McFaul: You're listening to World Class from the Freeman Spogli Institute for International Studies at Stanford University. We bring you in depth expertise on international affairs from Stanford's campus straight to you. I'm Michael McFaul, your host and the director of the Freeman Spogli Institute.

In the last few months, there has been multiple headlines – I would say an explosion of headlines – in the news about China, rising security concerns, and Indo-Pacific. There's also been lots of discussion about Taiwan. Oriana, I don't know how you keep up with it all, frankly, but you're going to help us make sense of it all.

I'm speaking today with Oriana Skylar Mastro, a center fellow here at the Freeman Spogli Institute who works on issues of international security, particularly in relation to the Chinese military and Asia Pacific research issues. Oriana also serves in the United States Air Force Reserve, for which she works as a strategic planner at INDOPACOM. Oriana, welcome to back to World Class.

Mastro: Yeah, thank you for having me. Looking forward to the conversation.

McFaul: I want to walk through capabilities, intentions, and responses – that's my idea. So, let's start with Chinese capabilities. Obviously, it would take hours to talk about everything that's happened over the last decades. But two in particular, I think, are of interest to our listeners right now.

One is the new capabilities that China has to invade Taiwan, to put it bluntly, and I'm wondering if you could just walk us through a little bit [of] how those capabilities have changed over the last several years. And two, just because it's been in the news, tell us a little bit about new strategic capabilities, and in particular, this hypersonic missile that was
allegedly tested and launched. Give us a sense of how you see both of these growing capabilities with the Chinese.

**Mastro:** Well, it’s good that we get to talk about these together, because I think when we talk about the conventional capabilities, I’m much more concerned than some other strategists and analysts are. And then when we talk about the strategic, I’m much less concerned than other analysts are. So, you get a well-rounded picture of how I see these issues, and they are quite different.

So, on the conventional side, what most people might not realize is how far the Chinese have come in the past couple of years. When I first started working on Taiwan contingencies, I edited a book, I guess, now 15 years ago called *Assessing the Threat.*

**McFaul:** 15 years ago?! You edited your first book on Taiwan that long ago? That’s remarkable to me.

**Mastro:** Yeah, it was my first job out of college and out of Stanford. It’s what made me kind of think, “Oh, doing research is fun! And also, scary.”

But at that time, the Chinese-Taiwan invasion plan was to take a couple of fishing vessels and paddle their way over. They had very limited ability – basically no ability – in the early 1990s to fly over water, to fly at night, or to fly in weather, and their ships had no defenses. I remember going out to the Naval War College when I was in graduate school to give a presentation about the first ship that had ship-based defenses on it. And this was something very new.

So for many, many years we knew China was going to be willing to fight if Taiwan declared independence, of course, and we knew that fighting a war in any country that’s big and resolved is problematic. But it was never the case that the United States was going to lose that war; it was always a matter of, “How many days?” How many days is it going to take us to win?

In the intervening years, China's military has changed both quantitatively and qualitatively. Now they have the largest navy in the world, for example. And those ships not only are numbers, but they are also some of the most advanced surface ships that can be comparable to those of the United States. In general, they're smaller than those of the United States. But then it's debatable; they're smaller and more agile, the United States’ are heavier. We can
have a debate about if size matters, but for the most part, they are good. And same with their fighters. You know, they have the largest air force in the region, they have fifth generation fighters. So, they've put all these capabilities online, and at the same time, they have also started developing capabilities to reach out and touch the United States with. For the most part when the United States fights wars, we're flying and sailing wherever we want.

McFaul: Right, right.

Mastro: In Afghanistan, in Iraq, we’re just hanging out in the air.

McFaul: No one's going to attack from there, right.

Mastro: No one can touch us. I remember in intel school learning about dogfighting, because it was just one of those things you have to learn about. But it was like, “Who are we dogfighting with?” I mean, it helped me appreciate Top Gun more. But there's nobody up there. But China's completely different now.

First, they started focusing on being able to hit U.S. assets. So, they developed the capability to hit moving ships at sea. The United States doesn't even have that capability. They can hit aircraft carriers. Then they're like, “Okay, the United States relies a lot on satellites to project power, so let's make sure that we have anti-satellite capabilities and counter-space capabilities.” Then there’s this huge cruise and ballistic missile program that can basically take out U.S. bases in the region in a matter of hours, which makes it hard to operate.

