

HEARING ON MILITARY MODERNIZATION AND CROSS-STRAIT BALANCE

HEARING BEFORE THE U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION ONE HUNDRED EIGHTH CONGRESS SECOND SESSION

FEBRUARY 6, 2004

Printed for the use of the
U.S.-China Economic and Security Review Commission
Available via the World Wide Web: <http://www.uscc.gov>



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 2004

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2250 Mail: Stop SSOP, Washington, DC 20402-0001

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The Commission was created in October 2000 by the Floyd D. Spence National Defense Authorization Act for 2001 sec. 1238, Public Law 106-398, 114 STAT. 1654A-334 (2000) (codified at 22 U.S.C. sec. 7002 (2001)), as amended, and the "Consolidated Appropriations Resolution of 2003," Public Law 108-7, dated February 20, 2003. Public Law 108-7 changed the Commission's title to U.S.-China Economic and Security Review Commission.

The Commission's full charter is available via the World Wide Web: <http://www.uscc.gov>.

The Commission's Statutory Mandate begins on page 166.

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

MARCH 10, 2004

The Honorable TED STEVENS,
President Pro Tempore of the U.S. Senate, Washington, D.C. 20510
The Honorable J. DENNIS HASTERT,
Speaker of the House of Representatives, Washington, D.C. 20515

DEAR SENATOR STEVENS AND SPEAKER HASTERT:

On behalf of the U.S.-China Economic and Security Review Commission, we are pleased to transmit the record of our hearing on February 6, 2004, on China's "Military Modernization and the Cross-Strait Balance." U.S. cross-strait policy and U.S.-China relations are intertwined. Taiwan remains the key political and military flash point between the two countries, driving both China's military modernization efforts and U.S. military assistance to Taiwan.

The Commission is mandated by law (P.L. 108-7, Division P) to "review the triangular economic and security relationship among the United States, Taipei and Beijing, including Beijing's military modernization and force deployments aimed at Taipei, and the adequacy of United States Executive Branch coordination and consultation with Congress on United States arms sales and defense relationship with Taipei."

The Commission's hearing took place at a time of heightened tension in cross-strait relations. China's ballistic missile build-up directed at Taiwan has been escalating in recent years. Such a build-up appears clearly designed to coerce Taiwan into accepting unification with China and/or to deter moves toward independence by Taiwan. In January, Taiwan President Chen Shui-bian announced his decision to hold a national referendum as part of the Presidential election balloting on March 20, 2004. The referendum would seek a national opinion on the question of whether Taiwan should deploy advanced anti-missile defenses to counter China's missile deployment and whether Taiwan should be negotiating a cross-strait framework for peace and stability with Beijing. The response from Beijing, which views the referendum as a further move toward independence by Taiwan, has been one of strong condemnation and rhetoric, including threats of a possible military response. President Bush has publicly reiterated U.S. opposition to actions by either side that seek to alter unilaterally the status quo. Notably, he made such a statement in the presence of visiting Chinese Premier Wen Jiabao in December.

During our hearing on February 6, the Commission heard from senior State and Defense Department officials on current developments in U.S.-China-Taiwan trilateral relations, from experts on the parameters of U.S. commitments to Taiwan under the Taiwan Relations Act (TRA) and the role of Congress laid out in the TRA, and from analysts of China's military modernization programs and its military-industrial complex.

China's military modernization program. Between 1989 and 2002, as China's economy has rapidly expanded, China's official defense budget for weapons procurement grew more than 1,000 percent, significantly outpacing China's GDP growth. China's People's Liberation Army (PLA) has become a major buyer of foreign military technologies, and is now the principal purchaser of Russian military weapons and technology. China's increased military spending and acquisitions of foreign military technologies have greatly enhanced China's military capabilities.

During the late 1990s, the PLA began focusing its efforts toward developing military options and capabilities to prevent Taiwan from declaring independence. The PLA has undertaken programs designed to improve its force options against Taiwan and to deter and counter potential U.S. military intervention during any cross-strait conflict. China's military modernization is focused on exploiting vulnerabilities in Taiwan's national and operational-level command and control system, its integrated air defense system, and Taiwan's reliance on Sea Lines of Communication for sustenance. At the same time, Taiwan's relative military strength appears likely to deteriorate unless Taiwan makes substantial new investments in its own defense.

The Commission also heard testimony that China's defense firms have significantly improved their R&D techniques and their production processes. As the PLA shifts away from purchasing complete weapon systems from foreign suppliers to acquiring military-related technology, China's defense production capabilities will become a critical factor in the PLA's long-term effort to renovate its force structure. China has been able to serialize the production of destroyers based on stealthy designs with improved air defense and anti-submarine capability. China has also improved its ability to serial produce ballistic missiles with an increase in annual pro-

duction of short-range ballistic missiles (SRBMs) from 50% to 75%. However, despite rapid improvements, China's defense industry is not yet capable of producing global state of the art weapons systems on par with the United States.

China's continuing missile build-up opposite Taiwan is a serious challenge to Taiwan's security. The Defense Department's 2003 report to the Congress on China's military indicates that China now has approximately 450 short range ballistic missiles that can strike Taiwan and forecasts that this number will grow substantially over the next few years.

Given these developments, the Commission is concerned by reports that the European Union (EU) nations are debating whether to lift the EU's current arms embargo on China, imposed in the wake of the Tiananmen Square crackdown in 1989, and begin selling military equipment to Beijing. The Commission believes such action would undermine legitimate security concerns, be destabilizing to the region, and is unjustified by any improvement in China's human rights record, as documented in the Department of State's recently released Human Rights Report 2003.

Recommendation: The Congress should urge the President and the Secretaries of State and Defense to strongly press their EU counterparts to maintain the EU arms embargo on China. Further, the Congress should request the Department of Defense to provide a comprehensive report to the appropriate committees of jurisdiction on the nature and scope of Russian military sales to China. In addition, Congress should urge the Executive Branch to continue its positive working relationship with the Israeli government to limit Israeli military sales to China.

Taiwan Relations Act (TRA). The Taiwan Relations Act gives Congress a joint role with the Executive Branch in the fashioning of U.S. cross-Strait policy, particularly with regard to how the U.S. should respond to cross-Strait conflicts and what arms the U.S. should sell to Taiwan to assist in its defense needs. Nonetheless, it appears that Congress has regularly been excluded from cross-Strait policy decisionmaking by a succession of Administrations. Congress has too often been notified only after the Administration has, in effect, made a decision on the sale of specific weapons to Taiwan. There has been some improvement in recent years in the consultative process between the Congress and the Executive Branch, but certain important documents or reports the Executive Branch has prepared on this subject have never been shared with the Congress. Given the potential for military conflict in the region, Congress needs to take a more direct oversight role in the process. The type of consultation that was envisioned by Congress at the time of passage of the TRA is going to be critical now in managing U.S. foreign policy towards China and Taiwan.

Recommendation: Congress should enhance its oversight role in the implementation of the TRA. Executive Branch officials should be invited to consult on intentions and report on actions taken to implement the TRA through the regular committee hearing process of the Congress, thereby allowing for appropriate public debate on these important matters. This should include, at a minimum, an annual report on Taiwan's request for any military aid and a review of U.S.-Taiwan policy in light of the growing importance of this issue in U.S.-China relations.

Recommendation: The responsible committees of Congress should request that the Executive Branch make available to them a comprehensive catalogue and copies of all the principal formal understandings and other communications between the United States and both China and Taiwan on the parameters of the trilateral relationship, as well as other key historical documents clarifying U.S. policy in this area.

The Commission will be closely following cross-Strait developments in the run-up and aftermath of the Taiwan Presidential election and referendum vote on March 20. We may develop additional recommendations regarding Congressional-Executive Branch coordination on U.S. cross-Strait policy as part of our upcoming Report to Congress later this spring.

Sincerely,



Roger W. Robinson, Jr.
Chairman



C. Richard D'Amato
Vice Chairman

Note:

Commissioner Bryen dissented from the Commission's majority in submitting these recommendations.

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HEARING ON MILITARY MODERNIZATION AND CROSS-STRAIT BALANCE

FRIDAY, FEBRUARY 6, 2004

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION,
Washington, D.C.

The Commission met in Room 1310, Longworth House Office Building, Washington, D.C. at 10:30 a.m., Commissioners Robert F. Ellsworth and Larry M. Wortzel (Hearing Co-Chairs), presiding.

OPENING REMARKS OF CHAIRMAN ROGER W. ROBINSON, JR.

Chairman ROBINSON. All right. If we might begin. One of our witnesses for this morning, Deputy Assistant Secretary Richard Lawless, is on his way, and if we might, I'd like to begin with our opening statements.

On behalf of the U.S.-China Economic and Security Review Commission, I would like to welcome you to our public hearing. Our focus today is on the political and military relationship between the United States, China and Taiwan. My colleagues, Ambassador Robert Ellsworth and Larry Wortzel, will co-chair today's hearing and guide us through this important topic.

U.S. cross-Strait policy covers all aspects of our relationship with China. It remains the key political and military flash point between the two countries, driving both China's military modernization efforts and U.S. military assistance to Taiwan. The Congress made clear the importance of these issues by directing the Commission to assess, and I quote, "the triangular economic and security relationship among the United States, Taipei, and Beijing, including Beijing's military modernization and force deployments aimed at Taipei, and the adequacy of the United States' Executive Branch coordination and consultation with Congress on the United States arms sales and defense relationship with Taipei."

Recent developments have heightened tension in this trilateral relationship. Taiwan President Chen Shui-bian's decision to hold a national referendum on China's military build-up during next month's Presidential election has prompted strong rhetoric from Beijing concerning a possible military response. At a minimum, it appears likely to push Beijing to accelerate further its already substantial military modernization programs.

The proper response to these developments by the United States is at the heart of our investigation today and, in fact, the broader mission of the Commission.

Much of the debate about the rise of China since the early 1990s has centered on how fast China's economic and military capabilities are increasing and how the United States should properly react to

Beijing's offensive build-up. This hearing will take this assessment to the next level by examining what China might actually do militarily and politically in different scenarios. We will also look at the historical underpinnings of U.S. cross-Strait policy—the Taiwan Relations Act and the three Communiqués—and the parameters set out for U.S. commitments to Taiwan.

At this juncture, it bears repeating a statement I made on this subject at our December 4 hearing on “China Growth as a Regional Economic Power: Impacts and Implications.” In response to Beijing's threatening rhetoric concerning Taiwan's proposed referenda—which has again been evidenced over the past week—I noted that given this environment, the United States would be well advised to maintain its long-standing unstated policy of not actively supporting but also not opposing democratic moves in a direction that Beijing perceives to be toward independence with a goal of a peaceful outcome.

Moreover, it would be counterproductive and even perilous for our government to allow us to be perceived as, in effect, endorsing Beijing's view of what constitutes a, quote, “provocation” in cross-Strait relations.

In sum, China's military modernization and its cross-Strait political posture are central to the Commission's mandate to assess the national security implications of the U.S.-China economic relationship. I look forward to our comprehensive discussion of these issues today, and with that, I'd like to turn to the Commission's Vice Chairman Dick D'Amato for his opening statement.

[The statement follows:]

Prepared Statement of Chairman Roger W. Robinson, Jr.

On behalf of the U.S.-China Economic and Security Review Commission, I would like to welcome you to our public hearing. Our focus today is on the political and military relationship between the United States, China and Taiwan. My colleagues, Ambassador Robert Ellsworth and Larry Wortzel, will co-chair today's hearing and guide us through this important topic.

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Recent developments have heightened tension in this trilateral relationship. Taiwan President Chen Shui-bian's decision to hold a national referendum on China's military buildup during next month's presidential election has prompted strong rhetoric from Beijing concerning a possible military response. At a minimum, it appears likely to push Beijing to accelerate further its already substantial military modernization programs. The proper response to these developments by the U.S. is at the heart of our investigation today, and in fact the broader mission of the Commission.

Much of the debate about the rise of China since the early 1990s has centered on how fast China's economic and military capabilities are increasing and how the United States should properly react to Beijing's offensive buildup. This hearing will take this assessment to the next level—by examining what China might actually do militarily or politically in different scenarios. We will also look at the historical underpinnings of U.S. cross-Strait policy—the Taiwan Relations Act and the three Communiqués—and the parameters they set out for U.S. commitments to Taiwan.

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In sum, China’s military modernization and its cross-Strait political posture are central to the Commission’s mandate to assess the national security implications of the U.S.-China economic relationship. I look forward to our comprehensive discussion of these issues today.

OPENING REMARKS OF VICE CHAIRMAN C. RICHARD D’AMATO

Vice Chairman D’AMATO. Thank you very much, Mr. Chairman. Let me join Chairman Robinson in welcoming everyone to what I believe is one of the critical areas this Commission has been asked by Congress to examine: the current cross-Strait military balance and the resulting political implications for the United States.

The upcoming referendum vote in Taiwan and China’s rhetoric in response make these issues as timely as ever. It has become apparent that Washington rightly wants to avoid friction with Beijing over Taiwan in the midst of joint efforts on terrorism and North Korea with the Beijing regime. The U.S. is not keen on complicating factors, political or other confrontation with China over the cross-Straits relations.

Nonetheless, the proposed Taiwan referendum—a device that is common among democracies, and I would note that Taiwan has become a democracy—over China’s military build-up across the Strait and China’s saber rattling make it necessary for the Executive Branch and Congress to be very clear on where the United States stands with regard to its commitments to Taiwan.

The role of the Congress in the development of U.S.-Taiwan policy is central and has been central. The TRA, the major legal underpinning of our policy toward Taiwan over the years, of course, was written almost wholly in the Congress during the Carter Administration. We want to renew the adequacy of the consultative procedures that are called for in that Act. I would note that former Secretary of State Henry Kissinger and other major political figures in the Executive Branch since his time have guarded Taiwan and China policy jealously as an exclusive domain of the Executive Branch and in some ways, played a game of keep-away with the Congress in terms of U.S.-China policy and U.S.-Taiwan policy, a game which really needs to end.

We believe it is important for this hearing to look at the level of consultation, therefore, between the Executive Branch and the Congress envisioned by the Taiwan Relations Act—the governing document of U.S.-Taiwan policy.

The TRA calls for Congress to exercise a unique role vis-à-vis Taiwan. Congress is authorized to make specific determinations jointly under that Act with the President as to Taiwan’s defense needs and both the President and Congress are to determine appropriate action in the event there is any danger—I would emphasize “jointly” determine appropriate action in the event there is any danger to U.S. interests arising from a threat to Taiwan.

We want to know exactly how that joint decisionmaking process is going to play out, what procedures are in place, what committees

and how the leadership is consulted, and specifically in advance of an emergency.

Today we'll examine both the specifics of China's military modernization programs, the implications for Taiwan and U.S. cross-Strait policy and the role of the TRA as the foundation of this policy. The time is ripe for better Congressional-Executive coordination in an area of U.S. foreign policy where the stakes are so high and past communications have been rather inadequate.

Thank you, Mr. Chairman.

[The statement follows:]

Prepared Statement of Vice Chairman C. Richard D'Amato

Let me join Chairman Robinson in welcoming everyone to what I believe is one of the critical areas the Commission has been asked by Congress to examine—the current cross-Strait military balance and the resulting political implications for the United States. The upcoming referendum vote in Taiwan and China's rhetoric in response makes these issues as timely as ever.

It has become apparent that Washington wants to avoid friction with Beijing over Taiwan. In the midst of joint efforts on terrorism and the North Korean nuclear crisis, the U.S. is not keen on a political or other confrontation with China over cross-Strait developments. Nonetheless, the proposed Taiwan referendum over China's military buildup across the Strait and China's vociferous threats of retaliation make it necessary for the Executive Branch and Congress to be clear on where the U.S. stands with regard to its commitments to Taiwan.

The role of the Congress in the development of U.S.-Taiwan policy shouldn't be underestimated. We believe it is important for this hearing to look at the level of consultation between the Executive Branch and Congress envisioned by the Taiwan Relations Act (TRA)—the governing document of U.S.-Taiwan policy—and how such consultation has played out in the twenty-five years since its enactment.

The TRA calls for Congress to exercise a unique role vis-à-vis Taiwan. Congress is authorized to make specific determinations jointly with the President as to Taiwan's defense needs and both the President and Congress are to determine appropriate action in the event there is any danger to U.S. interests arising from a threat to Taiwan.

Today we will examine both the specifics of China's military modernization programs, the implications for Taiwan and U.S. cross-Strait policy, and the role of the TRA as the foundation for this policy. The time is ripe for better Congressional-Executive coordination in an area of U.S. foreign policy where the stakes are high and past communication has been low.

Chairman ROBINSON. Co-Chairman Wortzel and then we're going to turn it over to the Co-Chairman for this morning's hearing, Ambassador Ellsworth.

**OPENING REMARKS OF COMMISSIONER LARRY M. WORTZEL
HEARING CO-CHAIR**

Co-Chair WORTZEL. Thank you, Mr. Chairman. Today, we'll explore the issue of China's military modernization and what that means to the security of the United States and its relations with Taiwan.

The Republic of China is a thriving democracy of more than 23 million people with a market economy. It's the seventh largest trading partner of the United States. The Taiwan Relations Act in 1979 mandates that the President of the United States provide appropriate defensive services to Taiwan to meet the military threat from the PRC.

As Section 3(a) of the Act states: "The United States will make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain

a sufficient self-defense capability,” and part of today’s hearing will allow us to judge just what Taiwan may need to defend against.

Now, China represents a very different challenge for the United States than did the Soviet Union. Certainly no ideological challenge to Western liberal democracy and free enterprise from China. And China has not built thousands of nuclear warheads with which to attack the United States.

China and the United States are not fighting proxy wars around the world. Nonetheless, China does present a strategic military threat and a regional threat because of its nuclear and missile programs and its ability to attack U.S. deployed forces and U.S. allies.

Some systems acquired recently by China include advanced fighter aircraft, Kilo-class submarines equipped with CLIB-long range anti-ship missiles and electro-optical and radar satellites.

Now, I think there’s encouraging evidence that the U.S. strategy of engagement and trade with China is working. A middle class is forming in the country, and as people begin to own homes and businesses and travel for pleasure, they’re increasingly less supportive of Beijing’s military policies including the Chinese Communist Party’s insistence that Taiwan be taken by force if necessary.

Nonetheless, China remains a one-party state, dominated by a Communist Party that represses its own people and maintains the capacity to coerce its regional neighbors. I’d like to mention one major area of concern for us here in the Commission, and that’s the trade in sophisticated technologies.

While many of these technologies are civilian in nature and have improved China’s standard of living, elements of these technologies can be used against the United States.

Another important issue is weapons in space. For some time now, China has spearheaded an international movement to ban conventional weapons from space, and I refer here to space-based missile defenses, and has introduced a draft treaty at the United Nations to outlaw the deployment of such weapons.

At the same time, Beijing quietly continues to develop its own space-based weapons and tactics to destroy American assets. Its strategy is to blunt American military superiority by limiting and ultimately neutralizing America’s existing defense assets and frankly to forestall the deployment of new technology that many experts believe would provide the best protection for the United States and its allies against ballistic missile attack.

The PLA’s military planners are convinced that America’s strength can become its Achilles heel, and by strength I refer specifically to command, control, communications, computers, intelligence, surveillance and reconnaissance, the knowledge of what’s going on in the world and on the battlefield.

And the PLA believes that if China can neutralize or destroy our space assets in particular, American forces will lose a critical advantage leaving them more vulnerable to China’s larger but far less advanced military.

I thank all of you for being here, and I thank the Chairman for his time.

[The statement follows:]

**Prepared Statement of Commissioner Larry M. Wortzel
Hearing Co-Chair**

Today we will explore the issue of China's military modernization and what it means to the security of the United States and its relations with Taiwan. Taiwan is a thriving democracy of more than 23 million people with a market economy. It is the seventh-largest trading partner of the United States. The Taiwan Relations Act of 1979 mandates, that the President of the United States provide appropriate defensive services to Taiwan to meet the military threat from the PRC.

Fortunately, China is not, and is unlikely to be, a strategic military threat the way the Soviet Union once was. There is some encouraging evidence that the U.S. strategy of engagement and trade with China is working. A middle class is forming in the country and, as people begin to own homes and businesses and travel for pleasure, they increasingly are less supportive of Beijing's military policies, including the Chinese Communist Party's insistence that Taiwan be taken (by force, if necessary).

I would, however, like to mention one area of concern—that is the trade in sophisticated technologies. While these technologies are civilian in nature and have improved China's standard of living—elements of these technologies can be used against the United States. For example the issue of weapons in space—for some time now, China has spearheaded an international movement to ban conventional weapons from space and has introduced a draft treaty at the United Nations to outlaw the deployment of space-based weapons. At the same time, Beijing quietly continues to develop its own space-based weapons and tactics to destroy American military assets. Its strategy is to blunt American military superiority by limiting and ultimately neutralizing its existing space-based defense assets, and to forestall deployment of new technology that many experts believe would provide the best protection from ballistic missile attack.

These lessons have convinced PLA military planners that America's strength can become our Achilles heel. If they can neutralize or destroy our space assets, American forces will lose a critical advantage, leaving them far more vulnerable to China's larger but less-advanced military.

Chairman ROBINSON. Thank you. Co-Chairman Ellsworth.

**OPENING REMARKS OF AMBASSADOR ROBERT F. ELLSWORTH
HEARING CO-CHAIR**

Co-Chair ELLSWORTH. Thank you, Mr. Chairman. We've been asked by Congress to look into the impact of China's military and modernization programs on U.S. national security. We've also been asked to delve into the current status of the Taiwan Relations Act. This one Act has guided U.S.-China and U.S.-Taiwan relations since 1979 and a review of its continuing validity to support U.S. national security is in order. So that's a big part of what we're about.

There are many long-range issues that face both the United States and China. China is seen by many as an economic powerhouse that has the potential to translate its economic power into military power. We in the United States have the potential to translate our global military and economic power into cooperation. The eventual reunification of North and South Korea, the emergence of China as a regional power, its national policy concerning military unification if necessary—all these are issues that the United States must address.

Specifically now is the time to do some hard thinking about Taiwan. The United States is faced with a number of difficult decisions. For example, what is the extent of U.S. willingness to militarily support Taiwan in the face of our military operations in the Middle East and in the face of Chinese acquisition of the types of weapons and systems that would permit it to conduct modern operations against U.S. military forces in East Asia? Specifically, weap-

ons necessary to conduct anti-carrier operations critical to any U.S. defense of our interest in the western Pacific.

China's continued ballistic missile and nuclear warhead development programs remain a concern. The approximately 500 missiles opposite Taiwan and the annual increase in numbers are vital strategic issues to the United States.

Finally, President Chen Shui-bian's continued pursuit of a security referendum and his recent comments about establishing a reported demilitarized zone with China all have increasingly stressed relations between Taiwan, China and the United States.

Today, during the whole day, we will be hearing from a variety of experts, experts on the Taiwan Relations Act, its implication and development, as well as researchers of China's military programs. [The statement follows:]

**Prepared Statement of Ambassador Robert F. Ellsworth
Hearing Co-Chair**

Today the Commission is holding a significant hearing on the Taiwan Relations Act and China's military modernization programs. We have been asked by the Congress to look into the impact China's military modernization programs will have on U.S. national security. Additionally, we have been asked to delve into the current status of the Taiwan Relations Act. This one Act has guided U.S.-China and U.S.-Taiwan relations since 1979 and a review of its continuing validity to support U.S. national security is in order.

There are many long-range issues that face both the United States and China. China is seen by many as an economic powerhouse that has the potential to translate its economic power into military power. The United States has the potential to translate global military and economic power into cooperation. The eventual reunification of North and South Korea, the emergence of China as a regional power, its national policy concerning military unification if it's necessary, are all issues that the United States must address.

Now is the time to do some hard thinking about Taiwan. The United States is faced with many difficult decisions, for example, what is the extent of U.S. willingness to militarily support Taiwan in the face of Chinese acquisition of the types of weapons and systems that would permit it to conduct modern operations against U.S. military forces. Specifically weapons necessary to conduct anti-carrier operations critical to any U.S. defense of our interests in East Asia. China's continued ballistic missile and nuclear warhead development programs remain a concern. The approximately 500 missiles opposite Taiwan and the annual increase in numbers are vital strategic issues to the United States. Finally, President Chen Shui-bian's continued pursuit of a security referendum and his recent comments about establishing a reported demilitarized zone with China all have increasingly stressed relations between Taiwan, China, and the United States.

Today we will be hearing from a variety of experts, experts on the Taiwan Relations Act, its implementation and development as well as researchers of China's military programs.

**PANEL I: ADMINISTRATION VIEWS—U.S.-CHINA-TAIWAN
TRILATERAL RELATIONSHIP**

Co-Chair ELLSWORTH. Our first panel this morning will examine the Administration's current views of the trilateral relationship among the United States, China and Taiwan. We hope also to address this morning the Defense Department's assessment of the qualitative military balance between China and Taiwan. We'll discuss China's focused military activities against Taiwan and if, in fact, the PLA has put together a strategic plan to accomplish military unity with Taiwan.

This morning we are honored to have Mr. Richard Lawless, Deputy Assistant Secretary of Defense for Asian and Pacific Affairs. Mr. Lawless assumed his position October 2002. He received his

B.S. in international relations from Bradley University School of International Studies and studied Korean at the Defense Language Institute in Monterey, California.

And Mr. Randy Schriver, Deputy Assistant Secretary of State for East Asian and Pacific Affairs. He's responsible for the PRC, Taiwan, Mongolia and Hong Kong. Prior to his current position with the East Asia Bureau, Mr. Schriver served for nearly two years as Chief of Staff and Senior Policy Advisor to Deputy Secretary of State Richard Armitage.

Welcome, gentlemen. Let me explain the procedure. We are asking each of you to make a preliminary statement. We thank you for your texts, which we have. You should use about seven minutes for each of your original statements, and then five minutes for each Commissioner in turn to ask you questions and to have you answer. What I'm saying is five minutes for the question and the answers. I know that's not entirely up to you, but the cutoff will be five minutes. But first we look forward to your statements, one after another, before we go to questions from up here.

Mr. Lawless, would you like to go first, and Mr. Schriver, would you like to follow? Okay. Please.

**STATEMENT OF RICHARD P. LAWLESS
DEPUTY ASSISTANT SECRETARY OF DEFENSE
ASIAN AND PACIFIC AFFAIRS**

Mr. LAWLESS. Good morning, Mr. Chairman and Members of the Commission. I'd like to begin my statement by apologizing for being somewhat tardy. I did miss the opening statement by the Chairman, and I apologize for that. My embarrassment is doubly important here because this is an issue, the subject to this panel, that we at the Department of Defense take extremely seriously, and we certainly look forward today to responding to the questions and indeed have taken very careful note of the letter that was sent to us inviting us here today.

I will begin with a brief statement. I'll attempt to limit it to the time required. However, I may run over a little bit in that we have attempted to incorporate in this statement specific responses to your letter, and you did pose a lot of very specific questions to us. So I'll run right along with this if I might.

First of all, again, thank you for the opportunity to speak to you regarding the security situation in the Taiwan Strait. It's especially important to address these issues, we believe, as we enter a critical election period on Taiwan. In the interest of reserving time, again I will attempt to cover many of the questions that you raised in your letter to us.

First of all, a general statement. The overarching U.S. goal, of course, is to preserve peace and stability in the Asia-Pacific region. The policy of the United States toward Taiwan and the PRC is integral to this goal. We maintain our obligations toward Taiwan as stipulated in the Taiwan Relations Act, not only because it is the law of the land, but also because it's good policy.

We also seek to maintain fair and balanced relations with China and the Chinese defense establishment, also because it's good policy to do so. These two approaches are complementary, and we work very hard to make sure that they are indeed complementary and support our often-stated interest that the PRC and Taiwan

should peacefully resolve their differences. A constructive and peaceful Taiwan-PRC dialogue serves the interests of all the parties and is a major element, we believe, in achieving long-term regional peace and stability.

Turning to U.S. support for Taiwan's defense, the United States Government has engaged with Taiwan in several ways to ensure that the United States is prepared appropriately to implement relevant sections of the Taiwan Relations Act. I should add here that this has been an absolute consuming interest of the team that we have at the Department of Defense today, and it is something that we address on an absolutely continuing basis.

The United States actively monitors the security situation in the Taiwan Straits. We make available articles and services to Taiwan to ensure that it can maintain a sufficient self-defense capability. We work with Taiwan on a series of non-hardware related initiatives to address perceived shortcomings in Taiwan's readiness, and we maintain capabilities to assist in the defense of Taiwan if so required.

To maintain the peace in the Taiwan Strait, President Bush has made it clear that the United States opposes the unilateral transformation of Taiwan's status whether through the use of force or a declaration of independence. The preservation of Taiwan's democracy depends on effectively balancing these two goals while providing Taiwan with the support it needs to deter PRC coercion.

The TRA stipulates that "the United States will make available to Taiwan such defense articles and services and in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability." The TRA states that "the President and the Congress shall determine the nature and quantity of such defense articles and services based solely upon their judgment of the needs of Taiwan in accordance with procedures established by law."

The TRA further asserts that "such determination of Taiwan's defense needs shall include a review by the United States military authorities in connection with recommendations to the President and the Congress."

One of your parties has already referenced Section 2(b) of the TRA, and I will not read that to you because that's a very well established piece of U.S. policy.

The United States takes its obligations to assist Taiwan in maintaining a self-defense capability very seriously. The Bush Administration's national security strategy that calls for a, quote, "building a balance of power that favors freedom" identifies the spread and protection of freedom and democracy as a national security objective of the United States.

Taiwan's development into a true multi-party democracy over the past decade has strengthened America's commitment to its defense. As long as Taiwan has a capable defense, the environment will be more conducive to peaceful dialogue, and thus the region as a whole will be more stable.

Taiwan's challenges. As it enters the 21st century, Taiwan faces significant challenges. First, the PRC's ambitious military modernization casts a cloud over Beijing's declared preference for resolving differences with Taiwan through peaceful means. Taiwan faces an increasingly powerful PRC with an accelerated military

modernization program, which is designed to improve China's force options versus Taiwan and it is designed to deter and counter U.S. military intervention.

This modernization is focused on exploiting vulnerabilities in Taiwan's national and operational-level command and control system, its integrated air defense system, and Taiwan's reliance on sea lines of communication for sustenance. As the PRC rapidly modernizes its military in order to provide its leadership with credible options for the use of force, Taiwan's relative military strength will deteriorate, unless—

Co-Chair ELLSWORTH. Mr. Lawless.

Mr. LAWLESS. Yes.

Co-Chair ELLSWORTH. Under the seven-minute rule, you have a couple of more minutes, and you're a long way from the end of your splendid statement.

Mr. LAWLESS. I will encapsulate and move very quickly, if that's all right.

Co-Chair ELLSWORTH. Thank you so much.

Mr. LAWLESS. Okay. If I may repeat, as the PRC rapidly modernizes its military in order to provide its leadership with credible options for the use of force, Taiwan's relative military will deteriorate unless Taiwan makes sufficient investments in its own defense.

As the PRC accelerates its force modernization program, Taiwan remains isolated in the international community, especially in the area of security cooperation. Although several states quietly collaborate with Taipei on security matters, the United States is alone in its political courage, strategic imperative and sense of moral responsibility in assisting Taiwan.

Taiwan is therefore challenged. These challenges are serious but not insurmountable. Our defense relationship with Taiwan seeks to reverse negative trends in its ability to defend itself, possibly obviating the need for massive U.S. intervention in a crisis scenario and allowing Taiwan's political leaders to determine the island's future from a position of strength.

If deterrence fails, Taiwan, as supported by the U.S. and its allies, must be prepared to swiftly defeat the PRC's use of force.

It is important to reiterate our belief that any improvements in the U.S.-PRC bilateral relationship as we look at our bilateral relationship with China is not a zero-sum game. Any improvement in our bilateral relationship should not and will not come at Taiwan's expense, but rather serve to prevent possible misperceptions and promote restraint.

Taiwan will be a primary beneficiary of the regional peace and stability fostered by a positive U.S.-Beijing relationship.

With that, I'll conclude my statement.

[The statement follows:]

**Statement of Richard P. Lawless
Deputy Assistant Secretary of Defense, Asian and Pacific Affairs**

Introduction

Good afternoon Mr. Chairman and Members of the Commission. Thank you for this opportunity to speak to you about the security situation in the Taiwan Strait. It is especially important to address these issues as we enter a critical election period on Taiwan. In the interest of reserving time to answer any questions you may have, I have prepared a statement that specifically addresses your interest in the

views of the Department of Defense toward the U.S.-China-Taiwan trilateral relationship.

The overarching U.S. goal is to preserve peace and stability in the Asia-Pacific region. The policy of the United States toward Taiwan and the PRC is integral to this goal. We maintain our obligations toward Taiwan as stipulated in the Taiwan Relations Act, not only because it is law but because it is good policy. We also seek to maintain fair and balanced relations with China's defense establishment, also because it is good policy. These two approaches are complementary and support our often-stated interest that the PRC and Taiwan peacefully resolve their differences. A constructive and peaceful Taiwan-PRC dialogue serves the interest of all the parties and is a major element in achieving long-term regional peace and stability.

U.S. Support for Taiwan's Defense

The United States Government is engaged with Taiwan in several ways to ensure the United States is prepared appropriately to implement relevant sections of the Taiwan Relations Act (TRA). The United States actively monitors the security situation in the Taiwan Strait, makes available articles and services to Taiwan to ensure it can maintain a sufficient self-defense capability, works with Taiwan on a series of non-hardware related initiatives to address shortcomings in Taiwan's readiness, and maintains capabilities to assist in the defense of Taiwan if required. To maintain the peace in the Taiwan Strait, President Bush has made clear that the United States opposes the unilateral transformation of Taiwan's status, whether through the use of force or a declaration of independence. The preservation of Taiwan's democracy depends on effectively balancing these two goals, while providing Taipei the support it needs to deter PRC coercion.

The TRA stipulates that "the United States will make available to Taiwan such defense articles and services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability." The TRA states that "the President and Congress shall determine the nature and quantity of such defense articles and services based solely upon their judgment of the needs of Taiwan, in accordance with procedures established by law." The TRA further asserts that "such determination of Taiwan's defense needs shall include review by United States military authorities in connection with recommendations to the President and the Congress." Section 2(b) states:

It is the policy of the United States to consider any effort to determine the future of Taiwan by other than peaceful means, including by boycotts or embargoes, a threat to the peace and security of the western Pacific area and of grave concern to the United States; to provide Taiwan with arms of a defensive character; and to maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people of Taiwan.

The United States takes its obligation to assist Taiwan in maintaining a self-defense capability very seriously. The Bush Administration's National Security Strategy that calls for "building a balance of power that favors freedom" identifies the spread and protection of freedom and democracy as a national security objective of the United States. Taiwan's development into a true multi-party democracy over the past decade has strengthened America's commitment to its defense. As long as Taiwan has a capable defense, the environment will be more conducive to peaceful dialogue, and thus the whole region will be more stable.

Taiwan's Challenges

As it enters the 21st century, Taiwan faces significant challenges. First, the PRC's ambitious military modernization casts a cloud over Beijing's declared preference for resolving differences with Taiwan through peaceful means. Taiwan faces an increasingly powerful PRC with an accelerated military modernization program aimed at improving its force options versus Taiwan, and deterring or countering United States military intervention. This modernization is focused on exploiting vulnerabilities in Taiwan's national- and operational-level command and control system, its integrated air defense system; and reliance on sea lines of communication for sustenance. As the PRC rapidly modernizes its military in order to provide its leadership with credible options for the use of force, Taiwan's relative military strength will deteriorate, unless it makes significant investments into its defense.

As the PRC accelerates its force modernization program, Taiwan remains isolated in the international community, especially in the area of security cooperation. Although several states quietly collaborate with Taipei on security matters, the United States stands alone in its political courage, strategic imperative, and sense of moral responsibility in assisting the security of Taiwan's democracy. Taipei's isolation lim-

its choices on procurement and force modernization. Taiwan's isolation also constrains its ability to exploit technological, organizational, and doctrinal aspects of the ongoing global military transformation. Finally, its isolation creates uncertainties with regard to procurement of foreign weapon systems, which in turn complicates development of a long term, coherent force modernization strategy.

Taiwan's defense establishment faces a wide array of other challenges as it attempts to keep pace with developments across the Taiwan Strait. Economic trends, the domestic debate over defense strategy, national identity issues, service parochialism, all complicate Taiwan's force modernization, training, and jointness. As opinion polls consistently indicate a lack of popular concern about attack from China, Taiwan is faced with an increasingly constrained defense budget. Over the last 10 years, Taiwan's defense budget has shrunk in real terms and as a proportion of its gross domestic product (GDP).

Overcoming Challenges

These challenges are serious, but not insurmountable. Our defense relationship with Taiwan seeks to reverse negative trends in its ability to defend itself, possibly obviating the need for massive U.S. intervention in a crisis, and allowing Taiwan's political leaders to determine the island's future from a position of strength. If deterrence fails, Taiwan, supported by the U.S. and its allies, must be prepared to swiftly defeat the PRC's use of force.

The United States maintains an active dialogue with Taiwan's defense authorities to better understand their current capabilities and future requirements, and to assist Taiwan in improving its defense. Since 1997, the Department of Defense has conducted more than a dozen studies, reports, assessments, and surveys that have evaluated Taiwan's legitimate defense needs.

Armed with a solid base of knowledge and consistent with our legal obligations under the Taiwan Relations Act, the U.S. is assisting Taiwan to create a professional, civilian-controlled defense establishment that is modern, joint, and able to function effectively should it be required to defend itself. DoD is supporting Taiwan in developing an integrated national security strategy; joint doctrine; and integrated capabilities for training, employing, and sustaining joint forces.

Taiwan has succeeded in focusing attention on critical steps that must be taken in order to enhance Taiwan's defense in the next 3–5 years. For the first time in 10 years, Taiwan has increased its defense budget as a proportion of its gross domestic product. It has taken positive steps to modernize its C4ISR system and undercut the political and military utility of the PRC's most effective means of coercion—its growing arsenal of increasingly accurate and lethal conventional ballistic missiles and ever more capable submarine force. It has invested in passive defense systems, streamlined its military force, addressed pilot shortages, and drafted and implemented a detailed plan for the recruitment and retention of civilian personnel.

While modernizing its force in a focused manner, there is still progress to be made. We believe that Taiwan should devote greater resources to readiness, including personnel management, logistics, maintenance, and training. Taiwan should further strengthen its strategy and force planning processes, and develop the means to identify and correct deficiencies. We also suggest that Taiwan enhance interoperability among its Services, and with the United States and other potential security partners. We also believe that it should better protect classified information and enforce strict discipline in its executive and legislative interaction with the media.

China and U.S.-Taiwan Defense Relations

Our deepening defense cooperation with Taiwan is a direct result of Beijing's increasingly threatening military posture. The PLA's growing sophistication, including its efforts to complicate U.S. intervention, calls for more consistent strategic harmonization between the U.S. and Taiwan to improve Taiwan's ability to defend itself and reduce the danger to U.S. forces should intervention become necessary. The U.S. Government's ability to use a wide range of security assistance tools consistent with the nature of the U.S.' unofficial relations with Taiwan can help it improve its defenses, and, should U.S. intervention be necessary, reduce the risk to U.S. forces.

In all our dialogues, we make clear to the PRC that we will continue to support Taiwan in its legitimate defense needs not only because it is required by U.S. law, but also because it serves the wider interests of peace and stability in the region. We also have made clear that we support only a peaceful resolution of the Taiwan issue, and regard any attempt to resolve the issue by other than peaceful means, or any other action that threatens regional stability, to be of grave concern to the United States. Similarly, the U.S. Government believes that its commitment to a one-China policy and opposition to any moves by Taiwan unilaterally to change the status quo are keys to maintaining the peace. Nobody should mistake increasing

U.S. support for Taiwan's security as an endorsement of Taiwan independence. We seek to preserve a stable, secure environment that helps the people on both sides of the Strait to resolve their differences peacefully.

It is important to reiterate our belief that any improvements in the U.S.-PRC bilateral relationship are not zero-sum: they will not come at Taiwan's expense, but rather serve to prevent possible misperceptions and promote restraint. Taiwan will be a primary beneficiary of the regional peace and stability fostered by positive Washington-Beijing relations.

Ultimately, the U.S. position is that the Taiwan issue is for people on both sides of the Strait to resolve. This remains the best approach and our policy must remain consistent in this regard. Indeed, this is the only long-term guarantee of a peaceful and durable solution across the Taiwan Strait. It is also a necessary element in guaranteeing long-term peace and stability in East Asia.

Co-Chair ELLSWORTH. We want to be very lenient with you because of the importance of what you're saying here, but we'll now interrupt and see if we have some questions from the Commissioners. No, we'll go to Mr. Schriver and then we'll come back to you and we'll invite you at that time to say whatever you want to in addition to what you've said because this statement is a very important statement. Thank you.

Mr. Schriver.

**STATEMENT OF RANDALL G. SCHRIVER
DEPUTY ASSISTANT SECRETARY OF STATE
EAST ASIAN AND PACIFIC AFFAIRS**

Mr. SCHRIVER. Good morning. Mr. Chairman and Commissioners, thank you again for the opportunity to be here with you today to talk about a very important topic. I'll focus my remarks on the cross-Strait relationship and the Administration's view of it and our approach to try to foster an environment conducive to peace and stability.

As Mr. Lawless mentioned, our overriding objective, and, in fact, I think it's fair to say the overriding objective of seven consecutive Administrations from both parties over the course of three decades has been and remains to be to preserve peace and stability in the Taiwan Strait.

In this regard, we maintain our one China policy, our one China policy as defined by the three Joint Communiqués and the Taiwan Relations Act. There are other elements that support this policy such as our strong opposition to the use of force, our non-support for Taiwan independence, and our support for the six assurances.

This approach coupled with our forward-deployed forces in the region have helped to create a peaceful environment which has allowed the people on both sides to benefit from an economic relationship and people-to-people ties, and we've actually seen that increase over the last several years.

Second, I'd note that there is a stated intent on both sides of the Strait to seek a peaceful resolution of this, and I think that remains important. This has been an element that has been, I think, under appreciated recently because of the absence of a cross-Strait dialogue, but we need to do what we can to help the two sides get back to a point where they can talk with one another directly because that is really the key to any hope for a peaceful solution is to have the two sides talk to one another.

Third, it's very important to note publicly and privately at every opportunity that we support Taiwan's democracy. We admire, we're

proud of what's been accomplished there, and we applaud the democratic evolution in Taiwan, particularly noting the peaceful transfer of power for the first time from one party to another in the 2000 election.

We expect this upcoming election—in fact, we're well into the heat of it—to be a heated contest and a hard-fought campaign, and we look forward to working with whoever wins this campaign, either party, the President and the Vice President.

Fourth, as Mr. Lawless stated, the military modernization program of the Chinese is of very high interest to the United States and of concern. We can say that some elements of this program you could describe as natural. Any country wants to take steps to defend itself and protect interests, but clearly there's elements that exceed that normal expectation and trouble us in that it certainly gives the appearance there is a desire to have a capability for power projection, a capability to use the military as a means to intimidate, coerce Taiwan and potentially if asked to do so by political leaders, address that situation through use of the military.

So there are many aspects of the Chinese military modernization that are troubling to us, and I'd leave the details for discussion, and I think Mr. Lawless has already mentioned some. I'll just mention one.

I think the missile deployment is of most significant concern. Just given the overwhelming size of the deployment and the rapid pace with which the Chinese have been proceeding with those deployments. We've made clear our position on the use of force. China should renounce the use of force to solve this issue. The military build-up contributes to tensions and it doesn't lead us in the direction of a peaceful resolution.

I do want to also mention the referenda as was mentioned in opening statements because I know it's of great interest, and I do want to be clear. We support referenda in principle. As noted, this is a normal tool for democracies. It should be a tool available to Taiwan. It's in Taiwan's constitution—the word “referendum” and the ability to use it to settle certain questions.

I think we have some questions about this particular proposal. Deputy Secretary Armitage most recently addressed this in public because we observe that normally democracies would turn to a referendum to settle difficult and divisive issues, and referendum normally have a bottom up sort of appearance.

These two questions that we understand are under consideration don't seem to fall into that category of difficult and divisive, and therefore I think does raise some legitimate questions about the motives involved.

I think it's also important to note that irrespective of a referendum, we have opinions on these two questions. We have opinions, and I think Mr. Lawless can go into detail about the first question on whether or not Taiwan should take steps to address the missile threat through increased defense spending. We think that's an absolute yes, and of course, the second question, should there be a framework for peace and stability in the cross-strait environment, absolutely.

So whether or not these questions are turned over to the public for their opinion, we have opinions on this, and we think it re-

quires leadership from both sides of the Strait to address these questions.

In conclusion, I want to note what the President said on December 9. It had an important message, but it had an important message for both sides. To the Chinese, the message is very clear that we oppose the use of force to address and to attempt to resolve the cross-Strait situation. To the Taiwan side, of course, it also addresses our concerns that there may be interest in taking steps that unilaterally change the status quo in the political sense.

So this was an important statement. It's been supportive of our overall policy and it has been a consistent line that we've had and will continue to sustain.

Thank you for your time and for having me here again this morning, and I look forward to your questions.

[The statement follows:]

**Statement of Randall G. Schriver
Deputy Assistant Secretary of State, East Asian and Pacific Affairs**

Good morning. Thank you, Mr. Chairman, for the opportunity to address the Commission on the issue of Chinese military modernization and its relation to recent developments in cross-Strait relations. I am pleased to be here with Deputy Assistant Secretary Richard Lawless who is particularly well qualified to address many of the concerns you might have about the issue of China's military modernization. For my part, I will focus on the cross-Strait relationship and the Administration's view of it, in light of the steadily increasing capability of the People's Liberation Army.

First, our objective has been consistent for more than three decades and through seven Administrations of both parties: to preserve peace and stability in the region. In this regard, we maintain our one China policy, based on the three Joint Communiqués and the Taiwan Relations Act. This approach, coupled with our forward deployed forces in the region, has helped create a peaceful environment in which mutually beneficial economic and people-to-people ties have expanded dramatically across the Strait in recent years.

Second, I would note that political leaders on both sides of the Strait have expressed their desire to seek a peaceful resolution of their differences. The problem has been that at the most important senior levels, they have not been talking with one another. The Administration has encouraged Beijing and Taipei to find some way to enter into direct communication, without the kinds of preconditions that have been discussed previously.

Third, America stands firmly behind democracy in Taiwan. We applaud the evolution of Taiwan's democratic experience and the presidential elections in 2000 which led, for the first time, to the peaceful transfer of power from one party, the Nationalist Party or Kuomintang, to another, the Democratic Progressive Party or DPP.

We expect a similarly hard fought, democratically contested election on March 20. We are committed to working with the democratically elected President and Vice President of the next government of Taiwan, whoever they may be.

Fourth, military modernization has been high on China's list of priorities since the start of its economic reform more than 25 years ago, but, for the most part, has been closely tied to China's main domestic agenda, rapid economic development. Many of the efforts China has made at streamlining and professionalizing its military, upgrading its capabilities, improving command and control functions have been the natural and logical outgrowth of a nation that seeks to ensure its borders are safe from threat and that it can defend its interests in an uncertain world.

However, there are some aspects of Chinese military modernization—command and control, naval and amphibious upgrades, missile placement, especially as it is and other deployments and investments directed at improving the PRC's capability to target Taiwan. We do not take for granted that the PRC may ultimately elect to use force to settle cross-Strait differences, and we have made our position on the use of force clear to China, both publicly and privately. With regard to all of these capabilities, the State Department, along with other USG agencies, has pointed out that the military buildup contributes to tensions, which in turn lead to distrust on both sides. Let me note that we have been especially concerned about the PRC's de-

ployment of ballistic missiles along its Eastern seaboard. Such a deployment is inherently destabilizing. We have raised the issue of Taiwan-targeted missiles with the PRC at the highest levels and continue to do so regularly. I want to assure you that we are going to do our utmost to make sure that there isn't any kind of conflict in the Taiwan Strait area.

