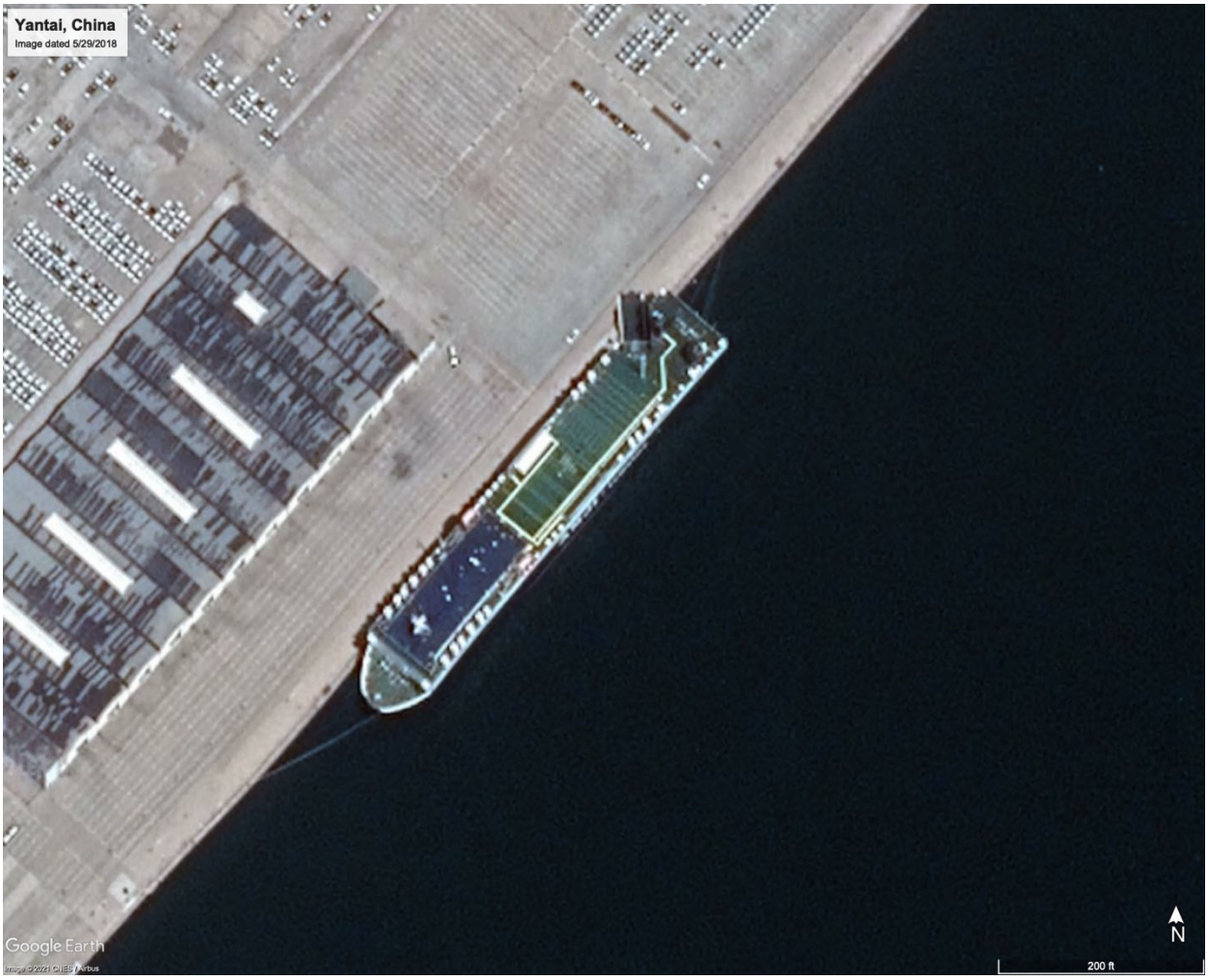

Figure 1: RO-RO ferry docked at Yantai, China.

Figure 2: Port facilities at Taichung, Taiwan.

PUBLIC COMMENT SUBMITTED FOR THE RECORD

Submitted via email by Jean Public on February 8, 2021

public comment on federal register

we need to stop buying from china. we need to let china sell to others but not buy anything from them anymore.it is clear that they intend world supremacy and to take over every other country on earth. we need to make sure we make up with russia. that is our ownly chance to ever have safety in america. stop antagonizing russia and get them to align with usa because they have china issues too. china is on a course to take over the world. we have allowed them to do it by letting them sellus crap materials. why DO WE NOT MANUFACUTRE OUR MEDICINES HERE IN AMERICA. WHY ARE WE SENDING BILLIONS OF AMERICAN TAX DOLLARS TO WUHAN THROUGH DR FAUCI. WE ARE BENT ON DESTRUCTION WITHT EHPOLCIIES OF THE US GOVT. CHINA IS NOT OUR FRIEND. IT IS CLEARLY OUR ENEMY. THIS COMMETN IS FOR THE PUBLIC RECORD.PLEASSE RECEIPT. THEY ARE BIDING THEIR TIME AND WILLING TO WAIT TO STRIKE. AND NORTH KOREA IS CLEARLY THEIR PALS WITH THEIR BOMBS. JEAN PUBLIEE