McFaul: Matter of hours, you just said?

Mastro: Yes. I mean, Kadena, I think, doesn't last day if China decides that they are willing to hit the United States. And that's the only airbase we really have in the vicinity of Taiwan. So, all of this is just to say that the first thing they did from 2000 to 2010 – if I can greatly simplify—is what we call anti-access area denial. They said, “Let's punch the United States in the nose.” But they couldn't actually do anything themselves. There's a difference between disrupting someone else's satellite and having satellites of your own.

And then from 2010 to about today, again, to generalize, they started building their own power projection capability. So now they have the ships, the aircraft, and they've reorganized their whole military so that they can do joint operations, so that the navy and the air force can do an invasion of Taiwan. And a lot of those efforts came to a successful conclusion at the end
of 2020. When I was in Beijing and talked to the Chinese military and government officials, they said, “We could do this now. And so maybe we should think about it.” These capabilities didn’t come out of nowhere; they designed those so that they would have these options. Now they have these options, and so I think it’s very tempting.

That's the conventional side. I'm very concerned. It doesn't mean that China is more powerful than the United States; China cannot project power far beyond the region, and they have no way of hitting the United States conventionally. If we bomb China, it's not like they can bomb us. They can only really project power through space, cyber, and nuclear weapons. But most of the contingencies we're talking about are really close to China, so it doesn’t really matter that they can’t project power. So, on the conventional side, I'm very concerned.

**McFaul:** Alright, that's a pretty scary thing you just described. We'll get to intentions in a minute; you hinted at it, but go on the strategic side: first capabilities, then we'll pivot to intentions.

**Mastro:** So, people do a lot of mirror imaging, unsurprisingly, when it comes to China. We always think about the Cold War examples. I have a lot of critiques to say about China and how they're behaving, but when it comes to their nuclear strategy and doctrine, China has been exceedingly reasonable about how it thinks and deals with nuclear weapons. And this is not only what they say. China has basically had the same nuclear strategy since 1964.

**McFaul:** '64? Going that far back?

**Mastro:** They basically have not changed it at all. They have a no first use pledge and a minimum deterrent, which basically that means they were like, “Soviet Union, United States, it's really stupid you guys are building all these nuclear weapons. We think we need to get through a handful so we have enough to retaliate and deter.”

So that's all very reasonable to me. And everything we know – their training, their doctrine, their campaign planning – all supports that this is legit. They only have one nuclear campaign, and it's a counterstrike campaign. They train to absorb a nuclear attack and respond.

When it comes to strategic stability, to me a lot of the problem the United States. [For example], what's our nuclear doctrine? It can get very aggressive depending on the president. Sometimes it's, “We’ll nuke whoever we want, whenever we want. Don't ask us any more
questions about it.” And then with missile defense and things like this, the Chinese become, I think, legitimately and exceedingly concerned that we might try to take out their very limited nuclear deterrent

McFaul: Right. Because it is very limited. That's your point, right? So, it makes them nervous when we . . .

Mastro: It makes them nervous, and until very recently, it was not survivable at all. So, this is also a big mystery: “Why didn't they try harder?” But they basically put their nuclear warheads in fixed silos. It was all liquid fuel, not solid fuel, which means if they're going to use their nuclear weapons (because liquid is corrosive) they'd have take them out and fuel them up. We know where they all are, and we could take them out.

So, this hypersonic test and the increase in ICBMs I really do see as them wanting to establish a second-strike capability. They are so concerned that the United States will preemptively take out their nuclear weapons that they've tested this hypersonic capability that can basically deliver a nuclear warhead and evade U.S. missile defense.

McFaul: Right. So, to preserve Mutual Assured Destruction, that in other words, the second-strike capability for them, and in the way they think about it, to make sure Mutual Assured Destruction is still a deterrent.

Mastro: Right, that they have enough ability to hurt the United States to deter the United States.

McFaul: Got it.