I know that you are also interested in our view of the recent referenda, which President Chen Shui-bian has offered for consideration by the voters concurrent with the March 20 election. We support referenda in principle; they are tools that all democratic countries use to gauge the sentiments of the people, though it's usually the case that you have these referenda coming from the bottom rather than drawn up by the top.

As the Deputy Secretary said in Beijing, referenda are generally reserved for very difficult and divisive issues, but the wording of these referenda is neither difficult nor particularly divisive. The Secretary of State has noted that we are still studying the text of President Chen's proposed referenda. We do not endorse any particular referendum or phrasing, but we will wait to see the context, and how it is used domestically in Taiwan.

In conclusion, both sides of the Strait need to reflect on the President's December 9 statement, during the visit of PRC Premier Wen Jiabao. The U.S. does not support Taiwan independence and opposes unilateral attempts, by either side, to change the cross-Strait status quo. We can't get much clearer than that, no matter how many times we are asked to reiterate it, no matter how many requests we have for clarification.

Mr. Chairman, that concludes my prepared remarks and I would be happy to take questions from you and your fellow Commissioners.

Panel I: Discussion, Questions and Answers

Co-Chair ELLSWORTH. Thank you, Mr. Schriver, and thank you again, Mr. Lawless. Commissioner D'Amato has a question.

Vice Chairman D'AMATO. Thank you, Mr. Chairman, and thank you for your testimony on this rather important matter. I have a question on the missile deployment and the referenda. I note in your testimony, Mr. Lawless, that you refer to the opinion polls in Taiwan as showing a lack of overall concern among the population as to the level of threat or the attack from China, that there is some level not a high level of concern.

On the other hand, I think our evaluation of the missile deployment, as Mr. Schriver mentions, is that certainly it's a threatening deployment; it's overlarge. One wonders why.

Let me ask you this. Does not it seem logical—it seems logical to me—does it not seem logical to you that a leadership looking—in a democracy, looking at the missile deployment, it certainly would be within the realm of understandability that they would want to call attention to that via some mechanism. Something like a referenda in a democracy is a well-known tool in order to engage its population as to the level of threat that you all have said this represents, that it seems to us it represents. That this is certainly a reasonable and appropriate mechanism, and that, as I understand the Administration, does not—and tell me if I'm wrong—interpret that referenda as an attempt at declaration of independence or an exercise of sovereignty, but does, in fact, address a very real issue confronting Taiwan. If I were a citizen of Taiwan, I would consider a very real issue confronting me to see this very large missile deployment. How would you react to that—my statement?

Mr. Lawless. I'd like both of you to actually, if you would.

Mr. LAWLESS. I'm going to leave a little bit of the interpretation of the politics to the State Department. However, I would like to note that the reason that we mentioned in the prepared statement our concerns about Taiwan's ability to mobilize and indeed focus on

the threat is really a function of the participatory democracy that they have moved into this phase.

We now, as we interact with the Taiwanese, find it a much more complex series of relationships that we have to deal with. We have a Legislative Yuan that's highly involved now in the defense process including the appropriations and budgeting process, which has become a multi-year fairly complicated situation.

We have a defense establishment which is essentially attempting to morph itself very quickly and perhaps on a faster timeline than our own defense establishment was able to morph itself into both a civilian bureaucracy and bring itself into a joint or a joint status, if you will.

So there are activities going on within Taiwan that are, in fact, favored by us. Certainly the evolution of the defense establishment is favored by us just simply for pure decisionmaking issues as well as interacting with the Legislative Yuan and the Executive Yuan.

These issues complicate, I believe, a national consensus so the issue that you raise and the issue that we raise here in focusing the government's ability to focus the people on the necessity of a sufficient defense budget is extremely important, and it's an issue that we have returned to again and again, and I think was alluded to in some of the Commissioner's statements here earlier, and it's perhaps an issue that we could talk later more about, but it's a very important issue.

Vice Chairman D'AMATO. Yes.

Mr. SCHRIVER. We think the missile threat and the missile challenge is extremely serious, and we've been engaged with the Taiwan authorities and our interlocutors for some time on the serious nature of it and what we think needs to be done to address it.

I think this calls for some leadership in Taiwan, not of any particular political party, not just the President but the legislature as well. It requires leadership to convince the public that it's necessary to expend the resources to be properly prepared to deal with this challenge. I don't know that a referendum necessarily helps or hurts, but I think it requires leadership to make these decisions.

The questions about resources are always difficult in periods of economic challenge and budgetary challenge, but this is an issue that needs that kind of leadership and dedication. This is something we've worked with Taiwan on and we're prepared to continue to work. So again whether a referendum helps the cause, hurts the cause, I don't know.

Our overriding interest is that Taiwan be prepared to deal with this challenge, and to the extent they want our help to do that, we're standing by for that.

Vice Chairman D'AMATO. Thank you. Your references to the complications that arise as a result of having a legislative body are well known here. I remember Secretary of State Baker once told Mr. Gorbachev—Gorbachev complained to him about the Duma. He said, well, anybody who wants a legislature certainly is welcome to have one. I think it was in jest, but I have some other questions later, but I'll defer them.

Co-Chair ELLSWORTH. Thank you, gentleman. Chairman Robinson has some questions.

Chairman ROBINSON. Thank you. I wanted to probe a little more into the nature of the missile threat and what an appropriate response might be. On the matter of leadership in Taiwan, I certainly take your point, Mr. Schriver, that one might have different interpretations of the motives and environment in which these statements have been made. Perhaps Taiwan's President believes that a more informed and mobilized Taiwan public opinion could indeed support higher defense spending, something I think we're all concurring is indicated via the so-called defense referendum.

In my view, at least, a democratic-oriented approach to informing and mobilizing public opinion on the tough tradeoffs that inevitably need to take place between economic and military spending is appropriate. This may seem like an obvious question, but I'd like to ask you both whether you believe that the quantity and quality of the arms provided by the United States to Taiwan should be commensurate with the threat posed by the PRC?

Mr. SCHRIVER. I think your question is embodied in the Taiwan Relations Act, and we're absolutely committed to fulfilling the TRA, and as I understand it, that means we make weapons of a defensive character available to Taiwan in sufficient quantity to ensure their sufficient self-defense.

Chairman ROBINSON. And I would assume, Mr. Lawless, that you have a similar view on that?

Mr. LAWLESS. Indeed I do. I would add, however, that I think that it is also incumbent, and I think the Taiwan Relations Act addresses itself to this both in spirit and in verse, that it's incumbent upon us to tell the Taiwanese our opinion on what would properly constitute a suitable defensive character, and I think both Mr. Schriver and myself and all of the departments involved in the U.S. Government have attempted to do that. That is indeed our suggestion and opinion. It is not something we can mandate, but that is an issue.

As the missile threat has manifested itself I think in the last year or so, we've been especially attune to attempting to identify what we believe are the appropriate priorities to redress the issue.

Chairman ROBINSON. And with over 500 missiles deployed by China against Taiwan now, by most estimates, and some 75 being added to that number per year, does it strike you as reasonable that beyond the defense spending increase that Taiwan may indeed need to acquire in rather short order an AEGIS-based missile defense system that could be inter-operable with our own to address the threat?

I know that it's not something that we're seeking to do for a number of reasons, but then again trying to look at this issue of responding responsibly to the level of missile threat, how does that issue sit with you both today?

Mr. LAWLESS. I believe that we're, of course, well aware of this. This issue has been on the table for some time. I think that in due course it will be addressed by the Administration. At the present time, I think we're more seized with the programs that we're already discussing with them, particularly those programs that address the ballistic missile issue, both in terms of defeating any attack or in addressing shortcomings that perhaps the Chinese have identified in the Taiwan situation that makes them more vulner-

able to a ballistic missile attack, for example, C4ISR, redundant command and control and other things.

So there is an order of sequencing here if you will that we think is very important that they address what they can address today based on the approvals that are already in hand, and find a way to prioritize and pay for and introduce those systems as quickly as possible.

Chairman ROBINSON. I understand. Thank you.

Co-Chair ELLSWORTH. Yes, thank you very much. Commissioner Wortzel.

Co-Chair WORTZEL. Thank you very much for your testimony. In June 1989, in the wake of the Tiananmen massacre, the European Council adopted a resolution that condemned the brutal repression taking place in China and interrupted by the member states of the European Community military cooperation and imposed an embargo on arms trade with China.

Now, in the very recent past, France, Germany and the Netherlands have begun to question whether that arms embargo should be lifted. I think we all realize that not a single European nation is required, as the United States is, to maintain forces in the area of the western Pacific sufficient to deal with any resort to force or other forms of coercion by China against Taiwan. So should the Europeans do this?

It's certainly a direct threat to Taiwan. It certainly is a potential threat to United States forces and raises the ability of the People's Republic of China to coerce Taiwan.

I'm interested, I guess, Mr. Schriver, you're sort of the guy to answer it, but I also recognize that the Department of Defense does run some fairly extensive international consultations in support of our security policy. What are you doing with the Europeans to make it clear that the United States opposes this?

Mr. SCHRIVER. Thank you for the question. We are opposed to the EU lifting its embargo and its ban on arm sales. And we're opposed for three reasons, just very briefly. One, the ban was originally imposed due to concerns over human rights. We don't feel as though the human rights situation has improved to the point where it merits lifting the ban, and we have continuing problems.

Two, we do have concerns about Chinese export control and the ability to protect sensitive technology from being transferred to a third country if the EU or anyone else was to transfer sensitive technology into China. So we'd like to see better export control policy and implementation of that policy.

Third, which addresses directly the point you made, is that we do have obligations and interests in ensuring there's a balance between Taiwan and China, and when I say balance, it means Taiwan having the ability to defend itself. We have other obligations, as you noted, that there are scenarios where we could actually be involved in this.

So any contribution to the other side of the equation complicates our position, and that is why we're opposed. We have been in contact with every member of the EU on this issue, stating clearly our position, and at the senior-most levels, my Secretary and below, have engaged European counterparts at almost every opportunity. I'm not in the room for each discussion or every phone call, but it

is certainly part of our standard talking points in our approach to European interlocutors right now because we understand this to be a sensitive time in their decisionmaking.

Mr. LAWLESS. I'd like to add one postscript to that. In the 14 plus years since that embargo was put in place by the EU, I believe China's ability to acquire, integrate and thereby multiply its force posture has really increased dramatically. In other words, what the EU may have to offer now may make a lot more sense in the context of where China needs to go than it ever has in the past.

We have an increasingly sophisticated military establishment that's shown itself capable of procuring, paying the price that's necessary to pay, introducing systems, integrating those systems and getting the force multiplier and the additional menu of options that those things provide. So I think if anything the focus on what the EU does or doesn't do with its arms embargo or limitation vis-à-vis China is much more important today than say it was even four or five years ago.

Co-Chair WORTZEL. Thank you very much.

Co-Chair ELLSWORTH. Thank you very much. Commissioner Dreyer.

Commissioner DREYER. Thank both of you for your very interesting and carefully written testimony. I would like to address the question that a referendum usually comes from the bottom up, and just bear with me here. The missile threat is a real one, as you both said, and I also see in your statements that you're aware that Taiwan's defense posture over the past couple of years has deteriorated vis-à-vis the PRC.

One of the reasons for this, as I read in articles written by several of the reporters here in the room today, is disagreement within the Legislative Yuan of the Republic of China on Taiwan and among the population about what to buy and how to pay for it. Do we raise taxes they ask? Do we buy AEGIS? Do we postpone the purchase of Kidd-class ships, et cetera?

And therefore it wouldn't really seem to be out of line with the spirit behind a referendum to have the impetus come from the top since there's a disagreement on the bottom. Would the U.S. Government's attitude have been more positive toward the referendum if the impetus could have been arranged from the bottom?

We all know about spin control. It's really very easy for whoever is in power to mobilize supporters at the bottom. They'll get people in Kaohsiung to get out for a parade and somebody to organize a referendum. Is that what really makes the difference? Or is it PRC lobbying? We read today in *The New York Times* about PRC delegations being in Washington to lobby you all. Could you address that question?

Mr. SCHRIVER. Yes, it's absolutely not about PRC lobbying, and, in fact, I think our support for missile defense and our encouragement of Taiwan to do more is probably the strongest evidence that we're not bowing to the PRC lobbying effort.

I think there's a lot of context and a lot of other elements to how we got to where we are with this proposed referendum. This had the appearance—I said in the statement—normally bottom up. It's normally where issues can't be settled within the legislature, then

you turn to a referendum—normal matter how these things proceed.

This had the appearance of a referendum looking for an issue, referendum looking for a topic. We heard WHO. We heard legislative reform. We heard a variety of things. It just looks different, and I think that does create some questions about motive and intention. You'll notice we have not said we oppose because on the surface and on the text, that question does not alter the status quo as the President has expressed his concerns.

But I think we do need to be mindful of the context and the activities associated with this. You know when we say we're still studying the referendum. It doesn't mean that everyday we pour over the words. What it means is we are watching in a mindful way how this is portrayed domestically, how it's spun, if you will, and it's important because it's not just the text.

Commissioner DREYER. Thank you for that clarification. Mr. Lawless.

Mr. LAWLESS. I would like first to refer the Commissioners back to the prepared statement. Indeed, I don't want to leave the impression here today that Taiwan is not doing anything to improve its defense. Indeed, it is making progress. The issues have to do with the rate of progress and the magnitude of the changes and the challenge its facing vis-à-vis the Chinese threat.

Commissioner DREYER. You actually were clear on that.

Mr. LAWLESS. Okay. Having said that, and addressing myself to your question, the bottom up as opposed to the top down, irrespective of how we got here with this particular referendum issue, there clearly is a requirement for this nation to find a common will and to bring itself together. From the legislative side of the house you've noted the problems that they deal with. It is a free country. It's a democracy. It's a functioning democracy, and so however they manage to instill the national will to do what they have to do, that is the responsibility of the Taiwanese people and we don't want to impose ourselves on that process, and clearly, there does need to be an improved national consensus about what they must do and how they need to spend their money and where they're going to get those resources from, and that's an issue that we've continued to come back to them on over the past year.

Commissioner DREYER. Thank you. And I'm very happy to hear that we are not being intimidated by the PRC lobbying.

Co-Chair ELLSWORTH. Commissioner Bryen.

Commissioner BRYEN. Thank you, Mr. Chairman. Thank you, Secretary Lawless and Secretary Schriver, for your testimony. I think I should start by saying that the work the Administration is doing or trying to do to provide sufficient defense for Taiwan is very much appreciated, certainly by me and I think by the American people.

I have one question actually about some of the language you used and how to apply it. Mr. Schriver, in your testimony you spoke about no unilateral steps to change the status quo, obviously referring to the referendums. Isn't the build-up of missiles a unilateral step to change the status quo?

Mr. SCHRIVER. I actually didn't mean to be specific to the referendum when I said that, and I don't think that's the President's

intent or anyone else's intent. And, in fact, it does address both sides of the equation and it would address the missile threat.

When we talk about the status quo, we're careful how we talk about it because to really define it, you'd have to give a very lengthy description and an arcane discussion of politics and economics, but when we, I think really the operative part and what we really mean is there's a situation where there is fundamental disagreement and sustained disagreement over a period of time that is being managed peacefully, and we don't want to see steps by either side that disrupts that part of the status quo, and I think the military posture is certainly a step not in the right direction.

Commissioner BRYEN. Good. Well, let's follow that up just a little bit. If that's so, are we raising with the Chinese side on a consistent and strong basis complaints about the build-up of the missiles?

Mr. SCHRIEVER. Absolutely. No question. Our most recent senior visitor to China was Deputy Secretary Armitage. He raised this at several points and raised it publicly. I think from our Department, probably the most high profile public statement on China was Secretary Powell's speech at College Station, and he addressed the missile build-up very explicitly with a very senior Chinese audience there, and that I think got a lot of press.

Commissioner BRYEN. To carry it one step further, is the build-up of missiles, in your opinion, the kind of extortion somewhat like what North Korea is trying to do?

Mr. LAWLESS. Let me tackle that from more of a perhaps military perspective than a political perspective. I think one of the interesting elements of this very rapid build-up, both quantitatively and qualitatively in the missile force, not to mention all of the other areas where the build-up predominates vis-à-vis Taiwan is that I think our idea is that it is clearly not just a question of quantitative or qualitative advantage or disadvantage. Clearly, with this rapid pace of build-up and with the build-up directed so forcefully and frontally against Taiwan, it's clearly an attempt to change the dynamic.

And by dynamic, I mean to an extent, China's calculation on what the cost would be to China both in terms of resource and in terms of time that would have to be devoted to coerce or invade a Taiwan. So there is this issue that I think we are still wrestling with understanding, and how that dynamic is actually changing, and I think that's one of the things that the leadership in Taiwan is wrestling with—how to explain this to its people.

Taiwan has so long enjoyed this qualitative edge that it could rely on, to now be challenged and confronted in both a qualitative and quantitative aspect and then taking that back and explaining it to their populace may not be that simple.

Commissioner BRYEN. I just want to offer one comment. There's a much longer conversation here that's required, but I was in Taiwan in 1996 during the missile exercise. I can assure you that you didn't need to explain it to the Taiwanese people. You certainly didn't need to explain it to me. It was pretty frightening. And so far as I could see, Taiwan had no response to it.

I think we're still in the same situation, and I'm not sure that just providing some sort of missile defense is an adequate answer to the dilemma.

Co-Chair ELLSWORTH. Thank you, Commissioner. Commissioner Mulloy, please.

Commissioner MULLOY. I'm not an expert on political and military issues. I do follow trade issues very carefully, but I want you to help me make sure I understand what's going on in this area. My understanding is that after the revolution, Chiang Kai-shek went off to Taiwan and maintained himself as the legitimate government of all of China even though he was on the small island off the coast of about 23 million people.

My understanding is that in 1972, President Nixon signed the Shanghai Communiqué in which we acknowledged that there is but one China and Taiwan is a part of China. We acknowledged that both sides claimed that.

My further understanding is that at that point, we had a defense agreement with Taiwan, and that when President Carter recognized China and we entered diplomatic relations with China in 1979, that we ended that defense agreement with Taiwan. My further understanding is that Senator Goldwater and others sued President Carter to declare that that was unconstitutional what he did, that he didn't have that authority, and that the Supreme Court upheld President Carter and so we did not have a defense arrangement with Taiwan.

I further understand that in the Taiwan Relations Act, passed by the Congress, the Congress said that we would provide the Taiwanese what they need to defend themselves. We still have no obligation to defend Taiwan. That's my understanding.

So my further understanding is that there are about 500,000 Taiwanese now living and working in China and that Taiwan has invested enormous amounts of money to help the Chinese further build their industrial base and military capabilities.

It's my further understanding that the Taiwanese when we offered them additional weapons a couple of years ago after the President said that we would do whatever it takes to defend Taiwan, when we offered them additional weapons, they did not want to purchase them, they did not tax themselves to pay for those weapons, and so they were never purchased.

So I'm wondering if the Taiwanese don't perceive the threat, what are we doing in pressing them to further buy new weapons if they don't perceive it that way? They see this economic relation with China going quite dramatically. We have no formal obligation to defend Taiwan. It's a situation that doesn't quite jive, and so if you could comment on my understanding. Maybe I'm way off the mark on this. I'm not a political military expert.

Mr. SCHRIVER. Well, I think that was a very modest statement given the extensive history you just recited. I mean it was quite good. We don't have a defense treaty, but the Taiwan Relations Act not only talks about providing weapons for sufficient self-defense. There are two other operative elements.

One, as Mr. Lawless mentioned in his statement, we have an obligation to maintain the capacity to resist force if asked to do so. And number two, if there is a threat to the people on Taiwan, and

I don't have the exact language in front of me, but the threat is defined explicitly to, and in a very comprehensive broad way, talks about economic threat, that the President would consult with Congress to determine appropriate action.

That's not a defense treaty, but there are some very important obligations there. To go just a bit further, when Premier Wen Jiabao was in Washington, one of the things that was said privately in a conversation that the President had with the Premier is that if there is a crisis in the Taiwan Strait, it's very likely we'll be involved, and so, no, there is no formal defense treaty, but questions about our involvement and questions about our obligations, I think, lead us in the direction that we do have to be very mindful of how we're prepared and how Taiwan is prepared to deal with this contingency.

So if your starting point is there's a good chance we'd be involved, I think we do need to be mindful of how Taiwan is preparing itself and the steps that it's taking. So we do have a role in providing not only our opinions and advice, but we have direct equities. If there are steps that they don't take, there are scenarios under which we'll be presented with filling that gap.

So it's important that we help shape the debate in Taiwan and that we make our views known because of our strong equities here. And I guess the last thing I'd say is I'd take issue a little bit with how you characterize it. I don't think it's that Taiwan doesn't see a threat or they don't agree with us on the threat. I think it's a bit more complicated than that, but they are having some difficulties with how they make the resourcing decisions and how they make discrete decisions along the way to address the threat, but I think there is an appreciation of the threat among the military and among the leadership there.

Commissioner MULLOY. Well, I would pursue this, but I guess my time is up, but these are issues I think we really have to probe a little bit.

Co-Chair ELLSWORTH. Do you have anything quickly to add, Mr. Lawless?

Mr. LAWLESS. Just a brief note. I do believe the operative language in that Section 2(b) of the TRA does address itself that obligates United States or the Administration to maintain the capability of the United States to resist any resort to force or other forms of coercion that would jeopardize the security or the social or economic system of the people of Taiwan.

That puts us in a situation where frankly it is incumbent upon us to encourage the Taiwanese to do what they need to do to dissuade China to the maximum extent possible from taking risks that they otherwise would not take in attempting to resolve the situation they had between these two entities through non-peaceful means or coercive means.

So in the first instance our charge is to engage the Taiwanese fairly aggressively, point to this responsibility that is the law of the land that we have, and to ask them to do what is necessary or suggest to them that they do what is necessary to dissuade China from thinking perhaps they have an opportunity here that they shouldn't have to have.

Co-Chair ELLSWORTH. It might be worthwhile, just recalling historically—Commissioner Bryen mentioned the 1996 missile exercises and isn't it true that we sent a couple of carrier task groups into the Strait at that time in order to be helpful at restoring what—peace and security, tranquility. I mean we have gotten involved historically fairly recently.

Commissioner Reinsch.

Commissioner REINSCH. Mr. Schriver, can you assess current public opinion on Taiwan about the island's status and how it's evolved over the last few years?

Mr. SCHRIVER. I can provide my understanding of what polling data and what's been conveyed by Taiwan authorities and others. I think it's probably imprecise for some reasons, which I can also mention. It seems that if you want to look at the three categories, pro-reunification, pro-independence, and maintain the status quo, those favoring reunification near-term, very small, something like six to eight percent; those favoring independence would be higher but still generally under 20 percent, so high teens; and then the rest of that group falls into wanting to maintain the status quo.

Again, this is just my reading of polls and things that I've seen. The reason I think it's imprecise is because there is this threat of the use of force. Are some of those people that are in the status quo, might they be more inclined to want to be independent or different status? It's hard to tell. They don't want to get attacked. So it's hard to tell where those numbers actually fall.

But I think as we read the numbers now, there is an interest in sustaining the status quo for whatever reason, for fear of being attacked or interest in peace and stability for the purpose of growing economic ties, et cetera. So—

Commissioner REINSCH. Which I understand from your testimony is our interest as well, preserving the status quo.

Mr. SCHRIVER. Preserving peace and stability which I think our current view is that that's best maintained through sustaining the status quo unless the two sides agree between themselves that they can alter the status quo. We're opposed to unilateral change. I mean I think that's an important distinction.

Commissioner REINSCH. I understand. I think you're just using more words. What do we do if over time in a democratic society, public opinion comes to favor a change in the status quo?

Mr. SCHRIVER. Well, I think that's a challenge that we'll have to address directly. I mean it's a hypothetical that I can't adequately address right now, but it's something that I think we should be thinking about in the future because there are important trends underway in Taiwan and we need to be mindful of that.

Commissioner REINSCH. That was really where I was going. It seems to me it is something that you would want to think about and anticipate. These situations, for better, for worse, don't stay static forever.

Thank you, Mr. Chairman.

Co-Chair ELLSWORTH. Thank you, Mr. Reinsch. Commissioner D'Amato, once again, please.

Vice Chairman D'AMATO. Thank you, Mr. Chairman. I just want to pursue something that Commissioner Mulloy mentioned. He's right, of course, that there is no formal defense treaty, but when

you read the TRA, it is clear it is as close to being a de facto defense treaty given the serious and grave nature of the obligations that we have undertaken with regard to Taiwan. I don't think there should be any misunderstanding of the nature of that.

In fact, those obligations were written into the law by Congress and were at variance with the views of people in the Carter White House. That legislation was not submitted to Congress as written by the Carter White House. It was completely rewritten in the Congress to make it very clear what the nature of those obligations were, and I would also point out that President Reagan made it very clear consistently that the quality and quantity of arms that we were to provide the PRC pursuant to this Act were to be commensurate with the threat, and that we were to defend Taiwan, to provide the arms and defense capability relative to Taiwan that was equivalent or equal to the threat posed by the mainland.

Let me ask you just two quick questions. First, would you agree with the statement that the rapid and extensive deployment of missiles is, in fact, a heavy-handed bullying effort to intimidate Taiwan and seriously, in effect, undermines efforts at peaceful resolution of the issues? Mr. LAWLESS, each one of you.

Mr. LAWLESS. Well, this is important. To put it in context, there is a military modernization that is proceeding apace on a whole variety of fronts, but we are today I think somewhat focused on the missile challenge, in part perhaps because the referendum focused itself to that issue.

I agree in general with your statement, but I think it's important to understand that probably what is happening here is the more the missile build-up continues, particularly qualitatively in addition to quantitatively, what is happening here is China may be providing itself with an expanded range or a menu, if you will, of options that allow it to systematically coerce and does not necessarily involve automatic assumptions, say, for example, of an invasion scenario or something else.

Vice Chairman D'AMATO. Uh-huh.

Mr. LAWLESS. So there is a degree of sophistication and subtlety to what is taking place that again, as I expressed earlier, we both have to understand and I believe the Taiwanese are slowing coming to grips and understanding.

So I'm not disputing anything you say. I'm just trying to say that there is a level of sophistication here and a menu of options that may be available today—that menu may expand tomorrow—that certainly wasn't there three or four years ago.

Vice Chairman D'AMATO. Bullying with a Chinese twist.

[Laughter.]

Mr. LAWLESS. And options in a sense.

Vice Chairman D'AMATO. Mr. Schriver, do you have anything to add to that? Then one last question I'd like to ask Mr. Schriver, and Mr. Lawless can chime in, we're concerned about the adequacy of the consultation arrangements that are in place with the Congress in terms of making the kind of joint decisions that are called for by TRA with regard to Taiwan, Taiwan's defense.

Do you think there is room for improvement in these? I understand in the last couple of years, there's been a dramatic improvement in the consultative arrangements that occur on a yearly basis

between particularly DOD and the Congress on this matter. Do you think there is room for improvement here and how would you rate the effectiveness of the consultative arrangements that are in place now?

Mr. SCHRIVER. I think there is always room for improvement. And we'd be available for either further or more in-depth consultations or a different kind of approach to consultations. I think we've been in very close touch with our relevant committees, with the caucuses. There's, of course, the Taiwan Caucus and any interested members or staff I think we're available to, and if there is interest in, again, more in-depth or different kinds of consultations, and if that would result in improved consultations, we'd be all for it.

Mr. LAWLESS. I'd just add from the perspective of DOD and the relatively short time that I've been in my job, a little over a year, I find that in both the situation where we're required to provide written reports, for example, a China military power report and other things, as well as the unofficial give and take with your staffers, Congressional staffers, the exchange has been fairly dynamic and we are queried on a regular basis, and therefore I believe that the exchange is robust and very useful. If something is late, we're told it's late the day before it's late.

Vice Chairman D'AMATO. Yes. Certainly the Act does call for joint decisionmaking, which is a fairly direct kind of description of what's needed here because successful foreign policy is always predicated on good communication and consensus-building between the two branches, and obviously to the extent we can build that, the better off we are in terms of a challenge that comes up in the future. Thank you very much.

Co-Chair ELLSWORTH. Commissioners, we're way behind, but I have promised Commissioner Mulloy, and would ask the responses to be very, very brief.

Commissioner MULLOY. I'll be brief. I've read that the Chinese claim their build-up is meant because of claims for independence that the President of Taiwan has been making. My understanding is we, and President Bush recently stated this, we do not support Taiwanese independence; is that correct? That's correct, right?

Mr. SCHRIVER. That's correct.

Commissioner MULLOY. So would that help defuse this situation with regard to the missiles? If we're not supporting independence, and they were putting the missiles there to forestall independence, would that help alleviate the situation?

Mr. SCHRIVER. This decision for the Chinese, I think the missiles are not helpful. I think the missiles are not helpful to Chinese interests. I think it's not conducive to peace and stability and not conducive to a peaceful dialogue. Our policy is designed to promote an environment that is conducive to peace and stability.

I think irrespective of our statements, the Chinese should renounce the use of force and remove the missiles or at least take a much less threatening posture.

Mr. LAWLESS. Two quick points. I would note that the missiles that are being deployed today and that will be deployed tomorrow are not as a consequence, I don't believe, necessarily of this Administration. Certainly decisions had to be made three, four, and five

years ago to allow them to build in the quantity and quality that they're being built and deploy them today.

And again, that build-up continues apace. The only other issue related here I believe is that indeed as the Taiwanese develop a consensus, to go back to your earlier question that you raised, our hope is that as that consensus is developed, they will more aggressively address the shortcomings that still exist on the Taiwanese side.

Co-Chair ELLSWORTH. Gentlemen, thank you very much. You can tell by the interest of the questions of the Commissioners that you've been very, very helpful to us this morning, and we're most grateful to you. Thank you so much.

PANEL II: TAIWAN RELATIONS ACT—ADEQUACY OF CONSULTATION

Co-Chair ELLSWORTH. We'll move directly into panel two. The title the second panel this morning is "Taiwan Relations Act: Adequacy of Consultation."

This panel is designed to examine the historical and current context of the Taiwan Relations Act and the three Communiqués and their continuing application to contemporary U.S. foreign policy development and implementation.

The TRA is unique among foreign policy instruments since it is strictly speaking a domestic law of the United States. It was the result of collaboration between the White House and Capitol Hill in 1979 to work out a way for relations between the Republic of China and the United States of America to continue after the suspension of formal diplomatic ties. I'm going to pause while the witnesses come and take their seats at the table, and I'll introduce them at that time.

[Whereupon, a short break was taken.]

Co-Chair ELLSWORTH. I'm told the cameras are running so it's okay to start. We're fortunate to have Ambassador Harvey Feldman with us today. He is a Senior Fellow for Asian Studies at the Heritage Foundation. Ambassador Feldman retired from the Foreign Service after a career spanning more than three decades and four continents. An East Asian specialist for most of his career, Ambassador Feldman also served with distinction in Eastern Europe and at the United Nations.

As a member of the policy planning staff of the State Department, he helped plan President Richard Nixon's epic-making first visit to China. He also was one of the drafters of the Taiwan Relations Act.

We also have with us this morning Professor Dennis Van Vranken Hickey from Southwest Missouri State University. Professor Hickey has conducted extensive research into the issues concerning Taiwan, the implications for the United States.

He has published three books. Their titles are: *The Armies of East Asia: China, Taiwan, Japan and the Koreans*; *Taiwan Security in the Changing International System*; and *U.S.-Taiwan Security Ties*.

We also have Professor John F. Copper from Rhodes College. Professor Copper is the author of more than 20 books on Asia and international affairs. Professor Copper has testified several times

before the Senate Foreign Relations Committee and the House Foreign Affairs Committee and its Subcommittee on Asia and Pacific Affairs. He is currently on the Board of Directors of the American Association for Chinese Studies and is a member of the editorial board of the journal *Asian Affairs*.

Welcome, gentlemen, and let me just review the procedure. Each of you is invited to make a seven-minute statement and we'll ask you to do it in sequence, and then Commissioners will be recognized for their questions and answers and for each Q&A including the "A" have only five minutes. Gentlemen, would you proceed in order? Ambassador Feldman, Professor Hickey and Professor Copper, please.

**STATEMENT OF HARVEY J. FELDMAN, U.S. AMBASSADOR, RETIRED
SENIOR FELLOW FOR ASIAN STUDIES, THE HERITAGE FOUNDATION**

Mr. FELDMAN. Thank you, Commissioner Ellsworth. I've tried to answer the several questions in some detail, and I shall not repeat them in my oral presentation. It seems to me that they fall into three categories.

One, the role of Congress in the Taiwan Relations Act; two, the status of Taiwan; three, the question of the referendum. And I'll run through these rather quickly. Let me just say that I co-chaired the State Department committee that prepared the initial draft of the Taiwan Relations Act. I then represented the Carter Administration in the negotiations with the Congress that resulted in the final law.

Commissioner D'Amato is entirely correct when he refers to—what shall we call it—the struggle, the back and forth, where what we didn't state was to draft a law that would take care of the commercial, economic, immigration, legal relationships and had nothing, said nothing about security. All of that was added by the Congress, and so what Congress did was essentially write a treaty, a unique Act, I think, in American foreign policy and one not normally appreciated by Administrations.

Congress took to itself a number of oversight obligations. It became a partner. It made itself a partner with the Administration on deciding what arms to sell, deciding how to respond to threats in the region.

Now, these things are not looked upon favorably by Administrations who don't want somebody looking over their shoulder and so several times it seems to me Administrations have basically ignored their obligations under the TRA.

For example, the Administration is supposed to inform the Congress of any threat to Taiwan security. As we know in 1995–1996, there were missile firings within a few kilometers of Taiwan's major ports, Keelung and Kaohsiung, and the Administration sent two carrier task forces to the vicinity but never made a report to Congress on the situation.

There is another aspect that I think is quite glaring. It's always bothered me particularly. Let me see if I can find it. This is Section 4, subsection (d). Let me read it:

Nothing in this Act may be construed as a basis for supporting the exclusion or expulsion of Taiwan from continued membership

in any international financial institution or—and here I add emphasis—any other international organization.

And if you look at this and you see the statements of, for example, the Clinton Administration, that we will not support Taiwan's membership in any international organization that requires statehood for membership, there seems to me to be a direct contradiction.

I'll address this in more detail when I turn to the question of Taiwan status. Let me just say that Congress has a role. Congress has given itself a role. The role is very, very clearly defined in the Act, and I'm afraid that Congress has not been entirely forward in asserting the right and the role, which is given in the Act.

Now let me turn to Taiwan status. I was asked to describe its status under international law. And here I'd like to clear up some misconceptions. We have something called the "one China policy." The PRC has something called the "one China principle." Taiwan from time to time has had a one China policy. It's a little bit vague. These three are very, very different. They are not the same thing at all.

Let me begin with the U.S. The U.S. one China policy is very, very simple. We recognize as the government of China and will have diplomatic relations only with the People's Republic of China government in Beijing, period. We acknowledge that they claim that Taiwan is a part of the PRC. We state nothing on the subject. We make no statement at all as to the status of Taiwan.

The last time the United States made a formal statement about Taiwan's status was in the Truman Administration when we said that status remains to be determined by international agreement.

Now, the PRC one China principle, of course, is very, very different. The PRC one China principle is that in its current version—it's changed over time—the current version is both Taiwan and the Chinese mainland, the PRC, constitute one China. Taiwan and the mainland constitute one China of which the sole legal government and sole legitimate international representative is the People's government in Beijing. That is their claim. That's not what we agree to. We only said we'll have diplomatic relations with you and we understand that this is what you claim.

Taiwan has changed its view over time and is a little bit complicated, and so let me read it. Taiwan's position goes something like this:

The government on Taiwan is the direct legal successor to the Republic of China government that was established in 1911 and therefore it is a sovereign entity, but one which has governing authority only over Taiwan and associated islands. The PRC has never ruled on Taiwan. Taiwan is not a part of the PRC nor is it a part of any other state.

Former President Lee Teng-hui once stated that Taiwan has a, quote, "special state-to-state" relationship with the PRC, more or less analogous to that which existed between East and West Germany prior to reunification when they actually had embassies in each other's country or each other's capital.

The current President, Chen Shui-bian, has stated that there is a separate state on each side of the Taiwan Strait. Now if you look at the historical record of China over four millennia, you find there

have been many, many occasions where the broad entity of China, in fact, was made up of several states, sometimes, in fact, several competing kingdoms.

So asserting that there are separate states on each side of the Taiwan Strait could be taken to mean that Taiwan is not part of the People's Republic of China, but it could be part of some broader entity.

In international law, the Montevideo Convention provides the test for what is a state. A state is an entity that has defined borders, defined population and has the capability of entering into international agreements. Taiwan meets these three tests. It is a member of the World Trade Organization, the Asian Development Bank. It is a party to many international agreements. It has settled territory, settled population. It no longer claims to be the government of all of China. It claims to be the government of only Taiwan and associated islands.

In the TRA, if you read it, you will find that we define Taiwan as a state. For all purposes of American law, Taiwan is a state. It is on this basis that we are able to sell weapons to Taiwan because U.S. law provides that you can sell weapons only to friendly governments.

It is on this basis that we can sell enriched uranium fuel for Taiwan's electric, nuclear electric reactors. We're the only one that does this, and this can be done under U.S. law only to friendly states. So under U.S. law, Taiwan is a friendly state and its government is a friendly government. That is clear in the TRA.

Co-Chair ELLSWORTH. Your time has expired. However, because of the importance of what you're saying, would you please proceed briefly?

Mr. FELDMAN. Yes. On the referendum, it's been discussed at some length, and as you've heard, Deputy Assistant Secretary Schriver has said that we consider both questions to be significant and, in fact, were the questions put to us, we would say yes to both. The contention is that this is altering the status quo. I don't see how it alters the status quo.

And as to the assertion that we oppose any claim to independent sovereignty on the part of Taiwan, let me point out that 27 other countries recognize Taiwan as an independent sovereignty. Should we then go to these 27 countries and say you shouldn't do that? Or if another country was considering recognition of Taiwan as a sovereign entity, we should go to them and say no, no, you mustn't do that; that will disturb the status quo.

The point of all of this is that we don't want to see a challenge to the PRC. We don't want to see them stick their thumb in the PRC eye, but I don't see how a referendum that says should we defend ourselves against missiles, should we have dialogue with the PRC in the interest of peace, I don't see how these things constitute a thumb in the PRC eye.

Thank you very much.

[The statement follows:]

**Statement of Harvey J. Feldman, U.S. Ambassador, Retired
Senior Fellow for Asian Studies, The Heritage Foundation**

Dear Commissioners, I am quite pleased to comply with your request (dated January 14th, but which reached me only on January 23rd) to participate in a public

hearing on February 6, 2004. I provide below answers to the six questions put to me in your invitation letter.

1. *What role does the TRA establish for the Congress in U.S. policy toward Taiwan?*

The TRA is unique in foreign policy. In it, the Congress established firm parameters defining major aspects of U.S. relations with both the People's Republic of China (PRC) and with Taiwan. As examples, the law:

- states that the establishment of diplomatic relations with the PRC is tied firmly to the expectation that Taiwan's future will be settled by peaceful means only;
- invoking language taken from the United Nations Charter, states that any attempt to determine Taiwan's future by other than peaceful means, including by boycott or embargo, is to be considered a threat to the peace and security of the western Pacific area and a matter of grave concern to the United States;
- directs that the U.S. shall provide Taiwan with arms sufficient for its defense needs, and that the U.S. shall maintain forces in the area sufficient to deal with "any resort to force or other forms of coercion" against Taiwan;
- states that "preservation and enhancement" of human rights on Taiwan are objectives of the United States.

Having set forth these objectives with great specificity, the law gives the Congress a clear oversight role vis-à-vis Taiwan. Thus, "the President is directed to inform the Congress promptly of any threat to the security" of Taiwan. It is the Congress and the President who, jointly, are to determine the nature and quantity of defense articles and services for Taiwan. The Congress goes on to modify a number of American laws in order to provide for the continuation of a complex, international relationship with Taiwan. And, in establishing the American Institute in Taiwan to carry out that relationship, it sets forth general Congressional oversight as well as requirements for reporting to the Congress as may be necessary.

Having stated these things, it is necessary to point out that in 1995 and 1996, when the PRC fired missiles into the immediate vicinity of the island republic's two major ports, Keelung and Kaohsiung, the then President *did not* inform the Congress of the threat to Taiwan as required by law. That such a threat existed was made plain by the dispatch of two aircraft carrier battle groups to the vicinity of Taiwan.

2. *Has the Congress been fully briefed on the complete historical record and arrangements regarding U.S. policy toward Taiwan (such as the historical records of the "three Communiqués" and the background papers supporting the TRA)? Are there important documents in the non-public historical record that would shed important light on U.S. commitments to Taiwan?*

Congress itself must be the best judge of whether it has been fully and appropriately briefed by successive Administrations since the passage of the TRA. The legislative record of the Act exists and makes plain the intent of the Congress in the continuing relationship with Taiwan under the TRA. See Lester L. Wolff and David L. Simon: *Legislative History of the Taiwan Relations Act*, published by the American Association for Chinese Studies and St. John's University, Jamaica, N.Y., 1982. Additionally, James Mann's *About Face* (Alfred A. Knopf, New York, 1998) provides excellent background information on the negotiations which led ultimately to the establishment of diplomatic relations with the PRC, and the Shanghai, Recognition, and August 17 Communiqués. My own article, "Taiwan, Arms Sales, and the Reagan Assurances" (*American Asian Review*, XIX, No. 3, Fall 2001) provides background on the Six Assurances given Taiwan by President Reagan, and includes previously unpublished letters from President Reagan to Taiwan's President Chiang Ching-kuo. One of these letters states that in the event it becomes clear that a peaceful resolution of Taiwan's status is no longer PRC policy, the Communiqué of August 17, 1982 will be considered null and void.

Are there other documents still unpublished, or kept secret by successive Administrations? Undoubtedly so.

3. *How would you describe the debate over Taiwan's status under international law? Is its status finalized or does it remain an "undetermined question?"*

As is generally known, in the Peace Treaty of 1951, Japan abandoned all right and title to Taiwan but did not convey its rights, acquired under the Treaty of Shimonoseki in 1895, to any other state. Since that time during the Truman Administration, the formal position of the United States has been that Taiwan's status remains undetermined—this despite informal statements by President Nixon in conversation with Mao Zedong agreeing that Taiwan is part of China.

In fact, in the three Communiqués signed with the PRC, the United States stated no position of its own with regard to Taiwan's status, in effect remaining agnostic.

Thus among the United States, the PRC, and Taiwan, there are three completely different views.

The PRC asserts what it calls “the One China Principle” which, in its latest iteration has it that both Taiwan and the mainland are part of one China, and that the only legitimate government and international representative of that one China is the PRC government in Beijing.

Taiwan’s position has taken several different forms over the past dozen years. At present, it goes something like this. The government on Taiwan is the direct and legal successor to the Republic of China government established in 1911, and therefore is a sovereign entity, but one which has governing authority only over Taiwan and associated islands (Chinmen, Matsu, etc.). The PRC has never ruled on Taiwan, Taiwan is not a part of the PRC, nor is a part of any other state. Former President Lee Teng-hui once stated that Taiwan has a “special state-to-state” relationship with the PRC, more or less analagous to that between East and West Germany prior to reunification. The current President, Chen Shui-bian, has stated that there is a separate state on each side of the Taiwan Strait. In the historical record of more than four millenia, there have been many occasions where the broad entity “China” was made up of several states or, in fact, kingdoms. So asserting that there are separate “states” on each side of the Taiwan Strait could be taken to mean no more than that Taiwan is not part of the People’s Republic of China, though it could still be a part of some broader entity.

In the Communiqué of January 1, 1979, recognizing the People’s Republic of China as the sole legal government of China, the United States acknowledged (i.e. expressed its understanding) that the PRC claims there is but one China of which Taiwan is a part. But the United States stated no view or position as to Taiwan’s status. In the Six Assurances, President Reagan assured President Chiang Ching-kuo that there had been no change in the American position.

The United Nations regards Taiwan as a province of the People’s Republic of China. Though it has seated non-stated such as the Palestinian Authority, under PRC pressure it refuses any recognition of Taiwan’s separate status, even asserting, from time to time, that Taiwan is represented internationally by the government in Beijing. This should demonstrate that such decisions are political and not legal.

Some countries, in establishing diplomatic relations with Beijing, agreed with the view that Taiwan is a part of China. Others refused to do so. Some twenty-seven countries, most of them quite small, accord diplomatic recognition to Taiwan as the Republic of China.

In international practice, countries are free to make their own determination as to international legitimacy or statehood. In that connection, the most widely used test of statehood is given in the Montevideo Convention of 1931: an entity is a state within international law if it has defined territory, defined population, and has the ability to enter into international agreements. Clearly Taiwan, a member of the World Trade Organization, the Asian Development Bank, and other international bodies, meets the Montevideo test.

Finally, please note that at one minute before midnight December 31, 1978 the United States recognized the Republic of China on Taiwan not only as a state but as the sole legitimate government of China. At one minute after midnight January 1, 1979, it no longer did so. *Yet no change took place on Taiwan. In every way except with regard to its diplomatic relationship with the United States, it remained exactly what it had been.* Moreover, the fact that the United States does not recognize Cuba does not mean that Cuba is not a state, or lacks international personality.

4. *How does the proposed Taiwan referendum comport with U.S. commitments under the TRA?*

Whatever one may think of its salience or wisdom, the referendum now under discussion on Taiwan has no bearing upon those commitments, nor is it in conflict with them.

5. *Please discuss how U.S. military relations with Taiwan were intended to be conducted under the TRA, including the role of Congress in this process. Are they in fact being conducted in this manner?*

It is clear from the Senate and House reports on the bill that became the TRA that the Congress intended to be a full partner in carrying out military relations with Taiwan. A typical quote is that of Representative Broomfield, who at the time was the Ranking Republican Member of the House Committee on Foreign Relations: “... it is the Committee’s intent that the President should inform the Congress of *anticipated dangers* (emphasis added), and not await their actual occurrence.” See Wolff and Simon, op. cit., p. 144. It should be clear from the events of 1996 that they are not being conducted in this manner.

6. *Are there any examples known to you where the U.S. Congress has shared formally with the Executive Branch its assessment of Taiwan's military needs as specified in the TRA, Section 3(b)?*

As far as I am aware, the Congress has done so only in the form of non-binding resolutions.

Respectfully submitted.

Co-Chair ELLSWORTH. Thank you, Ambassador Feldman. Professor Hickey, if you will, please. Seven minutes.

**STATEMENT OF DENNIS VAN VRANKEN HICKEY
PROFESSOR, POLITICAL SCIENCE DEPARTMENT
SOUTHWEST MISSOURI STATE UNIVERSITY, SPRINGFIELD, MISSOURI**

Mr. HICKEY. I'll try to keep it short. Thank you, Mr. Chairman and Commissioners for this opportunity to talk a little bit today about the Bush Administration's compliance with the Taiwan Relations Act and some of the changes during the Administration.

On December 9, President Bush warned Taiwan about a referendum that many believed would irritate China and declared that the U.S. was opposed to any action to unilaterally changing the status quo.

This statement, of course, angered some Members of Congress and others who support this island democracy. Some folks in the press accused them of appeasing a dictatorship, and one U.S. Presidential candidate—well, he was at that time— Mr. Lieberman, even went so far as to blast President Bush for, quote, “turning his back on Taiwan.”

I believe it's time for a reality check in this respect because this Administration has been the most pro-Taiwan Administration since 1979. While abiding by the Taiwan Relations Act, it has carried out significant readjustments of U.S. policy at the same time that it's been trying to maintain a constructive working dialogue with China.

My written testimony goes into the terms of the TRA. I don't think we need to rehash that here. But I want to hit some of the main points of the Bush Administration's actions towards Taiwan. First of all, in the area of arms sales, the U.S., as you know, is the supplier of arms. Despite our pledge under the Reagan Administration in 1982 to reduce arms sales leading over a period of time to a final resolution, arms sales did increase markedly after that. But some systems were denied.