Mastro: And so the significance for me is less on the nuclear side, because I think having that strategic stability would be good for the relationship if China were less concerned about their second strike. It's more about, the United States doesn't have the ability to have a hypersonic boost vehicle like the one that the Chinese tested. It just shows that they are more advanced in some critical emerging technologies that might shape the future of warfare beyond the nuclear sense. Hypersonics also might give them the capability to hit the U.S. homeland one day with conventional systems.

McFaul: Conventional, right. And that's an important thing for our listeners to remember: you can arm these missiles with different kinds of warheads. So, it could be conventional.
Mastro: Right. And hypersonics means that they can go farther in range. It's not only that they go really fast, but then they glide for a long time, so they can go farther. To me, that changes the strategic calculus more than anything, because it's much more credible that China would use conventional weapons against the U.S. homeland versus nuclear ones.

McFaul: Okay, well, that's on capabilities. All scary, although the conventional sounds scarier than the strategic. That's interesting. Tell us a little bit about intentions and Taiwan, first and foremost. [What] do you see, to the best of our knowledge given our limitations on what we can know, about how Xi Jinping is thinking about Taiwan, how has that changed in the last couple of years? And tell our listeners what you think about the near term versus medium term versus long term threats of an actual invasion?

Mastro: I think there are so many myths that we keep in our head about China. One of my favorites, if I could characterize 20 years of U.S. strategy, is to try to convince China they're better off being number two. And then we were really surprised that that didn't work.

It's the same thing with this Taiwan debate. Everyone's like, “Why is Taiwan really important? And why can't they wait forever?” Now, a lot of my work, obviously, is much more empirically rigorous than this, but in my mind, I'm just like, “That's not how humans work.”

The whole goal of the Communist Party, since its founding in 1949, has been to resolve this Taiwan issue. So this view of, “Can’t they just get over it?” if I could come up with a way to make leaders care less about territory and power, I would be happy to do that. But I don’t have a way.

When Xi Jinping came into power, first, he looked at the military, and he was like, “You guys cannot fight a war.” This is what kind of launched some of the reforms that I referred to that got us to the capability we have today.

But then he has this whole platform of national rejuvenation in which he wants China to return to its historical and natural place as a great power and as the dominant power in Asia. And he said that regaining Taiwan is a key part of that. And that's like his shtick, right? When he first started saying stuff like this, I dismissed it, because I figured he would be out in 2022; no one was going to hold him accountable. But then you get rid of term limits, and now he's going to be there forever, and then it started taking on a new light.
I think we have to trust what Xi Jinping says, because when he tells us he's going to do something, especially when it's something we do not want to hear, they always do it. I have this whole list of things where they said they were going to develop this capability; or they said they're going to control the South China Sea; or they said, “Made in China 2025,” and then they stick to that plan. So, I don't think we should dismiss that.

And that's why I think this idea that, “Well, maybe they'll wait another 20 years [to retake Taiwan]... I don't know. Not in conversations with you, Mike, but when I give public presentations, I always compare it to tenure. When I came to Stanford, you guys gave me five years to get tenure. Am I going to wait five years? Or just for the second my second book is out?

**McFaul:** You're gonna strike! Yes.

**Mastro:** Right, I'm not waiting forever! And I understand that China doesn't want to wait forever, either. It wants to resolve this issue once and for all.

**McFaul:** Interesting. Well, let's come back to the American response. We pretty much touched on the intentions on the strategic side, but just say one more piece. You talked about the capabilities: it sounds like, in your view, they're responding to American capabilities in order to preserve Mutual Assured Destruction?

**Mastro:** China thinks about deterrence differently than we do.

**McFaul:** Talk about that a little bit. I want to hear it.

**Mastro:** So, it gets little confusing. There's sort of two components. One that is that for China, compellence is a part of deterrence. So, in the United States, we have this mindset that with deterrence, you can threaten punishment to keep a country from doing something. It's only if they deviate from the status quo that maybe they would be punished.

**McFaul:** Right, that's the way I understand it.

**Mastro:** Right. But now we have a separate category of compellants, in which we're actively using force, usually to get the other side to revert to a previous status quo. In our minds, deterrence is not the active use of military force.
In the Chinese mindset, they believe that the most effective deterrent is one that involves the active application of military power. So, we read all this T.C. Schelling and stuff about how to make your threats credible. And China is like, “Well, that’s silly. How about you just use force and then everyone knows your threat is credible?”