Congress had pushed hard for an increase in arms sales, and under the Bush Administration, they got it. In April 2001, the Administration approved the sale of four Kidd-class destroyers, 12 P-3C Orion sub killer aircraft and eight diesel submarines.

Tom DeLay boasted at the time that the Bush Administration had approved the most robust package of arms sales in over a decade. A report by the Congressional Research Service concurred with that. Most Members of Congress applauded it with the exception of Mr. Gephardt from my home State of Missouri who said it didn't go far enough.

Only days after that announcement, the President ended this annual review that we had on arms sales, which had degenerated into an annual quarrel with China so we could meet their needs as far as defensive weapons on a case-by-case basis.

Since 2001, the Administration has continued to offer weapons to Taiwan. Unfortunately, as we noted, not all of these weapon systems have been purchased. They did purchase the destroyers. They put a deposit down on the subs, but haven't moved too far with that. And the P-3C aircraft has yet to get moving, that project.

As for military cooperation, after 1979, cooperation between U.S. and Taiwan decreased markedly. After 1976, however, with the crisis, this resumed, and during—1996—I'm sorry—and during this Administration those contacts have escalated with Taiwan's Defense Minister coming over here, military teams going to Taiwan to observe exercises, inspecting facilities, even, according to the Taiwanese press, boarding Taiwan's midget subs and inspecting them. Also, offering suggestions as to how to engage their C4ISR capabilities.

The President has signed into law the Foreign Relations Authorizations Act of 2003 to treat Taiwan as a non-NATO ally, although he emphasized at the time that this might impinge upon the President's powers and that this did not in any way undermine our one China policy. He also worked with Congress to draft a law calling for the study of increased military ties with Taiwan.

As far as the security commitment, Members of Congress had complained, particularly after '96, when many learned that the TRA was not a treaty. It provides us only with an option to defend Taiwan. In 2001, the President, as we all know, said that he would do whatever it took to help Taiwan defend itself.

This wasn't a slip of the tongue. Since that time, this has been cited by Administration officials on numerous occasions. Most recently a couple of weeks ago in the wake of this referendum debate, a person in the State Department said, quote, "The President has made clear his commitment to Taiwan and will not compromise on it."

Political ties. Like a lot of other states, we have a curious relationship with Taiwan. We have often treated it as a third-class citizen. Presidential visits were discouraged. Again, the Bush Administration has changed this. We've had several Presidential visits. The President of Taiwan has come here, met with American lawmakers, gone down to Texas, had barbecue with Tom DeLay, generally been treated with the dignity and respect you would expect to have a foreign leader treated.

Others have been here, the Vice President, the First Lady, Lien Chan, the candidate right now for President from the Kuomintang, had dinner at the White House. Other Ministry of National Defense officials have been here. So we've had these visits. As far as other political changes, U.S. diplomats can now accept assignments in Taiwan. The flag is flown occasionally at our unofficial embassy there, and the President has signed legislation to help Taiwan gain observer status in the World Health Organization.

Something that is not in my written testimony that Mr. Feldman was mentioning about the international organizations, this Administration also reversed the policy of the Clinton Administration, which had actually spoken against Taiwan's drive to rejoin the U.N. We've gone—this Administration has gone back to the original position of not saying anything. So if you don't have anything nice to say, don't say anything at all.

And for conclusion, to conclude this with 20 seconds to spare here, my discussion provides only the most dramatic examples of change. More complete discussion would include the President's efforts to jettison the "three no's," and while at the same time embracing the Clinton Administration's pledge that future of Taiwan must be acceptable to the Taiwanese people.

As one lawmaker noticed, our relationship with Taiwan under this Administration has never been closer. I had more in the written testimony about the referendum, just a few words on that. But I think as Dr. Copper is going to address that issue, I'll let it go there.

[The statement follows:]

Statement of Dennis Van Vranken Hickey
Professor, Political Science Department
Southwest Missouri State University, Springfield, Missouri

The Bush Administration and Taiwan

On December 9, 2003, President George W. Bush warned the Taiwanese government about a proposed referendum that is certain to irritate China. He declared that the U.S. is opposed to any action that "might unilaterally change the status quo" across the Taiwan Strait. The White House apparently feared that Taiwan was inching closer and closer to declaring itself independent of China—a move that could ignite a major conflict in East Asia at a time when U.S. forces are tied down in the Middle East.

Not surprisingly, Bush's statement angered some pro-Taiwan Members of Congress and others who support the island democracy. The President's critics accused him of "appeasing a dictatorship" and having "lost his bearings." On January 6, 2004, a Democratic candidate for President, Senator Joseph Lieberman (D-CT), even went so far as to blast Bush for "turning his back on Taiwan." It's time for a reality check.

Without question, the Bush Administration is the most "pro-Taiwan" administration since the United States broke relations with Taiwan and recognized the mainland Chinese regime in 1979. Indeed, the administration has carried out a significant readjustment of U.S. policy toward the island, while continuing to abide by the terms of the Taiwan Relations Act. Like previous administrations, however, the Bush Administration also recognizes the value of engaging the People's Republic of China (PRC).

I. U.S. Policy Toward Taiwan

On December 15, 1978, the U.S. announced the establishment of full diplomatic relations with the PRC, to become effective January 1, 1979. In order to achieve normalization, Washington acquiesced to Beijing's three long-standing demands: (1) termination of formal diplomatic relations with Taiwan; (2) removal of all U.S. troops from Taiwan; and (3) abrogation of the 1954 U.S.-ROC Mutual Defense Treaty.

Since 1979, American policy toward Taiwan has been guided by the Taiwan Relations Act (TRA) and three U.S.-PRC Joint Communiqués: (1) the 1972 Shanghai Communiqué; (2) the 1979 Normalization Communiqué; and (3) the August 17, 1982, U.S.-China Joint Communiqué. The TRA provides a legal framework for America's commercial and cultural relations with Taiwan. It also outlines the terms of Washington's "unofficial" governmental relations with Taiwan and includes provisions for its defense. In the Communiqués, the U.S. recognizes the PRC as the legitimate government of China and acknowledges Beijing's position that there is only one China and Taiwan is a part of it.¹ Washington also promises not to pursue a policy of "two Chinas" or "one China, one Taiwan" and stresses that the resolution of the Taiwan issue is a matter for the Chinese themselves to decide peacefully.

The U.S. security commitment to Taiwan is outlined principally in Sections 2 and 3 of the TRA. Section 2(b) states:

¹The word "acknowledge" was deliberately chosen as it indicates cognizance of, but not necessarily agreement with, the Chinese position. Interestingly, the Chinese version of the Communiqué states that both sides "agree" that there is only one China and that Taiwan is a part of it. See Dennis Van Vranken Hickey, "America's Two-Point Policy and the Future of Taiwan," *Asian Survey*, Volume XXVIII, Number 8, August 1988, pp. 881–896.

It is the policy of the United States . . . to consider any effort to determine the future of Taiwan by other than peaceful means, including by boycotts or embargoes, a threat to the peace and security of the Western Pacific area and of grave concern to the United States; to provide Taiwan with arms of a defensive character; and to maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan.

In terms of American arms sales to Taiwan, the most pertinent passages of the TRA are to be found in Section 3:

(a) In furtherance of the policy set forth in section 2 of this Act, the United States will make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability.

(b) The President and Congress shall determine the nature and quantity of such defense articles and services based solely upon their judgement of the needs of Taiwan, in accordance with procedures established by law. Such determination of Taiwan's defense needs shall include review by the United States military authorities in connection with recommendations to the President and Congress.

Should the security or the social or economic system of Taiwan be threatened, Section 3 also states that "the President is directed to inform the Congress promptly . . . (and) the President and the Congress shall determine in accordance with constitutional processes, appropriate action by the United States in response to any such danger."

In addition to the TRA, critical elements of U.S. policy toward Taiwan may be found in the three U.S.-PRC Joint Communiqués. In the 1972 Shanghai Communiqué—a document that helped pave the way for eventual normalization of U.S.-PRC relations—Washington reaffirmed "its interest in a peaceful settlement of the Taiwan question." In the 1979 Normalization Communiqué, Washington also stressed that "the United States continues to have an interest in the peaceful resolution of the Taiwan issue and expects that the Taiwan issue will be settled peacefully by the Chinese themselves." In the August 17, 1982, U.S.-China Joint Communiqué, American authorities once again emphasized that Beijing must "strive for a peaceful resolution of the Taiwan question." In the same agreement, however, the U.S. promised to eschew long-term arms sales to Taiwan and to keep sales from exceeding either the quality or quantity of arms sold to Taiwan after the U.S. established relations with the PRC. This document also apparently committed the U.S. to reduce its arms sales to Taiwan gradually.

U.S. policy toward Taiwan is both ambiguous and contradictory. For example, the TRA warns that the U.S. would consider any hostile actions directed against Taiwan as "a threat to the peace and security of the Western Pacific area and of grave concern to the U.S." But Washington is not committed to Taiwan's defense. Furthermore, in the August 17, 1982, U.S.-China Joint Communiqué, Washington promised to reduce its arms transfers to Taiwan. But since 1982, arms sales have escalated. Washington steadfastly refuses to accede to Beijing's demands that these arms sales be curbed.

II. U.S.-Taiwan Relations in the Bush Administration

During the first months of the Bush Administration, there seemed to be little indication of a major shift in U.S. policy toward Taiwan. Indeed, the administration appeared determined to maintain cordial relations with China. By mid-2001, however, it was clear that the administration was prepared to upgrade ties with Taiwan and increase arms sales to the island.

Arms Sales

As described, according to the TRA—the legislation that guides official American policy toward Taiwan—the U.S. will "make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability." During the late 1980s and 1990s, a variety of considerations—including the PRC military buildup, the end of the Cold War, Taiwanese lobbying and domestic political pressures—had contributed to an escalation in arms sales. Indeed, by the time George W. Bush assumed office, sales of American-built military equipment had included missiles, advanced fighter aircraft, sophisticated anti-submarine helicopters, warships, transport planes, tanks,

long-range radar and the Patriot Anti-Missile System.² But other weapons systems—including submarines and AEGIS equipped destroyers—were denied to Taipei. U.S. officials took the position that submarines were offensive weapons and therefore could not be sold to the island. Moreover, PRC threats that the AEGIS would be “the last straw that breaks the camel’s back” and Pentagon warnings that China’s military might launch a preemptive strike against the vessels contributed to the Clinton Administration’s decision to block the sale of the AEGIS to Taiwan.

From the outset, Members of the U.S. Congress lobbied the Bush Administration to sell additional arms to Taiwan. Especially high on Taipei’s 2001 shopping list were P-3C anti-submarine aircraft, diesel powered submarines and AEGIS equipped destroyers. Taiwanese officials expressed hopes that these requests would be approved. But many Taiwanese defense experts doubted that Washington would sell such weapons to Taiwan. As might be expected, Chinese authorities urged the Bush Administration to reduce arms sales to Taiwan.

In April 2001, President Bush announced that he had decided upon an arms sales deal with Taiwan that was “the right package for the moment.” The President approved the sale of four Kidd-class destroyers and 12 P-3C Orion submarine-killer aircraft. He also agreed to help the island secure eight diesel submarines. The AEGIS decision was deferred, with the administration suggesting that a future decision might depend upon the deployment of PRC missiles opposite Taiwan (China has deployed roughly 450 missiles opposite Taiwan). Following the President’s announcement, Representative Tom DeLay (R-Texas) proclaimed that “the Bush Administration has approved the most robust package of defensive weapons approved for Taiwan in over a decade.” A study conducted by the U.S. Congressional Research Service (CRS) concurred with this assessment.

It is noteworthy that the arms sales package enjoyed widespread support among the media and the U.S. Congress. There was little partisan bickering. Indeed, some leading Democrats argued that the sale didn’t go far enough. Probably referring to the April 1, 2001 mid-air collision between a U.S. spy plane and a PRC fighter jet, Representative Richard Gephardt (D-Missouri), declared that the President also should have approved the sale of the AEGIS in response to China’s “military build-up and other provocative acts.”

Only days after approving the sale of the destroyers, aircraft and submarines, President Bush announced that he would end the practice of employing an annual review to determine Taiwan’s defensive needs—a policy that had been in place since 1982. The annual review had degenerated into an annual quarrel between Washington and Beijing.

Since 2001, the Bush Administration has continued to offer generous weapons packages to Taiwan. For example, in 2003, Taiwan’s air force took delivery of U.S.-made AIM 120 medium-range air-to-air missiles (AMRAAMS) that will boost the firepower of its F-16s. Moreover, the administration has pushed the Taiwanese to enhance its C4ISR (command, control, communication, computer, intelligence, surveillance and reconnaissance) capabilities and approved the sale of the Link-16 C4ISR system to Taiwan. The Taiwanese finally agreed to purchase a scaled-down version of the system in late 2003 (unfortunately, Taiwan has yet to move forward with plans to purchase the submarines or P-3C Orion submarine-killer aircraft that the administration has offered to sell). In June 2003, Taiwan announced that it would move forward with plans to purchase three Lockheed-Martin PAC-3 units and upgrade its two PAC-2 Plus units to PAC-3 standards.

Military Cooperation

As a pre-condition for the normalization of diplomatic relations with the PRC in 1979, the U.S. agreed to remove its troops from Taiwan and abrogate the 1954 U.S.-ROC Mutual Security Treaty. As a consequence, military cooperation between the two governments decreased markedly. The Bush Administration, however, has sought to reverse this trend.

In March 2002, Tang Yiau-ming, Taiwan’s Defense Minister, journeyed to the United States to attend a “private” meeting in Florida. He was the first Taiwanese Defense Minister to be granted a visa to the U.S. for other than a transit stop since 1979. During his visit, Tang met with Paul Wolfowitz, U.S. Deputy Secretary of Defense, to discuss arms sales and defense issues.

In another sharp departure from past policy, the Bush Administration approved sending military teams to Taiwan to observe military exercises. According to the Pentagon, U.S. military personnel are deployed to the island for the purpose of “ob-

²In addition to arms, the U.S. has transferred critical technologies to Taiwan. This technological assistance has enabled Taipei to domestically manufacture a wide range of military hardware—including advanced warplanes, missiles, warships and tanks.

serving and assessing” Taiwan’s armed forces so arms sales may be tailored to meet Taipei’s needs. According to Taiwanese press accounts, the U.S. defense experts have inspected Taiwan’s military equipment (including its midget submarines) and offered suggestions as to how the military might best improve its C4ISR capabilities.

Finally, President Bush has signed legislation to enhance military ties between Taipei and Washington. In 2002, the President signed into law the Foreign Relations Authorization Act of Fiscal Year 2003. According to Section 1206 of the law, “for the purposes of the transfer or possible transfer of defense articles or defense services, Taiwan shall be treated as though it were designated a major non-NATO ally.”³ The President also signed into law an Act calling on the administration to study the feasibility of expanding U.S.-Taiwan military ties.

Security Commitment

As described, the U.S. security commitment to Taiwan is discussed in the TRA and three Joint Communiqués with the PRC. Some argue that the TRA mandates an American military response to a PRC attack. But these individuals are mistaken. The TRA provides the U.S. only with an *option* to defend Taiwan, it does not necessarily commit the U.S. to Taiwan’s defense. On April 25, 2001, however, President Bush was asked whether the U.S. had an obligation to defend Taiwan if it was attacked by China. The President replied, “Yes, we do and the Chinese must understand that. Yes I would.” When asked if this meant protecting the island “with the full force of the American military,” Bush replied, “whatever it took to help Taiwan defend themselves (sic).” No other president has made such a sweeping commitment to Taiwan’s defense during the post-normalization era.

Some initially dismissed the President’s statement as a “slip of the tongue.” It is noteworthy, however, that it continues to be cited by senior administration officials as official U.S. policy. Moreover, U.S. officials have continued to reassure the international community that, despite Taiwan’s controversial referendum plans, the American security commitment to the island remains strong. On January 14, 2004, Adam Ereli, Deputy U.S. Department of State spokesman, told a gathering of foreign correspondents that the President had made clear his commitment to Taiwan’s security and that he will not compromise on it.

Political Ties

Like many other countries, America maintains a curious relationship with Taiwan. For years, Taiwan was treated like a third-class country. For example, the President of this democratic state and other officials were strongly discouraged from visiting the U.S.

The Bush Administration has expanded the range of acceptable contacts with Taiwan that had been curtailed following the recognition of the PRC in 1979. In May 2001, President Chen Shui-bian was granted a transit visa to “rest” in New York City and Houston while en route to Central America. The administration also indicated that it would not oppose Chen’s plans to meet with American lawmakers during the visit—an abrupt change from the past treatment accorded to high-ranking Taiwanese officials. Consequently, President Chen met with Mayor Rudolph Giuliani and 20 legislators during a three-day stay in New York City and enjoyed a barbecue with Representative Tom DeLay during a visit to Texas. President Chen returned to the U.S. for another high-profile visit in 2003.

In addition to President Chen, a steady stream of other high-ranking Taiwan officials have journeyed to the U.S. since Bush took office. These visitors have included Vice President Annette Lu (an independence activist once described as the “scum of the earth” by PRC authorities), Defense Minister Tang Yiau-ming, Wu Shu-chen (the President’s wife) and a host of lawmakers and politicians. Indeed, Lien Chan, Kuomintang Party Chairman and the party’s 2000 and 2004 Presidential nominee, attended a dinner at the White House in June 2002. In some instances, the U.S. is the final destination for the visitors. In other cases, however, officials are granted transit visas. For example, Vice President Lu’s three-day visit to New York City was officially designated as a “stopover.” These leisurely transit stops have prompted members of the press to quip that the visits appear to be journeys to the U.S. followed by short stopovers in Central America.

In addition to the escalation in high-level visits and exchanges, the political relationship between Washington and Taipei has changed in other subtle ways. As described, President Bush signed into law the Foreign Relations Authorization Act of

³ When signing the law, however, President Bush voiced objections to it on “Constitutional and procedural grounds” and warned that it “could be misconstrued to imply a change in the ‘one China’ policy of the U.S. when that U.S. policy remains unchanged.”

Fiscal Year 2003. The new law permits incumbent diplomats to accept assignments in Taiwan and expresses the “sense of the Congress” that the U.S. flag should be displayed at the “unofficial” U.S. embassy in Taiwan (the American Institute in Taiwan or AIT) and at the residence of the AIT Director “in the same manner as U.S. embassies, consulates and official residences throughout the world.” On September 11, 2002, the U.S. flag was flown at the AIT in Taipei for the first time since the U.S. broke diplomatic relations with the island.

Finally, President Bush has signed legislation directing the Department of State to devise a plan whereby Taiwan will gain observer status at the World Health Organization. During a closed-door meeting of the World Health Assembly in 2003 during the SARS crisis, the U.S. delegation spoke in favor of Taipei’s admission to the WHO. As Tommy Thompson, Secretary of the U.S. Department of Health and Human Services, explained, “We know this is a controversial issue, but we do not shrink from taking a public stance on it. The people of Taiwan deserve the same level of public health as citizens of every nation on earth, and we support them in their efforts to achieve it.”

Conclusion

The discussion above provided only the most dramatic examples of changes in American policy toward Taiwan. A more complete description would include other developments as well. For example, the administration quietly jettisoned President Clinton’s “Three No’s Policy.” On the other hand, officials publicly embraced the former President’s pledge that any resolution of the Taiwan issue must be acceptable to the Taiwanese people. As Representative Robert Wexler (D-Florida) observed in January 2003, “the relationship between the U.S. and Taiwan has never been stronger in terms of its totality.”

To be sure, Washington has moved closer to Taipei. Arms sales have escalated, high-level military contacts have been reestablished, America’s security commitment to Taiwan has been bolstered and political ties have been strengthened. So why has President Bush criticized Taiwan’s proposed referendum? Having recently returned from Taiwan, perhaps I could shed some light on this issue.

In March, Taiwanese voters will go to the polls to elect a President. The incumbent, President Chen Shui-bian, is in deep trouble. The economy remains stagnant and unemployment has hit record levels. Chen has seized upon the idea of a referendum as a desperate tactic to salvage his faltering re-election campaign. A negative reaction from China will only boost his popularity. Taiwanese voters have displayed a tendency to rally around any candidate who is criticized by Beijing. In other words, domestic political considerations are driving the referendum plan.

Chen’s referendum gamble holds the potential to ignite a conflict between China and Taiwan. This is a very dangerous game for everyone involved—including the U.S. President Bush has now made it clear that he wants to preserve the status quo across the Taiwan Strait. Despite our long-standing friendship with democratic and free Taiwan, Bush realizes that the U.S. needs China. Beijing’s cooperation is essential if the U.S. hopes to address a wide range of pressing global problems, including terrorism, the proliferation of weapons of mass destruction, environmental degradation, health issues, dwindling energy supplies and the nuclear crisis on the Korean Peninsula to name just a few. The President also realizes that an unnecessary military conflict with China over Taiwan will not serve anyone’s interests. It is for these reasons that President Bush called on President Chen to exercise restraint and call off his controversial referendum scheme.

Fortunately, President Chen has toned down his controversial referendum plan in recent weeks. American officials have welcomed these moves and hopefully the “referendum crisis” is being defused. Differences over this thorny issue have not diminished America’s friendship with Taiwan or the Bush Administration’s commitment to abide by the terms of the TRA—support for the island’s security remains strong. And despite the angry accusations of a small group of politicians, academics and paid lobbyists, President Bush has not turned his back on Taiwan. Rather, the Bush Administration is the most “pro-Taiwan” administration in over three decades.

Co-Chair ELLSWORTH. Thank you so much, Professor Hickey. Thank you, very interesting, very much appreciated.

Professor Copper, if you will, please.

STATEMENT OF JOHN F. COPPER
STANLEY J. BUCKMAN PROFESSOR OF INTERNATIONAL STUDIES
RHODES COLLEGE, MEMPHIS, TENNESSEE

Mr. COPPER. Thank you, Mr. Chairman, and Members of the Commission. I want to address the issue of the Taiwan Relations Act in connection with the referendum issue in Taiwan. As you've heard already, the Taiwan Relations Act commits the United States to the defense of Taiwan. I agree with that very much. Provisions in it, particularly if you look at them together, make a firm pledge that the U.S. will protect Taiwan. I'd like to add a point that hasn't been made: the promise aimed at China—Taiwan has no other threat, no other enemy.

Second, even if you reject the legal argument in the Taiwan Relations Act that the United States will protect Taiwan, I think for all practical purposes, we will. It's very obvious that public opinion in the United States favors Taiwan. It does not favor China. That's been true for some time.

Another point that needs to be made is that the provisions in the Taiwan Relations Act just referred to have been tested, in 1996 when President Clinton ordered aircraft carriers into the region at a time when China was intimidating Taiwan influence its first direct Presidential election.

There is another point I think is important for this Commission to know: That we will aid Taiwan, defend Taiwan under almost any circumstances is a view that you hear in Taiwan oftentimes stated by the President and the Chen Administration. The opposition sometimes takes issue with this. They do not always agree with it.

Looking at the other side of the problem, and what I think constitutes a problem for us, China regards Taiwan as its territory. Prior to Japan taking the island in 1895, it was ruled by China for more than 200 years.

The present government of China openly pledges that Taiwan must be returned to China. This issue is intimately connected to nationalism in China, which is on the rise. And it's my opinion that any official in China that might want to say that we (meaning China) don't want Taiwan back or we don't care about Taiwan, won't remain in power very long.

It is not in the interest of the United States to provoke a conflict with China. We should realize that the Taiwan issue can cause instability in China. We don't want that. We (meaning the United States therefore) don't want to contradict China's view on the subject of Taiwan. That's why we have the one China policy.

This brings me to the matter of the referendum, which I think in this context has to be seen as a very serious one, realizing the Taiwan Strait is a "flash point," a place where the United States and China may come to loggerheads and war might result.

Let me make a couple of points about the issue of referendums. First of all, the word "referendum" in Chinese, or gong tou, includes the notion of plebiscite. There's no separate word for plebiscite in Chinese. So when you use the term "referendum," you're also talking about a plebiscite.

Second, this issue came up in the context of holding an election in Taiwan, an election that's going to be a bitterly contested one.

And the perception is that by bringing this up, it will help President Chen and his party. He denies this, but I think the timing suggests that it is connected.

The questions to be answered by this referendum, I think, deserve our attention, too. Should Taiwan acquire more anti-missile weapons if China continues its build-up? And second, should the government in Taiwan engage in negotiations with China to establish peace and stability?

On the matter of anti-missile weapons, this is an issue, which won't be decided by public opinion. After all, whether Taiwan acquires weapons or not is largely dependent upon what the United States sells to Taiwan. Incidentally, we've already been doing this. So technically speaking it's not a matter to decide. This way anyway. It's already in process.

The issue of negotiating with China to establish a peace and stability framework using the term "negotiation" won't happen. The word "negotiation" suggests talks between two nation states. China is not going to negotiate. China regards Taiwan as its territory.

So the referendums are about matters that aren't normally what we would consider to be issues decided upon by referendums. In any case, the opposition agreed that there should be a referendum law. It's in the constitution, but no law has ever been written to define what it is.

Immediately after a referendum law was passed problems arose about a so-called "defensive referendum" or a referendum that would prevent conflict. Incidentally, in the Chinese version of the law, those terms aren't there. Article 17 of the referendum refers to an emergency or a crisis. It does not talk about defending Taiwan.

President Chen chose to interpret it as defending the island and that's the way the press talked about it. Another issue has come up, and that is writing a new constitution. President Chen has also broached that possibility—

Co-Chair ELLSWORTH. Professor Copper, you're—

Mr. COPPER. —which presents a problem also.

Co-Chair ELLSWORTH. Could you come to a termination? Your testimony is very interesting and very important, but we are running out of time, and we have a lunch guest coming, and the Commissioners still need to have time to ask questions.

Mr. COPPER. May I have one minute?

Co-Chair ELLSWORTH. Please, go ahead.

Mr. COPPER. This has presented another very similar problem because the constitution states that Taiwan is part of China. This coincides with China policy: one China.

Let me get to my conclusion then. The United States should make it clear when we support a referendum in Taiwan. We're not supporting a plebiscite. Also, I think what we should make clear is that in supporting a referendum; we're not trying to help one side in a coming election. We want to avoid that. Those are my major points.

Thank you very much.

[The statement follows:]

Statement of John F. Copper
Stanley J. Buckman Professor of International Studies
Rhodes College, Memphis, Tennessee

***The Taiwan Relations Act and the Referendum Issue in Taiwan: A
 Conundrum for the United States***

Provisions in the Taiwan Relations Act (TRA) passed into law by Congress in 1979 and President Chen Shui-bian calling for referendums in Taiwan, when juxtaposed together creates a dilemma for U.S. foreign policymakers. Furthermore, the situation is a serious one.

It is my opinion, and one shared by many scholars in the field, that the TRA commits the United States to defend Taiwan against an external military threat. It states that enactment of this law was "necessary": (1) to make it clear that to try to determine Taiwan's future by force is a threat to the security of the Western Pacific area and of "grave concern" to the United States; (2) to provide Taiwan with arms; (3) to maintain the (America's) capacity to resist any effort to change Taiwan's social or economic system.

Reading these three provisions, especially together, and knowing Taiwan faces a threat from only one country (China), one must conclude that the TRA has committed the U.S. to defend Taiwan against any action the armed forces of the People's Republic of China might take against the island, especially an armed attack, and for whatever reason.

Even if one does not accept this "legal" argument or prefers a more pragmatic interpretation of U.S. Taiwan policy, the fact public opinion in the United States is very favorable toward Taiwan and not favorable toward China and that this is reflected in the view of Congress toward Taiwan, constitutes evidence that the U.S. will protect Taiwan.

The United States, in fact, did so in 1996 when Taiwan held its first direct Presidential election and China conducted missile tests near Taiwan's shore to intimidate and influence the electorate. President Clinton ordered two U.S. aircraft carrier groups to the area and a face-off between U.S. and Chinese forces followed. His decision was likely influenced by anticipated public and Congressional pressure if he did not act.

The reasons stated for the U.S. to defend Taiwan at that time, were the previously cited provisions in the Taiwan Relations Act and the fact that Taiwan has long been a faithful ally of the United States. It was noted that Taiwan had become a democracy under U.S. aegis.

Further, it was U.S. policy (iterated regularly since the 1950s), that the "Taiwan issue" must be resolved peacefully. That idea was written in the TRA. It was cited during the 1996 crisis.

The United States, then, and probably under any circumstance, will defend Taiwan again in the event of a threat or military action by China against the island.

It is critically important to note that most people in Taiwan believe this. Moreover, President Chen and his Administration say it often and base their policies, and their election strategy, on it.

On the other side of the equation, China regards Taiwan as its territory. Taiwan was ruled by China in the past, for over 200 years prior to Japanese rule that began in 1895. Its government has pledged often and with serious words to bring about China's reunification, meaning getting Taiwan back.

The "Taiwan issue" connects intimately to the virulent nationalism and irredentism that has grown in China of late. Thus, even if Chinese government officials want to abandon China's claim to Taiwan, they cannot and still remain in power.

It is clearly not in the interest of the United States to provoke a conflict or war with China. Likewise Washington does not want to cause political instability in China or undermine its current leadership. Openly contradicting China's stance on the Taiwan issue would do that.

This is the reason for the U.S. policy of one China, even though there are two sovereign states one on each side of the Taiwan Strait.

The gravity of President Chen Shui-bian several months ago proposing the use of a referendum must be seen in this context. Furthermore, the referendum issue amplified an already tense situation.

Taiwan is a "nexus" state, or one that could trigger a war between two major powers, the U.S. and China. Thus, the Taiwan Strait is considered a flashpoint, or a place where two major powers may engage in a conflict and weapons of mass destruction may be used.

In designing a U.S. response to the referendum matter, some other important facts that relate to President Chen's decision need to be noted.

One, the word for referendum in Chinese, *gong tou*, includes the concept of plebiscite, or deciding the issue of (Taiwan's) sovereignty. (There is no separate word for plebiscite in Chinese.)

Two, President Chen broached the referendum issue in the context of an upcoming election and when opinion polls indicated that the opposition "blue team"—the Nationalist Party, or Kuomintang (KMT), and the People First Party (PFP)—would win the election over President Chen and his "green bloc"—his Democratic Progressive Party (DPP) and the Taiwan Solidarity Union (TSU)—President Chen made the proposal to improve his prospects of winning the Presidential election in March.

Three, the referendums are to be held the same day as the election. The two questions to be resolved are not matters of domestic policy but rather relate to the question of Taiwan's relationship with China.

The two questions are: (1) Should Taiwan acquire more advanced anti-missile weapons if China continues to increase the number of its missiles in the area of China adjacent to Taiwan, and (2) should the government engage in negotiations with China to establish a "peace and stability" framework for cross-Straits interactions?

The matter of acquiring anti-missile weapons is an issue between the U.S. and Taiwan and probably will not be affected much, if at all, by public opinion. Furthermore, Taiwan has been and is currently in the process of acquiring anti-missile weapons. The second question likewise is not something that the electorate of Taiwan can resolve. China will not "negotiate" with Taiwan, as that term implies talks between two sovereign nations. To China the "Taiwan issue" is a domestic matter.

Thus, these issues are not really matters to be resolved by a referendum and calling for a decision on them constitutes a challenge, if not an affront, to America's one China policy.

Notwithstanding this situation, the opposition parties subsequently agreed to write a referendum law, there being a provision for referendums in the Constitution (but there existed no law to define their use) and opinion polls showing the public wanted it.

Indeed a referendum law was needed to bring about needed political reform, which had not been accomplished in the milieu of severe political gridlock following Chen Shui-bian winning the Presidential election in March 2000.

However, problems arose immediately after the Referendum Law was passed. It contains a provision for what some call a "defensive referendum" or "peace referendum" (though the Referendum Law does not include such words). According to the law (a rather vague sentence) it can be invoked in the event of an emergency or crisis.

President Chen declared forthwith that China's buildup of missiles and other military forces across the Taiwan Strait constitutes such a situation and that he intended to put the issue to the voters coinciding with the March 20, 2004 Presidential election. Since, as noted above, the voters cannot decide this matter, it seems to be an effort to win votes.

President Chen has also called for writing a new Constitution. To be sure Taiwan's Constitution is in many ways anachronistic, having been written when the Nationalist government of Chiang Kai-shek ruled China. It needs to be replaced or amended to fit Taiwan's current political situation and to resolve systemic matters, such as whether Taiwan should have a Presidential system of government or not, which may be too fundamental to handle by referendums.

But, the issue of Taiwan's sovereignty was again put to question because the Constitution states that Taiwan is a part of China. Since President Chen is on record saying he would like to change Taiwan's national title, this seems to be his intent.

Furthermore, his call for penning a new Constitution during the campaign period, like the proposing referendums, seems clearly politically motivated.

A feud with China helped former President Lee win the election in 1996 and President Chen win in 2000. President Chen perceives that a China crisis will help him win the coming election.

All of this creates a serious predicament for the United States.

The United States has long favored democracies in the conduct of its foreign policy and has, especially Congress, been instrumental in the democratization of Taiwan, even threatening the government of Taiwan if it did not democratize. The TRA, in my opinion, when it demanded progress in human rights in Taiwan (since in the U.S. view the human rights condition of nations is improved by democratization) called for it.

Democracy, in the U.S. view, also gives a nation the right to choose its future. That means Taiwan should possess the right to decide whether it unifies with China or become legally separate from China.

However, U.S. China/Taiwan policy is based on the principle of one China. "One China" has maintained peace in the Taiwan Strait in the past and still does.

Thus the U.S. has good reason to oppose referendums in Taiwan if they attempt to decide the sovereignty issue. There are two special reasons for this.

First, it is desirable that the United States avoids a conflict in the Taiwan Strait. This is even more so now given America's problems and commitments elsewhere. In December, President Bush stated this emphatically in the context of the referendum imbroglio.

Second, supporting President Chen's referendum proposals, given their language and in the present situation (meaning in conjunction with an election), would be tantamount to helping one political party or bloc win. Taiwan's national identity, or whether it is legally a part of China or not, is an issue that divides Taiwan along political party lines.

In fact, the media in Taiwan has frequently reported that the U.S. favors the Chen Administration over the opposition.

President Chen's recent visit to the U.S. and others in his Administration coming to the United States as a product of a more liberal U.S. policy in this regard, has helped President Chen's re-election chances as reflected by polls after the visits.

The Chen government has been lauded in the United States for its many contributions to Taiwan's democratization, in many respects deservedly so. When it was in opposition it promoted a two-party system, which helped the process of democratization. In power it has been responsible for the consolidation of Taiwan's democracy and it has made sincere efforts to get rid of corruption and much more. One can certainly argue that the KMT was in power too long and President Chen and his party were a good alternative and that the change of parties helped further democracy.

But President Chen and his party also have their warts. The DPP, before the election in 2001, called on the youth to emulate individuals who have struggled in their lifetimes. One of the models suggested was Adolf Hitler. President Chen appointed an individual convicted of attempted murder in New York to be his human rights advisor. President Chen got his son a legal position in the military even though his test scores were not high enough. The Chen Administration and the DPP have blatantly practiced ethnic (or sub-ethnic) discrimination in government hiring and have fanned the flames of ethnic enmity during election campaigns and at other times.

The United States has to formulate a China/Taiwan policy that balances protecting Taiwan and supporting its democracy with a one-China policy that keeps peace and tranquility in the Taiwan Strait.

The U.S. should support referendums, but not a plebiscite. The United States should certainly avoid any change in policy or any public statement that would have an impact on the outcome of the election or that would result in further tension in relations between Taiwan and China.

Panel II: Discussion, Questions and Answers

Co-Chair ELLSWORTH. Thank you, Professor Copper, and again Professor Hickey and Ambassador Feldman. Commissioner Robinson has some questions or a question anyway. Again, this is a five-minute deal.

Chairman ROBINSON. You bet. Thank you, Mr. Chairman.

Co-Chair ELLSWORTH. Q&A both included.

Chairman ROBINSON. Ambassador Feldman, I take your point on the fact that Congress may not have been as robust in asserting its obligations under the TRA and perhaps the relationship more generally in its dialogue with the Executive Branch.

Many of us concur with that view, and as being a Commission established by the leadership of the Congress, we're also anxious to determine specific recommendations that might redress any imbalance or any fall-off in that dialogue and see if it could be remedied.

Would you share with us any specific ideas you might have about how that Congressional prerogative could be asserted more effectively and forcefully?

Mr. FELDMAN. Thank you. It will depend upon the circumstances, which change over time. In connection, for example, with the statement by President Bush on no change in the status quo, which was received in Taiwan with something that was described as "shock and awe." I think when something like that happens, Members of Congress, the appropriate committees of the leadership, commissions should seek immediately to gain an understanding of why the statement was made, what its parameters are, what it means, and when you say "no change in the status quo," that's awfully broad.

Let's get the Administration to define what they mean by "change in the status quo," and then, of course, the very fact that that statement was made standing side by side with the Premier of the People's Republic of China added something to it, and I think it would be entirely appropriate for the Congress to say, hey, when you make such a statement standing next to the Premier of the People's Republic of China, you yourself are changing the status quo in the Taiwan Strait area.

And when you will publicly say to Taiwan thou shalt not do this, but not publicly, but, only as Secretary Schriver has told us, privately say, hey, by the way we're bothered by those 500 plus missiles, I think that should have been a public statement as well. And so that also becomes a question that the Congress can ask. So what I'm saying is you have to—it will go with whatever the circumstances are—and you have to be willing to seize the circumstances and say, hey, we're a partner in this. We want to be consulted and we want to give advice.

Chairman ROBINSON. In my view, that's excellent counsel, and one that this Commission will take on board in its final report.

Mr. Hickey, this is just a small matter, but I took note of your comment about President Reagan's pledge to reduce arms sales in contrast a little bit to the Bush Administration, which has been more forward leaning.

But you'd agree, wouldn't you, that President Reagan himself believed that we needed to condition absolutely any kind of reduction in arms sales on China's continued commitment to a peaceful resolution of differences, number one, but also the specific character of the threat that the PRC was going to pose against Taiwan.

That is to say it sort of defies my imagination to think of a President more committed to ensuring that any kind of comment on the reduction of arms sales wasn't more than offset, if you will, by making very plain that any deviation, any ramping up of the threat by the PRC on Taiwan, that is off the table. Any kind of move other than fully peaceful resolution-mindedness, if you will, again off the table.

Would you concur with that?

Mr. HICKEY. Certainly, yes. What had happened at that time was there was a division within the Administration with Secretary of State Haig and others saying there was a need to build up our relationship with the PRC against the Soviet Union, and that outweighed the President's own personal opinions towards upgrading relations with Taiwan, which he had said he would do during the campaign.

So they issued this Communiqué in 1982 which said that we would reduce arms sales leading over time to a final resolution, but

at the same time in that Communiqué, they did stress that all of this was predicated upon a peaceful resolution of the Taiwan issue, and a follow-up on something Ambassador Feldman said that I think was very important, the Congress at that time was really very concerned if not outraged by this Communiqué.

And they called all of these Administration people in on the floor and held a series of hearings that if you go back and read them are really fascinating, where they'd say, well, what does this mean? When are you going to terminate these arm sales and does this mean next year? And the person would say, well, I don't know. It goes 50 years from now? It goes 500 years from now? And then the Administration official's response was your guess is as good as mine.

And then they came up with, well, are these sales actually going to decrease, and they said, no, you look at it like a regression chart. They could actually go up for 30 or 40 years and then decrease, but the purpose—I think what was helpful from these hearings is that they showed that the Communiqué was almost a dead letter from 1982, that it really didn't mean that much.

I mean almost immediately the Administration went through all sorts of contortions explaining that it wasn't what it appeared to be, and that I think maybe the Congress, you know, acted very responsibly then trying to get to the bottom of what this change in policy meant, whereas perhaps they ought to be doing the same about the referendum issue.

Mr. FELDMAN. May I add one thing?

Chairman ROBINSON. Please.

Mr. FELDMAN. At the same time he signed the Communiqué, President Reagan sent a letter to then President of Taiwan, Chiang Ching-kuo, and said that this Communiqué is entirely predicated upon the statement by the PRC that peaceful resolution is their fundamental policy.

If at any time in the future, it appears that that has changed, I will regard this Communiqué as null and void. Now, I think one can certainly say that post-'96, the missile firings, at that point if not before the Communiqué became null and void.

Chairman ROBINSON. I would agree with that.

Mr. HICKEY. People were asking if it became null and void when President Bush, Sr. approved the sale of the F-16s.

Chairman ROBINSON. I would just say in conclusion that I also don't think that the public record has necessarily seen all of President Reagan's reflections on this matter.

Mr. FELDMAN. Yes. There are two letters from President Reagan to Chiang Ching-Kuo, which I have translated and included in an article that I mentioned in my written testimony. Jim Mann in his book *About Face* says that there is a highly secret memorandum from President Reagan in a drawer at the NSC. Undoubtedly, there are lots and lots of documents that have never been made public going back to '79 right up to the present.

Chairman ROBINSON. I'd just say I think that's a fair statement. I'd like to turn to our Vice Chair of the Commission, Dick D'Amato, at this time.

Vice Chairman D'AMATO. Thank you, Mr. Chairman. Thank you very much for your testimony. Do you happen to know what drawer that is in at the NSC? We'd like to——

Mr. FELDMAN. Ask Jim Mann.

Vice Chairman D'AMATO. —get our hands on that memo.

Commissioner DREYER. He said a safe.

Vice Chairman D'AMATO. Oh, a safe. That's harder. Well, this is a matter of concern. Making foreign policy by periodic Communiqués issued from somewhere in the Executive Branch without consultation with Congress and building any kind of consensus is dangerous, sort of like foreign policy by fortune cookie—you know, here it comes—and only lasts the life of the writer—of the President. Certainly there is no binding anything on the next President.

So the only redeeming and permanent document and the sound policy foundation is the TRA from what I can see, and the rest of it is always sort of, you know, paragraph nine of the other letter.

But it is of concern that it seems to me that the construction of this foreign policy is based upon not only these Communiqués, but on other documents and agreements and assurances made by Executive Branch figures to powerful Chinese leadership members that we're not aware of. I mean who knows what Kissinger told Chou En-Lai, you know. Kissinger told a lot of people a lot of things. We would be very interested—in fact, we have a project the Commission is engaging in in trying to build a historical record here to understand how this all evolved, so that we can help to recommend sounder mechanisms for formulating policy which is going to be obviously more and more important as we go along here given the importance of our relationship with both China and Taiwan.

So I would just encourage you to, if you have any knowledge of some of these documents, that you would keep us in mind and we would like to confer with you, and your writings are very, very informative to us on these matters.

The one thing I'd like to ask all of you—I don't know if you have that much experience in the arms area—but we have a problem in that we have authorized the sale of a lot of arms to Taiwan which the Taiwanese legislature has not funded or at least the Executive Branch has not agreed to fund there. And so the question of maintaining a qualitative and quantitative equality or a commensurate capability on the part of the Taiwanese, you know, becomes somewhat theoretical.

They've got so many destroyers and submarines and other kinds of weapon systems that have been approved, but they haven't been bought, they haven't been integrated in the defense system. There hasn't been any training and there hasn't been any joint development of doctrine, all the things that you need to build the kind of effective defense force.

Do any of you have any thoughts on this, this problem, and what it is in Taiwan that is restraining the Taiwanese ability to build the kind of support domestically which they have gotten from the U.S. Congress and the U.S. Department of Defense in terms of their defense purchases?

Mr. Hickey.

Mr. HICKEY. There are a number of reasons. If you're talking about the hardware that they've been offered by the United States including the submarines and the submarine killing aircraft, in the old days the Taiwanese could, you know, under marshal law, you could just make these kind of orders and purchase these things. As you know, Taiwan is now a democracy, and when I was there in December, I asked these same kind of questions: why are you all stalling on these subs and what have you, and they said, well, the price is too high, we're a democracy, all of this stuff has to go through our congress now.

And when you have a major weapons system package offered to Singapore, it will take 22 months; United States could take 22 months; we could take 24 months. These things are going to take time. We're going to want to bargain. At the same time, you've got to remember that there's a recession in Taiwan. The economy isn't booming like it used to be, and an interesting point that one of my hosts made was that, you know, some of this actually was America's fault.

It's funny how that always comes back to us, but they've wanted those submarines for a long time, and when they offered to buy them back in the 1980s when they had the money, we refused saying that they were offensive weapons. Now never mind the fact that, you know, Japan, which is not supposed to have any offensive weapons, had submarines, but the State Department—no offense to the State Department—but they were saying these are offensive weapons and you can't purchase them.

Now suddenly they say there's just all of these weapon systems coming down the pike that the U.S. is offering, and they don't have the money, plus they've got to go through the legislature, plus they've got the recession, plus they've got the accelerating cost and other social programs. These are some of the reasons that they've not moved forward.

Vice Chairman D'AMATO. Mr. Feldman.

Mr. FELDMAN. If I may just add one or two things. There are no submarines. They don't exist. They'd have to be built. They'd have to build it from scratch. We haven't built a diesel submarine in 50 years, something like that. There is no other country that's going to sell them to them. Countries that make diesel submarines—Spain, Germany, Holland—they're not going to sell them to the PRC—to Taiwan—sorry.

So they have to be built from scratch. All right. Well, (a) it's expensive; (b) you even have a fight here in the United States where there is a very influential Senator who wants to have it built in Mississippi and there is another influential Senator who wants to have it built up in Rhode Island.

And then the Taiwanese, they want to have a piece of the action, too. They want to say, well, look, if we're going to have submarines, let's at least start our capability by letting us build part of one, more of the next, and so on and so forth. So this is not a simple kind of thing. And then you've got—as my colleague has said, you've got the whole democracy thing going there, too.

It is not easy to get appropriation bills through our Congress. It is not easy to get appropriation bills through their congress. So they've gone ahead with some stuff. As Richard Lawless was say-

ing, there's a whole bunch of stuff that they can and should do that doesn't really take very much money.

They can harden their revetments for aircraft, for example. They can work out a whole bunch of procedures to protect your leadership against a decapitation strike. There are lots of things that they can do we're telling them and they're doing some of them.

By the way, I was told when I was there—when I was there in November, this is I suppose part of Chen Shui-ban's trying to get us on his side. He said that if he is elected, he will very shortly after his reelection submit a supplemental defense appropriation—I forget how many billion dollars—I think the number was six.

Chairman ROBINSON. Yes, Mr. Copper, briefly if you don't mind.

Mr. COPPER. A couple of points. Since the election in 2000, Taiwan has experienced divided government and gridlock on almost every issue of any importance including defense spending.

Second, in 2001, Taiwan experienced a recession, negative growth. Few in Taiwan had experienced this. I think things will get better. The inability to decide on purchasing weapons, I think this will gradually go away.

Chairman ROBINSON. Thank you very much. I'd like to turn to Co-Chairman for today's hearing Commissioner Wortzel followed by Commissioner Bryen and Commissioner Mulloy and Commissioner Dreyer. So that's our list. We need to stay within our limits here, but please Co-Chairman Wortzel.

Co-Chair WORTZEL. Ambassador Feldman, you've had quite a bit of experience with the Taiwan Relations Act and I would appreciate clarification on one point that now, in my mind, needs to be clarified, and the rest of the panel, if the witnesses would care to comment, that would be great.

But when the United States recognized the People's Republic of China in 1979, did it also recognize or accept the proposition that Taiwan is part of China and a one China policy?

Mr. FELDMAN. No, sir, it did not. The recognition Communiqué says that the United States acknowledges the Chinese policy that there is but one China of which Taiwan is a part. The word "acknowledge" is diplo-speak for we hear you; we know that's what you say. The United States made no statement of its own as to what the status of Taiwan was nor have we since made any statement, any formal statement, of what we regard the status of Taiwan to be.

I trust this answers the question.

Co-Chair WORTZEL. Yes, thank you very much. Dr. Copper, Dr. Hickey.

Mr. HICKEY. Yes, I agree. I think there have been a few people somewhere along the line who have made a mistake, who make a slip of the tongue or something and say we—but Ambassador Feldman is absolutely correct. That the U.S. acknowledges that it's the PRC's position, and that Taiwan is part of China, and you could tell me, Commissioner Wortzel, that it's a beautiful sunshiny day out there today, and I can say I acknowledge your position that it is.