**McFaul:** Wow. How interesting.

**Mastro:** So they do things like this with India and the 1962 War, and even now, with some of the border skirmishes. When they’re trying to reestablish a peacetime, stable relationship, they’ll often use force to do that.

And then we have this idea of different stages of deterrence. In China’s mind, they want to deter the United States. But that’s U.S. intervention to stop them from being aggressive. China wants to be able to take Taiwan and they want to deter U.S. intervention. But the way we think about deterrence is not in terms of preventing someone from stopping your aggression, but by preventing someone from being aggressive to begin with.

**McFaul:** Yeah, you’re right.

**Mastro:** So in the Chinese mindset, it is all deterrence, and it is all defensive. But this is also what makes them extremely risk-averse. We know from behavioral economics, that countries and people are much more willing to take risks to not lose something that they think is theirs, versus when they are trying to get something which they don’t think is theirs. And in the Chinese mindset, Taiwan, the South China Sea, East China Sea, and everything is already theirs and the United States is trying to take it from them makes it even more problematic.

**McFaul:** Well, that is very sobering. Let’s talk then about U.S. responses. Give your high-level take on how you think the Biden administration has responded so far, particularly about Taiwan, but also your take generally on their China policy. Then let’s end with what more needs to be done, in your view.

**Mastro:** So, one of the problems with the current policy on Taiwan is that we do have some of these outdated concepts. And one of them is that as long as the United States demonstrates the willingness to defend Taiwan, that will establish the deterrent. But based on what I just told you about Chinese capabilities, this isn't the 1990s where the United States just threatens to get involved and China says, “Well, if we have to fight the United States, we’re going to go home.” They learned a lesson from the last Taiwan Strait Crisis, when the United
States moved an aircraft carrier battle group close to them. But they didn't learn, “We should be better behaved.”

McFaul: That was back in 1996, just remind our listeners, right?

Mastro: Exactly. So, we think, “Oh, that was such a deterrent success.” But from China's mindset, they're like, “We didn't like being deterred.” So, they developed the DF 21 D to sink aircraft carriers. And now no one's sending an aircraft carrier into a crisis situation anywhere close to China.

McFaul: Tell us more about the DF 21 D, just so we all understand what that is. That's something new and scary, right?

Mastro: You should come by my office. I have a lithograph of it on my wall. I have a great friend who's a China military specialist, and also an artist. It’s a great combination. But this is their anti-ship ballistic missile that’s capable of targeting moving ships at sea, which is actually very hard to do. One, because ships are very small and the sea is very big. And for resolution imagery, targeting wise it's really hard to see things when they're moving on water or on roads, because they blend in.

So it's very difficult. But, China has credibly demonstrated the ability to do it, so I don't think any U.S. commander is going to send in a ship with 5000 sailors on it anywhere close if we're in a conflict scenario

All of this is just to say that the Biden administration is doing all of this political maneuvering to show the United States willingness to defend Taiwan. And I think it’s really provocative. It's just upsetting Beijing. Beijing, things we're changing the political status quo. And it does nothing to enhance our deterrence, because it doesn't signal anything about our capability to defend Taiwan. The Chinese basically assume the United States will intervene. Their big question is, can they still win? We need to show China that they cannot win. Not that they'll win, but it'll be costly. People don't understand the costs that Beijing is willing to absorb, given how important this is.

McFaul: So how might Biden or your future administrations for that matter, but let's talk about Biden, now: how could they do that?
Mastro: It's really about capabilities in the region. The bottom line is China's military does not win in all scenarios. And it's actually only in a very select few scenarios that they win. But they're only going to start the war in the scenarios that are most beneficial to them and when they have control over it. And the thing is that for the United States, it takes us a long time to get stuff there.

McFaul: Right. It's far away, as you said earlier.

Mastro: We're so far away. Even with like, new agreements with Australia; Australia is so far away from Taiwan. And so we need better early warning, intelligence surveillance, and reconnaissance capabilities. Part of the Pacific Deterrence Initiative, which was a big bill of money given to the Department of Defense, was designed to do that. Part of it is trying to put missiles in the Second Island Chain. If you can't convince China [attacking Taiwan] will be costly, I think the best strategy is one of denial, in which you fill the Taiwan Strait with missiles so they can't physically get over. And that's something you know, you don't need a lot of warning for, which is why that's very useful.