Co-Chair WORTZEL. The fact is it's raining.

Mr. FELDMAN. The fact is it's raining and it's nasty. So, yes, basically that's what it meant.

Mr. HICKEY. I agree with what's said. I think some people, however, drew from the fact that we established diplomatic relations with Beijing that there is only one China, and therefore Taiwan has no sovereignty, but I want to add that the Taiwan Relations Act certainly contradicts that.

It doesn't say that Taiwan has sovereignty, but I think if you read into it, interpret it, it does say that.

Mr. FELDMAN. May I add one more thing? One minute to midnight on December 31, 1978, we recognized the Republic of China as the sole legal government of all of China. One minute after midnight on January 1, 1979, we no longer did so. What changed was U.S. recognition. Nothing changed on Taiwan. It was exactly the same place it had been.

Chairman ROBINSON. Thank you. Commissioner Bryen.

Commissioner BRYEN. Thank you, Mr. Chairman. For the Commission's benefit, first of all, there's a law called P.L. 92-403, the Case Act. In ancient times, I worked on this proposition, which is part of the law today. It requires that all Executive agreements including secret ones be transmitted to the Congress on a prompt basis.

If there are Executive agreements in someone's drawer, they don't belong there. And the Commission has every right, as an instrument of the Congress, to request whatever documents of this sort exist.

Vice Chairman D'AMATO. I think, Mr. Chairman, we should do something like that. We should take that up for action.

Chairman ROBINSON. Yes, I agree.

Commissioner BRYEN. Thank you very much for your testimony. It was very interesting. I have a broad question. It seems to me that we've fallen back into the language of considering Taiwan a burden, some sort of an obligation on the United States, some kind of liability, some sort of nuisance.

I think you can make the opposite case, and so I could make it, but I think I would rather hear you make it. Some of the points that might be considered in that is what military importance Taiwan might have for the United States—what effects its presence along the Taiwan Straits has in terms of keeping the sea lines of communications open? How it might help contain military expansion of China, which I think is of global concern? And finally, one area to look at is the impact of democracy on the entire region. So with those sort of suggestions, I open it up to you for comment.

Mr. HICKEY. I think that's a good question, and I've heard that a couple times recently of people saying, well, why Taiwan and why is Taiwan important? I think we have to remember that beyond the strategic, you know, of people saying, well, if Taiwan is an old—President Reagan used to say it was an ally of ours going all the way back to World War II. Now that was a slip of the tongue, because they weren't an ally after '79, but in addition to the strategic elements that people talk about, there's also the—

Commissioner BRYEN. He tended to get the principles right.

Mr. HICKEY. I'm sorry?

Commissioner BRYEN. President Reagan tended to get the fundamental principles right.

Mr. HICKEY. He got the big picture. Right, the big picture.

Commissioner BRYEN. And that's what was so impressive about him.

Mr. HICKEY. But as far as politics, Taiwan has evolved into what the State Department now calls officially a multi-party democracy and they put the light of the argument that it is impossible for a Chinese state or an Asian state to ultimately democratize peacefully and metamorphasize as it did into a functioning lively democracy. And I think democratization in Taiwan, I mean it's brought a lot of good things. People look at, well, you've got these divisive issues. It takes a long time to get laws through and what have you, but if—the first time I went to Taiwan, it was under marshal law and I thought it was a mess.

And I know people who don't like that because they liked it under marshal law, but the traffic was a mess, there weren't any parks, there weren't any green spaces, but since with democracy the island has been cleaned up. They've got the mass transit. They've got parks. The air pollution—they've got an environmental movement. So politically I think we have a lot of interests in Taiwan and economically as well people tend to forget that we have more invested in Taiwan than we do in the mainland, even to this day. So we have vested political, economic and strategic interests in Taiwan.

Mr. FELDMAN. I'd add only that there are only five democracies in all of Asia—Taiwan is one of them—Japan, South Korea, Philippines, Thailand and Taiwan. That's it. And this is very, very important as an example of what a Chinese society can in fact create.

Let me also remind or recall a couple years ago, ten years ago or so, people were talking about Asian values. Remember? Asian values were a Pinochet-kind of regime. That was an Asian value. Well, Taiwan has given the lie. It has gone from a military dictatorship with all the apparatus of such a thing, the political prisoners, the controlled press, the inability to do damn near anything, into what it is today, and just as Professor Hickey has described, that's got to be very important to us, plus all the strategic implications that Commissioner Bryen has pointed to.

Commissioner BRYEN. Thank you, Mr. Chairman.

Chairman ROBINSON. Commissioner—sorry——

Mr. COPPER. Could I? Sorry.

Chairman ROBINSON. I'm sorry. Mr. Copper.

Mr. COPPER. A comment about Taiwan's democratization. Taiwan, in my opinion, democratized faster and more successfully than any country on the earth. So it's become a model for developing countries, not only in Asia but everywhere else.

Also, as Ambassador Feldman mentioned when talking about Asian values, there are two models of democracy in Asia, Asian democracy and Western democracy. Taiwan is the latter.

A third point being that Taiwan has democratized under influence of the United States. We pushed Taiwan to democratize. Therefore, in answer to your question, is Taiwan a nuisance, yes, it is. But if we abandon Taiwan, we have no credibility in Asia. We have to understand that, I think.

Chairman ROBINSON. Commissioner Mulloy.

Commissioner MULLOY. Yes. Just a point of clarification, Mr. Feldman. When you talked about the Shanghai Communiqué, I think there was one important sentence that we didn't read:

United States acknowledges that all Chinese on either side of the Taiwan Strait maintain there is but one China—in other words that we acknowledge—and that Taiwan is part of China. We acknowledge.

But then the Communiqué further states: The United States does not challenge that position, so it's not just acknowledging, we're not challenging it. Okay.

Mr. FELDMAN. Different communiqués.

Commissioner MULLOY. Isn't this the Shanghai Communiqué?

Mr. FELDMAN. That's the Shanghai Communiqué. I was quoting the Recognition Communiqué.

Commissioner MULLOY. Well this is the Shanghai Communiqué where we say that—

Mr. FELDMAN. I can talk about that, too, but I was quoting the Recognition Communiqué.

Commissioner MULLOY. Now, the second point, in your testimony, you talk about the state and imply that Taiwan meets the test of a state because of the Montevideo Convention. And then you cite the membership in the WTO and the Asian Development Bank. Of course, China's membership in the WTO is not as a state. Customs territories are permitted into the WTO, and I was at the negotiations in Bangkok, I think in 1985, when Taiwan was kept in and the PRC came into the Asian Development Bank and Taiwan's title there, I think, is Taiwan China. So I don't think we can cite that as these memberships as that they're a state.

I'm not making a big point. I want this record very clear so that people understand what is happening here. Now, the third point I want to make, Mr. Hickey, you say on page four of your testimony, Washington is not committed to Taiwan's defense under the Taiwan Relations Act. I know that Mr. Copper disagrees with that. Now, in light of that statement, President Bush in April of 2001 made that famous statement about what we would do if—do we have an obligation to defend Taiwan if it was attacked?

This is on page eight of your testimony. The President replied, yes, we do, and the Chinese must understand that, yes, I would. When asked if this meant protecting the island, quote, "with the full force of the American military," President Bush replied, quote, "whatever it took to help Taiwan defend itself."

After that statement, Members of Congress went to the floor and said that they didn't think the President had that authority because under the Taiwan Relations Act, you have to consult with Congress, that Congress, under our Constitution, is the body that declares whether we're going to go to war or not, and this would imply we were going to go to war.

So I would like your view. Under Taiwan Relations Act, who really has this? Can the President alone take us to war in this type of situation or do you think the Taiwan Relations Act requires consultation with the Congress and a decision by Congress about these sorts of matters? Mr. Hickey and then whoever else wants to comment because I think it's an enormously important issue.

Mr. FELDMAN. I'd like to answer the first two questions.

Commissioner MULLOY. Fine.

Mr. FELDMAN. As regards the Shanghai Communiqué, I was speaking of—I was quoting the Recognition Communiqué, not the Shanghai Communiqué. Now, what the Shanghai Communiqué says is that Chinese on both sides of the Taiwan Strait say there is but one China of which Taiwan is a part. The United States does not challenge that position.

Commissioner MULLOY. Correct.

Mr. FELDMAN. It doesn't say the United States agrees with that position.

Commissioner MULLOY. We don't challenge it.

Mr. FELDMAN. So once again, it's an agnostic statement. By the way, Chinese on both sides of the Taiwan Strait did not agree with that statement. On Taiwan, 85 percent of the people would have said something completely different. So it was a neat trick by Secretary Kissinger, by Assistant Secretary Marshall Green, because the formal declarative position of the Chiang Kai-shek government was indeed that there is but one China, of which Taiwan is a part.

But that was not the position, in fact, taken by the Taiwanese people who constituted an overwhelming majority on the island—number one.

Question number two: the Montevideo Convention to which I referred said a state has to have the ability to enter into international agreements. It doesn't say under what quality or what name. Taiwan has entered into international agreements. It has settled population. It has defined territory.

Therefore, I would make the argument that under the Montevideo Convention, which is the convention in international law, it has all the attributes of statehood.

Commissioner MULLOY. But the real test under international law of a state is whether other states recognize it as a state.

Mr. FELDMAN. Yes.

Commissioner MULLOY. That's customary international law.

Mr. FELDMAN. Right. Twenty-seven other countries recognize it as a state.

Commissioner MULLOY. Right. And how many states are there in the world?

Mr. FELDMAN. There are, last I looked, 192 members of the United Nations including members like Nauru with a population of 8,000 or Andorra with a population of 13,000, which is less than one city block in downtown Taipei.

Chairman ROBINSON. I have to apologize here, but I think in order for Commissioner Dreyer to have her opportunity, we'll need to move to her. I apologize to other speakers that might have had something on that.

Commissioner Dreyer.

Commissioner DREYER. First, a comment on Dr. Hickey's comment that Taiwan has moved on these weapons. I think Ambassador Feldman is exactly correct when he says what he said about the submarines. In fact, we offered to sell submarines when we didn't have submarines to sell. And this is also true of some of the other weapons. The production line for some of the other weapons that we announced we would sell was closed, and opening it up cost a huge amount of money, which raised the price prohibitively. So

it is not just the excuse that Taiwan had a recession that it couldn't buy them.

And in a third instance, there were weapons that they had asked to buy, and we offered to sell them something else. And you can imagine that if you go to your stockbroker and say I would like to buy IBM and he says, no, but here's some Enron, that you would feel very differently about him. So I take issue with that statement.

But my real question, and I guess you all get about ten seconds, each of you, to answer this, is on the issue of the status quo. And it seems to me that the status quo is very rarely static because things are always changing. The earth continues to spin around the sun, and the universe continues to expand, and if the Administration is making repeated statements about neither side shall be allowed to change the status quo, are we not then getting ourselves in a box, because I have never heard Taiwan object that the PRC is changing the status quo and we always seem to allow the PRC to complain that Taiwan is changing the status quo.

Can any of you see or all of you seriatim see a way out of that?

Mr. FELDMAN. I think just as you say the status quo changes all the time. The status quo changes with every additional missile emplaced opposite Taiwan. So this fetish that our government makes about the status quo is osaway [ph]. It's without any foundation.

Commissioner DREYER. Dr. Hickey.

Mr. HICKEY. I think Thomas Gold wrote an article in *Asian Survey* a number of years ago about Taiwan and said that the status quo is not static. It does change all the time. At the same time, however, I think what people in the Administration mean is not adding a missile here or a tank here or reduction of force levels here. I think they're sort of looking at the broad picture that if changing the status quo in a major way would be, you know, changing to a Republic of Taiwan or something like that, that they feel that this is moving too fast in that direction. That may not be my opinion. I'm just saying what I think that they're—you asked what they might—

Commissioner DREYER. I asked something rather different and that is, with this attitude, are we not allowing the PRC to dictate the terms of the argument?

Mr. HICKEY. I'd have to give that some more thought.

Commissioner DREYER. Dr. Copper.

Mr. COPPER. I interpret the term "status quo" to mean don't rock the boat. The Taiwan Strait is a flash-point area, and we want to avoid conflict there. Certainly things are changing in Taiwan and its relationship with China. Taiwan is heading politically toward independence; economically it's heading the other way. You've got major trends going on, but it's difficult to interpret what the bottom line is.

Commissioner DREYER. Thank you.

Chairman ROBINSON. I'd like to thank the panelists very much for an illuminating discussion. I can tell you that we've absorbed your words carefully and they'll be reflected in our work ahead, and we'd like to be in touch with probably all of you over time.

Before concluding the morning session, however, as we've discussed President Reagan on several occasions this morning, I would like to take this opportunity to offer the Commission's con-

gratulations to President Reagan on this his 93rd birthday. This is a particularly meaningful event for a number of us here today, both on the dais and I'm sure in the audience as well.

So, with that, we'd like to resume at one o'clock for our afternoon session. Thank you.

[Whereupon, at 12:24 p.m., the hearing recessed for the luncheon speaker.]

LUNCHEON SESSION, 12:40 P.M., FRIDAY, FEBRUARY 6, 2004

Commissioner DREYER. Okay. Let's get started. It gives me great pleasure to introduce Jacques deLisle, who is not only very eminent but happens to be a friend of mine, I hope.

Jacques, you didn't know this, but yesterday we had a French national who was the—was it the Secretary of the EU—

Mr. OHRENSTEIN. The Deputy Head of the EU Delegation.

Commissioner DREYER. So this will dispel any notions that we are anti-Gallic, and Jacques is Professor of Law and a member of the faculty at the Center for East Asian Studies at the University of Pennsylvania, and he also directs Asian studies at the Foreign Policy Research Institute, which it is my pleasure to be a Senior Fellow of, and I could go on about Jacques. He received his undergraduate education at Princeton and has degrees in law and political science from Harvard, and more relevantly I think you are one of the few people I know who manages to be fantastically erudite and very amusing at the same time.

So without further ado, go to it.

STATEMENT OF JACQUES DELISLE PROFESSOR OF LAW, UNIVERSITY OF PENNSYLVANIA

Mr. DELISLE. Hey, no pressure. Thank you, June, and thank you all for inviting me to speak to you at this lunch. My charge today, I gather, is to address the referendum and perhaps more broadly the "new constitution" issues in Taiwan in the context of international legal questions of Taiwan's status.

The referendum and the constitutional reform discussion can best be understood as the most recent twists in a very long-running story. President Chen Shui-bian, of course, insists that the referendum, which will be on the March 20 ballot, the broader legislation authorizing referenda, and the "new constitution" discussion have nothing to do with Taiwan's status or, to put the point more provocatively, Taiwan independence.

We are assured it will not violate the "five no's," or as it is usually rendered in Chinese, the "four no's and one not." That is: no declaration of independence, no change the national title, no incorporation of former President Lee Teng-hui's state-to-state language in the constitution, no referendum on independence or unification—those are the four no's, and the not is: not to dismantle the National Reunification Council and the Guidelines for National Unification.

The way Chen Shui-bian has framed this is to say that he is seeking to maintain the status quo, and that this has no bearing on unification or independence issues. It is, we are told, purely a "defensive" referendum. Now, as a narrow legal matter, that's prob-

ably right in ways that I will explain shortly, but the issues are a lot more complicated than that.

There is, first of all, a Taiwanese domestic legal question about whether what Chen is doing conforms with the referendum law that was passed last fall, but it is now clear that those issues will not derail the referenda and they will be on the ballot March 20.

So, if Chen has a good, or at least not-effectively-challenged, case that he stayed within Taiwanese law and a good case that he stayed within his highly public, internationally visible commitments about not changing Taiwan's status, why all the fuss? Some of it, of course, is politics. You all know that at least as well as I do. Clearly there has been a big political flap surrounding the famous statement by President Bush during Chinese Premier Wen Jiabao's visit to Washington, the various statement and signals sent by Messrs. Armitage, Powell, Moriarity, Paal, and, of course, Ms. Shaheen, and the familiar warnings from Beijing sources from Wen Jaibao down to a recent lengthy analysis of Taiwan politics and the referendum issue by the Propaganda Department of the Chinese Communist Party, which tends to be pretty thorough and profuse in spilling ink, both black and red.

The political tumult has extended to the Taiwan side with the "pan-blue" team (that is, the Kuomintang and People's First Party) falling all over itself to figure out how to react to the "pan-green" team's (that is, the Democratic Progressive Party-led group's) referendum initiative. And, of course, perhaps most strikingly of all, that you all consider international law a fit talk for a lunch suggests that there is certainly some significant level of concern with the political and security implications of the referendum and related developments.

What I want to suggest is that there is, in addition to that politics, an international legal aspect to the controversy that's worth plumbing, in part because it reflects the same kind of entanglement of politics and international law that we've seen going on in the cross-Straits relationship for 15 or more years now, in some ways for probably 30 some years.

By saying this, I do not want to suggest that international law is going to solve any of the problems. Indeed, quite the contrary. Nor do I mean to suggest that what everyone is worried about is resolving the legal implications of the referenda or related issues, or the legal niceties of Taiwan's status. Rather, what we have here is a situation where the volatile politics of cross-Strait relations is entangled with legal categories. To talk in legal terms has some use here because diplomats and politicians like vagueness, while lawyers like precision. If you have to use legal terms, you have to be a little more precise, and that tends to help expose where the political land mines are buried.

Beyond that, law tends to be a weapon of the weak. If you do not have anything more powerful on your side, you try the law. Taiwan is, of course, weak in its current international position. Also, arguments that invoke some legal principles may have unprecedented, if still limited, purchase with the PRC. China cares more about international law than it has historically, partly because it wants to be in the club. The WTO is the most recent example of that. More broadly international legal categories tend to do a pretty nice

job of reflecting and focusing some important features of political reality in the international realm. That may all sound a little abstract. Let me try to put it concretely with respect to one aspect:

The world regarded very differently on Iraq's invasion of Kuwait than it did Iraq's treatment of Kurds and Shiites in Iraq who happened, like the Kuwatis, to be sitting on a lot of oil. The world looks rather differently on how the PRC behaves toward Tibet or Xinjiang than it did on how the PRC behaved toward Vietnam during its ill-fated invasion a quarter-century ago.

As these contrasts indicate, it is very important for Taiwan to make the cross-Strait relationship look "international" and for China to make it look "intra-national."

So without further ado, let me turn to our principal topic: the referendum question. The text of the referenda do not raise squarely any question of Taiwan's status. The first referendum is about the PRC missiles targeting Taiwan. It asks whether more defensive capabilities should be purchased by Taiwan. The question of withdrawing the missiles has been moved to a preamble condition rather than the focus of the referendum, which it was in an earlier contemplated form:

If China does not withdraw its missiles and renounce the use of force, should Taiwan upgrade its capabilities?

The second referendum question has to do with the establishment of a "peace and stability" framework for cross-Strait negotiations. There is nothing in these two referenda that mention "status" or "independence." And both, again, are a climb down from an initial proposed referendum's focus on withdrawing missiles. The two referenda have also emerged against the background of other referendum topics that were bandied about before the passage of the legislation that authorizes the referenda that will be on the ballot:

This strange grab bag of possible referendum topics included: whether Taiwan should build a fourth nuclear power plant, whether Taiwan should enjoy World Health Organization representation, whether Taiwan should shrink the size of its legislature, and whether Taiwan should have a new constitution. The first three say nothing explicit about Taiwan's status and do not seem obviously to implicate such questions.

Constitutional change also does not necessarily say anything about Taiwan's status or independence. The issues that are officially on the agenda for constitutional reform in Taiwan are fairly familiar domestic affairs: A constitution drafted across the Strait in 1947 for a big underdeveloped country doesn't fit so well for an industrialized country of 23 million in the current century. How do you deal with the cumbersome institutions that the old constitution established to represent a vast and far-flung people? How do you deal with the half-residential/half-parliamentary structure, which does not work so well in a system of multi-party democracy?

So, why all the charges and worries that the referenda or constitutional reform are efforts to change the status quo with respect to Taiwan's status? Looking at the international law questions starts to make things clearer. When you say "referendum" in the same breath as "Taiwan," everybody thinks of the old platform of the DPP—of President Chen's party, which called for referendum

on independence. It is hard to get away from the idea that the developments of the last several months can be characterized as a “referendum in search of a topic.” For the very idea of a referendum in Taiwan evokes the notion that we are tossing around the familiar term that resonates in Taiwan’s recent political history with a referendum on the independence question.

The other potential referendum topics that were being discussed in recent months also have implications for questions of Taiwan’s international legal status. Consider WHO representation for Taiwan. The quest for representation, which the referendum would have sought to advance or at least to spotlight is part of Taiwan’s relentless quest for as much international “status” as it can grab. A standard, established principle of international law makes it clear that Taiwan’s capacity to engage in international relations is one of the criteria of statehood.

While the precise meaning and application of this principle is controversial, it at least counts for something to be a member of as many organizations as you can. The closer you can get to membership or some affiliation with UN-affiliated, state-members-only organizations like the WHO, the better. So, in this way, the potential WHO representation referendum implicated questions of Taiwan’s status.

Constitutional reform does too. In the discussion of constitutional reform and the possible referendum to support it, Chen and other advocates of change have said much about how the people of Taiwan need a constitution that belongs to them. They should not have to live with need an ill-suited constitution that was crafted by and for a China with very different characteristics.

This discussion of constitutional renovation comes against the background of a trajectory of past constitutional reforms on Taiwan that, step by step, severed or weakened links to the mainland. To adopt a wholly new constitution made on Taiwan would push that trend significantly farther, even if it did not formally change the name of the country to “Taiwan” or “Republic of Taiwan.”

So while, of course, governments draft new constitutions and ongoing states change their constitutions, one of the things that new states routinely do is make new constitutions. This albeit loose correlation between newly acquired statehood and adoption of a new constitution resonates particularly strongly in the post-Cold War world in which the Soviet Union’s breakup created numerous new states that wrote new constitutions. Indeed, a few of my colleagues, not at my university, but in other law schools, made a tidy living providing form-book constitutions to new republics, many of which have since been revised.

Let me take a step back and look at some of the broader contextual issues surrounding the two upcoming referenda and constitutional reform. If you probe the discussion of the referenda and their context a little more closely, you can see that, everywhere you turn, they resonate with international law questions that have been part of the politics of Taiwan’s international status.

The biggest one here is, of course, whether Taiwan is a state or not. We used to play what I call “Montevideo games:” assessing how far Taiwan was going in playing the game of claiming to meet the standards of statehood of international law.

The basic rules of these games are set forth in the Montevideo Convention on the Rights and Duties of States, which here does not bind as a treaty. Instead, it tracks and states customary international law. It sets forth four factors. One is territory; another is population. It is pretty obvious Taiwan has a lot of people (more than many states) and, as an island, it has a nicely stable territory, barring an occasional earthquake.

The third criterion is a government, an effective government. This means a government that exercises power independently of the government of any other state. That is, the government does not answer to any larger or other entity. Effective government also means a government that provides governmental authority and order domestically. Taiwan does well on these criteria as well.

The fourth factor, the capacity to engage in international relations, is more complex and controversial. There are some who lean toward the highly formalist notion that asks: are you recognized by other countries as a state? That view is largely passé. The proponents of this “constitutive” theory basically lost the argument. Most international law views accept the rival, “declaratory” theory. If we put the jargon aside, what this theory means is we do not care what states say (whether they formally recognize another entity as a state), we care what they do (whether they treat an entity in practice as if it were a state). If other states let you into their organizations, if they let you have something that looks like an embassy, that is pretty good evidence of satisfaction of the fourth criterion of statehood on the declaratory view.

As a legal matter, it is plausible to say that no state recognizes Taiwan as a state. There are countries that maintain diplomatic relations with the ROC-on-Taiwan government, but they fudge the issue of what state that government represents. What the question of Taiwan’s status brings to the fore is that there is a fifth, unstated Montevideo factor. That is: you must say you are a state. The factors set forth in the Montevideo Convention were formulated in a world in which many entities claimed to be states that, in fact, probably did not satisfy the four listed substantive criteria.

Taiwan is in many ways the opposite case. It scores high in terms of the enumerated criteria, but it has been oddly slippery or opaque in terms of making the requisite assertion that it is a state. If you parse the sacred texts of the Taiwan status issue over the last several years—Lee Teng-hui’s *Deutsche Welle* interview, Chen Shui-bian’s various formulations, if you go through all the talk of “state-to-state or at least special nation-to-nation relations,” and “one side/one country,” and so on, if you line those up and examine them carefully in an almost Jesuitical way, you can find that they tend to do one of two things:

They sometimes stop just short of the line. They do not quite cross the Rubicon of saying Taiwan is an independent separate state that we hereby declare ourselves to be now. Or, at other times, they try to imply that independent statehood is a *fait accompli*. They say, in effect, at some earlier point, Taiwan became a sovereign independent state. They say: we are either not going to tell you exactly when it happened, or, if we are going to tell you, we say it was 1911. Thus, moves away from independence—not toward it—would be changes to the status quo.

So, in sum, they say either, “We haven’t quite crossed the Rubicon,” or “We already got to the other side awhile ago, when you weren’t looking.” They are, in effect, saying, that there is no moment now when Taiwan is wading into the dangerous waters. So, there is no reason literally or figuratively for the PRC to go ballistic now.

Either way, the foundation is laid for the Taiwanese claim that Taiwan enjoys state or fully state-like status and that nothing in that regard has changed recently. It is as it was. If you want to think that the way it was was “one country,” you are free to do that, but that is not how Taiwan officially sees it.

These are very artful moves in addressing the big international legal issue concerning Taiwan’s status: statehood or its equivalent. There are important resonances of these broader arguments in the current referendum and new constitution issues. If you look at Article 17 of the Referendum Law, the legal basis for the referenda that will be on the March ballot, what does it say? It says that when the state is threatened by an outside force so that sovereignty is in danger of alteration, the president may propose a referendum on his own. In effect, it asserts that Taiwan is a sovereign state. It asks: Is this state in mortal peril? Such language implies that we have already crossed the Rubicon to which I have referred and are trying to protect the status quo of a separate sovereignty from erosion.

As to the new constitution, again, adopting a new constitution is what new states tend to do. More specifically, if we do see a new constitution for Taiwan—and, while we will not know the details for some time, we do see hints—it likely will reaffirm the notion of the relevant territory, which is the geographic limitation to Taiwan and the offshore islands that Lee Teng-hui undertook in constitutional amendments more than a decade ago. It likely will reaffirm that this is a constitution of the people on Taiwan or the people of Taiwan.

It will reaffirm that Taiwan has a government (with the structure specified in the constitution) because, after all, constitutions structure and create governments. And it will, I predict, make the same type of complex assertions about Taiwan’s status that we have seen during the last several years of official pronouncements, saying that the constitution does not change anything with respect to status and/or claiming that Taiwan already became a sovereign state some time ago.

There is a still broader question here of status in international law: However you assess the statehood question, there is an assertion by Taiwan of equality with the PRC. Taiwan and the PRC should deal with one another as equals. That is the Taiwan position. You can see this in Lee Teng-hui’s “two essentially equal political entities” formulation and the various demands for level playing field party-to-party negotiations, as well as in the “state-to-state” and “one side, one country” locutions.

The second referendum question of the March 20 ballot raises the same issue quite explicitly. Its topic of the framework for cross-Strait negotiation resonates with that whole discussion of cross-Strait equality.

Another international law principle with deep implications for Taiwan's status is at issue in the referendum controversy: the use of force. The use of force by states is often perfectly okay in international law if that use of force is domestic. You can use force to put down rebels. The U.S. did it in the 19th century. It is not, however, often okay under international law to use force internationally. That is a core principle of post-war, UN Charter-based international law.

So, by saying the PRC should renounce the use of force in the first referendum question—saying that if the PRC does not renounce the use of force and withdraw the missiles, an upgrade in Taiwan's defenses will follow—the referendum question implicates the international law governing the use of force. It invokes not only the “five no's” which, remember, are all declared to be binding only on the condition of the PRC's not threatening force and not intending to use force against Taiwan. Thus, the first referendum and, to a degree the second, and the context of the “five no's” in which Chen placed the referenda essentially say to China: “Don't use force. You must renounce the use of force against Taiwan.” That at least resonates and, in context, perhaps entails an assertion that Taiwan is a state because China could use force against Taiwan (to put down what China considers to be a rebellion, and subject only to human rights constraints) if Taiwan were not a state.

The referenda also invoke the international legal principle of the obligation to resolve disputes peacefully. Customary international law says that states have obligations to resolve their disputes peacefully. What is key here is that this obligation attaches primarily, arguably exclusively, to relations among states. So, saying that there is an obligation for China and Taiwan to sit down peacefully or that Taiwan and China should agree to a peaceful framework is essentially putting in, through the back door, this notion of equality among the parties and, indeed, evoking the idea of equality among states.

President Chen has also said that having a referendum is a basic universal human right. This is playing the human rights card, much the way that Taiwan has played the human rights card for more than a decade now.

This move has two elements. One is to assert that, whatever you think of Taiwan's state or non-state status, the people of Taiwan have human rights. People are visible to international law in a way they were not 60, 70 years ago. They directly hold international legal rights that states are bound to respect, and, therefore, whatever you think of Taiwan's status in other respects, Taiwan as a political entity gets credit and standing for its role as the protector of the human rights of the people on Taiwan. One way to protect those human rights is to make sure those 23 million people have a place at the table at the UN or elsewhere, or that their bodily integrity is protected from flying missiles, or that their opportunity to shape their own government is not lost to foreign domination.

Next, democracy is another international legal principle relevant here. Taiwan has pushed this card pretty hard, and, of course, the referendum issue is about democracy. Chen says the referenda represent the next stage of democratization and the deepening of Taiwan's democracy. The referendum law itself says in its preamble

that it is rooted in the principle of sovereignty of the people. Thus, the referenda embody a democratic principle and an exercise of democracy which resonate with an argument that Taiwan has long made—one that says that Taiwan is a democracy and that being a democracy counts for something in terms of international status.

As with human rights, here, with democracy, international law (and the politics it reflects) has left behind the old world of black box states. States that are more democratic or near-states that are more democratic get “leveled up” to enjoy a higher or more secure status than they otherwise would enjoy. Uncontested states that are not democratic get “leveled down” in status. This is another post-Cold War legacy. Democracy was a condition (or at least a factor) of recognition that Europe and the U.S. adopted in handling recognition of some of the post-Soviet states.

As an aside to, there has been much discussion in the context of Taiwan’s impending referenda of whether the referendum is the appropriate democratic tool that Chen claims it to be for dealing with the questions that will be put to the Taiwanese electorate. Such criticisms have tended to come from a rather American perspective on referenda, one which sees referenda as a means for resolving contentious issues that seem incapable of solution through ordinarily legislative processes, and which therefore tends to regard Taiwan’s pair of referenda as inappropriate acts of political posturing or manipulation.

Referenda, however, have deep roots in Chinese constitutional law. Sun Yat-sen included the right to referenda as one of the four powers of the people, and this still is reflected in the Republic of China Constitution today. Thus, it still exists in the constitution that is operative on Taiwan today, in a provision that provides the basis for the referendum law that in turn provides the basis for the upcoming referenda.

I would suggest that if you parse those four powers of the people, actually the referendum lines up not so badly with the kind of Presidentially proposed initiatives Chen has proposed. The Sun Yat-sen type of referendum is a kind of thumbs up/thumbs down plebiscite, with no obvious restriction as to subject matter given the constraints that Chen faced under the referendum law as passed, which allows the President to propose a referendum on his own only in a narrow “national emergence” or “security” context, the topics chosen were perhaps the best he could do and do not collide with any constitutional notion of the type of issue that would be a proper topic. And the portion of the referendum law that Chen relied upon does not collide with any constitutional norm that referenda should come from below. But that is a minor point about the way that international legal norms concerning domestic democracy resonate in the referendum flap.

Another more important matter related to principles of democracy is that democracy links us to the question of self-determination of peoples, and self-determination is, in turn, linked to referenda and is itself a major principle of post-war and, more broadly, the last century of international law. Self-determination is a principle that Taiwan has not pushed so hard in the debate over Taiwan’s status, partly because it is not clear under international law that self-determination gets you very much. It entitles a “peo-

ple” to something, but it does not necessarily entitle them to their own state. It entitles them to a full state if they are an ex-colony being de-colonized. This idea had some currency with independence wing of the DPP’s argument from some years ago that said that when Japanese authorities left Taiwan at the end of World War II, Taiwan went into a post-colonial limbo, its status to be determined later. This is actually very close to what the U.S. says in its decades-old but still-most-recent official statement on Taiwan’s actual status.

So-called “blue-water” decolonization—the dismantling of an overseas empire—tends to be seen as giving a right to separate statehood, and Japanese decolonization of Taiwan would seem to fit this model. On the other hand, where a people seeks to break away from a bigger, contiguous state, which is how the PRC and some others would characterize Taiwan’s “leaving” China, international law says that maybe some kind of autonomy regime within an undivided state will be enough satisfy the right to self-determination. So pushing the self-determination question is problematic as a strategy for Taiwan for that reason.

It is also problematic because self-determination is a right of “peoples” and it is not quite clear that the people of Taiwan are a “people” in the relevant sense. On the one hand, they are arguably at least partly Chinese. On the other hand they are internally divided between “mainlanders” from families who arrived in 1949 and Taiwan people whose ancestors came across the Strait much earlier.

But the most intractable problem with respect to self-determination is that the preferred way for exercising any right to self-determination is a plebiscite—a referendum—on the issue of whether the people of a territory want to be their own state.

As is well known, China will not stand for that, and the opinion polls on Taiwan (which show support for the ambiguous status quo) are obviously operating in the shadow of what China would do if the people of Taiwan said what they thought about self-determination issues. The point here that the current referendum issue politically resonates with the referendum as an international legal means for addressing questions of self-determination—questions that are highly volatile in the cross-Strait context and that obviously have implications for whether Taiwan is a part of China, a separate state or something else.

In all of the ways that I have described, the referenda, along with the issue of constitutional reform, in Taiwan evokes and implicates myriad international legal questions and the volatile politics of Taiwan’s status.

Lest you think that I am suggesting that Taiwan alone is responsible for making the trouble here, I want briefly to address the PRC half of the set of international law problems that help to create a context that has increasingly squeezed Taiwan’s international “space” in recent years and against which Chen, and Lee Teng-hui before him, and others on Taiwan have reacted.

Remember the PRC position on the question of sovereignty over Taiwan. Taiwan is part of China, full stop. It is just like Sichuan province. That is the PRC’s abundantly clear position on the international legal question of Taiwan’s status. The PRC’s position on

how Taiwan got to that status is interestingly murky. In first year torts, we teach students that when they become lawyers, they need to be prepared to argue simultaneously that my client never borrowed your now-broken kettle, that your kettle was fine when my client returned it, and that it was already broken when my client borrowed it.

Well, China does something like that when it addresses the question of Taiwan's status. It says Taiwan never left China, in effect that Taiwan never could have left China, that China is unbreakable, so the "unequal" treaty nominally ceding Taiwan to Japan 1895 did not have and could not have had any effect. China also says that maybe Taiwan left in 1895, but that the treaty granting it to Japan became void when Japan invaded China in 1937, thereby breaching the terms of the 1895 peace treaty. Alternatively, Taiwan came back to China in 1945 when Japanese troops on Taiwan surrendered to the ROC regime, the rights of which the PRC later inherited, or Taiwan came back some time around the end of World War II, when the Potsdam and Cairo declarations, which declared the Allies' intent to restore Taiwan and other stolen territories to China, somehow ripened into reality.

But, in any event, the PRC's claim is that Taiwan is part of China. There is no international legal act needed to return it. The PRC holds that the U.S. is obliged to accept that situation by the three Communiqués, and the U.S. violates that obligation with the TRA, which continues to accord Taiwan state-like status and to underpin the sale of arms. That is the Chinese position, and it is very hard line.

What is important for the purposes of understanding the implications of the referendum law and constitutional reform on Taiwan is that there is a Chinese domestic law corollary to this PRC position on the international legal issue. One of the implications of saying that Taiwan is and always has been, or is clearly now, part of China is that China can pretty much do what it wants in dealing with Taiwan. China could not bind itself, even if wanted to, under Chinese theories of sovereignty to anybody else about how it will exercise its sovereignty over Taiwan.

The Joint Declaration with respect to Hong Kong illustrates the PRC perspective on this crucial question. Closely read, it is remarkably free of anything that China accepts as a clear, internationally binding legal obligation. The domestic Chinese law corollary of the lack of international legal obligation is that, as a matter of domestic Chinese notions of how to exercise sovereignty, the National People's Congress, which we all know takes orders from the party, cannot do anything more than pass a law that says "one country, two systems," and remain completely free to change that through subsequent legislation. Indeed, the NPC is free to change the constitution.

So what you have here is a very intractable problem. The PRC position on sovereignty over Taiwan at international law and the exercise of sovereignty in domestic law does not give much room to provide anything that legally really promises Taiwan anything. This, of course, only exacerbates political suspicions on Taiwan and elsewhere about the promised guarantee of "one country, two systems."

The question of Taiwan's status, itself in significant part an international legal question, thus, remains inescapably at center stage, with the referendum and constitutional reform debates throwing the newest spotlights on old problems. Attempts to use international law to find a way around the status question have, like the referendum and constitutional reform questions, offered no way out and often raised the temperature. Models or proposals of different, blended, or half-way-house sovereignty arrangements—special autonomy region, federalism, confederation, divided states, the German or Korean or EU models—all of those ultimately provoke more disagreement than agreement, simply because they cannot get out of a simple trap: either they are talking about two countries that may be coming together, or one country that may be coming apart. And the PRC and Taiwan are on opposite sides of that fundamental divide.

You all know the political and economic and military factors that have been squeezing Taiwan. I have tried to supplement those with a related legal dimension. Under these circumstances, it is hardly surprising that Taiwan's first lawyer President is following the old lawyer's adage that says when the facts are against you (in this context, facts such as a deteriorating security situation and an asymmetrical pattern of economic dependence), pound the law. When the law may not be with you (as it may not be, given international law's permeability to international politics and the weakness of some of Taiwan's legal claims), pound the table.

Thank you.
[Applause.]

Luncheon Panel: Discussion, Questions and Answers

Commissioner DREYER. Shall we give poor Jacques a few minutes to eat?

Mr. DELISLE. No, no, go ahead. Ask away.

Co-Chair WORTZEL. I've gone one.

Chairman ROBINSON. And we only have about seven minutes.

Co-Chair WORTZEL. Why was it so easy for the People's Republic of China to essentially cede its sovereignty over Mongolia? And when the Republic of China did that only a year ago, and if the NPC could somehow cede its sovereignty over Mongolia, why can't it do that over Taiwan?

Mr. DELISLE. It's a great question, and there is a certain, shall we say, lack of thoroughgoing consistency in the PRC position on what is "China." At its most expansive, the PRC has said anything that was under the Qing government, at the farthest reaches of the Qing Dynasty, is China, end of story. This notion is what you see with respect to Hong Kong and Taiwan: these areas were part of China and can never have left because they are really, really part of China.

Yet, on China's inland frontiers the PRC has accepted the loss of Mongolia; it settled territorial disputes with India and Burma and others. The PRC has in those areas managed to be a little more flexible. How does one explain it?

Well, some of it is, of course, simply politics. Taiwan is the third rail of elite Chinese politics. Nobody can dare to give ground on the matter of Taiwan's status. But beyond that, there is a sense that

the areas that are ethnically Chinese and geographically contiguous with the Chinese heartland are really, really China, in a way that overseas Chinese areas in southeast Asia are not and in a way that non-Han areas along the borders of Han China are not quite so thoroughly or clearly part of China, but obviously there's a reluctance to say that too openly because it has some nasty implications for Xinjiang and for Tibet. As a matter of Chinese constitutional theory, the NPC could say we hereby give this up, but that would not fit with the most robust assertive notion of the "unbreakable China" that the PRC has often pushed with respect to the questions of Taiwan's and Hong Kong's status.

It would be consistent with the PRC arguments with respect to Taiwan's status ones that say only that Taiwan left by treaty and it came back by treaty or by military surrender. But the usual line is that cession of a truly Chinese area can't happen.

Commissioner MULLOY. In the Shanghai Communiqué, a point that came up in the hearing, where you have the statement that U.S. acknowledges that both, and then something like U.S. does not challenge that.

Mr. DELISLE. Right.

Commissioner MULLOY. It's not just saying like it's a rainy day, it's a sunny day. I mean there is more to it than that; isn't there? Did you hear that exchange?

Mr. DELISLE. I did, and I think, as a legal matter, the PRC position has always been that the Shanghai Communiqué is a binding treaty and that what the U.S. said in the Communiqué is something that the U.S. now bears as an international legal obligation to China to respect. China has read what the U.S. said as an acceptance that there is one China that includes Taiwan. The U.S. position also has never been to accept that any of the three Communiqués are treaties. Those are bilateral statements that do not create a binding legal obligation, although they do state U.S. policy. If you want to define the parameters of U.S. legal obligation as the U.S. officially sees it, there is nothing there that's legally binding, and as a matter of policy, it really is only an acceptance—more an acknowledgement than a recognition (there were translation issues about that)—that Chinese on both sides of the Strait share a view that there is one China that includes Taiwan, and we don't challenge the position that they hold that the mainland and Taiwan are in, in effect, ultimately one place.

Commissioner MULLOY. When you issue a communiqué like that, is it President Nixon who is—

Mr. DELISLE. No, it's—

Commissioner MULLOY. It wasn't just Kissinger?

Mr. DELISLE. Right. With Chou En-lai who was head of government.

Commissioner MULLOY. It was Kissinger. It was President Nixon.

Mr. DELISLE. Right. Right.

Mr. SCHLAIKJER. One other point that I think is useful, Jacques, is that in that as in many other such instruments, because there was no agreement—

Mr. DELISLE. It's a pair of parallel statements; right.

Mr. SCHLAIKJER. —or there is very little agreement, these are statements—the statement Pat quotes is a U.S. statement. It is not

a joint statement. It's a U.S. statement only. Chinese say what they say.

Commissioner MULLOY. The Shanghai Communiqué that's not a joint statement?

Mr. DELISLE. What you got is—if you look at—

Mr. SCHLAIKJER. No, that paragraph is.

Mr. DELISLE. If you look at it, much of it is parallel statement. Party A says this, Party B says this, and they both sign it. And the PRC understands that move in the context of the Communiqués as creating a binding legal obligation for the U.S. Here's another case where the PRC is not necessarily thoroughly consistent in its legal arguments.

As I said, they have a different view of Taiwan and Mongolia on the territorial sovereignty issue, so too here with respect to joint or parallel statements by states. Look at the Joint Declaration on Hong Kong. It's consciously structured as two parallel statements. The British say X. The Chinese say Y. The Brits say we are returning sovereignty over Hong Kong to you. The Chinese say we have decided to resume the exercise of that sovereignty which we always had.

So, the outcome is that you can have a document that both parties can put their names to in both cases (the Hong Kong Declaration and the U.S.-PRC Communiqués), but the parties proceed from different premises, and I think the Shanghai Communiqué can be read essentially in that way, just as the Hong Kong Declaration can. The difference is that the PRC has been eager to embrace the Communiqués as treaties and reluctant to accord the Joint Declaration fully equivalent status.

Commissioner MULLOY. The communiqués were not an executive agreement.

Commissioner DREYER. East Timor.

Vice Chairman D'AMATO. Well, let me ask—

Commissioner DREYER. I wanted to ask about East Timor. You mentioned the idea of getting sovereignty, and if you been a colony, blah, blah, blah.

Mr. DELISLE. Yes.

Commissioner DREYER. And it would seem to me that what happened in East Timor is more like the norm and does not fit the PRC's position.

Mr. DELISLE. East Timor before or after?

Commissioner DREYER. No, they had a plebiscite. They were part of Indonesia.

Mr. DELISLE. Right, and then the separation. You're talking about East Timor today.

Commissioner DREYER. Yes, but only East Timor voted on that, and this would seem to contradict the PRC's insistence, intransigence, that if there is a vote on Taiwan independence, that all the people on the mainland be asked to vote as well. Which is the norm?

Mr. DELISLE. Right. Well, I mean it depends—this is what the argument is about—which box do you put Taiwan into; right? And East Timor is a delightful example because it has the same ambiguous quality. That is, if you think of East Timor as a Portuguese colonization next to an ex-Dutch colony, independent Indonesia,

then what you've got is essentially something which should have become independent when the Portuguese pulled out. True, Indonesia essentially moved in and took it over, but one can still think that what we're really doing is completing the Portuguese de-colonization. It's blue water de-colonization. It's like the view one sometimes hears on Taiwan that Taiwan was given up by Japan; now it can decide its own destiny without having to take its proximity to, or pre-Japanese colonial era limited control by, China into account.

If you think of it as a case of East Timor trying to secede from Indonesia after the takeover, well, then that's a much more uphill struggle to claim a right to statehood. The analogy is to the PRC's favored view that some on Taiwan are trying to "break away" from China. But, either way, any right to secede and to have your own state is premised on the notion that the people want it, and that there is a distinct people, and the claim is the East Timorese are different from Indonesians, just as the claim has to be that Taiwanese are different from the mainland Chinese.

You're right, the PRC position on self-determination is that we have got to have a plebescite of 1.3 billion plus 23 million. If we do, guess who wins? In contrast, the Taiwanese, or pro-Taiwan independence position, says it's the 23 million here on Taiwan who are the self-determining group. And here again you see these issues having come up in the politics of Taiwan's status. You see Lee Teng-hui's discussion of the "new Taiwanese." You see Chen Shui-bian talking about the "people of Taiwan" as an attempt to make the Taiwanese people coherent and different from the mainland.

Commissioner DREYER. Yes.

Vice Chairman D'AMATO. Let me ask you a question. What is the status? Even if the Shanghai Communiqué was an Executive agreement, it wouldn't last—there would be no effective status beyond the tenure of the President who signed it; correct?

Mr. DELISLE. It depends on how you structured it. If it is a true executive agreement, then it stands essentially the way a treaty stands. If it's a full-fledged—

Vice Chairman D'AMATO. It's binding on future Administrations?

Mr. DELISLE. If it a formal Executive agreement, the constitutional law of foreign relations is pretty well settled: almost anything you can do by treaty, you can do by Executive agreement. There are problems if it would require certain types of changes in domestic legislation, but for something like this, where it was purely foreign affairs, an executive agreement is a full substitute for a treaty in almost all contexts.

Commissioner BRYEN. That's the biggest impact is the domestic legislation.

Mr. DELISLE. Right. Now you got the TRA.

Commissioner BRYEN. The Shanghai Communiqué caused there to be domestic legislation.

Mr. DELISLE. Right. And once you do that, you can clean up the contradiction or eviscerate one side of it. There is no doubt that whatever the status of an Executive agreement, or a treaty, of course, if Congress then passes something contrary, the treaty is dead as a matter of domestic law.

Commissioner BRYEN. And it's absolutely, in effect, as a treaty.

Commissioner MULLOY. Yes, the later in law——

Mr. DELISLE. Wins.

Commissioner MULLOY. —wins. And so the treaty, the Taiwan Relations Act is the basis of our relation with Taiwan and——

Commissioner BRYEN. Taking into account the Communiqué.

Vice Chairman D'AMATO. Well, wait a minute. That was 1979, wasn't it?

Commissioner DREYER. April '79. The TRA is April '79.

Vice Chairman D'AMATO. And Shanghai was '82; right?

Mr. DELISLE. Well, no, the first Shanghai Communiqué, the Nixon Communiqué, Nixon-Chou, was '72.

Commissioner BRYEN. Or Reagan.

Mr. DELISLE. The Recognition Communiqué, the second Communiqué was the end of '78. And the Reagan arms sales Communiqué is '82.

Commissioner DREYER. '82.

Mr. OHRENSTEIN. Well, the '82 Communiqué would not trump a legislative act.

Commissioner BRYEN. Right.

Commissioner DREYER. Well, it was caveated from the beginning.

Mr. DELISLE. Right. I mean there are two levels of problems with the three Communiqués. As I understand it, it is still quite disputed what those do. Are those full-blown Executive agreements with the binding quality of treaty? Not clear they are. I don't know of any formal acknowledgement that they are. They're stated as enduring positions of U.S. policy, and nothing more.