McFaul: But that has not happened yet. Right? That's an idea, that's a capability we have deployed yet.

Mastro: Well, we don't really have it. Because of the INF Treaty, we weren't allowed to develop intermediate-range, land-based missiles. So first we'd have to develop them, and we have to manufacture them. And then the hardest part is we have to convince countries to host them for us.

And so I'll leave it with this: the Biden administration wants to lead with diplomacy. I'm a military person, but I'm totally on board with leading with diplomacy, because diplomacy is the heart of military power, in a lot of ways. But what that means is aggressively negotiating new host arrangements, more access for the U.S. military, and also new international institutions and treaties. We have nothing to constrain China in cyber or in outer space. They leverage power in different ways than we do, and it's not surprising to me that the institutions we built 70 years ago don't address all these things. I don't think that means we throw away international institutions, but I think it means we build new ones. But I don't see those types of efforts coming out of the Biden administration. They seem to want to double down and do the same things, just with more allies and partners. I'm supportive of it, but I just don't think it's enough.
**McFaul:** And so ironically, you want to see more diplomacy about new international agreements, maybe institutions, but as a military person, you also think that they need more diplomacy and a more aggressive strategy for dealing with these new threats?

**Mastro:** Yes, absolutely. Right now, I'm in the process of writing a book about how China competes in the international system. I have chapters on foreign policy, economic policy, tech and military strategy. And my main argument is that China, contrary to conventional wisdom, is not emulating the United States. For the most part, the way that they build power is through differentiation. And this is not particularly surprising to anyone in the industry, or the private sector. If you are a small company coming into a market dominated by a big company, you don't try to do exactly what they do with fewer resources and less experience.

And so to help me come up with better recommendations for these exact questions of competition, the first step is just having a clear idea of what China's actually doing. I just spent the whole morning, unsuccessfully so far, trying to figure out the correlation between how they use peacekeeping forces and places where they have commercial and economic interests. People always say that China is going to have these bases around the world. But they're not. They're trying to protect their commercial interests mainly through training the law enforcement of host nation forces, sending some people through peacekeeping operations, and then free riding off of other militaries. It's a mix of stuff. But it's hard to find even basic data on. Where are they? Which resolutions do they support? For what reasons? How did they send people here, but not there?

So the first part of the project is just to try to create some new datasets so that we have a better understanding of how China is building power. And then in some areas they're doing things very differently from the United States. AI-enabled surveillance technology is a great example. China wants to be the internal security partner of choice and there's a huge demand. They sell these technologies to countries, a lot of them democracies, for public security reasons. It's not always for internal repression, but it can be used for those reasons. The United States doesn't really want to compete with China in helping countries repress their people, so we're not going to out compete with them in that area. But this is one area where we should absolutely push for some arms control, or treaties, and make it more costly for China to be selling these technologies to autocratic regimes around the world. So hopefully, once I'm done with this book and I come to you and I say you should give me tenure, I'll also be able to go to U.S. government with these recommendations.
But to me, I don't think I have a clear picture yet, even in the military strategy, of how different their approach is. Take nuclear strategy. Our systems are mostly air delivered. Most of theirs are land based. China has zero tactical nuclear weapons. They have a whole different approach. The mirror imaging, I think, blinds us to how they can effectively compete with us. So the first step is really understanding what they're doing, and that's what I'm trying to do in this book.

**McFaul:** All the power to you, we'll just keep having you back to do sessions on individual chapters. But the point you just made about basing is a great one to underscore your hypothesis. They're not mirror imaging us; they're not building bases all over the world. They have a different mechanism. That’s why we started with capabilities today after. You need to understand those capabilities before you think about effective counter strategies. I’m thrilled that you’re doing that work, and we look forward to having you back. I’m guessing this topic is not going away. So we'll have you back sometime soon!

**Mastro:** Sounds great!

**McFaul:** You've been listening to World Class from the Freeman Spogli Institute for International Studies at Stanford University. If you like what you're hearing, leave a review on Apple podcasts and be sure to subscribe on Apple, Spotify, Simplecast and SoundCloud to stay up to date on what's happening in the world, and why.