Commissioner BRYEN. Statements of policy.

Mr. DELISLE. Right. Statements of—enduring statements of U.S. policy positions, but I don't think we've done anything that could be construed as having accepted them as treaty-like Executive agreements.

Commissioner MULLOY. I agree.

Commissioner BRYEN. And each Administration has repeated them.

Mr. DELISLE. Each Administration reaffirms that it's still policy; right.

Mr. OHRENSTEIN. If there were a contradiction between the TRA and the '82 Communiqué, the TRA would still govern because it's a domestic law and act.

Mr. DELISLE. Alright. Let me try to answer that simply. One point is that these things are not Executive agreements in the treaty-like sense, in which case who cares? They can't change legislation.

Secondly, even if they are, what do they really say? It's not clear they really say very much. What does the U.S. actually undertake to do in the three Communiqués? It's not clear it really undertakes to do anything that's concrete and binding, and again they may be so vague, they wouldn't pass the smell test as an Executive agreement, as having operational obligations.

Thirdly, if they do, if contrary to what we just said, they are full treaty-like Executive agreements and they do have some operative content that could conflict with a statute, and you can't find a way to reconcile the apparent contradiction, consistent with the preference always to avoid conflict in interpreting treaties and statutes;

right. If you find a square conflict, then you're into one of the nastiest areas of U.S. foreign relations law. An Executive agreement can often gut preexisting legislation, but it is problematic as to how far.

Mr. OHRENSTEIN. If it's constitutionally in the presence——

Mr. DELISLE. It is easier if the issue concerns matters within the President's foreign affairs power. Goldwater v. Carter was partly about that.

Chairman ROBINSON. If I might intercede, regrettably, that's going to have to be the last word for at least some of us. I was not involved in the planning here, let me say at the outset, but we have a panel starting at 1:15 that was originally scheduled for one, so some of us are going to have to push along.

Mr. DELISLE. I'd just like to thank you for the opportunity and to tell you as part of ongoing research, I'm happy to give you a sort of short form of this in writing if you want it.

Chairman ROBINSON. We very much appreciate your being with us.

Commissioner MULLOY. That would be enormously helpful.

Commissioner DREYER. Yes.

Mr. DELISLE. I will get that to you when I get back.

[Whereupon, at 1:15 p.m., the luncheon session concluded, the hearing to reconvene at 1:20 p.m., this same day.]

AFTERNOON SESSION, 1:20 P.M., FRIDAY, FEBRUARY 6, 2004

PANEL III: CHINESE ARMS/WEAPONS PURCHASES AND SUPPORTING INFRASTRUCTURE

Chairman ROBINSON. At this time, we'd like to commence our afternoon session, and I would like to turn the gavel over to the Co-Chairman for this hearing and who is going to preside over this afternoon's proceedings, Commissioner Wortzel.

Co-Chair WORTZEL. Thank you very much and thank you all for being here. We're going to move the focus this afternoon from policy implications for the Taiwan Relations Act to Chinese Military Doctrines, Strategy and Weapons Acquisitions.

The first panel this afternoon, we've got three very distinguished students or experts on the People's Liberation Army:

Mr. Richard Fisher, a Senior Fellow at the Jamestown Foundation. He edits the Foundation's *China Brief* newsletter. He served as a senior analyst for the House Republican Policy Committee.

Dr. David Finkelstein. Dr. Finkelstein is a member of the Center for Naval Analysis Corporation, Center for Strategic Studies. He's the Deputy Director of Project Asia there. He's got an M.A. and Ph.D. in Chinese history from Princeton University, and is a retired Army Foreign Area Officer Specialized on China.

And finally, Dr. Evan Medeiros of the Rand Corporation. Dr. Medeiros joined Rand as a political scientist in 2002. He was the Senior Research Associate at the Center for Nonproliferation Studies at the Monterey Institute of International Studies, and he's got some very deep research interests in Chinese foreign and defense policies and on defense industrial issues.

Gentlemen, we have seven minutes for you to give you oral presentations. I know both for this panel and for the next, a number

of you or some of you have chosen to use slides or PowerPoint. We would invite you to submit those PowerPoint presentations and slides as part of your testimony, and we will incorporate that in some form, perhaps even we could get it done in a CD-ROM form so it can be viewed. But seven minutes is seven minutes. Choose your slides wisely because that's the time we have allotted, and I guess we'll start with Mr. Fisher.

**STATEMENT OF RICHARD D. FISHER, JR.
SENIOR FELLOW, JAMESTOWN FOUNDATION
CENTER FOR SECURITY POLICY**

Mr. FISHER. Okay. I'd like to begin by stating my three gratu-
tudes to the Commission in Chinese fashion. The first for holding
this hearing and playing such a vital role in our national debate
on relations with the PRC. Second, to the Commission for sup-
porting my research over the last year, which allowed me to write
a very long report. And then third, for this opportunity to mer-
cifully try to summarize it today.

The next slide, please. The report that I have submitted to the
Commission essentially has four major conclusions. In looking at
how the PLA has tried to modernize, in particular by acquiring for-
eign weapons and technology, there has been a wide-ranging de-
bate over the last decade, but looking at this effort over the last
15 to 20 years, I think four conclusions are in order.

First, that the PLA is today the world's largest purchaser of for-
eign military weapons and technology. Second, the cumulative ef-
fect of these direct purchases is now enabling new capabilities.
Third, these new capabilities are increasingly presenting specific
challenges to American power in Asia, and are propelling what
some officials in Taiwan fear will be a crossover in the military bal-
ance by 2005 and beyond. And then four, it is imperative that
United States do whatever it can to impede the flow of foreign
weapons and technology to the PLA.

Next slide, please. These purchases that I describe in far greater
detail in my submitted report include many that are having a real
impact on near-term PLA capabilities. By 2006, in my estimation,
the PLA will have 400 Sukhoi fighters and fighter-bombers. These
will be armed with thousands of Russian made air-to-air and preci-
sion-guided air-to-ground munitions. PLA will have many hundreds
of advanced track via missile S-300 SAMs.

By 2007, thereabouts, at least 12 KILO submarines, eight of
which will be armed with advanced long-range CLUB anti-ship
missiles, and this goes on to include naval weapons technologies
that's enabling three new classes of stealthy warships. New one-
meter electro-optical and radar satellites. Access now to Europe's
future navigation satellite network and new transport aircraft.

Next slide, please. This cumulative technology is also allowing
the PLA to become better at assembling new weapon systems, new
warships, new fighter aircraft, and also to develop its own new one-
meter capable reconnaissance and surveillance satellites.

Next slide, please. In terms of missile threats, foreign technology
has impacted on the PLA's ability to build new small warheads,
warheads, which have made possible a multiple warhead version of
the DF-5 that is now entering service. U.S. technology, solid fuel
rocket technology, in my opinion, has enabled three new solid fuel

ICBMs and the purchase of S-300s and related technology has allowed the PLA to advance its air defense capabilities and to build the beginning of a capability for its own missile defense capabilities while it criticizes American missile defense.

Next slide, please. Foreign technology is also allowing the PLA to exploit and deny the use of outer space. Russian radar satellites. On the bottom left is the Shenzhou 5 orbital module armed with reconnaissance cameras. The first manned space flight by the PRC last year was nothing more in my opinion than a military reconnaissance mission.

And then on the left, a small satellite, a nano-satellite technology sold by the United Kingdom is allowing the PLA to in the future develop direct ascent anti-satellite weapons.

Next slide, please. In terms of the air-to-air threat, I've touched on that briefly. I would just note that the Sukhoi is a very capable fighter. It is more maneuverable than the American F-15, more maneuverable than the American F-18 EF. The EF will have a slight advantage when its new phased array radar comes on board, but the main point I'd like to make is that the air balance for the remainder of this decade between the PLA Air Force and American Air Forces in Asia is simply too close for comfort. The capabilities conveyed by Russian weapons is simply too much for us to ignore.

Next slide, please. In terms of a growing naval threat, in my opinion, the PLA could by the end of this decade put together close to 40 new conventional submarines. The Russian submarines, the KILOs, will be armed with long-range, 220 kilometer CLUB missiles. These will likely be combined in a coordinated fashion by Wieh Sukhois that will be launching Russian-made long-range anti-ship missiles such as the KH-59M on the bottom right.

And foreign technology, perhaps Ukrainian technology, is allowing the PLA to make advanced air defense destroyers such as the 170 class, also pictured here.

Next slide, please. Foreign technology is also better enabling PLA power projection capabilities, specifically on the Taiwan Strait. Russian reports indicate that during his last visit to Moscow, Defense Minister Cao Gangchuan had discussions about buying another 30 or more Il-76 transports on top of the 20 that they already have.

Airborne forces may already have the very advanced BMD Russian airborne tank. On the upper right is an Italian light truck that is being configured for airborne operations as well. It is being co-produced in the PRC now by the thousands. Also of significance is the growing amphibious capabilities and how these are being better enabled by foreign technology.

According to my sources, on the bottom left, the new type 63-A amphibious tank, the most powerful amphibious tank now in production anywhere in the world is armed with the "Russian Bastion" gun launched, laser guided missile. As soon as this tank lands on the beaches on Taiwan, it has the ability with this missile to out-range all of Taiwan's tanks. It can hit, it can shoot first before Taiwan tanks can shoot back.

And follow-on forces will include most likely the T-98 or improved version main battle tank pictured on the bottom right. This tank also fires Russian designed laser guided gun-launched mis-

siles. The armor and the guns both far exceed the capability of all Taiwan tanks, and because Taiwan's leadership is so army-centric, they note, they understand this, and it vexes them greatly.

Next slide, please.

Co-Chair WORTZEL. I wonder if I can ask you to sum up? I think you've kind of—

Mr. FISHER. Okay. This is the last slide, Mr. Chairman. In summation, it is imperative that the United States do what it can to stop the weapons flows to the PLA. Where we have engaged democracies, we have had success. Where we have engaged Israel, for example, we have had notable success in convincing our ally, Israel, to stop selling advanced weapons to the PLA. A lot have already gone through.

The J-10 on the upper left is one example where Israel made a decisive contribution. In the future, however, we have to be very wary and very quick to come down hard on our friends and allies in Europe who are on the cusp of ending their arms embargo and could be very soon selling tremendous advanced technologies to the PLA.

In all areas where we are trying to compete and stay ahead of the PLA, Europe is working on similar technologies, be it rail guns, lasers, Stealth. If European companies were to enter into alliances with PLA companies in developing all these advanced technologies, the great transformation that our Secretary of Defense hopes will keep and preserve American military superiority may not last more than a decade in my estimation.

And with that note, I'll stop there. Thank you very much.

[The statement follows:]

**Statement of Richard D. Fisher, Jr.
Senior Fellow, Jamestown Foundation, Center for Security Policy**

Foreign Military Acquisitions and PLA Modernization

I would like to begin by thanking the U.S.-China Economic and Security Review Commission for this opportunity to present testimony on the modernization of China's People's Liberation Army. In addition, I would like to note my gratitude to the Commission for supporting my research over the last year, which has allowed me to produce a much longer report for the Commission titled, "The Impact of Foreign Weapons and Technology on the Modernization of China's People's Liberation Army."¹ This testimony draws from that much longer report.

While the most recent phase of the modernization of the People's Liberation Army (PLA) of the People's Republic of China (PRC) has been a vast undertaking spanning two decades, a critical element feeding its success has been consistent access to foreign weapons and military technologies. Successful PLA modernization is also dependent upon ongoing reform of its doctrine, strategies, military-industrial policies, and training and personnel policies. But all of these ongoing reforms would be for naught if the PLA did not have the most modern and capable weapons.

Access to foreign military technology, especially Russian weaponry, has allowed the PLA to begin to fashion capabilities to wage war in the early 21st century and create the basis for an ongoing military-technical modernization that will place increasing pressure on the United States to sustain deterrence in Asia. For example, weapon systems the PLA is acquiring will allow it to greatly impede a future U.S. attempt to rescue democratic Taiwan in the event of a PRC attack. Foreign military systems are also propelling what Taiwanese officials predict will be a "crossover" in which the military balance on the Taiwan Strait will start to favor the PLA after

¹This report has been submitted to the U.S.-China Economic and Security Review Commission. It substantially updates an earlier work by the author, "Foreign Arms Acquisition and PLA Modernization," in James R. Lilley and David Shambaugh, eds., *China's Military Faces The Future*, American Enterprise Institute and M.E. Sharpe, 1999, pp. 85-191.

2005. Foreign military technology may also allow the PLA to build new power projection capabilities by the early next decade.

In assessing the degree to which foreign military technology is aiding PLA modernization, and the possible resultant dangers to U.S. national security, it is also possible to highlight the need for greater U.S. policy focus on the need to stem PLA access to more modern and dangerous technologies. While the United States has made clear its desire for peaceful relations with the Chinese people, the government of the PRC is actively preparing for a possible war with democratic Taiwan, as it continues to proliferate dangerous nuclear weapon and missile technologies to rogue regimes. It remains necessary for the U.S. to sustain its embargo of military technologies put in place in response to the 1989 massacre in Tiananmen Square. The U.S. should work with allies in Europe to explain the possible dangers if Europe ends its Tiananmen embargo in 2004. And as the U.S. was able to persuade Israel to end its sale of dangerous military technology to the PLA, it is necessary to make curtailment of Russia's substantial arms trade a higher bi-lateral issue with Moscow.

PLA NOW THE WORLD'S LARGEST ARMS IMPORTER

The impact of foreign technology on PLA modernization has been examined repeatedly during the 1990s and beyond.² In the mid-1990s, one well-regarded study concluded that "... China can only expect limited success in its efforts to improve its military capabilities through the acquisition of foreign military weapons and technologies. ... Quick breakthroughs in military capabilities are more likely to come about as a result of direct foreign purchases ... but these are likely to be modest in quantity and quality. ..."³ During the mid-1990s, such a conclusion was warranted given that the PLA was experiencing some difficulty in absorbing new foreign weapons.

Nearly a decade later, however, it is possible to begin to consider a different set of conclusions due primarily to the fact that the PRC has sustained and increased its foreign arms imports. Estimating the amounts of PRC arms imports is at best an imprecise task. PRC sources offer almost no accounting for foreign arms purchases, indeed, it is thought that most foreign arms purchases are paid for by government budgets not part of the PLA's publicly stated budget figures. However, the Stockholm International Peace Research Institute (SIPRI) notes that, since 2000, the PRC has been the world's largest importer of weapons.⁴ In 2001, its imports were calculated to exceed \$3 billion, while in 2002, arms imports exceeded \$2.3 billion. Total arms imports were calculated to exceed \$11.8 billion from 1993 through 2002.⁵ For illustration purposes, SIPRI's figures are included in a chart below. SIPRI is the first to caution that its figures do represent actual totals. The U.S. Congressional Research Institute estimated that PRC arm imports were \$3.6 billion in 2002 and "signed deals" to import \$17.8 billion worth of weapons from 1995 to 2002.⁶

Instead of seeking marginal gains from foreign weapons purchases, it is now possible to conclude that the PLA is relying on very large foreign weapons purchases to achieve near-term growth in capabilities that it may determine are necessary, especially in relation to military-political requirements pertaining to Taiwan. The 2002 order of eight new Russian Kilo submarines is a case in point. With this order, the PLA sought to exceed the 2001 U.S. intention to sell Taiwan eight new

²Bates Gill and Taeho Kim, *China's Arms Acquisitions From Abroad, A Quest for 'Superb and Secret Weapons,' SIPRI Research Report No. 11*, London: Oxford University Press, 1995; Richard A. Bitzinger and Bates Gill, *Gearing Up For Hi-Tech Warfare?: Chinese and Taiwanese Defense Modernization and Implications for Confrontation Across the Taiwan Strait, 1995-2005*, Washington, DC: Center for Strategic and Budgetary Assessments, February 1996; Bates Gill, "Chinese Military Hardware and Technology Acquisition of Concern to Taiwan," in James R. Lilley and Chuck R. Downs, eds., *Crisis in the Taiwan Strait*, Washington, DC: National Defense University and the American Enterprise Institute, 1997, pp. 105-129; Richard A. Bitzinger, "Going Places or Running In Place?, China's Efforts To Leverage Advanced Military Technologies for Military Use," in Col. Susan M. Puska, ed., *People's Liberation Army After Next*, Carlisle: U.S. Army War College and the American Enterprise Institute, 2000, pp. 9-54; Shirley A. Kan, Christopher Bolkcom and Ronald O'Rourke, "China's Conventional Foreign Arms Acquisitions: Background and Analysis," *CRS Report for Congress*, October 10, 2000; David Shambaugh, *Modernizing China's Military, Progress, Problems and Prospects*, Berkeley: University of California Press, 2002, Chapter 6.

³Gill and Kim, p. 131.

⁴Also reported in David Lague, "In China's Ambitions, a Mother Lode for Arms Dealers," *The Wall Street Journal*, January 22, 2002.

⁵SIPRI database, <http://first.sipri.org/index.php?page=step3>.

⁶Ray Chung, "China's arms deals topped US\$ 3.6b," *South China Morning Post*, September 27, 2003, p. 5.

submarines by actually making sure Russia delivered, whereas the U.S. prospects for delivery were and remain unclear. But this purchase increased by 200 percent the number of KILOs slated for the PLA Navy. Wholesale purchases that are being used to seek major advances in capability are listed in the following chart.

Given PRC sustained economic growth rates, and the Pentagon's estimation that annual PRC defense spending levels will increase beyond 2002 levels of \$65 billion, it is possible that the PLA may be able to sustain its arms buying binge. The main recipient of the PLA's spending has been Russia. During the December 2003 visit to Russia of PRC Defense Minister Cao Gangchuan, it was revealed by Russian sources that PRC arms purchases from Russia would exceed \$2 billion in 2004.⁷ This figure included previous and new arms deals, meaning that subsequent years hold the prospect for high amounts of arm purchases from Russia.

MAJOR ONGOING PLA WEAPONS PURCHASE PACKAGES

400 Sukhoi fighters by 2006, many upgraded for multi-role missions

Thousands of Russian anti-air and precision ground-attack weapons for aircraft

Many hundreds of Russian S-300 SAMs

12 Russian KILO submarines, 8 with CLUB long-range anti-ship missiles

4 Russian SOVREMENNIY class missile destroyers

Russian weapons and electronics packages for three new classes of stealthy warships

Russian 1-meter electro-optical and radar satellites

Assuring access to Navsat signals by buying a partnership in the European GALILEO

40 to 50 Russian Il-76 heavy transport aircraft

Impact on PLA Arms Industries: Making Pieces Fit Better

There has long been tension between those in the PLA who demand new weapons as soon as possible and prefer to buy select foreign systems, and those who follow the historic desire by the PRC to strengthen self reliance, which emphasizes the interests of PLA subordinate defense industries over foreign weapons purchases. The middle ground for the PLA has long been to try to graft various foreign components into largely indigenous weapon designs to increase their capability, or to in turn produce a new generation of weapons. From the 1970s to the mid/late-1990s, there were many attempts to do this, largely with marginal success. Prominent examples include the Nanchang A-5 attack fighter, a radically re-designed Shenyang J-6 (MiG-19) turning a short-range, low-payload, clear-weather fighter into a short-range, low-payload, clear weather attack aircraft. In the early 1990s, the PLA Navy acquired two LUHU class destroyers, which for the first time combined U.S. and Ukrainian gas turbine engines and French SAMs, defensive electronics and command and control systems, and an Italian CIWS. There were integration problems and the ship's performance, while an improvement for the PLA, was obsolete compared to neighboring navies. In addition, the early 1990s saw the PLA Navy encounter serious problems trying to marry disparate technologies into its first Type 039 SONG class conventional submarine. For most of the 1990s, indigenous fighter programs, be it the Shenyang J-8II, Chengdu J-10 or Chengdu Super-7/FC-1, encountered delays due to arms embargoes, funding issues and inability to decide on a foreign component or whether to make it themselves.

As the mid-decade draws near, however, it is possible to assemble a different picture that appears to be one of improvement rather than stasis or decline. This conclusion follows from review of new PLA weapon systems in Part 2 of this study. The PLA has not lost its enthusiasm for seeking to graft foreign components onto new weapons systems in the absence of being able to design complete new weapon systems. The new twist is that, by early in this decade, the PLA is getting better at it. The solutions could be many and, while the individual stories of some weapon systems in the second part of this report will shed light on how weapons production has improved, there are reasons that can be listed here.

⁷ "Russia, China to maintain arms trade level," *Itar-Tass*, December 17, 2003.

One reason may be that the PLA has learned lessons on how to better use foreign expertise. A recent example of this is the seeming happy ending to the long-running saga of the Rolls Royce Spey turbofan engine co-production deal. This project started in 1975, but the PLA was not able to co-produce this engine in order to complete a much needed fighter-bomber, the Xian JH-7. In the late-1990s, when the PLA decided that it really wanted the JH-7 to succeed, it went back to Rolls Royce, and by 1999 cut a new deal. It purchased more used Spey engines to carry forward some JH-7 production, but also allowed Rolls Royce to make co-production work. The result is the new Qinling turbofan engine.

GROWING SUCCESS FOR CO-DEVELOPMENT VENTURES	
Not So Successful	Demonstrating More Success
Luhu Destroyer: Early 1990s program to combine U.S. gas turbine engines, French and Italian weapons, French electronics, only to make a ship that was still obsolete.	No. 168 Destroyer: Current program to combine Russian weapons and electronic systems, Ukrainian gas turbine engines in a new stealthy hull. Result appears to be a ship that in some respects is superior to Taiwan's U.S. KIDD destroyers.
Song Submarine: Early 1990s attempt to combine German engines, Russian weapons and possible Israeli advice. First submarine failed to meet performance expectations.	Song A Submarine: After addressing mistakes the new SONG A incorporates design changes and appears to be successful; it is now in series production.
PL-10 AAM: A 1980s program that tried to copy the Italian ASPIDE semi-active guided AAM. Apparently was not successful, little indication it is in widespread service.	PL-12 AAM: Combines a Russian active seeker and data link with a PRC motor to create the PLA's first active-guided AAM. Is apparently successful as it will enter production and be delivered to the PLAAF in 2004.
Super 7 Fighter: A late-1980s attempt to employ the U.S. Grumman Company to redesign the Chengdu J-7. Failed due to Tiananmen sanctions.	FC-1: Same concept continued by Chengdu but with Russian technical aid, achieved financial stability by late 1990s and was test-flown in August 2003. It is now viewed as a success for market incentive reform in the defense industry.
J-10 Fighter: A long-running attempt to create a 4th generation fighter stemming from J-9 canard fighter but with Israeli and Russian technical help. Did not officially fly until 1996 but technical difficulties lingered into the late 1990s.	J-10 Fighter: By early this decade Chengdu was meeting with much greater success. Design issues appeared resolved, program somewhat declassified, push for foreign sales, 2-seat model test flown, and late 2003 reports of final production go-ahead.
CBERS-1 optical imaging satellite: Co-development program with Brazil which only purchased 20 meter low-resolution imaging systems.	KONDOR-E optical imaging satellite: In 2003 Russia is ready to sell a 1-meter capable camera for a future PLA imaging satellite.

FOREIGN CONTENT OF FUTURE PLA WEAPONS		
Weapon System	Foreign Content	Domestic Content
Anti-Satellite, Direct Assent	British micro and nano-satellite technology	PRC design and solid fueled mobile launch system
Radar Satellite	Russian antenna	PRC satellite bus
Synthetic Aperture Radar (SAR) Aircraft	Russian Tu-154; U.S. SAR technology	PRC designed SAR
Y-8 Airborne Early Warning (AEW) aircraft	British Racal/Thales <i>Skymaster</i> AEW radar	Xian Y-8 transport aircraft
Chengdu J-10 Multi-Role Fighter	Russian engine; possible Russian radar; Israeli airframe and control system assistance	PRC designed airframe; possible PRC Radar and defensive systems; PRC weapons
Shenyang J-11 Multi-Role Fighter	Russian airframe, some avionic and electronic systems	PRC multi-mode radar; PRC weapons, PRC engine
SD-10 Active Air-to-Air Missile	Russian radar and data link	PRC motor; airframe
HQ-9/FT-2000 Surface-to-Air Missile	Russian guidance systems; possible U.S. seeker technology; possible Israeli design assistance	PRC motor; airframe
Destroyer No. 168	Russian SAM, guidance and search radar; Ukrainian gas turbine engine	PRC hull; anti-ship missile; defensive systems
SONG-A SSK	German engine; possible Russian weapons and design assistance; possible Israeli design assistance	PRC hull; defensive systems
Project 093 nuclear attack submarine	Russian design assistance; possible Russian weapons	PRC hull; nuclear reactor; defensive systems
Medium Transport/Attack Helicopter	French design assistance for rotor head; Italian design assistance; possible Canadian engine	PRC airframe; engines; avionics; weapons
Type-98 Main Battle Tank	Russian influenced hull and 125mm main gun; Russian gun-launched guided missile; British or German influenced engine	PRC designed composite armor; tank design and integration

COUNTRIES THAT SELL WEAPONS TO THE PLA

Russia

In a reversal of the late Cold War antagonism, since the collapse of the Soviet Union, the new Russian Federation has emerged as the PRC's principle source for advanced military hardware, military technology, military-technical training and advice. In mid-2002, the Pentagon reported that since 1990, figures for "signed agreements" could range from "\$10 billion to \$20 billion" with actual deliveries ranging from "\$7 billion to \$10 billion."⁸ In 1999, annual Russian arms sales to the PRC jumped from about \$1 billion to \$2 billion, a figure that will be sustained in 2004. The Pentagon concluded in 2002 that "Russian arms sales are expected to have a significant impact on China's ability to use force against potential adversaries such as Taiwan."⁹

Since the early 1990s access to Russian weapons and military technology has had a profound impact on PLA modernization. All the PLA services to varying degrees rely on new Russian technology to help fulfill modernization goals. Russian technology enabled the PLA's first manned spaceflight to perform military reconnaissance in October 2003, and will enable future PLA radar surveillance satellites. Russian Sukhoi Su-27s and Su-30 fighter-bombers, when combined with Russian PGMs, A-50 AWACS and reconnaissance satellites, are giving the PLA Air Force (PLAAF) its first all-weather strike capability. Russian technology and assistance enabled the PLA Navy (PLAN) to launch its first second-generation Type 093 SSN in 2002, which will form the basis for the PLAN's second-generation Type-094 SSBN. The purchase of 12 Kilo conventional submarines, with the prospect for co-production of 20 more, could give the PLA the largest fleet of modern SSKs in Asia. Russian weapons and advice have helped the PLA to build three new classes of stealthy warships. Russian weapons and technology purchased by the PLA has helped modernize PLA Army main battle tanks, armored personnel carriers, amphibious tanks, airborne tanks and anti-tank missiles.

There is an increasing emphasis on broader technology development cooperation, in which the PRC seeks to attract Russian technological investment in the PRC and the PRC also invests in high technology in Russia. In 1993, there were 300 Russian scientists on long-term defense-related programs, and by 2000, this number jumped to 1,500.¹⁰ High technology development contracts between Russia and the PRC jumped from 35 contracts, totaling \$11.7 million in 2001, to \$20.7 million for 30 contracts in the first six months of 2002.¹¹ A 2002 PRC technology delegation visiting Moscow to advance these contracts included officials from "leading shipbuilding, nuclear energy, aerospace and defense industry companies."¹² Long seeking to shift the balance of its military trade from hardware to technology, in December 2003, PRC Defense Minister Cao Gangchuan made a special push to change this balance to 70 percent technology and 30 percent hardware.¹³

Of note, the PLA wants to participate with Russia in joint sales to third countries.¹⁴ This is significant in relation to a possible ending of Europe's arms embargo. If this happens, the PLA will likely try to form new alliances with European arms makers as quickly as possible, thereby creating anxiety in Moscow. One way for Beijing to calm Moscow's fears would be to craft more multi-lateral military programs. But to remain competitive with Europe, it is possible that Russia may become more eager to sell whatever it has that is new and more deadly. For example, the fear of European competition may drive Russia to allow the PLA to co-produce up to 20 of its modern and effective conventional submarines.

Ukraine

While the Ukraine has probably only sold roughly \$1-2 billion million in military products to the PLA over the last decade, it has been useful none the less. Since the break-up of the Soviet Union, Russian and Ukrainian military concerns have become more competitive, and the PLA has sought to take advantage of this. The Ukraine has been a source for space and missile technologies, conducting training

⁸ Report to Congress Pursuant to the FY2000 National Defense Authorization Act, ANNUAL REPORT ON THE MILITARY POWER OF THE PEOPLE'S REPUBLIC OF CHINA. July 2002, p. 40.

⁹ Ibid, p. 46.

¹⁰ Ibid., p. 45.

¹¹ "Chinese delegation brings over 100 high-tech projects to Russia," *ITAR-TASS*, August 1, 2002, in *FBIS CEP20020801000209*.

¹² Ibid.

¹³ "Russia, China Sign Military Technology Cooperation Protocol for 2004," *Itar-Tass*, December 17, 2003, in *FBIS CEP20031217000230*.

¹⁴ Ibid.

for PLA astronauts, and possibly selling the PLA advanced liquid fuel rocket engines. The Ukraine is a principle source for air-to-air missiles for PLA Sukhoi fighters. In terms of naval hardware, after much effort, the PLA was able to buy the rusting hulk of a carrier VARYAG and tow it to Dalian in 2002. There it will teach PLA Navy engineers about Soviet era aircraft carrier technology. The PLA may remain interested in the quite capable Ukrainian SLAVA class cruise. If reports are to be believed, it was PLA investment that allowed the Ukraine to create the feared KOLCHUGA passive radar.¹⁵ The PLA is reportedly paying Ukrainian companies to develop a new naval phased array radar, which may be the new radar for the PLAN's No. 170 class air-defense destroyers.¹⁶ In such arrangements, the PLA likely owns the resulting new technology, as it most probably enables its engineers to absorb the knowledge of their Ukrainian mentors, strengthening their potential to produce a next generation product.

Israel

Even though Israel apparently has stopped its military exports to the PRC, it remains the second most important source of advanced military technology to the PRC due to its cumulative effect. Total estimates of the amount of Israel's military exports to the PRC vary. SIPRI lists \$162 million from 1993 to 2002, but in 1997, an Israeli official noted that Israel's military sales to the PRC were approximately \$10 million annually.¹⁷ Another estimate for that same year notes Israeli arms sales to the PRC may have been as high as \$30 million annually from 1979.¹⁸ Notably, this trade was poised to leap by \$1 billion, but the U.S. convinced Israel to cancel the sale of its sophisticated PHALCON AWACS aircraft in 2000.

During the late 1970s and early 1980s, the United States encouraged Israel to develop military technical ties with the PRC in order to indirectly aid PRC military modernization against the former Soviet Union. The formal go-ahead is reported to have come in 1979, when then-Defense Minister Ezer Weizman asked the late Israeli billionaire Shaul Isenberg to establish the Israeli-PRC arms trade.¹⁹ During the 1980s, Israel offered the PRC its technology in the areas of tank weapons, anti-tank missiles, surface-to-air missiles, cruise missiles, military electronics and aircraft design. But by the 1990s, the Israel-PLA relationship became a matter of increasing concern for Washington, not just because of the sophistication of technology sold, but because some of the technology was of U.S. origin or made possible by access to U.S. weapon systems, and was subsidized by U.S. taxpayers.²⁰

Israel's principle motivation for pursuing its arms relationship with the PRC was to support its arms industries, whose independence and competitiveness Israel requires for its own national security. However, some Israelis have suggested another motivation. Israeli officials claim that one benefit of its sale of LAVI fighter technology to China has been to prevent sales of surface-to-surface missiles to Israel's neighbors.²¹ However, in mid-1996, the CIA reportedly disclosed that China may have shipped "missile-related components" to Syria.²² And there is the larger question of PRC nuclear and missile proliferation and the dangers that has created for Israel. For example, the PRC has sold Iran both nuclear technologies that would contribute to its nuclear weapons program and missile technologies that have contributed to its long-range nuclear missile program. Iran then helped Libya's missile program. Furthermore, PRC missile technologies have been sold to Iran through proxies like North Korea. This occurred during the 1990s when the Israeli-PLA relationship was at its height.

The most famous PRC-Israel project has been the co-development of the Chengdu Jian-10 (J-10) 4th generation multi-role fighter. This project drew heavily on Israel's Israel Aircraft Industries LAVI advanced fighter,²³ which was terminated

¹⁵ *Narodna Armiya*, Kiev, November 21, 2003, Global News Wire—Asia Africa Intelligence Wire, BBC Monitoring International Reports, December 4, 2003.

¹⁶ "Ukrainian Radar Designer Interviewed on Current Projects," *Kiev Defense-Express*, November 1, 2003.

¹⁷ Barbara Opall, "Israel Denies Charges On Tech Sales to China," *Defense News*, July 21–27, 1997, p. 56.

¹⁸ *Ibid.*

¹⁹ Judy Dempsey, "Israel considers arms dealings with China an acceptable risk," *Financial Times*, April 23, 1999, p. 8.

²⁰ Jim Krane, "U.S. aid to Israel subsidizes a potent weapons exporter," *The Associated Press*, June 19, 2002.

²¹ Opall, op-cit.

²² Bill Gertz, "CIA suspects Chinese firm of Syria missile aid," *The Washington Times*, July 23, 1996, p. A1.

²³ Douglas Barrie, "Chinese tonic, The Chinese air force is picking up the pieces of Israel's Lavi fighter programme," *Flight International*, November 9, 1994; Jim Mann, "U.S. Says Israel Gave Combat Jet Planes To China," *The Los Angeles Times*, December 28, 1994, p. A1; Charles

after the U.S. withdrew its financial and political support. In 2003, a Russian source who visited Chengdu in the early 1990s remarked that it was possible to view Hebrew language placards on the walls where work was being done on the J-10.²⁴ But the Lavi, in turn, drew heavily from U.S. technology, including some associated with the Lockheed-Martin F-16 fighter. U.S.-origin technology in the J-10 may include avionics, advanced composite materials and flight control specification.²⁵ As more details about the J-10 have surfaced, it is increasingly apparent that Chengdu pooled technology influences from Israel and Russia to make this new fighter. Though long in gestation, the J-10 may enter production in 2004, and could prove to be a capable multi-role fighter able to hold its own against many current U.S. fighters.

But it was Israel's attempt to sell its very advanced PHALCON phased array airborne radar to the PLA which finally mobilized a bipartisan U.S. effort in the late 1990s to insist that Israel halt its exports of dangerous military technology to the PRC. Concern had been building since the deal was formalized at the Paris Airshow in 1997 that Israel would combine PHALCON with a Russian-supplied Beriev A-50 AWACS aircraft. The deal would have involved up to four aircraft for \$1 billion.²⁶ The advanced capabilities of the PHALCON exceeded that of the U.S. E-3 SENTRY and would have severely threatened Taiwan's air defense capabilities. The Clinton Administration began to press its concerns to Israel in November 1999.²⁷ The issue soon united both Democrats and Republicans in opposition, both in the Administration and in the Congress, and even among strong supporters of Israel.²⁸ Former Prime Minister Ehud Barak announced Israel's cancellation of the deal during a U.S.-Israeli summit in July 2000. The PHALCON's capabilities are still prized by the PLA and this perhaps is why, as recently as late 2001, China has persisted in trying to convince Washington to reverse its decision.²⁹

Since the cancellation of the PHALCON sale, the U.S. applied increasing pressure on Israel to curtail all sales of dangerous weapons to the PLA. In late 2000, a U.S.-Israeli committee was reportedly created to review Israel's sale of such technologies.³⁰ Nevertheless, such sales have surfaced. In 2002, it was reported that Israel sold a large number of its HARPY anti-radar drone to the PLA.³¹ In early 2002, Israel was close to a sale for its AMOS small-bus communications satellite, originally designed for the Israeli military. But through 2002 and 2003, the U.S. apparently convinced Israel to stop its sales of advanced military technology to the PLA.³² In mid-2003, the AMOS sale fell through and Israeli Aircraft Industries reduced their Beijing office.³³ A December 2003 report notes that Israel may be trying to revive some military-technical commercial ties that may focus primarily on counterterrorism.³⁴ Given that there is little distinction between counterterrorism capabilities and those required by Special Force units for assault missions, it is necessary for the U.S. to continue to monitor Israeli military commercial activities with the PRC.

Europe

In early 2004 Europe stands poised to end its 1989 arms embargo against the PRC. In truth, adherence to this embargo has been progressively weakened by many European states. After the mid-1990s, Britain, France, Spain and Italy modified

Bickers and Nick Cook, "Russia, Israel helping China build new fighter," *Jane's Defence Weekly*, November 25, 1995; Andy Chuter, "Israel/Russia Compete to Arm F-10 Fighter," *Flight International*, October 15, 1997, p. 9; David Isenberg, "Israel's role in China's new warplane," *Asia Times*, December 4, 2002.

²⁴ Interview, Moscow Airshow, August 2003.

²⁵ Mann, op-cit; Larry Wortzel, "U.S. Commits to Security of Its Allies," *Taipei Times*, March 15, 2001.

²⁶ "Final RFP for Chinese AEW Follow-On Program Expected," *Journal of Electronic Defense Electronics*, April 1, 2000.

²⁷ Bill Gertz, "U.S. opposes Israel-China military deal," *The Washington Times*, November 12, 1999, p. A1.

²⁸ William A. Orme, Jr., "Israeli Armorer in a Global Arena; Aircraft Maker Runs Afoul of U.S. With China Radar Contract," *The New York Times*, June 30, 2000, p. 1; Dov S. Zakheim, "Get real on China," *The Jerusalem Post*, November 22, 1999, p. 8; Hanan Sher, "The Plight of the Phalcon," *The Jerusalem Report*, October 10, 2000.

²⁹ "China seeks U.S. reversal," *Flight International*, October 30, 2001, p. 21.

³⁰ "U.S. And Israel Will Form Joint Technology Committee On Arms Exports," *Israel Business Today*, September 1, 2000.

³¹ "IAI Sells Harpy Drones To China," *Flight International*, November 5, 2002, p. 5.

³² Bill Gertz, "Israel asked to stop arms sales to China; U.S. seeks to curb threat to Taiwan," *The Washington Times*, January 3, 2003, p. A01.

³³ Ami Ettinger, "IAI Cuts Investment in Defense Exports to China, Will Focus on Civil Aviation," *Ma'ariv*, October 9, 2003.

³⁴ Barbara Opall-Rome, "Israel, China To Revive Ties," *Defense News*, December 15, 2003.

their interpretations of the 1989 sanctions to allow increasing “dual use” technology to be sold to the PRC. Under this flag, Europeans have sold defense electronics and helicopter technology to the PLA. By the late 1990s, Beijing was putting heavy pressure on many European countries to end these sanctions and resume military technology and weapons sales. During his August–September 2002 tour of Europe, former Premier Zhu Rongji explicitly called for Europe to resume military sales.³⁵ As U.S.-EU relations went from tepid to worse in 2002–2003, it appears that Beijing saw an opening to extract concessions from Europeans who were looking for stronger links to Beijing to take the place of those they were giving up with Washington. In June 2003, during a visit to Beijing, French Defense Minister Michele Alliot-Marie said, “We are working hard to lift the ban.”³⁶

An October 2003 PRC White Paper on PRC-EU relations stated “The EU should lift its ban on arms sales to China at an early date so as to remove barriers to greater bilateral cooperation on defense industry and technologies.”³⁷ This White Paper was released weeks before a high-profile Summit of EU leaders in Beijing in November 2003. Then, in early December, German Chancellor Gerhard Schröder called for the embargo to be lifted during a visit to the PRC.³⁸ Barely two weeks later, at an EU summit in Brussels, French President Jacques Chirac’s called for the end of the embargo and a summit statement said that Foreign Ministers would “re-examine the question of the embargo on the sale of arms to China.”³⁹ Days later, the European Union Assembly adopted a resolution against lifting the embargo, citing the PRC’s threats to Taiwan,⁴⁰ but the advisory nature of this body means it cannot stop a lifting of the EU embargo on arms sales to the PLA in 2004. On January 25 a gathering of EU Foreign Ministers rejected by a vote of 14 to 1 a French call to end the embargo. However, given France and Germany’s strong support, it appears that momentum is leaning toward its removal in 2004.

Should Europe lift its embargo, its arms sales to the PLA will presumably be governed by a “Code of Conduct.” Unfortunately this Code of Conduct has not stopped Britain from selling microsatellite technology that is informing future PLA anti-satellite capabilities, or from selling Rolls Royce turbofan engine technology now being used on new JH-7A fighter-bombers. It also has not stopped French and Italian contributions to the PLA’s first modern attack helicopter or has it stopped German and French marine engines sales for PLA submarines and combat ships. A 2003 agreement to secure a PRC financial contribution to the future European GALILEO navigation satellite constellation marked a new high-point in space cooperation. By October, the PRC and the European Space Agency were reported close to completing a five-year space cooperation agreement that would cover “space science, Earth observation, environmental monitoring, meteorology, telecommunications and satellite navigation, microgravity research for biology and medicine, and human resource development and training.”⁴¹

In conjunction with the mid-December EU summit, major European defense and aerospace companies called for an end to the embargo.⁴² Their tone was set by EADS, which in early October signed a “strategic cooperation agreement” with AviChina, an investment arm of AVIC II, that would involve the “joint development, manufacturing and modernization of helicopters, regional aircraft and training aircraft.” Said an EADS spokesman, “We have been working with AVIC II for 30 years. It makes perfect sense for us to become a strategic partner in AviChina.”⁴³ Once the EU embargo is lifted, it can be expected that many European defense companies that now cooperate with U.S. defense companies will seek cooperative alliances with PLA-controlled companies. Such moves should be viewed with concern in Washington as these alliances could prove to be very useful avenues for future PLA espionage against U.S. defense technology.

³⁵ “EU should lift arms embargo, Chinese premier tells French president,” *Agence France Press*, September 2, 2002.

³⁶ “Europe’s companies urges removal of ban on high-tech exports to China,” *Xinhua*, November 26, 2003.

³⁷ “Xinhua Carries ‘Full Text’ of China’s EU Policy Paper,” *Xinhua*, October 13, 2003, in *FBIS CPP20031013000072*.

³⁸ “China Urges EU To Lift Arms Embargo Amid Talks for Plutonium Plant,” *Agence France Presse*, December 4, 2003.

³⁹ *Ibid.*

⁴⁰ “EU parliament resists end to arms embargo against China,” *Agence France Presse*, December 18, 2003.

⁴¹ China Set for Closer Cooperation After Space Flight, *Agence France Presse*, October 15, 2003.

⁴² “Europe’s companies . . .” op-cit.

⁴³ Paul Betts and Justine Lau, “EADS moves to boost ties with China AEROSPACE,” *Financial Times*, October 21, 2003, p. 31.

HOW FOREIGN TECHNOLOGY IS ASSISTING PLA MODERNIZATION

It is now possible to describe the manner in which access to foreign weapons and technology has accelerated the modernization of the PLA. This section is a summary of findings in "The Impact of Foreign Weapons and Technology on the Modernization of China's People's Liberation Army."

PLA Missile and Space Modernization

Deploy new small nuclear warheads. In 1999 an independent damage assessment commission led by the U.S. Intelligence Community and a special commission of the U.S. House of Representatives led by Congressmen Christopher Cox and Norm Dicks concluded that PLA access to information about modern small U.S. nuclear warheads informed and shortened the development of new PLA small nuclear warhead. While there are some who maintain that the PLA could have developed these warheads from their own capabilities, these individuals are in the minority. These new small warheads were essential for the PLA to develop new classes of intercontinental nuclear missiles.

Deploy new liquid fuel and solid fuel ICBMs capable of reaching the United States. In 2002 the Pentagon reported that the PLA would deploy about 20 new DF-5 Mod 2 ICBMs by 2005. The Pentagon implied that this new ICBM might have multiple warheads. The DF-5 Mod 2 ICBM very likely benefited from U.S. knowledge and technology. Both U.S. agencies and the Cox Commission determined that PLA interaction with U.S. satellite and aerospace companies, including Loral and Hughes, allowed the PLA to improve the LONG MARCH space launch vehicle, which is based on the DF-5. In addition, some U.S. intelligence analysts contend that a two-satellite launch bus developed to loft U.S. IRIDIUM communication satellite provided a "technology bridge" for a multiple warhead bus, and a former PLA engineer has noted that U.S. companies provided advice regarding the IRIDIUM bus. The U.S. company Martin Marietta also provided information that allowed the PLA to improve the solid fuel rocket engines of the DF-21 IRBM, and very likely for the new DF-31, DF-31A ICBMs and JL-2 SLBM. The road-mobile DF-31 is now being deployed and is expected to be followed by the longer-range DF-31A and JL-2 later in this decade.

Develop new long-range cruise missiles expected to be deployed by mid-decade. Taiwanese sources expect the PLA to deploy new long-range land attack cruise missiles by mid-decade. Chinese sources indicate these may resemble the U.S. TOMOHAWK cruise missile and will have multiple guidance systems like terrain-following radar and satellite-navigation. Eventually this new cruise missile will be launched from land, ship, submarine and aircraft platforms. This new cruise missile is also expected to have benefited from Russian, Israeli and captured U.S. cruise missile technology.

Achieve a manned space capability in about a decade, which is now being used for military purposes. The October 2003 manned flight of the Shenzhou-5 spaceship was made possible by PLA access to extensive Russian space technology. The Shenzhou is a slightly larger and improved version of the Russian Soyuz. The first five Shenzhou missions, including the first manned mission, were used to test electronic intelligence and imaging intelligence payloads. Based on this precedent, it is possible to project that future Shenzhou spaceflight missions and future PLA space stations may very likely also perform military missions. Should the PLA elect to perform military surveillance missions from a future space station, it may also arm its space stations for self defense, which also raises the prospect of it arming manned space stations for offensive military missions as well. Europe and Russia are interested in selling technology that will enable future PLA manned space stations.

Develop a modern space reconnaissance and surveillance capability. The PLA's first high-resolution radar satellite will be based on the Russian NPO Mashinostroyeniya radarsatellite. NPO Mashinostroyeniya officials also note they are selling the PLA their new 1-meter capable electro-optical imaging satellite. The PLA intends to loft four radar and 4 new electro-optical imaging satellites from 2006. These will allow the PLA to revisit any target on Earth twice a day. Such a space surveillance capability, when combined with airborne and fixed surveillance assets, will enable the PLA to conduct a dynamic offensive missile and air strike campaign against Taiwan. Radar satellites will also be useful in finding U.S. naval forces at sea. In addition, the ability to gather 1-meter or better imagery will give the PRC and PLA leadership new levels of political influence, by enabling them to assist favored factions in overseas conflicts. It will also enable the PRC to expose U.S. military moves in ways that may endanger U.S. military personnel.

Quickly upgraded the PLA's air defense capabilities. According to Russian reports the PLA has purchased possibly several to many hundred S-300 SAMs.

These deadly missiles use very-hard-to-jam track-via-missile (TVM) technology reportedly stolen from the U.S. The U.S. has never had to fight an air battle against a foe armed with TVM missiles. The PLA's possession of a large number of S-300s serves to deter the modern U.S. conventional precision strike air forces. The PLA has also obtained at least one U.S. Patriot SAM from which it may have also added to its knowledge of TVM technology. A new version of the PLA FT-2000 SAM may use TVM guidance. Passive KOLCHUGA radar purchased from the Ukraine and Russian KASTA low-altitude radar will enhance the PLA's build-up of modern radar systems that can cue new SAMs.

PLA Air Force Modernization

Amass a fleet of about 400 4th generation attack-capable Russian Sukhoi fighters by about 2006. The PLA decided in the early 1990s to accelerate the modernization of the PLA Air Force by purchasing and co-producing large numbers of Russian Sukhoi fighters. By 2006 it will have significantly advanced this goal by acquiring and building about 400 Su-27SK, Su-30MKK, Su-30MKK2 and co-produced J-11 fighters. This number could increase substantially if as some Russian sources predict, the PLA elect for a second co-production contract for more J-11 fighters. The Sukhoi is the peer of the U.S. F-15C fighter and F-15E strike-fighter, and is in some respects superior. The PLA is now upgrading Su-27 and J-11 fighters to make them multi-role fighter and attack capable. With air-refueling the Su-30MKK/MKK2 is cable of striking targets in Guam and Okinawa.

Better implement evolving offensive joint-warfare doctrines. The PLA Navy is purchasing the Sukhoi Su-30MKK2 and Russian sources indicate that the PLA Air Force may upgrade its Su-30MKKs to MKK2 standards. This could give the PLA over 100 Su-30s capable of both land and naval attack missions. As such, this capability will allow the PLA to better implement joint tactics between the PLA Air Force and PLA Navy.

Develop and produce its first 4th generation combat fighters and lay the groundwork for 5th generation combat aircraft programs. Foreign technologies have helped the PLA to upgrade its Shenyang J-8II and Chengdu J-7 fighters. Israeli and Russian technologies were critical in enabling Chengdu to complete its new J-10 and FC-1 multi-role fighters. Chengdu's J-10C 5th generation fighter concept bears a very close resemblance to the Russian Mikoyan Article 1.44 5th generation fighter proposal.

Arm both foreign-made and indigenous fighters and fighter-attack aircraft with new and capable air-to-air, ground-attack and long-range naval attack weapons. The PLA is importing thousands of new Russian air-to-air and air-to-ground munitions. These include very capable missiles like the helmet-sighted Vypel R-73 and the active-radar guided Vypel R-77 AAMs. Russian technology is also enabling the PLA to put into production in 2004 its first reliable medium-range active-guided AAM, the Louyang PL-12/SD-10 missile. The PLA has also purchased large numbers of new Russian precision-guided munitions, including the Kh-29 short-range attack missile, the Kh-59ME medium range attack missile, the Kh-31 anti-radar and anti-ship missiles, and the Kh-59MK long-range anti-ship missile. In addition the PLA has purchased the very large KAB-1500 precision-guided bomb, a 3,000 lb bomb that can be equipped with deep-penetrating and thermobaric warheads. Russian-designed laser-guided bombs will also arm JH-7A fighter-bombers, and possibly, larger numbers of Xian A-5 attack fighters.

Support combat missions around Taiwan with new space and airborne information platforms, aerial refueling aircraft and transport aircraft. PLA air strike missions against Taiwan will benefit from satellite surveillance and from Russian A-50 AWACS expected to be purchased. The PLA also intends to purchase Russian Ilyushin Il-78 aerial refueling aircraft, which will extend the range of Su-30MKK/MKK2 strike fighters. Russian sources indicate the PLA may now purchase 30 more Ilyushin Il-76 heavy transport aircraft in addition to about 20 already in service. Depending on the version, these can airlift two-three BMD airborne tanks, which will give added power-projection capability to PLA Airborne units. The Ukraine is also assisting the PLA's Shaanxi company to improve its Y-8 medium transport, develop a much more capable version of the Y-8, and is discussing the possibility of co-producing the Antonov An-124 mega-transport.

Undertake all-weather counter-air, ground-attack and naval-attack missions on or around Taiwan, and against U.S. forces that may seek to repel such an attack. By 2006 or shortly thereafter, the acquisition of foreign technologies will allow the PLA for the first time to conduct all-weather offensive strike missions against Taiwan and against U.S. forces that would seek to defend Taiwan from PLA attack. This is significant because PLA short-range, medium-range ballistic missiles, and new cruise missiles, while great in number, can only perform one

mission. Strike aircraft can perform multiple missions. By this time the PLA will have large numbers of Russian-built Su-30s and will build up its new British-engined Xian JH-7A fighter bombers so that it may have about 150 fighters capable of attacking U.S. Navy ships.

Significantly advance the PLA's goal of creating a modern and innovating combat aircraft industry sector. Over the last decade the PLA's combat aircraft design and manufacturing sector has been improved by access to French computer design software and by modern machine tools from Russia, Europe, Japan and the United States. In addition, it is apparent that interaction with European and U.S. aerospace firms is helping PLA controlled companies like Shenyang and Chengdu to become more innovative and to understand how to be driven by markets rather than state planning dictates. The Sukhoi-Shenyang partnership is leading to Shenyang's eventual ability to indigenously produce its own variants of the J-11. Foreign assistance has enabled Chengdu to produce two fighters which may soon be able to compete in two critical market segments. In addition, interaction with foreign firms is enabling PLA companies finally to produce modern turbofan fighter engines and modern fighter radar.

PLA Navy Modernization

Combine new information systems and new long-range strike platforms to enable offensive and defensive missions at far greater distances. It is very likely that the PLA Navy will also benefit from information derived from new surveillance satellites. The PLA Navy also has some Y-8 transports modified with British airborne search radar that have been used to assist long-range targeting for destroyers. The Ukraine apparently has co-developed with the PLA a new naval phased-array radar that will equip one and possibly two new classes of air defense destroyers. Such radar may be used in the same way as the U.S. AEGIS to manage long-range counter-air and counter-naval battles.

Build new generations of modern and capable nuclear and conventional submarine and support them with an increasingly credible Naval Air Force and Air Force strike combine. Russian technology was used to enable the PLA to launch its first second-generation SSN in 2002. It is expected to be equivalent in performance to the Russian VICTOR-III class SSN, which would constitute a very large leap in capability for the PLAN. It can be expected that Russia would have sold technology to make them even quieter than the VICTOR-III, enhancing their ability to counter U.S. SSNs, and will arm them with 220km range Russian CLUB anti-ship missiles. The PLA is now acquiring 12 very quiet KIL0 conventional submarines, 8 of which will be armed with CLUB missiles. Russia is now considering selling the PLA the rights to co-produce up to 20 conventional submarines. Russian, German and possibly French technology enabled the PLA to produce a working version of its new SONG conventional submarine, which is now in series production. It is possible that before the end of the decade the PLA will have the capability to coordinate mass missile attacks on U.S. Naval forces by submarines and Su-30s.

Better enable future naval attack and blockade operations against Taiwan later in this decade, if the PRC chooses to do so. Foreign technology is better enabling the PLAN to undertake blockade missions around Taiwan. Foreign purchased or assisted all-weather fighter bombers will be able to attack Taiwan Navy ships in ports and at sea, degrading Taiwan's ability to oppose larger numbers of Russian and foreign assisted PLAN submarines. Russian weapons and systems are enabling the PLA to produce three new classes of stealthy warships. Two of these are design for air defense missions, filling a long-standing PLAN requirement for better naval air defense.

Gain increasing naval strength needed to enforce territorial claims, especially in the South China Sea. A combination of new information assets and long-range strike assets will soon enable increasingly distant PLA Navy operations, especially in its immediate region to enforce long-standing PRC territorial claims. New foreign build or assisted submarine, foreign assisted stealthy warships and Russian-built long-range strike fighters will allow the PLA to undertake shows of force near contested areas, and if necessary, fight naval battles in those same areas. While the PLAN has long been able to best inferior neighbors like Vietnam and the Philippines, in the near future it may also be able to oppose Japanese naval forces near the Daiyoutai Islands or Malaysian naval forces in the Spratly Island Group.

Increase the PLA Navy's ability to protect naval access in the Indian Ocean and begin to employ a limited naval power projection capability based on sub-launched LACMs. As Russian influenced SSNs enter PLAN service, the PLA will soon acquire a limited conventional power-projection capability in that they will likely soon carry new PLA-developed long-range land attack cruise mis-

siles. Global targeting for PLA cruise missiles will be made possible by Russian surveillance satellites, foreign-assisted PLA owned or controlled communication satellites, plus Russian and European navigation satellites. Even such a limited power projection capability will give the PRC leadership greater influence in that it can choose to directly intervene on the side of a favored faction by direct application of precision striking power.

Gain increasing understanding of aircraft carrier construction and operations to better prepare for eventual aircraft carrier construction. Since the mid-1980s the PLA has collected used aircraft carriers from Australia and Russia to gather knowledge needed in order to eventually build their own. In 2002 a PRC company linked to the PLA Navy took possession of the former Russian carrier *Varyag*, which is now in Dalian ostensibly to be refurbished as a casino. In August 2003 the Harbin Technical University, which closely cooperates with the PLA, put on display a model of a PLA version of this Russian carrier. It is not known whether the PLA has the financial resources to build carrier in the near future, but it does have a much greater level of technical proficiency to complete such a project. In addition, as the Shenyang Aircraft Company turns the J-11 into more of an indigenously built fighter, it also becomes a strong candidate for an initial carrier-based fighter-bomber, inasmuch as its Russian partner, KnAAPO, also builds a carrier version for the Russian Navy. While the Chengdu J-10 is often viewed as a potential carrier fighter, the J-11 is already a proven carrier-capable design.

PLA Ground Force Modernization

Turning information into a more effective weapon by greater use of UAVs, radars and more profound fire and counter-fire capabilities that are being improved with foreign technologies. Like other modern armies, the PLA is investing in new targeting and precision strike systems. The PLA has been experimenting with unmanned reconnaissance vehicles (UAVs) since the late 1980s and has likely benefited from Israeli technology in this area. The PLA may also be investing in long-range synthetic aperture radar-based airborne ground surveillance and targeting systems. These will be used to direct new long-range artillery rockets based on the Russian SMERSH system. The SMERSH uses self-targeting sensor-fused munitions that allow one long-range rocket to attack many armored vehicles. It is likely that Russian sensor-fused technology is aiding the PLA to make its own sensor-fused munitions.

Using foreign technology to building world-class main battle tanks and armored personnel carriers. With the benefit of British, Israeli and Russian technology, the PLA has developed two new main battle tanks, the Type-98 and less expensive Type-96. Both are armed with Russian-influenced 125mm main guns and both likely fire Russian designed gun-launched laser-guided anti-tank missiles. Both tanks also use modern composite-steel sandwich armor in removable segments that allow for upgrades. The T-98 uses a unique laser-based defensive system that can either blind opposing optical guidance systems or, upon detecting such systems, can automatically direct counter-fire. In early 2003 the PLA revealed a new armored infantry fighting vehicle that uses the gun-turret system from the Russian BMP-3 armored infantry fighting vehicle.

Using Russian tank gun-launched laser-guided missiles to give several PLA tanks greater striking distance. The PLA now produces a version of the Russian BASTION gun-launched laser-guided anti-tank missile for its 105mm tank guns. With a 5km range, this missile out-ranges regular 105mm gun shells. Taiwanese sources believe this missile arms the PLA's new Type-63A amphibious tank, enabling it to out-range Taiwan's U.S.-built M-60 and M-48 tanks as soon as it lands ashore. These missiles are also being used by T-59D and possibly T-79 tanks.

Using foreign aircraft, helicopters, light tanks and light trucks to give greater power to PLA Airborne Forces. It is increasingly apparent that the PLA views its Airborne forces as a strategic striking force with special relevance to many possible Taiwan combat scenarios. If Airborne forces can rapidly secure airfields on Taiwan in conjunction with the capture of key ports by Amphibious forces, that may help force Taiwan's political leadership to capitulate before a full-scale invasion. Or if necessary, these forces could in large part help to capture Taipei, forcing the same result. The power projection capability of PLA Airborne forces is being improved by the possible purchase of up to 50 Russian Il-76 heavy transport aircraft, modern and capable Russian BMD airborne tanks, and new Italian Iveco light trucks armed with HJ-9 anti-tank missiles, likely derived from the Israeli MAPATS missile. PLA Special Forces could also lead attacks on Taiwan military, infrastructure and political targets after having been transported by Russian Mi-17 or other European-designed helicopters. Airborne and Special Forces troops could be covered by new WZ-11 attack helicopters, a copy of a French design.

Using foreign helicopter technology to enable improved indigenous helicopter development. In early 2003 the PLA is reported to have test flown a new attack helicopter, sometimes called the “Z-10.” This helicopter also forms the basis for a new 6-ton class medium utility helicopter. The dynamic system for this helicopter was assisted by Italy and France. Both helicopters may enter PLA service by the end of the decade. The new attack helicopter is expected to resemble the European TIGER attack helicopter, meaning it will be an all-weather platform armed with long-range attack weapons. Access to European helicopter technology is likely to improve with the emerging EADS-*AVIC-2* alliance, and may enable the PLA to better complete a planned 10-ton class utility helicopter.

NEW THREATS TO TAIWAN EMERGING FROM PLA ACCESS TO FOREIGN TECHNOLOGY

Foreign weapons and technology are helping to propel an historic shift in the military balance on the Taiwan Strait. In January 2004 Taiwan Deputy Minister of Defense Chong Pin Lin offered a sober assessment of the evolving military balance on the Taiwan Strait. Lin said, “The PLA may start to surpass what we have in 2005 or between 2005 and 2008.” Lin offered the caveat that a “crossover” in the military balance did not mean the PRC leadership would “feel 100 percent confident in winning a war,” and predicted by 2010 to 2015 the PLA may have “supremacy in both qualitative and quantitative comparison of forces that it may feel confident to move.”⁴⁴ The assessment of 2005 as a “crossover” date is also shared by many high Taiwan military officers.⁴⁵ Foreign military systems are helping fuel the PLA’s ability to lead this “crossover.”

Missile Balance. If current growth rates are sustained by 2006 the PLA may be closing in on 750 SRBMs, to which one could add 100–200 new long-range land-attack cruise missiles, which have benefited from Russian, Israeli and U.S. technology. Russian imaging satellites will help make them more accurate and more flexibly retargetable. If the PLA does loft an 8-satellite constellation after 2006, then it will be able to revisit all targets on Taiwan twice-daily by both types of satellites, with radarsats able to penetrate cloud cover. Even though there is enthusiasm in Taiwan to build retaliatory ballistic missiles, it is not clear that Washington will allow this necessary defensive measure. If used with strategic surprise and immediate follow-up airstrikes, the PLA’s missile force could have a devastating effect. Their improving accuracy makes these missiles much more than a terror weapon.

Air Balance. Taiwan has about 330 4th generation fighters, a number expected to be static in 2006, when the PLA will have received about 400 Sukhoi fighters, most being multi-role fighter and attack capable. To this number there may be 30–50 British-engined JH-7 fighter bombers and 30–40 J-10 multi-role fighters. All PLA multi-role fighters will carry new active-guided AAMs, helmet-sighted short-range AAMs, and be capable of delivering a range of PGMs. The PLA’s KAB-1500 heavy PGMs could wreck havoc with Taiwan’s deep underground aircraft shelters. If surprise is achieved, PLA missile and air strikes could reduce the number of Taiwan fighters available for defensive missions. The PLA will also place a high priority on the destruction of Taiwan’s AWACS and anti-submarine warfare aircraft. Taiwan is reportedly developing its own GPS-guided PGM but its short range exposes the Taiwan fighter to PLA S-300 SAMs.

Naval Balance. Taiwan only has two aging conventional submarines and the U.S. is not expected to make good on any intended new submarine deliveries before the end of the decade. In contrast, by 2006 to 2007 the PLA could have the 8 Club ASM-armed KILOs ordered in 2002, and as many as 7 or 8 new SONG class submarines, in addition to about 20 older but still useful MING class submarines. Should the PLA co-produce 20 more Russian submarines the naval balance would shift decidedly to the PLA. In terms of surface warships the PLA may have two or more new Russian-armed air defense destroyers, two or more new “Aegis” like air defense destroyers and 3–4 SOVREMENNIY destroyers. Taiwan may have taken delivery of 4 new respectable KIDD class air-defense destroyers.

Ground Force Balance. While it will take considerable effort for the PLA to transport its new T-98 and T-96 tanks to Taiwan, their superiority over Taiwan’s U.S. tanks spurs considerable fear in the still Army-centric Taiwan military leadership. While Taiwan may have new AH-1 APACHE helicopters to deal with this threat, the PLA will also have increasingly sophisticated light-weight air-defense systems it can bring to Taiwan, and may have a good number of light-weight WZ-

⁴⁴ Benjamin Kang Lim and Tiffany Wu, “Taiwan sees military balance tipping to China,” *Reuters*, January 10, 2004.

⁴⁵ This point was noted during the course of many meetings with military officials in Taiwan during 2002 and 2003.

11 attack helicopters armed with anti-air missiles. Russian Il-76s, Mi-17 helicopters and BMD Airborne light tanks are giving new mobility and firepower to PLA Airborne units. New T-63A amphibious tanks armed with BASTION gun-launched missile can out-range the guns on Taiwan's U.S. M-60 and M-48 tanks. If these units achieve surprise and manage to secure airfields and ports, then civilian foreign-made airliners and civilian ships and fast ferries can be expected to pour in tens of thousands of troops a day.

NEW THREATS TO U.S. FORCES EMERGING FROM PLA ACCESS TO FOREIGN TECHNOLOGY

New PLA offensive military capabilities made possible by access to foreign technology is also helping to create new threats to U.S. forces, especially those stationed in Asia. With new space surveillance capabilities the PLA will be able to better monitor U.S. forces in Japan, Okinawa and Guam, to better time and coordinate any potential military action against Taiwan. These assets can also help monitor any U.S. forces that may be deployed to intervene on the Taiwan Strait, to better mount pre-emptive or counter-strikes.

And at a time when U.S. forces may be diverted for many years with requirements to fight the War on Terror, or perhaps to defend against aggressive actions by North Korea, remaining U.S. forces may be hard pressed to deter PRC aggression on the Taiwan Strait. The closest U.S. forces to the Taiwan Strait are two squadrons of aging F-15C fighters at Kadena Airbase on Okinawa. The challenges of maintaining these aging fighters was recently explained by General William J. Begert, Commander, U.S. Pacific Air Forces, to include problems with airframe and wing fatigue.⁴⁶ While the F-15C armed with modern helmet-display sighted AIM-9X and active radar guided AIM-120 missiles is formidable, it simply does not have a decisive level of superiority when compared to emerging PLA Sukhoi and their new missiles. The only future U.S. fighter that will be decisively superior to the Sukhoi is the Lockheed-Martin F/A-22, but only 200-300 may be built. On top of this, as General Begert also explained, U.S. fighters like the F-15 may not be able to survive new PLA air defenses based on the S-300 SAM.⁴⁷

Again, considering that U.S. forces may be committed to other regions thus impeding their rapid assembly to respond to a Taiwan Strait crisis, the U.S. Navy may only have the ships of the Japan-based 7th Fleet to respond to such a crisis. One should expect that the PLA will take advantage of a U.S. inability to respond as part of its campaign planning. If all the U.S. Navy can mobilize is the 7th Fleet with its single carrier battle group, then U.S. will be severely challenged by the emerging PLA missile-air-submarine strike combine. The PLA may have the following anti-carrier assets by the end of the decade:

Potential PLA Anti-Carrier Forces by 2010 *

Submarines

12 or more Russian Kilo; 8 w/ CLUB anti-ship missile
10 or more SONG w/ Russian torpedoes
3 Type 093 SSNs; possibly with CLUB, Russian torpedoes
20 or so older MING

Modern Ships defending submarine areas

2+ No. 170 air defense destroyers
2+ No. 168 air defense destroyers
4 Sovremenniy destroyers
8+ Type 054 stealth frigates

Strike Aircraft

40+ Su-30MKK2; w/ Kh-31A anti-ship missile
70 or so Su-30MKK upgraded to MKK2 standard; w/ Kh-31A
50+ JH-7A; with Kh-31 and indigenous anti-ship missile
300+ J-11/Su-27SK w/ Kh-31A

* In most cases numbers are author estimates.

A single aircraft carrier has about 50 combat aircraft, which will progressively comprise the F/A-18E/F multi-role fighter plus a declining number of older F/A-

⁴⁶ Transcript, Defense Writers Group, Gen. William J. Begert, USAF, Commander, Pacific Air Forces, January 13, 2004.

⁴⁷ Ibid.

18Cs, over the course of this decade. While the F/A-18E/F is a capable aircraft, especially when later modified with new phased array radar, like the F-15C, it does not have capabilities that are decisively superior to the PLA's Sukhoi fighters. The Sukhoi has better maneuverability, slightly greater unrefueled range and the capabilities of their respective air-to-air missiles are too close for comfort. While the U.S. carrier fighters may benefit from better AWACS and information support, plus better training and tactical employment, the larger number of Sukhois is bound to overwhelm a single carrier air group. It is possible that as it gets within range, a single U.S. carrier will be more preoccupied with self-defense than much needed offensive missions to defend Taiwan. In addition, U.S. carrier air wings lost their S-3B VIKING long-range anti-submarine patrol aircraft in the late 1990s and will have to rely on more vulnerable land-based P-3 ORION ASW aircraft. In order to get close to the Taiwan Strait, the 7th Fleet will require long-range support from U.S. Air Force fighters in Okinawa, whose staying power is dependent upon AWACS and tankers which are vulnerable to attack. Support from Japanese F-15s could make a real difference, but it is not certain that Japan would commit its fighters to defending U.S. naval forces from the beginning of such a crisis.

CONCLUSIONS

The key conclusion of this testimony, and the larger report on which it is based, is that the PRC has been able to accelerate important components of military modernization through a sustained access to modern foreign military technology. This conclusion leads to another: for as long as the PRC threatens to use its military power to put key U.S. interests in danger, and proliferates nuclear and missile technologies, it is imperative for Washington to do its utmost to stem the flow of modern military technology to the PRC. Sustaining the 1989 Tiananmen embargoes forbidding the sale of U.S. weapons and dangerous military technologies is a first requirement. It is necessary for the U.S. to continue to look hard at dual-use items, like some helicopters, that the PLA could use to attack Taiwan.

Sustaining this embargo is critical if only to demonstrate to Europe that its rapidly evolving policies that may soon lead the removal of its arms embargoes will create yet another serious conflict with Washington. Europe has already significantly relaxed its prohibitions against sales of militarily useful technologies and Beijing is pushing hard for a complete end to the 1989 European Union embargo. Should this embargo end it is likely that the PLA will be able to create new arms industry alliances that will further accelerate its access to and use of advanced military technologies. Europe could be a source for new military innovation that for the long-term Russia may not be able to afford to sustain. The U.S. should develop both broad and specific warnings that if Europe decides to become the PLA's new military-technical supplier, that the U.S. will take appropriate measures to defend critical U.S. defense technologies, which may affect long-term European access to future U.S. technical innovation.

In addition the United States should make stemming the supply of critical defense technologies to the PRC a higher strategic priority. One success story in this regard has been the long-term U.S. dialogue with Israel to convince its leadership to stop its sale of dangerous military technologies to the PLA. It took a near crisis in U.S.-Israeli relations to make this point; the 1999-2000 confrontation over the sale of Israel's PHALCON AWACS system. While the U.S. should be grateful for Israel's eventual recognition and response to U.S. concerns, continued U.S. vigilance is warranted. Israel should also be reminded that its hope to use its arms trade with the PRC to seek to prevent its arms sales that might threaten Israel has not worked. While the PRC has not sold conventional weapons to direct confrontation states that now pose threats to Israel, the PRC's proliferation of nuclear and missile technologies to Pakistan, and subsequent Pakistani proliferation, is creating new threats to Israel.

Addressing the challenge posed by Russia also remains important. In 2002 the Department of Defense, in its annual report on PLA modernization, paid special attention to the PLA's relationship with Russia. By simply continuing to highlight both the extent and breadth of the PLA-Russian military technical relationship, the U.S. gives greater intellectual ammunition to those in Russia who may share American concerns. Granted, there are not many in the current Russian government who do share U.S. concerns. It is clear that in Moscow the interests of Russian weapons makers predominate, and their priority is to sell their wares. Nevertheless Washington and Moscow do have a long-standing interest in bi-lateral arms control and on occasion Russia can be persuaded to curtail sales of dangerous weapons. It is the U.S. interest to make Russia's weapons sales to the PRC a higher priority on Washington's agenda with Moscow. While Russia's democratic institutions remain fragile,

both U.S. officials and Members of Congress can reach out to convey an American concern.

Co-Chair WORTZEL. Thank you very much. Dr. Finkelstein.

**STATEMENT OF DAVID M. FINKELSTEIN
DEPUTY DIRECTOR OF PROJECT ASIA
CENTER FOR NAVAL ANALYSIS CORPORATION
CENTER FOR STRATEGIC STUDIES**

Dr. FINKELSTEIN. Many thanks to the Commission for the opportunity to be here today. In the short time that I have, I'd like to provide some contextual comments on where the PLA is going and why, and overall I would say that it's a fascinating time to be a student of the Chinese military. Starting in earnest in the early 1990s, the PLA put into motion an ambitious reform and modernization program that continues today.

Over ten years ago, acting upon its own assessments of the rapidly changing nature of warfare and China's changing security environment Beijing's military leadership came to the conclusion that the armed forces of China were ill-suited to cope with its future defense-related challenges.

The totality of what the PLA leadership hopes to achieve through its ongoing reform and modernization program is ambitious on two accounts: scope and scale. First, scope. The scope of reforms the Chinese defense establishment hopes to achieve cut across every conceivable facet of activity within that establishment, to wit, the development of new operational concepts and warfighting doctrines, the modernization of weapons as we just heard, the accrual and integration of state-of-the-art technologies, rethinking command and control relationships and their enabling architectures, the rectification of the armaments research and development system, and a host of institutional reforms, some of which I will touch on very briefly.

But this reform program is also very impressive in terms of scale. And in terms of scale, I'm not talking merely about the 2.5 million people who are in the PLA today. The scale of what China's top military leadership hopes to achieve is measured as well in terms of the intellectual, corporate, professional, and conceptual leaps that this massive defense establishment is being asked to make.

The officers and soldiers of the PLA are being told that business as usual will not suffice, that the old paradigms are bankrupt, and that entrenched local interests must and parochial equities be cast aside in order to bring the PLA into the 21st century.

What's driving all of this? Very simply two basic types of assessments that we do here in the U.S. as well, a capabilities-based assessment and a contingency-based assessment.

Very briefly, the capabilities-based assessment is that after studying military operations by foreign militaries over the last 15 and 20 years, the PLA leadership has simply decided that they are not capable of fighting the most likely type of war that they could face, which they refer to as "Local Wars Under Modern High-tech Conditions."

Now what is a local war under modern high-tech conditions? It has the following characteristics according to the PLA and it will

be very familiar to many of us. It's fought for limited political objectives, limited in geographic scope. It's short in duration but decisive in political strategic outcome. A single campaign may decide an entire war. It demands a high intensity OPs tempo based on mobility, speed and deep reach. It employs high lethality, high technology weapons causing high levels of destruction, it is logistics intensive, information and C4ISR intensive, and it will be fought in all of the battlespace dimensions and critically dependent upon high speed logistics and joint service operations.

Even if there were no Taiwan issue for the PLA to have to plan about, I would argue that the PLA would still be on the same general reform and modernization vector that it is on today simply because of this capabilities-based assessment, although the pace might be different.

But the reform and modernization program is also driven by their contingency-based assessments, and I won't spend a lot of time except just to list them. Clearly Taiwan and all that implies for a potential confrontation with the U.S. but also concerns about Japan, India, the South China Sea, maritime resources, border contingencies, even with North Korea.

Of note, all of these contingencies are maritime and maritime aerospace focused and intensive, and this is the battlespace dimension in which the PLA is currently and historically the weakest; hence, the emphasis that the PLA Navy and PLA Air Force is getting.

But as I wrap up this little section on contingencies, I would point out something that the Members of this Commission know, but which is always worth pointing out. It's simply this: After more than two decades of reform and opening up, China's economic center of gravity has shifted from deep in the interior where it was protected from an anticipated Soviet invasion to its gold coast. From Dalian in the north to Hainan in the South, China's economic center of gravity is on the coast, and China has not faced a littoral and maritime threat of this magnitude regardless of who they think the enemy is in many, many decades.

So they almost certainly would have to be on the vector they are on today. So what are they doing about this? Well, there is simply no road map or precedent in the PLA's past for what China's military leaders are seeking to achieve for its future.

And indeed the PLA itself used the term "transformation" quite a few years before we did here in Washington to talk about the end state. Almost nine years ago in order to begin to accrue over time the capability to fight the next possible war, Jiang Zemin, Chairman of the Central Military Commission, put forth the "Two Transformations" line for army building, which says that the Chinese armed forces will undergo a metamorphosis from an army preparing to fight local wars under ordinary conditions to an army preparing to fight local war under modern high tech conditions, and second, from an army based on quantity to an army based on quality. And a corollary that usually accompanies this formulation is that the PLA will metamorphasize from being personnel intensive to science and technology intensive.

Now, if you were to find three words that you could use to analyze everything going on in the PLA today, it would be these. First

weapons, second doctrines and third institutions. Weapons, doctrines and institutions.

Of these three pillars of PLA modernization, clearly it's weapons that gets the lion's share of attention among analysts, and in the domestic press and foreign media for various reasons. Without question, it's critically important to understand where the PLA is going in terms of weapons.

But at the same time, it's not the whole story. Military professionals understand there is simply no straight line from the acquisition of a new weapons system to a fielded capability that can be employed effectively. So we have to take a look at doctrine. We have to take a look at institutional reform.

And so in some concluding comments, let me just quickly go over some of the institutional reforms that the PLA is undergoing, which I find really impressive.

I might add that of all of the pillars of the PLA modernization, it's these institutional reforms that are very transparent. They are not secret. You spend enough time reading the Chinese newspapers, you'll understand just about everything going on in the way of institutional reform, at least on paper.

First, personnel reforms—the critical link. The PLA leadership understands that personnel reforms are the cornerstone of its transformation and it's one of its greater challenges. Officer accession policies are changing. In order to fight the high tech war of the future, the PLA needs a new high tech officer and they're trying to institute programs to get just such an officer.

They are establishing on campus officer recruitment programs. They have a National Defense Education Scholarship program, and they're aggressively trying to recruit into the officer corps high tech students with graduate degrees and even post-doctoral degrees. They are taking a very critical step in creating a new and professional non-commissioned officer corps, very critical for the capabilities of the PLA on the ground, and they are doing this in order to compensate for the recent decision a few years ago to reduce mandatory conscription down to 24 months and all that that entails for interrupting its training cycle. So a new NCO corps.

A new officer personnel management system. The new officer personnel management system is giving much more professional military education to officers at every level, platoon leaders, company commanders, and regimental commanders are all getting pre-command training.

We now have stabilization of assignments. We have minimum terms of assignment, maximum terms of assignment, in order to make sure that critical units are filled with qualified——

Co-Chair WORTZEL. I've got to ask you to summarize it up, if you could.

Dr. FINKELSTEIN. We could go through various other organizational reforms, the rectification of unit sizes, divisions down to brigades, flotillas being transformed into naval task forces, and military region air forces being re-looked now as to whether or not they're actually effective. These things will change.

At the end of the day, we'd also talk about doctrine where in 1999 an entire generation of operational guidance was thrown away and a new series, a new large corpus of operational doctrine

was issued to the PLA, basically changing its footing from combined arms, static operations to joint operations and a more mobile stance. Sustainability and logistics, the critical key link of the PLA and a historical challenge for them is being given a tremendous amount of attention.

So let me just say in conclusion that the PLA is demonstrating that it is a learning organization. They know what's wrong with the PLA. They're working to make the necessary adjustments. And it's likely going to take many years for the PLA to turn its aspirations into reality. I always like to point out that it took the U.S. military from about 1974 to 1990 to transform itself into the fighting force that conducted operations in Desert Storm. It takes time.

And those of us in the armed forces who lived through that metamorphosis understand all too well that it was a process that was slow, painful and dislocating for many. It would be a mistake to overestimate the ability of the PLA to enable all of its aspirations in the near term. At the same time, it would be equally mistaken to dismiss their ability to achieve their goals over the long haul. Steady, objective, empirical research by specialists is necessary more than ever to attempt to track the progress that's being made in all of these three pillars of PLA modernization.

Co-Chair WORTZEL. Thanks a lot. Dr. Medeiros.

**STATEMENT OF EVAN S. MEDEIROS, PH.D.
ASSOCIATE POLITICAL SCIENTIST, THE RAND CORPORATION**

Mr. MEDEIROS. Thank you. I want to begin by thanking Chairman Robinson, Vice Chairman D'Amato, and the two Co-Chairmen for today's session, Commissioners Ellsworth and Wortzel, for inviting me to speak today before the Commission.

I've been asked to speak about the capabilities of China's defense industries, the part of the Chinese economy that's devoted to the production of weapon systems and related technologies, and in many ways, this issue of China's defense industrial capabilities builds on the presentation of my colleague Richard Fisher. Both topics inform our assessments of the relative threat posed by Chinese military modernization.

The capabilities of China's defense industries have received far too little attention among the international community of China watchers in recent years.

Important changes have occurred since the late 1990s and these clearly deserve closer scrutiny. So let me begin by giving you my provisional bottom line on China's defense industries. In the last five years, China's defense industry has become far more productive than in past decades. Gone are the days of widespread inefficiency and a paucity of innovation in defense production.

Chinese defense firms have improved their R&D techniques, production processes and thus the quality of their output. These improvements have been gradual and incremental, but they can be expected to continue to accumulate in the future, assuming the Chinese economy continues growing. This is a critical assumption in any assessment of military modernization.

Let me be crystal clear about my argument. China's defense industry has not been completely renovated and is not now churning out global state-of-the-art weapons systems on par with major

Western nations. Progress has been mixed across the defense industry and numerous systematic weaknesses remain.

These continued problems should not be discounted. Rather my argument to this Commission is that it's high time to revisit the conventional wisdom about the capabilities of China's defense industrial complex. The focus of current research needs to include the gradual improvements and the current progress within China's defense industrial complex.

Over the last 20 years, one of the most prominent themes and consistent conclusions among international research on China's defense industrial complex has been the focus on the weaknesses and the limitations on China's defense production capabilities.

A new critical look at this issue is needed. The words of General Li Jinai, the Head of the China's General Armaments Department, uniquely testify to the importance of revisiting this topic. Quote: "There has been a marked improvement in national defense scientific research and in building of weapons and equipment. The past five years has been the best period of development in the country's history." Now let me outline some of the specific aspects of the overall trends. First of all, there have been some key policy changes implemented in recent years. In the late 1990s, for example, the government started to increase its funding for weapons procurement. From 1990 to 2002, the official defense budget allocation for weapons procurement grew from 5 billion RMB to 57.3 billion RMB. That's about a 1,000 percent increase over a 12-year period.

These increases are twice the rate of growth of the official overall defense budget. Also, the share of the budget devoted to weapons procurement increased from 16.3 percent in 1990 to 33.8 percent by 2002. But increases in funding for weapons procurement are just one part of the story.

An equally important aspect is the fact that the government finally adopted reforms, which indicate a recognition of the depth of the problems in China's defense industrial system and the failures of past approaches. Beginning in the spring of 1998, China's leadership initiated a new series of policies to reform the operation of the defense procurement system at the government level and, second, to restructure defense industries at the enterprise level of operations.

These policies initiated institutional changes in the management of China's defense industry in a way that outstrips past efforts in both scope and depth. These reforms also importantly began to influence incentive structures within the defense industry.

In addition, in my testimony, I've highlighted other factors that have influenced the ability of China's defense industries to improve their production capabilities.

How have these policy changes manifested themselves? How do we know that any of these policy changes adopted in the late 1990s have been important? Well, I think there are a few important indicators to examine.

Number one, the improvements are reflected in the improving financial situation of major defense enterprises within China and the deployment of new generation of weapons systems. In 2003, the overall revenue of China's defense industry was reported as grow-

ing by 18 percent while the total sales volume of manufactured goods and the added industrial output value grew by 25 percent and 20 percent respectively.

In 2000, Chinese defense industry officials noted that during that year for the first time the entire defense industry as an aggregate broke even for the first time. In past years, they used to run massive deficits in the range of three to five billion dollars per year.

But these changes in China's defense industry are evident not only in the gradual improvement of the financial health of the defense industry but also in the production of a variety of new weapon systems.

In particular, in the last three to four years, one of China's key shipyards has built four new 7,000-ton destroyers based on stealthy designs and with improved air defense and anti-submarine capability. The serial production of these modern vessels is a first for China's shipbuilding industry. The production of these four vessels also importantly utilized advanced modular production techniques that facilitated quick and efficient construction.

Other shipyards in China are producing newly designed conventional and nuclear submarines as well as a variety of auxiliary vessels for China's navy. China's aerospace industry has improved its ability to serial produce ballistic missiles. According to the 2003 U.S. Defense Department report on Chinese military capabilities, China now deploys around 450 SRBM short-range ballistic missiles opposite Taiwan.

This estimate reflects an increase in annual production of those SRBMs from 50 percent a year to 75 percent a year. Changes within China's defense electronics and IT sectors has also facilitated the modernization of China's C4I systems. The Chinese military is in the midst of a C4I revolution characterized by the wholesale shift over the last 20 years from a relatively insecure communications to digital secure communications via fiber optic cable, satellite, microwave and enhanced high frequency radio.

These successes are important and they deserve increased attention. However, it's also important to keep in mind that these improvements in China's defense industrial capabilities have not been universal. Many of the classic structural weaknesses persist in China's defense industry. Much more consolidation and rationalization needs to occur to make the majority of China's defense enterprises efficient, innovative and perhaps even profitable.

As with economic reform, in China's overall economy in the last 20 years or so, the successes in China's defense industry in the last few years have been gradual, uneven and mixed.

So, in conclusion, I would argue that a new paradigm is needed to analyze China's defense industrial capabilities. Much more research is needed to track these trends and most importantly to understand how fast and why these improvements have been occurring.

Further research is needed to determine the relative impact of the recent organizational reforms that I outlined previously on the output and operations of China's defense enterprises. Also, better metrics are needed to measure the relative benefit of civil military integration on the capabilities of China's defense enterprises.

As the PLA shifts away from purchasing complete weapon systems from foreign suppliers to requesting technology transfers from them, China's defense production capabilities will become a critical factor in the PLA's long-term effort to renovate its force structure.

Thus, the issue of China's defense industry is a crucial and increasingly important variable in the complex and evolving equation of PLA modernization. Thank you, and I'm willing to answer any questions related to my testimony.

[The statement follows:]

**Statement of Evan S. Medeiros, Ph.D.
Associate Political Scientist, The RAND Corporation**

***Analyzing China's Defense Industries
and the Implications for Chinese Military Modernization ****

I would like to begin by thanking Chairman Robinson, Vice-Chairman D'Amato and the two Co-Chairmen for today's session, Commissioners Ellsworth and Wortzel, for inviting me to speak today to U.S.-China Economic and Security Review Commission. I commend the Commission for holding today's hearing on trends in Chinese military modernization and the implications for cross-Strait political-military relations. These are issues that have a direct bearing on U.S. national security interests as well as those of U.S. friends and allies in the Asia-Pacific region. China's rise as an economic and military power in Asia raises numerous questions about the future prospects for stability in the region. These are questions well worth dedicating significant time and resources to answer.

I have been asked to speak on the capabilities of China's defense industry—the part of the Chinese economy involved in the production of weapons systems and related military technologies. This is an issue that The RAND Corporation has lately devoted effort to researching, especially in light of the organizational changes within the Chinese military and the continued growth of the Chinese economy in recent years. The capabilities of China's defense industry has received far too little attention among the international community of China watchers. Important changes have occurred since the late 1990s, and these deserve closer scrutiny.

Overall Trends

In the last five years, China's defense industry has become far more productive than in past decades. The defense industrial reforms implemented in the late 1990s, unlike the one adopted in previous years, were substantial and have positively influenced the quality of China's defense industrial output. Gone are the days of widespread inefficiency and a paucity of innovation in defense production. Chinese defense firms have improved their R&D techniques, production processes and, thus, the quality of their output. These improvements have been gradual and incremental, but they can be expected to continue to accumulate in the future, assuming the Chinese economy continues growing. China's defense firms produce a wide range of increasingly advanced weapons that, in the short-term, are relevant to a possible conflict over Taiwan as well as China's long-term military presence in Asia.

To be sure, my argument is **not** that China's defense industry has been completely renovated and is now churning out global state-of-the-art weapons systems on par with major Western nations. Progress has been mixed across the defense industry and numerous systematic weaknesses remain. These continued problems should not be discounted. Rather, my argument to this Commission is that it is high time to revisit the conventional wisdom about China's defense industrial complex; the focus of current research needs to include the gradual improvements and future progress of China's defense industrial complex. Over the last 20 years, one of the most prominent and consistent conclusions drawn from research on China's defense industrial complex has been the weaknesses and limitations of Chinese defense pro-

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duction capabilities.¹ A new look at this critical issue is needed. The words of General Li Jinai, the head of China's General Armaments Department, testify to the salience of revisiting this topic, "there has been a marked improvement in national defense scientific research and in building of weapons and equipment. The past five years has been the best period of development in the country's history."²

What is China's Defense Industry?

China's defense industry is comprised of 11 state-owned enterprises that, in one form or another, have historically always been involved in production of military goods. These firms cover the general industrial areas of nuclear affairs, aerospace, aviation, shipbuilding, ordnance, and electronics. The companies are:

- China National Nuclear Group Corporation (www.cnn.com.cn)
- China Nuclear Engineering and Construction Group Corporation (www.cnecc.com)
- China Aerospace Science and Technology Group Corporation (www.casgroup.com.cn)
- China Aerospace Science and Industry Group Corporation (www.casic.com.cn)
- China Aviation Industry Group Corporation I (www.avic1.com.cn)
- China Aviation Industry Group Corporation II (www.avic2.com.cn)
- China State Shipbuilding Group Corporation (www.cssc.net.cn)
- China Shipbuilding Industry Corporation (www.csic.com.cn)
- China North Industries Group Corporation (www.norincogroup.com.cn)
- China South Industries Group Corporation (www.chinasouth.com.cn)
- China Electronics Technology Group Corporation (www.cetc.com.cn)

Currently, these firms are not controlled by the Chinese military. Rather they are civilian entities under the authority of the State Council and its subordinate organ, the State Commission on Science, Technology and Industry for National Defense (COSTIND, *Guofang Keji Gongye Weiyuanhui*). These firms are contracted by the People's Liberation Army (PLA) to produce military items. China's defense industrial firms are completely different entities from the PLA-owned companies and factories (known as *jundui qiye* or military enterprises). The latter were set up and run by PLA authorities in the 1980s and 1990s until Jiang Zemin forced the PLA to divest from commercial business activities in 1999.³

Since the early 1980s, China defense industrial firms have diversified away from exclusive military production to producing civilian goods for domestic and international markets. This was an important part of Deng's Xiaoping's economic reform program which sought to lessen the defense industry's heavy reliance on government support. Current estimates of the amount of civilian production in each of the eleven large defense corporation ranges from 65% to 90% depending on the particular firm. Thus, even though these enterprises are officially considered by the government as defense industrial firms, they are also primarily involved in producing civilian goods and services, and thus are intertwined with China's huge civilian economy. In addition, there are a growing number of firms that do not belong to the eleven defense-industrial conglomerates (especially in the information technology (IT) sector) which produce goods under contract for the military. The line between defense industrial firms and civilian firms in China is increasingly blurred, which complicates analysis of the performance of China's defense industrial base.⁴

Salience of Examining China's Defense Industry

The salience of researching China's defense industrial capability stems from several considerations which are directly relevant to today's hearing. First, Chinese leaders are unlikely to have a long-term policy of relying primarily on imported weapons. The ability of China's defense industries to produce modern weapons, therefore, will be an important determinant of China's future military power. Second, understanding China's defense industrial capabilities is critical to answering questions about whether China has the ability to translate its growing economic re-

¹Bates Gill, "Chinese Military Technical Developments: The Record From Western Assessments, 1979-1999," as published in James C. Mulvenon and Andrew N.D. Yang, *Seeing Truth from Facts*, (Santa Monica, CA: The RAND Corporation, 2001.)

²Wang Wenjie, "Delegate Li Jinai Emphasizes: Grasp Tightly the Important Strategic Opportunity, Accelerate the Development By Leaps of Our Army's Weapons and Equipment," *Jiefangjun Bao*, 8 March 2003, p. 1.

³James Mulvenon, *Chinese Military Commerce and U.S. National Security*, (Santa Monica, CA: The RAND Corporation, 1997).

⁴For example, according to one Chinese report, military industrial enterprises produced 780,000 automobiles in 2003, about 19 percent of China's total motor vehicle production. "China's Defense Sector Expands in 2003," *Xinhua* (english), 5 January 2003.

sources into building a modern military.⁵ Third, China's defense output serves as an indicator of national technological progress. China's ability to overcome some of the perennial weakness of its defense industrial complex, such as systems integration and serial production of high-tech weapons platforms, may serve as a sign of a broader modernization in China's science and technology base.

Past Portrait of China's Defense Industry

For the past twenty years, the conventional wisdom has been that China's defense industry was broken, decaying and unable to meet the needs of a military in desperate need of modernization. For much of that time period, that assessment was correct. China's defense industry exhibited numerous weaknesses at all levels of the system, from government procurement to factory production. At the level of government procurement, decisions about which company would produce a particular item were made by administrative fiat or ministerial bargaining rather than through competitive bidding based on the relative capabilities of various manufacturers. As a result, defense producers had little financial interest in improving the quality of the weapons systems or the efficiency with which they manufactured or designed them. In such a regime, the ability to produce a quality product had a minimal relationship to the orders received or the profits generated.⁶

In addition to the lack of financial incentives for innovation, China's Soviet-designed approach to industrial organization also inhibited the supply of innovation. Under the Soviet model, R&D institutes were organizationally separate from the actual manufacturers. This feature was common, though not universal, in China's defense industry during the 1980s and 1990s. In addition, a hierarchical organizational structure discouraged the horizontal knowledge flows that are critical to technological progress.⁷ This knowledge flow problem was undoubtedly exacerbated by the extreme secrecy associated with defense production in China.

Other major problems exhibited by China's defense enterprises included excessive capacity, redundant personnel, inflexibility in hiring and firing, loss of quality personnel to the non-state-owned sector, incorrectly priced inputs, poor management practices, and the inefficient geographic distribution of industry due to a 1960s and 1970s policy of relocating defense firms to remote interior areas known as China's "Third Line" (*disanxian*).

The Chinese government's efforts in the 1980s and most of the 1990s to overcome these weaknesses was largely ineffective. Beijing relied on essentially two strategies: defense conversion and institutional reorganization. Both strategies, especially their poor implementation, failed to reform the operations of China's defense firms to make them more innovative and efficient. Defense conversion was a largely troubled process for most Chinese firms which found it difficult to convert easily their production infrastructure to producing civilian, commercial goods. Defense enterprises were hampered by legal constraints and difficulties in attracting foreign partners who could provide new capital, know-how and technologies. These problems were further exacerbated by the weaknesses in technology absorption capabilities, project management, and the technical skills of the labor force. As a result, many civilian goods produced by defense firms were low quality, uncompetitive and thus generated few profits.

Similar to China's experience with defense conversion, institutional reorganization was largely a cosmetic and ineffective pathway to substantial and sustained reform of China's decaying defense production capabilities. This approach involved a lot of changing of names and shuffling of organizational responsibilities but few of the systematic consolidation and rationalization measures needed to increase efficiency and bolster innovation.

The weaknesses of China's defense production capabilities over the last 20 years are reflected by two major indicators: (1) the technological backwardness of many

⁵ China's *willingness* to devote national resources to military modernization in light of pressing social and development burdens (e.g. unemployment, banking reform, SOE reform, etc.) is a separate but equally important question.

⁶ See John Frankenstein, "China's Defense Industries: A New Course?" in James C. Mulvenon and Richard H. Yang (eds.), *The People's Liberation Army in the Information Age*, (Santa Monica, CA: The RAND Corporation, 1999.) Jorn Brommelhorster and John Frankenstein (eds.), *Mixed Motives, Uncertain Outcomes: Defense Conversion in China*, Boulder, CO: Lynne Rienner Publishers, 1997; John Frankenstein and Bates Gill, "Current and Future Challenges Facing Chinese Defense Industries," *The China Quarterly*, June 1996, p. 394-427.

⁷ Wendy Frieman, "China's Defence Industries," *The Pacific Review*, 1999; John Frankenstein and Bates Gill, "Current and Future Challenges Facing Chinese Defense Industries," op. cit.; Frieman, Wendy, "Arms Procurement in China: Poorly Understood Processes and Unclear Results," in Eric Arnett, ed., *Military Capacity and the Risk of War: China, India, Pakistan and Iran*, (Oxford, England: Oxford University Press, 1997.)

of the systems produced in the 1980s and 1990s, and the long R&D and production timelines for most indigenously built weapons platforms; and (2) China's extensive purchases of major weapons systems from foreign countries. The history of China's defense industry is replete with examples of weapon systems with severe technological weaknesses and limitations. While many tanks, artillery, surface-to-air missiles, surface-to-surface missiles, surface ships, submarines, and air-to-air missiles entered service in the PLA since 1980, for the most part these new designs have been incremental improvements on earlier versions, which in many cases trace their lineage back to 1950s-era Soviet technology.

The Changing Shape of China's Defense Industry

In the late 1990s, the situation began to change. The government started to increase weapons procurement funding. From 1990 to 2002, the official defense budget allocation for weapons procurement grew from RMB 5 billion to RMB 57.3 billion. These increases are twice the rate of growth of the official defense budget. Also the share of the budget devoted to weapons procurement increased from 16.3% to 33.8% in this time period.⁸

Beyond increased funding for weapons procurement, the government finally adopted reforms which indicate a recognition of the depth of the problems in China's defense industrial system and the failures of past approaches. Beginning in spring 1998 during the 9th Meeting of the National People's Congress, China's leadership initiated a new series of policies to reform the operation of the defense procurement system at the government-level and, second, to restructure the defense industries at the enterprise-level of operations. These policies initiated institutional changes in the management of China's defense industry in ways that outstrip past efforts in both scope and depth. These reforms also importantly began to influence incentive structures in the defense industry.

In March 1998, the government abolished the military-influenced Commission on Science Technology and Industry for National Defense (COSTIND), which had been created in 1982, and replaced it with a strictly civilian agency of the same name but under the control of the State Council. The old COSTIND, which reported to both the State Council and the military, had been very heavily involved in decisions on R&D and the purchase of military equipment. The restructured COSTIND's responsibilities, resources and authority were substantially circumscribed. It no longer has a dominant role in decisions about PLA acquisitions of new military equipment or the direct management of defense industry enterprises. The restructured COSTIND, a shell of its former incarnation, is generally meant to function as the administrative and regulatory agency for China's major defense enterprises.

The second major organizational reform, following the "civilianization" of COSTIND, was the creation in April 1998 of a new general department of the PLA known as the General Armaments Department (GAD—*Zong Zhuangbei Bu*).⁹ GAD assumed the responsibilities for military procurement of the old COSTIND combined with the roles and missions of other parts of the General Staff and General Logistics Departments involved in weapons procurement. The responsibilities of GAD include the life cycle management of the PLA's weapons systems (from R&D to retirement) and running China's weapons testing, evaluation and training bases.¹⁰

The significance of the "civilianization" of COSTIND and the creation of GAD is twofold. First, these policy changes centralized China's military procurement system. Previously, responsibilities for PLA purchases were divided between numerous civilian and military organizations, each with distinct and conflicting interests. For example, COSTIND's former predominant influence in this process produced numerous inefficiencies. Second, the 1998 reforms separated the builders from the buyers. This organizational change further rationalized the procurement system and aimed to reduce conflicts of interest and corruption. GAD represents the PLA interests whereas COSTIND, as a civilian agency, now mainly handles industrial planning and the administrative affairs of defense firms.

In addition to these large organizational reforms, the government also adopted policies to streamline the weapons procurement process. In October 2002, Jiang Zemin signed an order promulgating and implementing a new set of regulations on military equipment procurement (*Zhonghua Renmin Jiefangjun Zhuangbei Caigou*

⁸"Chinese Defence Industry: Chinese Puzzle," *Jane's Defence Review*, 21 January 2004.

⁹The name of this organization has also been translated as the "General Equipment Department"; though the Chinese use the translation General Armaments Department.

¹⁰For an analysis of the GAD see Harlan Jencks, "The General Armaments Department," in James C. Mulvenon and Andrew N.D. Yang, *The PLA as an Organization v1.0*, (Santa Monica, CA: The RAND Corporation, 2003.)

Tiaoli).¹¹ These new regulations are meant to standardize, unify, and legalize the weapons procurement process.¹² The new regulations are also meant to accelerate the establishment of a competitive bidding system for PLA contracts, which was discussed in 1998 when GAD was formed.¹³ The degree of their actual implementation in the procurement system is unclear, however.

Enterprise-Level Reforms

Beyond procurement reform at the government level of operations, Beijing in 1998 also adopted far-reaching policies to alter the relationship between the government and defense enterprises to bolster incentives for efficiency and innovation. The central government's main goals were to separate the government from enterprise operations, to make them more market-oriented by exposing them to the pressure of competition, to provide harder budget constraints, to make them less reliant on state subsidies, and to lessen the classic social burdens associated with the work-unit (*danwei*) system.

There are preliminary signs these policies have been effective. In some defense sectors (such as aerospace and shipbuilding), limited competition over entire systems, key sub-systems or parts has emerged or intensified. Competition in the sale of civilian goods produced by some defense firms has been most obvious and is likely improving the efficiency and modernization of their production processes. Defense enterprises have also benefited from the formation and exploitation of partnerships with civilian universities and research institutes to improve educational training relevant to defense technology development. This is particularly true in the IT sector. A limited amount of defense industry rationalization has occurred in recent years as well, though much more is needed given the large inefficiencies and redundancy still prevalent in the defense sector. Factories have either been closed down or transferred to provincial authorities. According to one source, 20% of the entire defense industry's workforce (estimated at between 2.5 and 3 million) have been laid off.¹⁴ Furthermore, COSTIND and GAD have been effective at promoting R&D and production cooperation among defense enterprises located in various provinces. In the past, certain defense industrial sectors (such as the aviation industry) extensively relied on single source suppliers which contributed to inefficiency, redundancy, and high degree of insularity.

Growing access by Chinese firms to foreign weapons technologies (i.e. know-how and production technologies) is an additional variable. It has facilitated improvements in Chinese defense production capabilities. Aviation co-production with the Russians have helped Chinese aviation enterprises expand their knowledge of manufacturing fourth generation aircraft. The Israelis have provided assistance with avionics and air-to-air missiles; and the French have assisted with the development of air-to-air and surface-to-air missiles.

Some defense industrial sectors (such as shipbuilding and aviation) have also benefited from the access to foreign investment and foreign commercial technologies facilitated by joint-venture business activities. They have leveraged this commercial cooperation with foreign firms to renovate their production infrastructure and to modernize their operations. Other reforms worth watching include the use of capital markets in China and Hong Kong to generate funds which could conceivably be used for defense projects;¹⁵ and reform of the ownership structures of the large 11 defense industrial enterprises to increase incentives for efficiency and innovation.

Status Report on Defense Industry Output

The above reforms combined with the sustained increase in procurement funding has led to a leaner and more capable defense industry in China. These improvements are reflected in the improving financial situation of major defense enterprises as well as the deployment of new generations of weapons systems. In 2003, the over-

¹¹In 1990, the Central Military Commission issued "Work Regulations for the Management of Weapons and Equipment." Since then, additional regulations have proliferated. Chinese media announced the promulgation of the new rules but have not made them publicly available. "Central Military Commission Chairman Jiang Zemin Signs Order Promulgating and Implementing Chinese People's Liberation Army Equipment Procurement Regulations," *Xinhua*, 1 November 2002.

¹²For research on China's past procurement processes see Ravinder Pal Singh, (eds.), *Arms Procurement Decision Making: China, India, Israel, Japan, South Korea and Thailand*, Stockholm International Peace Research Institute, (Oxford, United Kingdom: Oxford University Press, 1998.)

¹³"Government Procurement Again Recommended at NPC," *Xinhua*, 8 March 1999; *Jiefangjun Bao*, 9 February 1999, p. 6.

¹⁴"Chinese Defence Industry: Chinese Puzzle," *Jane's Defence Review*, 21 January 2004.

¹⁵Currently, over 30 Chinese firms linked to the defense industry are listed on Chinese stock exchanges.

all revenue of the defense industry was projected to grow by 18%; while “the total sales volume of manufactured goods and added industrial output value” were projected to grow by 25% and 20%, respectively.¹⁶ COSTIND officials declared last year that in 2002 the defense industry (as an aggregate) broke even for the first time. By contrast, in the 1990s, China’s defense industry annually ran deficits in excess of RMB 3–5 billion (US\$375–\$604 million).¹⁷ While these are official Chinese statistics of unclear reliability, they offer a general guide to the improving economic condition of China’s defense industry as a whole. However, the economic performance of the 11 enterprises in the defense industry vary considerably. Some generate significant profits while others accrue major losses.

The changes in China’s defense industry are most apparent in the military output of key defense enterprises.¹⁸ In the last two years alone, Chinese defense factories have produced a variety of new weapons systems based on novel Chinese designs. Many are highly capable weapons platforms. The development of these weapons importantly reflects improvements in R&D techniques, design methods and production processes, especially compared to the 1980s and 1990s. Not only are the new systems more advanced, but China’s production of them is faster and possibly more efficient.

China’s shipbuilding industry has been at the forefront of this trend. In the last 3–4 years, the Jiangnan Shipyard in Shanghai has built four new 7,000-ton destroyers based on stealthy designs and with improved air defense and anti-submarine capabilities. The serial production of these modern naval vessels is a first for China’s shipbuilding industry. The construction of these destroyers occurred at an unprecedented rate compared to the two *Luhu* destroyers China built during the entire decade of the 1990s. The production of these four vessels has also importantly utilized advanced, modular production techniques that facilitate quick and efficient construction. Their designs may also facilitate easy modernization of their weapons capabilities in the future. According to news reports, an adjacent shipyard in Shanghai is also producing four new frigates based on a new design and with improved weapons capabilities.¹⁹ Other shipyards are producing newly designed conventional and nuclear submarines as well as a variety of auxiliary vessels for the Chinese Navy. According to the 2003 Department of Defense (DOD) report on Chinese military capabilities, China’s Song-class conventional submarine “has several features that point to a major shift in diesel submarine design philosophy” such as the use of a skewed propeller.

China’s aerospace industry has improved its ability to serial produce short-range ballistic missiles (SRBMs). According to the 2003 DOD report, China has now deployed around 450 SRBMs opposite Taiwan. This estimate reflects an increase in the annual production rate of SRBMs from 50 per year to about 75 per year. The accuracy and lethality of these systems is improving as well. China is moving towards satellite-aided navigation for some SRBMs which would boost substantially their accuracy. Parallel research on new conventional warheads for these missile systems would increase their destructiveness. China is continuing to make progress on the development of a land attack cruise missile. The aerospace industry has also built anti-ship cruise missiles comparable to the U.S. Harpoon. The capability of China’s aerospace industry is further evident in the production of higher quality satellites. In recent years, the military started shifting from relying on state-owned civilian satellites to a constellation of military-dedicated satellites for navigation, communications and reconnaissance.

The modern capabilities of China’s defense electronics and IT sectors has facilitated the modernization of PLA’s command, control, communications, computers and intelligence (C4I) systems. The Chinese military is in the midst of a C4I revolution, characterized by the wholesale shift over the last twenty years from relatively insecure analog communications to digital, secure communications via fiber optic cable, satellite, microwave, and enhanced high-frequency radio. Specifically, the PLA has:

- laid thousands of kilometers of buried fiber optic cable connected by modern switches and routers, extending high-speed, secure communications to nearly every unit in the force;

¹⁶ “China’s Defense Sector Expands in 2003,” *Xinhua* (english), 5 January 2003.

¹⁷ “Chinese Defence Industry: Chinese Puzzle,” *Jane’s Defence Review*, 21 January 2004.

¹⁸ For details on improvements in PLA capabilities see, *Annual Report On The Military Power Of The People’s Republic Of China*, U.S. Department of Defense, Report to Congress Pursuant to the FY2000 National Defense Authorization Act, 28 July 2003.

¹⁹ Yihong Chang, “China Launches Second Guided-Missile Destroyer,” *Jane’s Defence Weekly*, 5 November 2003.

- deployed large computer network intranets on this fiber backbone, dedicated to operational command and control, training, logistics, finances, and education, among other subjects;

In the future, the PLA will continue to build an infrastructure that is increasingly digital, automated, encrypted, faster, secure, and wider in terms of bandwidth.²⁰

The pace and depth of these advances cannot be explained by traditional Chinese defense-industrial dynamics, but instead spring from a paradigm known as the “digital triangle,” which resembles a classic techno-nationalist strategy, with high-level bureaucratic coordination and significant state funding. The three vertices of the “digital triangle” are (1) China’s booming commercial information technology companies, (2) the state R&D institute and funding infrastructure, and (3) the military. For the PLA, the “digital triangle” offers great gains in some crucial information technology areas, but the operational impact is uncertain. The introduction of secure communications, for instance, has likely improved communications and operational security, but the impact of these systems on actual warfighting performance cannot be known with absolute certainty prior to conflict.²¹

Uneven Progress

These improvements in China’s defense industrial capabilities have not been universal. Many of the classic structural weaknesses persist in parts of the defense industry. Much more consolidation and rationalization needs to occur to make the majority of China’s defense enterprises efficient, innovative and, perhaps, even profitable. As with the economic reform of much of China’s overall economy in the last twenty years, the successes in the defense industry have been gradual, uneven, and mixed.

Some of the best performers among defense enterprises have been the two aerospace conglomerates, the two shipbuilding conglomerates, and defense electronics firms. Nuclear industry and ordnance industry enterprises have long suffered losses. China’s aviation industry, for example, has experienced some successes in recent years with the production and deployment of military platforms such as the JH-7 (FBC-1), the J-10 (F-10) multi-role aircraft and the Su-27 project with the Russians. Yet, the first two planes have been under development for 20 years. In addition, China aviation industry still can not produce a turbo-fan engine or advanced fire-control systems for its newest fighters. Many of the aviation platforms China is now building and deploying still utilize foreign imports for the most crucial subsystems such as propulsion, avionics and fire-control. In the aerospace industry, Chinese firms have been slow to produce a highly capable air-defense system, relying on imports from Russia. China’s most capable naval air-defense system under development, the HQ-9, is a Chinese version of a Russian system. As many scholars have noted before, systems integration remains a weaknesses for Chinese defense enterprises, though the advances noted above suggest that progress is being made on this issue.

Conclusions and Implications

A new paradigm is needed to analyze China’s defense industrial capabilities. The PLA has increased funding for weapons procurement from domestic defense enterprises. At the same time, the government initiated a slate of unique reforms to renovate this long-moribund and decaying part of China’s economy. The newest defense industrial reforms, in contrast to the multiple failed efforts of the 1980s and 1990s, have brought about changes in institutions and incentives at both the government- and the enterprise-levels of operation in China’s defense industrial system. These policy changes have produced successes as the financial health of defense firms improves. Certain defense industrial conglomerates are no longer operating at a net annual loss, according to official numbers. Chinese defense factories have begun producing a modicum of new weapons systems and platforms that represent qualitative improvements from past years. The truncated production cycles and use of more modern production processes are equally important advances in defense industrial capabilities.

Much more research is needed to track these trends and, most importantly, to understand how fast and why these improvements are occurring. To be sure, some of these trends are a result of the fact the government is throwing more money at the problem. As procurement funding goes up, key problems, such as resources constraints and bottlenecks, get resolved. Similar phenomena have occurred in defense

²⁰ James Mulvenon, “The Digital Triangle: A New Defense Industrial Paradigm,” in Kent H. Butts and Edward L. Hughes, *Economics and National Security: The Case of China*, (Carlisle, PA: U.S. Army War College, August 2002.)

²¹ James Mulvenon, “The Digital Triangle,” op. cit.

industries around the world. Yet, further research is needed to determine the relative influence of the recent organizational reforms on the output and operations of China's defense enterprises. Also, better metrics are needed to measure the relative benefit of civil-military integration on the capabilities of defense enterprises.

China's defense industries will increasingly play a pivotal role in the future direction and military competence of the PLA. As the PLA shifts away from purchasing complete weapons systems from foreign suppliers to requesting technology transfers, China's defense production capabilities will become a critical factor in the PLA's long-term effort to renovate its force structure. Thus, the issue of China's defense industry is a crucial and increasingly important variable in the complex and evolving equation of PLA modernization.

Panel III: Discussion, Questions and Answers

Co-Chair WORTZEL. Thank you. I really appreciate the three of you. We've had a great overview of weapons, of how you get the people to use them and the doctrines to fight with those weapons and how you develop an indigenous war production capacity for modern times, and I appreciate you all doing that.

I'm just going to move from my right to my left and give each of the Commissioners an opportunity to ask some questions, and here again there's going to be five minutes for question and answer and the red light there will let you know when that five minutes is up.

Commissioner BRYEN. Thank you, Mr. Chairman. I have a small question and a big question. I'm not sure which is which, so I'll start with the small question. It seems to me that in context of the modernization of the Chinese forces, it's fairly evident the Chinese are modernizing their forces and they are to a certain extent reflecting on the kind of network centered warfare ideas and other ideas that the U.S. has developed.

I think to a certain extent they're awfully vulnerable as a nation, not just the gold coast, but the fact is, they are increasingly dependent for their survival on energy supplies that have to come from the Middle East. So I don't see yet—and I wonder if you'd comment, and maybe I'm wrong—where China can be regarded as anything like a super power because without the ability to protect its flanks, particularly its energy supplies, I think they're a mess. So I'd like to get your comments first on that.

Dr. FINKELSTEIN. If you don't mind, I think what you've put your finger on is the basic dichotomy that is China. If you work and play in the Chinese military and security realm, you cannot help but be struck by how proactive their foreign policy is, how much of a presence they have around the world and how much real progress they're making in military modernization, and I think that's a pretty legitimate assessment.

At the same time, you have a China that is, as you said, dependent upon energy, a net oil importer for quite some years now, that is becoming more and more integrated into the world economic system, that requires a lot of FDI. But even more so I would say that there are a good number of internal issues inside China itself that most don't pay enough attention to as well.

After 20 years of reform and opening up, the social dislocations attendant to economic modernization are catching up with the party. All of the easy fixes have been made. There are all sorts of reports of unrest, attacks on the party out in the countryside, vil-

lages refusing to pay taxes. We have a floating population some estimate in untold millions or more.

So what you're putting your finger on is the basic contradiction that we have when we look at China, externally putting out a very strong face, internally a lot of problems, and the party knows that.

Commissioner BRYEN. Let me go to the second part of my question. This may seem unlinked, but they're linked in my head anyway. It seems to me the approach that we're taking to deal with China's military modernization of trying to convince the Europeans not to sell technology, while we're selling them tons of technology, has its natural limits. Let's put it that way.

And I think we've already reached those natural limits in many respects, and I think it's a foregone conclusion. It's only a matter of how many months on which side of the ledger that China is going to be able to modernize its weapons systems as it wants to.

This sort of implies then what do you do about that? Where do you go? Do you just build up your own capabilities? I don't think we're going to do that. But the proposition I want to put on the table is, don't you then build alliances and develop assets that can counter those kinds of developments?

For example, we should sell to India, for example, lots of high technology and weapons systems. I happen to support that idea as a way of counterbalancing it. That we should convince the Japanese, for example, to spend more on their defense and to expand the circle of their defensive capabilities. This is kind of a containment approach to what is obviously going to become a challenge from China. I'd like to get your comments on that.

Mr. FISHER. Well, Commissioner Bryen, I'd like to take a stab at that. I find some of your arguments compelling; others I would care to disagree. I think that it remains imperative that the United States try to stop the sale of advanced specific weapon systems. If the PLA had succeeded in purchasing the Falcon phased array radar intelligence jamming system, that would have constituted an enormous shift in physical capability.

Once they'd absorbed it, put it into practice, it would have made a very big difference. It's a system more advanced than our airborne radar systems. And stopping that was a good deed.

Commissioner BRYEN. We all agree on that. I think the point I was making is a different one—that they're going to get there sooner or later, so let's worry about how we're going to deal with them when they get there.

Mr. FISHER. I would definitely like us to be out in front and transformed and ready to go, but if we allow alliances such as the insipid allowance between EADS and AVIC-II indicated by the EADS purchase of an IPO issued by AVIC-II last October, then we may not win the race, we may not be able to play enough. We may not be able to invest fast enough to stay far enough ahead in order to continue to deter.

I think we still have to make the point that even these alliances as they develop pose harm and that we should state that.

Commissioner BRYEN. Anybody else on this? I think we're still talking past each other. The point that I'm trying to focus on is we can try to do it entirely by ourselves, which will not succeed. It won't succeed. We're too far away. We have lots of problems. If we

get tied up in Iraq or in the Middle East or in Afghanistan for a long time, we have very limited resources. So what we need are allies. And they have to be strong ones. So those that aren't strong that could be made strong is a way of getting more deterrence.

And the whole game here is deterrence. And I think we have kind of a tunnel vision, and we have to have—actually, I think the Administration is beginning to see this and particularly with respect to India and is improving its posture in that regard—and we have to improve it more. That's the point I was trying to get at.

Co-Chair WORTZEL. Commissioner Dreyer and, by the way, if as you get ready to revise any of your testimony, you want to respond in writing to Commissioner Bryen, we would appreciate your thoughts, and I'll give you some more time to digest that.

Commissioner DREYER. A quick question for Dr. Medeiros and then a less quick question for all of you. Dr. Medeiros, you've done an excellent job of describing defense industries which have been improving incrementally and which can be expected to continue improving. And of course you very carefully linked that continued development to the caveat of the development of the economy in general.

I am wondering, since we also see frequently references in the Chinese press to serious corruption that continues to worsen Hu Angang is estimating that corruption reduced the GDP by 16 percent of GDP every year and it's getting worse. Is the defense industry exempt—of course it couldn't be entirely exempt—but is it doing better in terms of efficiencies than Chinese industry in general?

It's also an industry which I imagine has some of the problems that state-owned industries in general have. Could you compare it to the other state-owned industries? Are they managing to do a better job with corruption? Are they managing to do a better job with efficiency?

Mr. MEDEIROS. Thank you. It's a very important question but also a very difficult one to have specific empirical data on. Most of what I know about corruption in the defense industry is anecdotal. My understanding is that the defense industry, in particular, had been rife with corruption for years. The long-standing secrecy surrounding defense procurement in China likely contributed to the high level of corruption; there was probably very little scrutiny of major deals outside the military. As a result, corruption was one of the reasons that the procurement system was so inefficient; the military was forced to buy weapons systems that it didn't need and often didn't work well.

But ultimately the point of the reforms that were adopted in 1998, the reforms I talked about in my testimony, were to eliminate the prevalence of corruption. The most important steps included a series of reforms including the civilization of the Commission on State Technology, Science and Industry for National Defense, and the creation of the General Armaments Department. The point was essentially to create a situation where there were far fewer incentives and opportunities for corruption. These reforms also sought to standardize, legalize and regularize the procurement process and take it out of the hands of corrupt officials. Such reforms will take much time given the resilience of the Chi-

nese bureaucracy to change. These Chinese have started to move in the right direction.

The Chinese government recognizes that the defense industry was rife with corruption that was partly to blame for why they've had so many difficulties producing high quality weapons systems and they've sought to change that, but like with much of the Chinese economy, it's going to take time.

Commissioner DREYER. But at least you see it going in the correct direction?

Mr. MEDEIROS. Well, the policies that they've implemented reflect a recognition of the problem and an attempt to solve it, whether or not there's real traction there, I don't have any empirical data on that per se.

Commissioner DREYER. Thank you. And then for anybody and all of you, this has been a really, really interesting presentation in terms of the hardware and the aspirations toward better training and a more science and technology oriented officer corps and so on. But there are a couple of questions hanging out there.

One of them is that conscription term is now shorter, as the weaponry gets more technologically sophisticated, and the training methods get more sophisticated. To what extent might this constrict the PLA's efforts to produce a better force? A second part of my concern is the matter of loyalty and morale, two separate questions but interrelated.

We've seen tremendous efforts to train a more loyal force. To what extent is this succeeding? What about a force with high morale? We've noticed concerns about this within Jiefangjun Bao in the past. I haven't seen any recently, but that doesn't mean they're not happening. It may just mean that the government has decided that the paper can't talk about them anymore. So if you would please address those.

Dr. FINKELSTEIN. Let me take at least part of that and then leave some time for Rick and Evan. You hit the nail on the head, Commissioner Dreyer. Conscription used to be, as you know, I know you know, four years for the Air Force, Second Artillery and Navy and three years for the ground forces. That was the old conscription system.

The new conscription system is 24 months for all the forces. You can imagine the chaos this puts a unit training regimen through. As we know, conscription usually takes place at the same time every year.

So in order to compensate for that problem at the grass-roots level, that's why this NCO corps program was put into place, and this is a very arcane system, but for those of us who have been out on the ground, I mean the NCO corps is really the key to your technical proficiency, to your sustained knowledge, to your ability to work through the conscription cycle and have people who understand what's going on continue to move through.

And the regulations are very public. I know you've probably had a chance to look at them or if you haven't, you know where to get them. They've got it right. They've got it right. They know at least on paper what they need to do to create an NCO corps to have full 30-year military careers, to help them get through this current training/conscription dichotomy.

And by the way, anecdotally, a lot of people ask, well, why would the PLA want to go to a 24-month conscription system because it plays havoc on their training. Well, the fact of the matter is, and again this dichotomy of China, the PLA didn't want that. This was imposed upon the PLA, one hears, by the National People's Congress. Why? Because after all of these reforms in the economy, and the iron rice bowl being broken and the peasant farmers being told they're no longer going to be subsidized by the state, there was an outcry at the grass-roots level that we, the farmers can't afford to give up our only sons for three and four years. Do something about it.

So there was pressure from below at the NPC level to change the national conscription laws. Again, on one hand, pressures building sociologically from the bottom. At the time, the PLA being able to adjust by putting into place this very nascent NCO program that's only been around for a couple of years now.

Mr. FISHER. I would only add, Commissioner Dreyer, that the challenge of the complexity of new weapons and technology is being met in part by new training technologies that are better and being made more widely available. One can just peruse the PLA press and see all kinds of references to online training systems, online this, that. Morale in part, I would say, is being at least bolstered in some areas by the increasing availability of online education, something that has certainly taken off here and is being made increasingly available in my opinion to members of the PLA as well. It's something that has to help in terms of convincing a soldier to continue to invest in their PLA career.

Commissioner DREYER. Thank you.

Co-Chair WORTZEL. Commissioner Robinson.

Chairman ROBINSON. Thank you, Mr. Co-Chairman. I think all of you have succeeded in describing here a robust offensive military build-up underway by China. Its frontline systems, be they the KILOs, the Sukhois, the SOVREMENNIYs, others of these capable systems, pose an increasing and very real threat to our carriers or carrier battle groups. And also, of course, on the strategic side, China mobile ICBMs, the DF-41, others, and their submarine-launched ballistic missiles pose a threat to the continental United States.

So I think it's been an eye-opening session. I'd like to change gears a bit and ask Mr. Fisher and Dr. Medeiros in particular if they think that it would be useful under these circumstances for the Commission to determine the identity of Chinese enterprises traded on the U.S. and Hong Kong stock exchanges that are part of, or linked to the Chinese military industrial complex? I'm thinking parent companies, affiliates, subs, whatever it may be.

These entities may be in the process of being unwittingly underwritten by American investors. Do you think that these kind of corporate linkages, even though you're not experts in the financial field, would nevertheless represent a potentially material risk to investors that should properly be disclosed so that at least investors are aware of these linkages? So I put that question to the two of you, if I might.

Mr. FISHER. Mr. Chairman, I would go even further and suggest that the Commission link the issues of material risks to physical

risks. I offer the example last October of the European aerospace consortium, EADS, purchasing a large chunk of an IPO issued by AVIC-II, the second large PLA controlled aviation missile consortium.

EADS and other European companies, Agusta, already have a long-standing relationship with companies in AVIC-II. In April of last year, we're led to believe that the first modern capable attack helicopter produced by the PLA was tested and now continues to be in testing. This attack helicopter was made possible by technology sold by Agusta in Italy and very likely Eurocopter in France.

Such linkages not only need to be exposed, but they need to be exposed for what harm they can bring. An attack helicopter on the Taiwan Strait is a threatening thing. I blanch at the thought of a swarm of locusts of Z-10 attack helicopters raging up and down the Taiwan Strait like reusable cruise missiles, each firing very precision guided, European or Israeli assisted wire-guided or laser-guided missiles.

It's a very troubling thing. And we could be in receipt of those weapons. They could be attacking American forces coming to assist Taiwan at some point possibly in the not-too-distant future. We need to expose these linkages and we need to call them what they are.

Chairman ROBINSON. Dr. Medeiros, do you have anything on that?

Mr. MEDEIROS. I think I'd strike a little bit more of a cautious tone than my colleague Rick Fisher. Certainly it's an issue worth looking into and it's something I've explored a little bit, and I do know that there are a wide variety of defense industrial, what the Chinese call defense industrial enterprises, that trade on Chinese exchanges, on the Shenzhen Exchange and the Shanghai Exchange. But whether or not any of their shares are actively traded on U.S. or Hong Kong exchanges, I'm not aware of that.

Chairman ROBINSON. They are.

Mr. MEDEIROS. They are. Okay. I think it would be interesting to look into it to see if their use of Hong Kong or U.S. exchanges could actually be used to force a degree of transparency into the financial dealings and the operations of particular defense industry enterprises because they tend to be so opaque.

The Chinese are very good at hiding the financial operations of these defense industrial enterprises and perhaps through IPO mechanisms or dealing with investment banks, it could be a tool for getting them to be a little bit more transparent.

I would just encourage the Commission to keep a very important context in mind about Chinese defense industrial enterprises which is while the Chinese government calls them defense industrial enterprises, somewhere between 60 and 80 percent of their output is for commercial civilian purposes, and many of these companies such as AVIC-I or AVIC-II are companies that big American companies like Boeing regularly deal with, and so this raises major issues, major implications for big trade projects between the U.S. and China and then it's just important to keep that context in mind when exploring this particular issue.

Chairman ROBINSON. Right, and that's why we're talking about it only in a risk- and disclosure-oriented context which I would assume you would support?

Mr. MEDEIROS. Sure.

Chairman ROBINSON. Thank you, Mr. Co-Chairman.

Co-Chair WORTZEL. Commissioner D'Amato.

Vice Chairman D'AMATO. Thank you, Mr. Chairman. First of all, I want to congratulate the panel on your testimony, and I particularly want to thank Mr. Fisher for the paper that you've done for us. I read it, and I think it's very, very interesting. I would like to include that paper in the record of our hearing.

Chairman ROBINSON. Absolutely, and I want to join the Vice Chairman in offering our collective gratitude to Mr. Fisher. That was a very fine piece of work.

Vice Chairman D'AMATO. There was one area in there that I've had a particular interest in that the Commission mentioned in our report last year in passing, and that has to do with the Israeli relationship. Obviously, we encouraged the Israelis to get involved with the Chinese during the Cold War. They obliged us. Got involved with the Chinese and did very well, as the Israelis would, probably too well, and we then faced the problem of Israeli industries becoming dependent financially on the China market. The numbers apparently do not reflect the importance of the technologies that the Israelis have transferred.

There are large numbers with regard to the Russians, but in many cases that technology isn't in the same ballpark as what the Israelis are providing. And in a sense, the Israeli practice is to provide technology that looks suspiciously like U.S. technology. We face modified forms of U.S. technology in a threat environment.

I think the F-10 can be easily described as the Lavi, but prior to that suspiciously looks a lot like the F-16. So for us, for our American forces in the Far East to face F-16 like equipment, you know, is an irony that we would rather avoid.

You say that Israel apparently has stopped its military exports to the PRC. I understand that we intercepted the AWACs like Falcon system, which of course is technology that should never have even been contemplated being sold to the Chinese. Is this true also in terms of the other two systems that you mentioned, the Lavi and the Harpy? Has that relationship terminated?

Mr. FISHER. To my knowledge, Commissioner, the technology transfer that was underway to support the Lavi program has reached a point where the Chinese have what they want and they've built a fighter. They're modifying it, making a twin-seat version. And they've had this Israeli source technology for over a decade now and they've combined it with inputs from Russia and areas that they've made on their own, and they've created this mishmash called the J-10.

Whether there is continuing support for whatever Israeli content exists of the J-10, I don't know for sure. But as regards the Harpy, it's my understanding that they bought a large number and that was that. There is the sale. One could imagine that there might be continuing logistical training, whatever sorts of support for that, and it's my hope that as part of the commission that was formed between the United States and Israel, I believe in 2000, late 2000—

2001, to examine these issues that we are pursuing these kinds of questions with Israel.

I completely agree with the thrust of your comments that continued vigilance is necessary. Just in late December Barbara Opel with *Defense News* produced a very interesting report that to the effect that Israel was considering refashioning its military technical sales relationship with China to focus on more acceptable areas, such as counterterrorism. I read that and thought, well, you know, a counterterrorist one day can be a special operator repelling down the side of Taiwan's Presidential palace the next day.

So a continued vigilance is necessary, but I am impressed with the degree to which both the Clinton Administrations followed on by the Bush Administration has addressed this issue with Israel, engaged in a dialogue, made requests of our Israeli allies, and increasingly or largely they have responded to our requests in a fashion that is far and above whatever dialogue I know of with Russia, which is not much, and the Russians never listened to us to begin with. I'll stop there.

Vice Chairman D'AMATO. Right. Well, of course, we don't have a technology transfer program with the Russians the way we have had with the Israelis either. Of course, I think to the extent that it is credible that we are turning off the Israeli relationship, it makes it easier for us to restrain the European Union states from going forward with their dialogue for renewed sales after the Tiananmen sanctions.

Mr. FISHER. It certainly creates a precedent within the policy community here in Washington for doing so.

Vice Chairman D'AMATO. Yes.

Mr. FISHER. And I would strongly support very high vigilance in regards to European weapon sales intentions in the near future and identification and high level dialogue with the European capitals to prevent their lifting of their embargo.

Co-Chair WORTZEL. Commissioner Ellsworth, we've been just going down the line, so we'll go to you.

Co-Chair ELLSWORTH. Well, it just occurs to me to ask whoever knows when somebody—let's say France, just for example—sells some high tech militarily useful thing or system to China, is there a high financial reward for doing that beyond what the normal arms transaction price would be, or is it just a regular transaction designed mainly to keep the production line going, if anybody knows?

Mr. MEDEIROS. Could you specify a little bit more what you mean?

Mr. FISHER. Are you referring to corruption?

Co-Chair ELLSWORTH. No, no, I'm not referring to corruption. I'm just referring to, okay, sell a destroyer or a PT boat or a helicopter to China. Is there a premium that you get from China for making your high technology available to them now rather than forcing them to develop it over a period of ten or 12 years? Or do you just get the same price as you would if you sold it to Peru?

Mr. FISHER. Well, a sale, the Chinese usually insist on a transfer of as much technology knowledge.

Co-Chair ELLSWORTH. And do they pay extra for that?

Mr. FISHER. They certainly do, and the real payoff for the seller, Commissioner, in my opinion, is the ability to take profits across—whatever profit they can get and then reinvest it into their own defense industry to help them make the next weapons.

Co-Chair ELLSWORTH. Well, I'm not worried about what profits they get. I'm not worried about what they do with the profit. You can do a lot of things. But I am interested to know if there is an extra incentive in today's arms market for selling to China, if you know?

Mr. FISHER. The incentive is to try to get—for Europeans, the incentive is to try to get into that market and corner it as much as they can, as early as they can, because they believe that there is a large future in sales of military technologies and military systems.

Co-Chair ELLSWORTH. Are you suggesting that a European arms merchant might give the Chinese a discount just so that he can get his foot in the door?

Mr. FISHER. Well, from what I know of this world, it's a shady, slimy—

Co-Chair ELLSWORTH. In other words, we don't know. Thank you.

Co-Chair WORTZEL. Commissioner Mulloy.

Commissioner MULLOY. I don't know whether you folks were here this morning when we had the panel on Taiwan. I think I got the impression that the concern you raise about what the Chinese are getting militarily to enhance their capabilities is somewhat tied to the fact that we have this defense obligation to Taiwan in particular, and that that makes this a proximate thing that may not, if we didn't have that, would not be quite as worrying. Is that correct?

Mr. FISHER. I was not here for that session, Commissioner.

Commissioner MULLOY. But that premise that I just put out to you, is that—

Mr. FISHER. If you take the United States out of the Taiwan Strait equation, I would still posit that there is a cause for significant American concern from PLA modernization in and of itself in relation to our other interests in Asia as well.

Commissioner MULLOY. Let me just walk this through and see. It seems a little schizophrenic on U.S. policy then. Because the President has said that if the Chinese attack Taiwan, we'll do whatever it takes, as the Chinese get increasingly stronger militarily, and some of it I think is tied to the fact that they're in the WTO, and there are huge investment flows going to China. They're now the largest foreign investment recipient in the world; at least they were last year.

And from what you read, Motorola is putting billions of dollars of R&D and a lot of other companies are, their industrial base is strengthening quite rapidly, and I think Mr. Medeiros, you point out that these industrial companies, a big part of what they're selling is civilian production, not just military goods. So as all of that strengthens China's capabilities, both industrial, technological and others, whatever it takes in terms of President Bush's statement could go up quite dramatically.

So I'm just wondering, do you think that the United States ought to pay closer attention to what American companies are investing

in China in terms of R&D and technology transfer? We pay a lot of attention to export controls, but I think the investment flows are quite dramatic.

And secondly, my understanding is that because China is running such a large trade surplus with the United States, they have a lot of dollars and now they can come over here and buy companies that may be making things that they would want to have. So I'm just wondering, do you make all those connections that I'm making or is this a figment of my imagination that this would be a concern?

Start with Dr. Finkelstein and then the other two.

Dr. FINKELSTEIN. Yes, briefly, to get back to one of your more fundamental points, Commissioner Mulloy. At the end of the day, there is really only one scenario which holds the potential—God forbid—for military conflict between the U.S. and China and that's Taiwan in my opinion. Frankly, I'd be more interested in understanding how much Taiwan is investing on the mainland since they are the object of a lot of angst.

It's just interesting to note how much Taiwan investment is on the mainland.

Commissioner MULLOY. Yes, my understanding is they're one of the larger investors in China, and a lot of it is very high investment going into China, which increases Chinese capability then to come back after them. So they don't seem to be as worried about these issues as maybe we are.

Co-Chair WORTZEL. Do either of the other panelists have a comment on this?

Mr. FISHER. Well, Commissioner, I would like to see a greater appreciation here in Washington of the degree to which the United States has economic leverage over China. I think that as you've stated your question and concerns, the concern is more about their leverage over us and the degree to which they are able to mobilize businessmen and other supporters to have an impact on our deliberations and even on our policy.

I would like to see the United States state more clearly and specifically the costs that China will face should it decide to undertake a near term military exercise to complete its goal of unification.

Co-Chair WORTZEL. Gentlemen, thank you very much. Again, it was an excellent panel. It's a panel that covered the near-term weapons systems that we need to worry about or that Taiwan does, the doctrine to implement them and the long-term ability to put a war production machine afoot in China. Great job. Thanks.

[Whereupon, a short break was taken.]

PANEL IV: MILITARY TRENDS IN THE CROSS-STRAIT RELATIONSHIP

Co-Chair WORTZEL. For this last panel, we have four panelists. Mr. Jason Bruzdinski of the Mitre Corporation, who is a specialist on defense policy, military strategy and intelligence matters. He's also served on professional staff of the House Armed Services Committee. He's a Navy Reserve officer, and has served in intelligence positions with the Navy. He has an M.A. from Georgetown University and Bachelor's degree from St. Lawrence University in New York.

Professor Vincent Wei-cheng Wang. Professor Wang is an Associate Professor in the Department of Political Science at the University of Richmond. He has a Ph.D. in political science from the University of Chicago, and a M.A. from Paul H. Nitze School of Advanced International Studies at Johns Hopkins University. He has written extensively on Taiwan and on security matters.

We have Professor Lyle Goldstein from the Navy War College, an Associate Professor in Naval Warfare Studies. He has worked extensively on proliferation of weapons of mass destruction, Chinese foreign and defense policy and Russian foreign and defense policy. He received his B.A. from Harvard and an M.A. from Johns Hopkins and a Ph.D. from Princeton. So I guess we've been pretty heavy on Princeton people today. And again a really solid group of writings and especially on this submarine issue.

And Mr. William Murray, a retired Navy Commander and Research Fellow at the Navy War College, and I understand you two gentlemen are going to sort of dog and pony it. We will accommodate that with the timing.

Once more, each of you will—Mr. Bruzdinski and Dr. Wang will have seven minutes each. The little colored lights, when it goes orange, you got a couple minutes left, and when it goes red, hopefully you are summing up and done, and we'll adjust. I think our timer here has the ability to compute in his head so that we're not going to run you out in seven minutes. We'll add time there.

Mr. Bruzdinski.

**STATEMENT OF JASON E. BRUZZINSKI
SENIOR PROFESSIONAL STAFF
THE MITRE CORPORATION, MCLEAN, VIRGINIA**

Mr. BRUZZINSKI. Mr. Chairman, Commissioners, I want to thank you for the invitation to be here today. I do appreciate the opportunity to present my views before the U.S.-China Commission. China is what I would characterize as an enduring challenge for U.S. defense policy and planning. I hope the discoveries from my research on China's "Assassin's Mace" concept, or shashoujian, which I will summarize today, will be helpful to the Commission's important work.

Shashoujian is a commonly used idiom in Chinese society. Indeed, it would be hard for any of us to find a Chinese citizen who wasn't familiar with the concept. In Chinese military vernacular, according to PLA officers, shashoujian connotes a secret weapon, a platform or system for deterrence, or a tool to achieve political, psychological and military victory through a single decisive blow in combat.

From my research, I also believe it to be a code word for a secret Chinese military research, development and acquisition effort, aimed at deterring, countering or defeating the United States in a military conflict should that come to pass.

The concept emerged within the PLA during the early 1990s when considerable debate and publication on strategy and force modernization was taking place within China's Academy of Military Science and the PLA National Defense University.

Within the PLA, three dominant schools of thought were influenced by a changing world and observed effectiveness of U.S. armed forces in post-Cold War military operations. The three

schools are commonly referred to as the “People’s War” School, the “Local War” School and of course the Revolution and Military Affairs or “RMA” School.

Shashoujian surfaced from these debates as common ground, a concept that each of the different schools of thought could embrace, relate to and respect.

Open discussion about shashoujian and the PLA appeared in the 1995–1996 timeframe, but through the late 1990s, PLA officers of increasing rank and political stature advocated shashoujian. And there is a traceable chronology of public statements and writings from these individuals. Images of some of the individuals appear up on the two screens that we have today. They range from senior Chinese Communist Party officials to Central Military Commission leaders to PLA scholars and warfighters. There are several other significant individuals that visibly participated in public discussions about shashoujian in China during this period.

It is clear that by 1998 advocacy for the concept had reached the highest levels of the PLA and the PRC leadership. China’s leaders recognized that the PLA has lagged behind foreign militaries in its ability to integrate science and technology with weapons and equipment, and in this context, that the PLA is relatively inferior to advanced foreign militaries.

Traditional emphasis on superior strategy and tactics is an important characteristic of China’s strategic culture. This emphasis profoundly influences Chinese military thinking today, despite the recent focus placed on introducing advanced military hardware into the PLA.

This is precisely why shashoujian can hold appeal for such a wide range of PLA scholars and PRC leaders. Shashoujian, as a concept, effectively blends the old with the new. Specifically, shashoujian blends traditional Chinese warfighting strategies with modern systems, platforms and weapons that benefit from technology of the information age.

Returning to 1998, in that year, China initiated an unprecedented wave of military acquisition reforms, including the reform of COSTIND and the creation of the General Armaments Department—as we heard from Dr. Medeiros earlier. At that time, China’s leaders also outlined the 998 State Security Project, a secret initiative to develop shashoujian concepts and weapons. The plan was adopted by the CPC Central Committee in August 1999 at Beidaihe and publicly revealed in 2000 by a CPC Central Committee official.

The 998 Project mandates the acceleration of programs for research, development and the deployment of new weapons to “resist hegemonism.” Elements of the program include missiles, energy weapons and nuclear weapons. The program also calls for changes in PLA operational art and nuclear weapons policy.

The 998 Project is directed by a powerful leading group and conducts work conferences managed by the PLA’s four General Staff Departments. Chinese open source references to shashoujian indicate that preliminary work on the 998 Project may have started as early as 1995, and if that is the case, then China could be a decade into a shashoujian weapons acquisition effort.

Let me turn to address some of the implications of shashoujian for PLA strategy, methods and also in the context of the effects of attacks. In the context of strategy, China seeks to leverage shashoujian weapons and methods to enable “the inferior” to defeat “the superior,” and this is a concept that my colleague, Dr. Wang, will elaborate on.

To attack superior adversaries, China is attempting to develop new equipment while carrying forward traditional war-fighting strategies. In the context of methods, there have been considerable discussion in PLA literature about how and when these weapons and tactics should be optimally employed against superior adversaries.

Key PLA employment concepts emphasize (1) acquiring good intelligence to identify and exploit enemy weakness, (2) seizing initiative and advantage through surprise, and (3) the use of unorthodox means to attack enemy vulnerabilities and finally ensuring the survivability and counter-strike capability of shashoujian forces.

PLA scholars also frequently discuss the intended effects of shashoujian strikes, and I elaborate on each one of these in my paper. They are deterrence, decapitation, and blinding paralysis and disintegration.

Although an ancient concept, shashoujian is compatible with and potentially catalytic for current and emerging strategy and military capabilities. Shashoujian serves to help the PLA prioritize select military programs for special funding, rapid development and the formulation of new combat methods.

The PLA’s warfighting capabilities will likely increase incrementally as China continues its research and development in this regard. PLA’s focus, dedication, and experimentation will likely enable some breakthroughs in military capability to be achieved in time. Invariably, there may also be some surprises for American watchers.

China’s focus on shashoujian and effects-based warfare (with an emphasis on combining ancient military strategies with new warfighting concepts and operational arts) poses a danger. The U.S. Congress should concern itself with and watch out for the following elements or combination of elements in order to counter shashoujian and China’s stratagem of the inferior overcoming the superior.

And I’ll outline them. First, the possibility of China presenting a military operational concept that takes the United States by surprise; two, weapons systems and infrastructure that can enable the PLA to implement the operational concept; and/or three, a strategic or tactical context in which the successful use of this concept is decisive.

To avoid potential military disaster precipitated by misunderstanding, miscalculation or strategic surprise, the Congress should acknowledge the importance of China’s history and traditions for the PLA, continue to pay careful attention to developments in Chinese military strategy and programs, conduct senior level dialogue with China’s leaders, and finally, carefully monitor their statements and writings concerning military affairs, and more and more are visible today in open sources.

At the same time, the U.S. Government should continue to be upfront and clear about its policies vis-à-vis China and Taiwan, present a compelling deterrent against Chinese military adventurism, and maintain a degree of tactical unpredictability to prevent the PLA from anticipating U.S. military actions.

Thank you for your attention today. I look forward to your questions.

[The statement follows:]

Statement of Jason E. Bruzdinski
Senior Professional Staff, The MITRE Corporation, McLean, Virginia

Good Afternoon.

I appreciate the opportunity to present my views before the U.S.-China Commission.

Efforts to better understand the PLA's modernization and its implications are very important because China is an enduring challenge for U.S. defense policy and planning.

I hope that discoveries from my research on China's "Assassin's Mace" concept or *shashoujian*, which I will summarize today, will be helpful to the Commission's important work.

For the record, I submit my recent paper, *Demystifying Shashoujian*. This comprehensive analysis will be published later this year by the U.S. Army War College, The American Enterprise Institute and The Heritage Foundation, in an edited compilation of academic papers on the PLA.

My remarks today express my own views and do not necessarily represent those of the U.S. Government or my employer, The MITRE Corporation.

I would like to offer a working definition for *shashoujian*. Then, identify its origins and discuss its emergence as a warfighting concept for the PLA. I will conclude with a few statements about the implications of China's *shashoujian* concept.

Definitions

Shashoujian is a widely understood and commonly used idiom in Chinese society. Indeed, it would be hard to find Chinese who do not understand the concept.

Simply, it is the means or ways by which one overcomes a seemingly insurmountable obstacle. In this context, it implies an action or quality that offers strategic advantage when employed in a particular way, at a key moment of opportunity for the accomplishment of a specific goal.

In Chinese military vernacular, according to senior PLA officers, *shashoujian* connotes a secret weapon, a platform or system for deterrence, or a tool to achieve political, psychological and military victory through a single, decisive blow in combat. *Shashoujian*, in a military context, should be considered in two ways.

First, as a weapon or weapon system.

Second, as a warfighting concept, a stratagem (or combination of stratagems), or a method or tactic that enables the PLA to seize advantage and assure victory against a superior adversary.

From my research, I also believe it to be a codeword for a secret Chinese military research, development and acquisition effort. This effort, which I will discuss, appears responsive to China's military strategy and is aimed at deterring, countering or defeating the United States in a military conflict, should that come to pass.

Origin

Shashoujian is an ancient term finding its origin in the Tang period (618–907 A.D.).ⁱ I raise this point to emphasize the resilience of *shashoujian* in China's culture. It is significant that the concept has endured China's long and turbulent history.

Emergence in the People's Liberation Army

The concept of *shashoujian* emerged within the PLA during the early 1990s, when considerable debate and publication on strategy and force modernization requirements took place within China's Academy of Military Science and National Defense University. Three dominant schools of thought were influenced by a changing world and the observed effectiveness of U.S. armed forces in post-Cold War military oper-

ⁱChinese Global Language and Cultural Center Online: <http://edu.ocac.gov.tw/taiwan/kungfu/e/5123-3.htm>.

ations. The three schools are commonly referred to as “the People’s War” school, the more contemporary “Local War” school, and the “RMA” school.

Shashoujian surfaced from the PLA debates as ‘common ground’—a concept that each school could relate to and respect.

Open discussion about *shashoujian* in the PLA appeared in the 1995–96 time-frame. But, through the late 1990s, PLA officers of increasing rank and political stature advocated *shashoujian* and there is a traceable chronology of public statements and writings from these individuals.

From my research, it is clear that by 1998, advocacy for *shashoujian* had reached the highest levels of the PLA and PRC leadership.

PLA Research, Development and Acquisition Possibilities

In 1998, China initiated a wave of military acquisition reforms. At the same time, China’s leaders outlined the 998 State Security Project—a secret initiative to develop *shashoujian* concepts and weapons.

The plan was adopted by the CPC Central Committee in August 1999 at Beidaihe and publicly revealed in 2000 by a CPC Central Committee official in a *Jiefangjun Bao* article.ⁱⁱ

The 998 Project mandates the acceleration of programs for research, development and deployment of new weapons to resist “hegemonism.”

Elements of the program include missiles, energy weapons and nuclear weapons. The program also calls for changes in PLA operational art and nuclear weapons policy.

The 998 Program is directed by a powerful Project Leading Group and conducts work conferences managed by the PLA’s four General Staff Departments.

Open source references to *shashoujian* indicate that preliminary work on the 998 Project could have started as early as 1995.

If so, China may be nine years into a *shashoujian* weapons acquisition effort.

I would like to briefly mention two additional efforts that were initiated in 2000 and could be related to China’s *shashoujian* concept.

The first is the 122 Project. The objectives of the project are to improve PLA combat effectiveness, counter-attack capability and develop a new generation of high-tech weapons, nuclear weapons, and improve the readiness of PLA strategic forces.

The second initiative is the 126 Program. The 126 Program was approved by President Jiang Zemin as the PRC’s second national level program established for development of military equipment.

China’s first such program, the well known 863 Program, was established by Deng Xiaoping in 1986. Under the 126 Program, China will initially develop six major projects within 12–15 years.

These projects reportedly include the development of an aerospace technology system, electronic/information technology system, a strategic defense system, a deep-level counter-attack system, an optical laser system, and a special materials development program.

Under these six projects, 36 “theme projects” have reportedly been developed to support the 126 Program.

While neither the 122 or 126 efforts have been explicitly linked to *shashoujian* and the 998 Project, the members of the respective leading groups are very similar, as are the thrust areas of their identified initiatives.

Additional research will be necessary to determine whether these initiatives are associated with *shashoujian*.

Implications

Let me turn to address the implications of *shashoujian*.

PLA scholars have dedicated great effort to study the change in the requirements of warfare from the mechanization era to the information age.

As an example, General Wang Baocun, of the AMS, concluded in 1997 that ten defining features will characterize warfare in the information age. His ten defining features are:

- limited goals in conflicts
- wars of short duration
- less damage
- larger battlefields and less density of troops
- transparency on the battlefield

ⁱⁱ Wen Jen, “Revealing Secrets of Beijing’s 998 State Security Project,” *Tai Yang Pao*, June 13, 2000 and Cary Huang, Hong Kong iMail (Internet Version), August 5, 2000, p. A3. Also see: Wang Congbiao, “Studying Jiang Zemin’s ‘On Science and Technology,’” *Jiefangjun Bao*, February 13, 2001. FBIS Document ID: CCP20010221000077.

intense struggle for information superiority
 unprecedented force integration
 increased demands for command and control
 strategic objectives achieved through precision, not mass, and
 attacks on weaknesses, not strengths, of the enemy's "combat system."ⁱⁱⁱ

These features represent strategic and operational objectives, centers of gravity, and opportunities for the PLA to seize the initiative in conflict.

General Wang advocates the consideration of these features for the development of military strategy, warfighting methods and to guide the PLA's transformation process.

I believe that General Wang's assessments carry weight with the PRC's leadership and are a major force driving China's military modernization and its focus.

China's leaders recognize that the PLA has lagged behind foreign militaries in its ability to integrate science and technology with weapons and equipment—and, in this context, that the PLA is relatively inferior to advanced foreign militaries.

For much of China's pre-revolutionary history, the same was true of China's armies. Historically, China depended upon superior strategies and tactics to cope with the inferiority of its weapons and equipment. This trend continues today in the PLA.

Traditional emphasis on superior strategy and tactics is an important characteristic of China's strategic culture. This emphasis profoundly influences Chinese military thinking today, despite the recent focus placed on introducing advanced military hardware into the PLA.

This is how *shashoujian* can hold appeal for a wide range of PLA scholars and PRC leaders.

It effectively blends the old with the new.

Specifically, traditional Chinese warfighting strategies with modern platforms and weapons benefiting from the technology of the information age.

PLA Strategy (Using the Inferior to Defeat the Superior)

China seeks to leverage *shashoujian* weapons and methods to enable the inferior to defeat the superior. To defeat superior adversaries, China is attempting to develop new equipment while carrying forward traditional warfighting strategies.

PLA strategists pay great attention to the study of methods to reverse the balance of combat strength with superior strategy, and to identify key operational conditions where the weak can defeat the strong through the use of weapons against which there is no defense.^{iv}

Operational Art (Methods)

There has also been much discussion in PLA literature about how and when *shashoujian* weapons and tactics should be optimally employed against superior adversaries. Key employment concepts emphasize: (1) acquiring good intelligence to identify and exploit enemy weaknesses, (2) seizing initiative and advantage through surprise, (3) the use of unorthodox means to attack enemy vulnerabilities, and (4) ensuring the survivability and counter-strike capability of *shashoujian* forces.

Effects of Strikes

PLA scholars also frequently discuss the key intended effects of *shashoujian* strikes. They are: (1) deterrence, (2) decapitation and (3) blinding, paralysis and disintegration.

Deterrence. Sunzi's maxim on 'winning without fighting' endures and is consistent with the PLA's requirement for a compelling deterrent value from *shashoujian* weapons. PLA scholars commonly refer to ballistic missile and submarine forces as "*shashoujian* forces" serving as a basis for psychological warfare.^v

ⁱⁱⁱ Wang Baocun, "A Preliminary Analysis of Information Warfare," *Zhongguo Junshi Kexue*, November 20, 1997, pp. 102–111. Also see: Peng Guangqian, "Meeting the Challenge of the New Military Transformation," and Li Zhangrui and Liu Chunjun, "Firepower Cannot Be Excluded from Information Warfare," *Jiefangjun Bao*, September 19, 2000, p. 6. FBIS Document ID: CPP20000919000045.

^{iv} Zian Ruyi, *Command Decision-making and Strategems*, Beijing: Kunlun Publishing House, 1999, pp. 4–5. FBIS Document ID: CPP20030424000250.

^v Lt Gen Zhao Xijun, "Victory Without War and Modern Deterrence Strategy," *Zhongguo Junshi Kexue*, October 31, 2001, pp. 55–60. FBIS Document ID: CPP20011228000132. Also see: Liu Xiaodu and Kang Fashun, "A Certain Brigade Builds Itself into an All-round, Perfectly Masterful 'Assassin's Mace' Unit," *Huojianbing Bao*, May 25, 2002, p. 1, FBIS Document ID: CPP20020612000143, and Liu Xiaodu and Wang Xuezhong, "Charging to Control the High Ground of Training," *Huojianbing Bao*, October 6, 2001. FBIS Document ID: CPP20011219000162.

Decapitation. Traditionally, the defeat of an adversary by a single fatal strike or “death blow” is the intended outcome of a *shashoujian* strike. Ideally executed with foreknowledge of the enemy’s disposition, it comes deceptively and swiftly—without perceptible indication or warning.

If employed correctly, a *shashoujian* strike kills the adversary instantly. The grim result is final and irreversible.^{vi}

Blinding, Paralysis and Disintegration. As in the martial arts (and the medicinal practice of acupuncture), pressure point warfare (*dianxue zhan*) is intended to have systemic effects on an enemy’s military structure or organization.

PLA strategists often discuss the importance of conducting *shashoujian* strikes on critical infrastructure. Some targets frequently identified include command and control centers and networks, early warning and intelligence systems, remote sensing platforms, and military logistics systems.

PLA scholars view these systems as dependencies (the relative weaknesses of a superior enemy) and as more vulnerable to attack than the relative strengths of a superior adversary. They contend that *shashoujian* strikes on the key nodes of a superior adversary can cause paralysis and initiate the disintegration of a superior force.^{vii}

Conclusions

China’s ancient history and traditions profoundly influence the thinking of its leaders and senior military officers. However, China’s PLA scholars and senior leaders are reexamining, even critiquing, the viability of Mao Zedong’s “People’s War” doctrine for warfare in the 21st century.

Chinese think *dialectically* and assess military power *holistically* with emphasis on *relative* strengths and weaknesses. This approach to military assessment differs significantly from American approaches.

Contrasting conclusions and dangerous miscalculations can result from these different approaches.

Reacting to significant changes in the global security situation, China’s military research and development efforts have been oriented toward the development of advanced systems, platforms and weapons for the prosecution of “Local War Under High Technology Conditions.”

It is apparent that China’s leaders and senior military officers are uncomfortable with American defense policy in the Asia-Pacific region. Particularly, as it concerns the future of the Korean Peninsula and Taiwan.

China’s leaders are also troubled by advances in U.S. military capabilities that they have observed since 1991.

These concerns have prompted China to initiate military research and development programs tailored toward the prosecution of asymmetric warfare against superior forces.

Chinese military strategy will guide PLA forces to minimize the relative superiority of enemies while employing effective stratagems and tactics.

China will attempt to leverage the relative strengths and capabilities of the PLA at key moments—to be targeted against the relative weaknesses and vulnerabilities of a superior force.

Shashoujian and other uniquely Chinese warfighting concepts will be key elements of this approach.

Although an ancient concept, *shashoujian* is compatible and also potentially catalytic for current and emerging strategy and military capabilities. *Shashoujian* serves

^{vi}Tien Ping, “Space for Readjustment in Nuclear Policy,” *Hsiang Kang Shang Pao*, June 23, 2003, p. A2.

^{vii}Wang Houqing and Zhang Xingye (eds.), *Zhanyi Xue (The Science of Campaigns)*, Beijing: National Defense University Publishing House, May 2000, pp. 168–182. Also see: Liu Jun and Zhou Ruhong, “How to Concentrate Capability in Joint Operations,” *Jiefangjun Bao*, June 12, 2001, p. 6, FBIS Document ID: CPP20010612000063, Huang Xing and Zuo, pp. 49–56, Shen Zhongchang, Zhou Xinsheng and Zhang Haiying, “A Rudimentary Exploration of 21st Century Naval Warfare,” *Zhongguo Junshi Kexue*, February 20, 1995, No. 1, pp. 28–32; Major General Dai Qingmin, “Innovating and Developing Views on Information Operations,” *Zhongguo Junshi Kexue*, August 20, 2000, pp. 72–77; and an untitled article by Lin Zheng published in *Huoli Yu Zhihui Kongzhi*, Beijing: Ministry of Electronic Industries, October 1996, pp. 16–21, Dai Qingmin, “On Integrating Network Warfare and Electronic Warfare,” *Zhongguo Junshi Kexue*, February 1, 2002, pp. 112–117, FBIS Document ID: CPP20020624000214, Niu, Li and Xu, pp. 115–122, Bao Guojun, “Military Expert Urges China to Promptly Eliminate ‘Era Gap’ in Military Technology—An Interview with Major General Wang Baocun, Renowned Military Expert of the Academy of Military Science,” *Tzu Ching*, No. 153, June 1, 2003, pp. 57–60, FBIS Document ID: CPP20030611000077, Sun Zian, “Strategies to Minimize the High-Technology Edge of the Enemy,” *Xiandai Bingqi*, August 8, 1995, No. 8, pp. 10–11, FBIS Document ID: FTS19950808000009.

to help the PLA prioritize select military programs for special funding, rapid development and development of new combat methods.

PLA capabilities will likely increase incrementally as China continues its research and development in this regard.

Long-term challenges associated with hardware integration, force professionalization, training and education efforts, as well as military logistics, will complicate China's RMA goals.

However, the PLA's focus, dedication, and experimentation will likely enable some breakthroughs in military capability to be achieved in time.

China's focus on *shashoujian* and effects-based warfare (with emphasis on combining ancient military strategies with new warfighting concepts and operational art) poses a danger for the United States.

The U.S. Government should be concerned with and watch out for the following elements or combinations of elements in order to counter *shashoujian* and the stratagem of "the inferior overcoming the superior":

- (1) the possibility of China presenting a military operational concept that takes the United States by surprise,
- (2) weapons systems and infrastructure that can enable the PLA to implement the operational concept, and/or
- (3) a strategic or tactical context in which the successful use of this operational concept is decisive.

To avoid potential military disaster precipitated by misunderstanding, miscalculation or strategic surprise, the U.S. Government should acknowledge the importance of China's history and traditions for the PLA, continue to pay careful attention to developments in Chinese military strategy and programs, conduct senior-level dialogue with China's leaders, and carefully monitor their statements and writings concerning military affairs.

At the same time, the United States should continue to be up-front and clear about its policies *vis-à-vis* China and Taiwan, present a compelling deterrent against Chinese military adventurism and maintain a degree of tactical unpredictability to prevent the PLA from anticipating U.S. military actions.

Emergence of *Shashoujian* as a Priority for PRC National Defense

PLA officers of increasing rank and political stature support President Jiang's call for *shashoujian*.

Discussion of *shashoujian* exists in a traceable chronology of statements from senior military officers (beginning in 1995-96).





The 998 State Security Project Leading Group

(from Left to Right)

Jiang Zemin – Former PRC President, CMC Chairman.

Hu Jintao – PRC President, CPC General Secretary, CMC Vice Chairman.

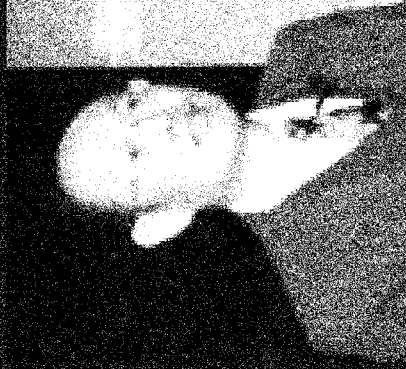
Wu Bangguo – Chairman, Standing Committee of the National People's Congress.

Cao Gangchuan – CMC Vice Chairman, Minister of National Defense.

Guo Boxiong – Member, Political Bureau-CPC Central Committee, CMC Vice Chairman.

Liu Jibin – Director, Commission on Science, Technology and Industry for National Defense (COSTIND).

PLA Major General Wang Baocun's 10 Defining Characteristics of Future Warfare



- Limited Goals
- Short Duration
- Less Collateral Damage
- Larger Battlefields, Less Density of Troops
- Battlefield Transparency
- Intense Struggle for Information Superiority
- Unprecedented Force Integration
- Increased Demand for C²
- Dependency Upon Precision, not Mass
- Attacks on the Weaknesses of Combat Systems.

Co-Chair WORTZEL. Thank you very much. Dr. Wang.

**STATEMENT OF VINCENT WEI-CHENG WANG, PH.D.
ASSOCIATE PROFESSOR OF POLITICAL SCIENCE
UNIVERSITY OF RICHMOND, RICHMOND, VIRGINIA**

Mr. WANG. Thank you, Mr. Chairman, and Members of the Commission. My remarks focus on one aspect of China's military modernization: information warfare, or IW, which has considerable implications for security in the Taiwan Strait and relations with the United States.

My comments are drawn from two of my published articles, one of which is included as a written statement for the Commission, so I hope you have a chance to read it. My key points are as follows:

First, the PRC's interest in IW reflect an increasingly prevalent view among well-versed strategic thinkers in China that IW is a key catalyst for the People's Liberation Army's Revolution in Military Affairs, or RMA, and a vital impetus for China's military modernization.

Second, China's IW strategy is distinctive in applying traditional stratagems, such as Sun Tzu's "overcoming the superior with the inferior" and Mao Zedong's "people's war," to modern warfare in an attempt to overcome a technologically superior adversary by attacking its strategic "Achilles' heel." China's IW strategy thus epitomizes asymmetric war, defined as the use of surprise force by a weaker party against a stronger but vulnerable adversary.

Third, China seems keen on developing its IW capability into a credible military option that can be used to absorb Taiwan on Beijing's terms of unification and deter the United States from intervening in any cross-Strait conflict. These trends introduce new sources of instability into the cross-Strait relationship.

Fourth, despite the PLA's keen interest in IW, there still exists a doctrinal-capability gap in China's IW development. An incipient digital "mutual assured destruction" is emerging across the Taiwan Strait as a result of the double-edged nature of technology, the low connectivity of the Chinese society and Taiwan's responses.

As an earlier panel has said, until the late 1980s China's military doctrine was primarily aimed at defending China's homeland and land borders and relied primarily on large Army units. By the 1990s, however, China's military doctrine had evolved into what PLA theoreticians called Local War Under Modern High-Technology Conditions. Some PLA strategists expanded their study of other concepts of future high-tech warfare, including IW, which became known under the rubric of RMA. The major focus of PLA operational planning in the late 1990s had become preparation of military options and capabilities to ensure that Taiwan does not seek independence. The possibility that the U.S. military may become involved in the defense of Taiwan is a worst-case factor that PLA planners also must consider. The Taiwan scenario became a prime case for this new doctrine.

In this regard, IW holds special appeal to top PLA brass, which sees it as a way of bypassing many deficiencies that most PLA commanders and researchers recognize. IW weapons are seen as "killer" weapons, "trump cards" or "magic weapons," (shashoujian), as Jason has mentioned, that can overcome inherent weaknesses in the PLA to inflict surprise attack.

In recent years, well-versed military theorists in the PLA have been exploring new concepts of war, especially asymmetric warfare strategies that make offense a more appealing option to the weaker party. One important publication is *“Unrestricted Warfare.”* The authors, reflecting upon the war in the age of technological integration and globalization call a new type of war that transcends all boundaries and limits, “chaoxian zhan,” or unrestricted warfare, which expands the combat beyond the traditional battleground. IW exemplifies unrestricted warfare and lends credence to the concept of asymmetric war.

It lures the initiators into thinking that they can achieve their political objectives without much sacrifice. The Chinese view IW as a superior choice for attaining classic strategist Sun Tzu’s adage: “To subdue the enemy without fighting is the acme of skill.”

It also gives developing countries like China an allure to compensate for their military inferiority vis-à-vis the United States with superior strategies—the notion of overcoming the superior with the inferior. The Chinese also hope to exploit the apparent paradox that the strong American “information society” also poses a potentially weak side to a determined adversary. They hope to achieve Sun Tzu’s highest stage of “winning the war without fighting.”

The Chinese approach to IW, therefore, fits a pattern that is emblematic of many of its previous reform efforts, Zhongxue Weiti, Xixue weiyong (to retain Chinese teaching as the root and only use the Western teaching selectively).

The July 2002 Pentagon report to Congress states that China views information warfare operations as a strategic weapon and is particularly sensitive to the potential asymmetric application IO/IW can have in any future conflict with a technologically superior adversary.

It points out that China’s military is developing strategies and tactics to use surprise, deception, and shock in any opening military campaign while exploring coercive strategies designed to bring Taiwan to terms quickly.

Since the end of the Cold War, China’s double-digit growth rates have allowed China to substantially increase its military spending and to acquire advanced weapons and technologies. The PLA is keen on developing selective “pockets of excellence.” IW plays a very important role in this strategic view of military modernization.

As an example of retooling, China now has given its vast 1.5 million strong reserve force a task in IW/IO application of digital “people’s war.” PLA officers have also begun discussing how IW can be waged in a combined amphibious battle.

The Chinese military has also begun to put these ideas into practice. In the summer of 2001, the PLA for the first time began the war game exercises in the Taiwan Strait with information warfare aimed at electronically paralyzing enemy communications and command systems. Also for the first time, a new electronic warfare unit was deployed over the Strait. In exercises the following year the PLA incorporated even more sophisticated items of IO/IW.

In sum, the PLA seeks to gain information domination in any conflict with Taiwan by attacking Taiwan’s information networks

and command and control centers as well as by conducting propaganda and political warfare. The goal is to incorporate Taiwan by “subduing the enemy without actually fighting” a la Sun Tzu, and by denying possible American military intervention.

This trend presents a new challenge to Taiwan and U.S. defense officials.

From the Chinese standpoint, IW seems to have lowered the threshold for a likely successful military campaign against Taiwan and increase the utility of offensive strategy. Properly executed IW may—along with such other coercive weapons as missile strikes and a naval blockade—help bring Taiwan to its knees and deny American intervention.

How seriously should American decisionmakers take the PRC’s IW endeavors? There is no question that the Chinese military is keenly interested in studying IW. At the present moment the PLA’s interest is primarily academic; its IW capabilities are far from operational (weaponized). The modernization of the Chinese armed forces has so far lagged behind doctrinal development.

Yet, the Chinese seem to have history on their back. Historically, they have defeated stronger opponents and have many times surprised Western analysts by indigenously developing weapon systems that the West tried hard to deny them. Therefore, I caution against missing the possibility of China developing IW with Chinese characteristics.

I believe that China’s development ultimately depends on its economic ascendancy in general and its rise as a global IT player in particular. Although China is merging as the world’s third largest IT hardware producer, and its online population is increasing exponentially (from 200,000 in 1997 to 45.8 million in mid-2002), its overall connectivity is still very low (as of mid-2002, only 3.58 percent of its population was online, up from 0.0001 percent in 1997). How can we have a society with a first-rate IW capability but a third rate information system?

China’s mixed record as an IT society in an increasingly globalized economy—a giant in absolute terms with immense upside potential but a dwarf in relative terms—will affect the degree of success of China’s further inroads in IW. The PLA’s immersion in both IW and RMA, notwithstanding, it is hard to imagine a superb IW fighting force detached from a society characterized by relatively low technology and connectivity. A strong IT base gives rise to a strong IW capability.

Thank you.

[The statement follows:]

Statement of Vincent Wei-cheng Wang, Ph.D.
Associate Professor of Political Science
University of Richmond, Richmond, Virginia

***Winning the War Without Fighting and
Overcoming the Superior With the Inferior?
China’s Information Warfare Strategies and
Implications for Asymmetric Conflict in the Taiwan Strait***

My remarks will focus on one aspect of China’s military modernization—information warfare (IW). China’s development on IW entails considerable implications for security in the Taiwan Strait and relations with the United States. My comments are drawn from two of my published articles, one of which is included as a written statement for the Commission.

My key points are highlighted at the outset. *First*, the PRC's interests in IW reflect an increasingly prevalent view among well-versed strategic thinkers in China that IW is a key catalyst for the People's Liberation Army's (PLA) Revolution in Military Affairs (RMA) and a vital impetus for China's *military modernization*.

Second, China's IW strategy is distinctive in applying *traditional stratagems* (e.g., Sun Tzu's "overcoming the superior with the inferior" and Mao Zedong's "people's war") to modern warfare in an attempt to overcome a technologically superior adversary (i.e., the United States) by attacking its strategic "Achilles' heel." China's IW strategy thus epitomizes *asymmetric war*, defined as the use of surprise force by a weaker party against a stronger but vulnerable adversary.

Third, China seems keen on developing its IW capability into a *credible military option* that can be used to (1) absorb Taiwan on Beijing's terms of unification at some point in the future, and (2) deter the United States from intervening in any cross-Strait conflict. These trends increase the prospects for misperception and miscalculation and introduce new sources of instability into the cross-Strait relationship.

Fourth, despite the PLA's keen interests in IW, there exists a *doctrinal-capability gap* in China's IW development. My remarks will end on a cautionary note on an incipient digital "mutual assured destruction" (MAD) emerging across the Taiwan Strait as a result of the double-edged nature of technology, the low connectivity of Chinese society, and Taiwan's responses.

For the most part of China's post-reform era (1978–), military modernization had received the lowest priority among the Four Modernizations, mainly due to budgetary constraints, technological deficiencies, and an army-dominated force structure with a continental orientation. As China's security environment changed and its economy expanded, China's military doctrine also evolved. China's military doctrines from the late 1970s to the late 1980s were termed *People's War* and *People's War Under Modern Conditions*, which aimed at defending China's homeland and borders (mainly from the Soviet Union) and relied upon large army units. With the collapse of the Soviet Union, China shifted its attention to potential regional skirmishes along its maritime frontiers in the southeast—a strategy known as *Local War*. The Gulf War had tremendous impact on PLA doctrinal development. By the mid-1990s the PLA's dominant doctrine had evolved into what PLA theoreticians called *Local War Under Modern High-Technology Conditions*. Meanwhile, some PLA strategists expanded their study of other concepts of future high-technology warfare, including IW, which became known under the rubric of RMA. The major focus of PLA operational planning in the late 1990s had become preparation of military options and capabilities to ensure that Taiwan does not seek independence. The possibility that the U.S. military may become involved in the defense of Taiwan is a worst-case factor that PLA planners also must consider. The Taiwan scenario became a prime case for this new doctrine.

In this regard, IW holds special appeal to top PLA brass, which sees it as a way of bypassing many deficiencies most PLA commanders and researchers recognize. IW weapons are seen as "killer" weapons, "trump cards" or "magic weapons" (*shashoujian*) that can overcome inherent weaknesses in the PLA to inflict surprise attacks.

Until now, *two aphorisms* have been widely (and uncritically) accepted by most scholars and analysts: (1) In a conflict, the party with preponderant force prevails—either by coercing the weaker party to take an action desired by the former (compellence) or by dissuading the weaker party from taking an action detested by the former (deterrence). (2) Although the PRC has refused to renounce the use of force against Taiwan, it currently has few credible military options. However, certain recent developmental trends in the PLA could *upset the status quo* in the Taiwan Strait.

In recent years some well-versed military theorists and writers in the PLA have been exploring new concepts of war that call into question, if not invalidate, these two dictums. Of particular note is their fascination with *asymmetric warfare* strategies that make offense a more attractive option to the weaker party. One publication that has attracted considerable attention inside and outside China is *Unrestricted Warfare*. Reflecting upon war in the age of technological integration and globalization, the authors discuss a new type of war—*unrestricted warfare* (*chaoxian zhan*)—that transcends all boundaries and limits, and promote expanding combat beyond the battlefield to include such other facets as computer warfare, international terrorism, biological and chemical warfare, and economic and financial warfare (caveat: some of their recommendations, such as state-sponsored terrorism, are fundamentally at odds with China's stated policy).

IW exemplifies *unrestricted warfare* and lends credence to the concept of *asymmetric war*. It challenges the conventional Clausewitzian view that "violence is the

essence of war” by luring the initiators of IW into thinking that they can achieve their political objectives without much sacrifice. The Chinese view IW as a superior choice for attaining classic strategist Sun Tzu’s adage: “*To subdue the enemy without fighting is the acme of skill.*” It also gives developing nations like China an allure to compensate for their military inferiority vis-à-vis the United States, because they can make up technological backwardness with superior strategies—the notion of *overcoming the superior with the inferior*. The Chinese also hope to exploit the apparent paradox that the strong American “information society” also poses a potentially weak side to a determined adversary to achieve Sun Tzu’s highest stage of “*winning the war without fighting.*” China’s approach toward IW thus fits a pattern that is emblematic of many of its previous reform endeavors—“to retain Chinese teaching as the root and only use Western teaching selectively” (*Zhongxue weiti, Xixue weiyong*). China is developing “information warfare with Chinese characteristics” by integrating traditional Chinese stratagems into modern IW. This strategy poses a challenge to the Western-dominated IW paradigm.

The July 2002 *Pentagon report* to Congress states that China “views information operations/information warfare (IO/IW) as a strategic weapon . . .” and “is particularly sensitive to the potential asymmetric applications IO/IW can have in any future conflict with a *technologically superior adversary.*” It points out that China’s military is developing strategies and tactics to use “*surprise, deception, and shock*” in any opening military campaign, while “exploring coercive strategies” designed to bring Taiwan to terms quickly.

The strategic considerations of China’s interest in unconventional forms of warfare (and devotion to IW in particular) could introduce instability into the Taiwan Strait. Since the end of the Cold War, China’s double-digit growth rate in the 1990s have allowed China to substantially increase its military spending and to use its new wealth to acquire advanced weapons and technologies. The PLA is following Deng’s advice to develop “selective pockets of excellence.” Consequently, IW is playing a very important role in this strategic view of military modernization.

As an example of retooling, China has now given its vast 1.5 million-strong reserve force, which in the past was charged with supporting PLA forces in defense against any foreign intervention, with an IW/IO mission. To answer Jiang Zemin’s 1991 call for building common telecom systems for both military and civilian use, China has attempted to implement a “people’s war” with IW reserve force.

The advent of IW has introduced a new element into the cross-Strait military situation by presenting China with a potentially *credible military option* vis-à-vis Taiwan.

The Pentagon report states that despite Beijing’s professed commitment to a peaceful unification with Taiwan, the Chinese leadership has shown an increasing *willingness* to consider the use of force to achieve unification. The report argues “Beijing’s primary political objective in any Taiwan-related crisis . . . likely would be to compel Taiwan authorities to enter into negotiations on Beijing’s terms and to undertake operations with enough rapidity to preclude third-party intervention.” It also seems to concur with the view of some analysts that the PLA’s offensive capabilities *improve* as each year passes, providing Beijing with an increasing number of credible options to intimidate or actually attack Taiwan. With the exception of ballistic missiles, IW seems the most promising option for achieving Beijing’s political objectives. Indeed, the PRC has made considerable efforts toward making IW a real option.

Certain PLA officers have promoted IW as an effective weapon to *subdue Taiwan* and to *deter* possible *American intervention*. Military publications study the various forms IW can be waged in a *combined amphibious battle* (e.g., command and control war, intelligence war, network war, communication war, and electronic war).

Further, the Chinese military has begun to put these ideas into practice. In the summer of 2001, the PLA for first time began the war game exercises in the Taiwan Strait with *information warfare* aimed at electronically paralyzing enemy communications and command systems. Also for the first time, a new *electronic warfare unit* was deployed over the Strait. In exercises the following year, the PLA incorporated even more sophisticated items of IO/IW.

In sum, the PLA seeks to gain information domination in any conflict with Taiwan by attacking Taiwan’s information networks and command and control centers, as well as by conducting propaganda and political warfare. The purpose is to incorporate Taiwan by “subduing the enemy without actually fighting” à la Sun Tzu, and by denying possible American military intervention.

This trend presents a new challenge to Taiwan and U.S. defense officials. Most analysts have hitherto: (1) dismissed Chinese invasion threat due to the high threshold for success (due to logistical difficulties, Taiwanese resistance, and international intervention); (2) argued that Taiwan’s smaller military can maintain a

qualitative edge until at least 2005; (3) questioned whether Beijing has realistic military options vis-à-vis Taiwan despite both the PRC's consistent refusal to renounce the use of force and occasional saber-rattling against Taiwan; and (4) held that a probable, albeit not guaranteed, U.S. military intervention (in the case of an unprovoked attack on Taiwan) serves to deter Beijing—i.e., the so-called policy of strategic ambiguity.

From the Chinese standpoint, IW seems to have *lowered the threshold* for a likely successful military campaign against Taiwan and *increased the utility of an offensive strategy*. IW seems to hold promise for “winning the battle without fighting” (Sun Tzu's adage) and “overcoming the superior with the inferior” (Mao's guerrilla strategy). Properly executed IW may—along with such other coercive weapons as missile strikes and a naval blockade—help bring Taiwan to its knees and deny American intervention. Such perceptions may cloud decision-making and make China more likely to use force. The application of information technology in international conflicts such as cross-Strait tensions may thus result in more instability.

How seriously should American decision-makers take the PRC's IW endeavors? There is no question that the Chinese military is keenly interested in studying IW. At the present moment the PLA's interest is primarily academic; its IW capabilities are far from operational (weaponized). The modernization of the Chinese armed forces has so far lagged behind doctrinal development.

Nevertheless, China's IW forays will benefit from two factors—one old and one new. Historically, China has more than once surprised Western analysts by indigenously developing weapons systems that the West tried hard to deny to China (e.g., atomic bombs in 1964 and nuclear warhead miniaturization technology in 1999). Prudence thus cautions against dismissing the possibility that China may succeed in developing “IW with Chinese characteristics.” Whether a modern IW doctrine guided by proven historical stratagems will surpass the Western model remains to be seen, however.

Most importantly, the future of China's IW development hinges on the country's economic ascendancy in general and its rise as a major global IT player in particular. Thanks in large measure to investments by Taiwanese IT firms on the mainland, the PRC has recently overtaken Taiwan as the world's third largest IT hardware producer and is poised to overtake Japan in the next decade if current growth trends continue. In addition, China's online population is experiencing exponential growth: from 200,000 in 1997, to 16.9 million in July 2000, and to 45.8 million in July 2002, making China one of the largest and fastest-growing Internet markets. However, viewed from another indicator—*Internet penetration rate* (i.e., online population as a percentage of total population), China remains sparsely wired. As of July 2002, only 3.58 percent of its population was online, up from 0.001 percent six years ago. Compared to the United States, Japan, and even Taiwan, China clearly has a long way to go before it can claim to be a true information power.

China's *mixed record* as an IT society in an increasingly globalized economy—i.e., being a giant in absolute terms and with tremendous upside potential, while also being a dwarf in relative terms—will affect the degree of success of China's further inroads in IW. The PLA's immersion in both IW and RMA, notwithstanding, it is hard to imagine a superb IW fighting force detached from a society characterized by relatively low technology and connectivity. A strong IT base gives rise to a strong IW capability.

Co-Chair WORTZEL. Thank you very much. Dr. Goldstein and Mr. Murray, I'll let you go ahead.

**STATEMENT OF LYLE J. GOLDSTEIN, PH.D.
ASSOCIATE PROFESSOR OF NAVAL WARFARE STUDIES
U.S. NAVAL WAR COLLEGE, AND WILLIAM MURRAY
RETIRED COMMANDER AND RESEARCH FELLOW
U.S. NAVAL WAR COLLEGE**

Dr. GOLDSTEIN. If you can call up the presentation there. I want to thank the Commission for including us in these very interesting and important deliberations. One quick caveat: The research that we're presenting today, these are our own opinions, not the opinions of the United States Navy.

One other quick note. This research will appear in the spring issue of *International Security*, and we've submitted it for the record.

Our bottom line, what our studies show, is that China is making a very significant investment in undersea warfare and that submarines are emerging as the centerpiece of their ongoing naval modernization.

Next slide, please. If you could click a few ahead. I don't have a clicker here. One more. All right. Just to note in our sources, we're using what we think are rather unique sources. First of all, quite a bit of Russian material is available because the Russians, of course, are marketing these, but also a host of Chinese unclassified materials that we're following—Dangdai Haijun, Guoji Zhangwang—one more, Jianchuan Zhishi, please—Renmin Haijun.

Unfortunately, these resources I think are not well exploited by our intelligence community, nor even by academia. We're trying at Naval War College to develop sort of a center of unclassified research as well as classified on China's naval modernization.

Mr. MURRAY. Okay. Could we go to the next slide, thank you. I'd like to echo Dr. Goldstein's thank you to the Commissioners. Thank you very much for inviting us.

In May 2002, Russia announced a contract to sell eight of these KILo submarines to People's Republic of China. They're getting eight of these for \$1.6 billion and depending on the source, they'll either take delivery by 2005 or 2007. It's important to note that as a former submarine officer and somebody who qualified to command Los Angeles class attack submarines, these submarines are spoken of in the open press as being more quiet at times than our improved Los Angeles class submarines.

They're extremely difficult to find and they'll be operated in some of the most challenging anti-submarine warfare environment on the face of the earth. This is a huge problem.

Now in addition to getting these submarines, China is also buying, as Mr. Fisher and somebody else mentioned earlier—a click, please—this SS-N-27 or 3M54 Echo or the Club cruise missile. A quick review of this thing. It's got 120 nautical mile range and it homes, it terminal homes at supersonic speeds, something in excess of Mach 2 and it carries a tremendous warhead. It's extremely difficult to shoot down and it is a severe threat to any surface ship that it is shot at.

Now, in addition to this, China is also buying from Russia the Test 71 anti-surface warfare torpedo. It's a wire guided or wake homing torpedo. It can shoot either surface ships and it can shoot submarines equally well. And it's a relatively brainless torpedo. It has all the brains for it that you need. You shoot it. It gets the hit.

Now, in addition to this, we see tremendous interest in all of the journals that Dr. Goldstein just mentioned in air independent propulsion, and let me emphasize we don't see China having this this year, but we see a tremendous interest in issue after issue after issue of their journals in acquiring this or exploring it. And the reason is a relatively modest investment in air independent propulsion, which, by the way, all the major European manufacturers offer as an option, gives a diesel submarine the option of not snorkeling in order to recharge its batteries.

They can operate for weeks at a time. We've interviewed the Swedish officers who have commanded these, and they said it is a broad blossoming of capabilities for diesel submarine.

It's a tremendous thing that they're interested in and of course Pakistan has the French system, and we know that the Pakistanis and the Chinese cooperate very closely on a number of issues.

The next slide, please. Now hand in hand with the KILo sale is, of course, the Song program. This is an indigenous submarine that China is building out by themselves, but that's a little bit misleading. It's got German diesel engines. It's got French digital sonar system, and it's a modern capable submarine. This is a very capable 1980s, mid-'80s, late '80s, type submarine. It was originally thought to be a real—I'm going to use a flippant term—a dog, but China is still making these things. They've improved it successfully and it's now entered serial production. Most unclassified sources will tell you that there are at least five of them in the water and we expect to see quite a few more of them.

Now, there are a number of parallels. One more, thank you. China is in a hurry. They're building a very capable Navy in general, a military even more broadly, but specifically a submarine force.

They're buying the KILOs. They're building the Song. As people have mentioned earlier, they're buying the SU-27s and 30s, and they're building the F-10, the J-10. They're buying the SOVREMENNIYs and they're building these Type 52s or 107 class ships.

China is in a hurry. They're very interested in getting a capable Navy, and from our point of view, they seem to be succeeding.

One more, please. Now complementing this effort at diesel submarines, China is undergoing an extensive program of nuclear powered submarine modification. The type 93 SSN, the first of this was launched in December of 2002. Generally, this was a surprise to many people. If you look through the old Jane's issues you'll find that that was a shock.

And one more click. They're also building the Type 094 SSBN, and we have a Jane's source that tells us that one of these has already started construction. This will carry the JL-2 missile an 8,000-kilometer, perhaps multiple independent reentry vehicle nuclear missile, and we're not sure how many that will be built.

We see references to six and we also have a Chinese reference that says, kind of a little bit of breast beating, we'd like to have 30 of each, 30 of the fast attack submarines and six or more of the ballistic missile subs.

Dr. GOLDSTEIN. Next slide, please. Bill has told you some about the platforms, but what about the people behind the platforms? We see what we think is really a revolution in Chinese training activity moving to what they call confrontational training. What this amounts to is red versus blue exercises where they're not, in other words, rote and scripted exercises. They force the commanders to make decisions on the spot.

We see this in the Navy and in the submarine force. Next slide, please.

Lots of activity in logistics, but let me give you an idea, an example from this logistics activity to the idea of the kind of—I'll give you an idea of the kind of innovative exercise that we've taken note of.

China now in most of its training explicitly identifies the United States as a possible adversary which is a major step in itself, and in one of their recent submarine exercises, they did a remote torpedo loadout from a very isolated civilian port, and what this tells us is keeping this idea of confronting the United States in mind, that they may lose access to these ports in the early phase of a war to their major facilities and have to work out of these remote bases. So this shows us a leap in sophistication in their exercises.

Next please. More broadly speaking, though, they're engaged in the objective study of history, naval history and submarine history in particular. We see a huge amount of material looking at old—this is a discussion of Gunter Prien in the Second World War, but a huge amount of material devoted to this, and may not seem significant. After all, Naval War College, this is our bread and butter, but it is significant in a Chinese context because you know this is a force that's spent a lot of time discussing Maoism and Marxism and how it would be applied to naval warfare.

This is a real change to a much more objective study of the lessons of history and we expect to see progress accordingly.

Next, please. They're also shooting torpedoes and Navy's don't always do this. It's expensive. It's hard and China is doing so.

Okay. Next, please. Make a mention. This has been covered widely and Rick—Mr. Fisher has done a great job in his paper on this showing the great influence of Russian technology. We see them not only buying technology but getting deep access to Russia's expertise, their ship design bureaus are said to be full of Chinese students, and they're getting great access to the shipyards as we can see from these photographs.

They're even resorting, and this is curious, I think, in the Russian context to espionage. The director of the acoustics noise laboratory in Vladivostok is actually on trial. In Congress, we're, of course, very familiar with the Nunn-Lugar legislation that tried to stem this tide of Russian nuclear expertise, but clearly we've been quite unable to stem the tide of expertise on conventional weaponry and undersea warfare in particular.

Next please. But one also has to consider the impact of European influence. The Europeans publish a huge amount of material and if these export restrictions change, we think that some of the cutting edge European technology, for example, on AIP, will be filtering even more directly into China.

Next, please. To speak concretely of the scenario that's already been discussed a lot today, of course, we have to be concerned with missiles, but submarines could also factor into a variety of scenarios and even be the pointy tip of the spear in a blockade scenario, of course.

Next, please. Next, if you could click one or two more, please, again, please. All right. This is an article, just a quick note, an article from Michael O'Hanlon in the year 2000 where he looked carefully, and he's very dismissive of Chinese capabilities in general and particularly of the blockade scenario, and in his evaluation, he said in an extreme case, a U.S. ship or two could be lost. We feel that is off by a fair margin. That it's an exceedingly optimistic estimate based on badly flawed assumptions which we can go more

into in the Q&A. But generally, underestimating Chinese capabilities.

Go ahead, Bill.

Mr. MURRAY. Click, please. Well, China has a number of capabilities that most people just won't even—don't seem to want to consider. As I mentioned earlier, they're buying the test 71 torpedo, which gives their newest submarines an anti-submarine warfare capability. So this raises the prospect of one of their submarines shooting and sinking another submarine, perhaps ours.

Another slide, please. China also has a tremendous number of submarines. Now one submarine that is unlocated is going to cause a battle group commander to take a real hard look at what he wants to do and why. And China can easily muster 40 or 50 submarines without much trouble whatsoever. Another click.

They also have a large inventory of mines. And we see a tremendous interest in some of the most modern deadly mines going. These deep water rising mines can be purchased from Russia. They have tremendous ability to mine deeper waters where we would prefer to operate. So what we would consider to have been a haven may no longer be a haven.

Another click. Thank you. China is also exhibiting a great interest in using anti-air capability from a submarine. Some of the Russian submarines—this is a Cold War era tactic—the French are also designing this. You can go to the DCA web site to see more. China is following it very closely.

One more click. And China has something we have a hard time getting over there and that's local knowledge. When they operate in these waters day after day, day after day, hour after hour, they acquire a level of expertise on where it's quiet, where it's noise, where are the fishing vessels and so on and so forth, that we just don't have yet.

And another click. Now the other thing that China recognizes clearly is that, and they pay a tremendous amount of attention to this, is that our large ships, our aircraft carriers, our LPHs and even our large logistics resupply ships, are all prime targets, and the sinking or even the damaging and making dead in the water one of our large deck ships would be a calamity for the United States if we were to intervene or get involved in a Taiwan scenario.

And we see the great focus of their effort is towards acquiring this capability, whether it's cruise missiles that can be launched from submerged submarines from 120 nautical miles away that they're buying from Russia or their indigenously built ones that have somewhat shorter ranges, but still aren't something that you could just dismissively ignore.

China is clearly oriented towards this goal. This begs the question. Could Taiwan defend itself from a concerted Chinese submarine campaign and our answer is unequivocally no. They have 26 of these S-2 trackers in the upper left corner; six of them according to the most recent article we can find are air-worthy. We've already gone over the sad story of the \$4.1 billion offer for 12 P-3Cs. 12 P-3Cs will not win an anti-submarine war campaign. It won't do it, and at \$4.1 billion, the Taiwan government is balking. They're buying the Kidd destroyers. Of course, that's relatively cheap and they have two submarines, and they're interested and

we're interested in selling them eight more submarines, but at a cost of \$10.1 billion by some estimates and perhaps 2019 final delivery date, that's too little, too late, at too much money frankly.

They don't have enough platforms to conduct an anti-submarine warfare campaign, which requires a tremendous number of ships, all acting in an intricately choreographed manner in order to be successful.

Could I have another slide? Thank you. Now, can the United States Navy come to the rescue in this? The cavalry? Well, that's a tough question. The S-3 aircraft that the aircraft carriers carry are no longer funded for anti-submarine warfare and don't conduct it, though they do carry the APS-137 radar. The Spruance class destroyer on the upper left, that was a wonderful anti-submarine warfare ship. We have five of those left in the Pacific Fleet. By the end of fiscal year 2005, we'll have one left.

The T-AGOS ships that would carry the towed-arrays and could listen very carefully for quiet submarines and were excellent at finding them, we had a Cold War high of 23. We're down to four or five of those now. And of course, the P-3s have gone down by half of what we had in the Cold War, and a third of the ones that we have remaining were recently announced for early decommissioning due to some maintenance problems.

Oh, and of course, something near and dear to my heart are the number of fast attack submarines. We had 100 or more in the Cold War. We're down to 58. One of our admirals was recently quoted as saying it wouldn't surprise him if we were down in the 30s before the end of the very short time period, end of the decade.

Dr. GOLDSTEIN. Okay. Let me just summarize here then. It seems to us that the PLA Navy modernization is gathering steam and that submarines are at the center of this. What do we see? We see an unprecedented scale in the sale of KILOs that happened in 2002. We see them despite that sale going ahead with the Song class. Many had said they would shut down the Song class because of the KILO sale, but they're going in tandem now.

We see them fielding the second generation of nuclear boats, which we think will be a leap in capability. And we also see this great improvement in the areas of recruiting, training, logistics, R&D.

One final note that I didn't get to mention is the new CNO, the Chief of Naval Operations equivalent for the PLA Navy, is a submariner. Last one was an aviator. That happened last year. So it seems to us rather clear that China is following the path, well-trod path of other continental powers, Germany, and the USSR after them, in relying on subs to challenge the superior maritime opponent.

Thank you.

[The statement follows:]

Statement of Lyle J. Goldstein, Ph.D.*
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William Murray, Retired Commander and Research Fellow
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***Undersea Dragons—China's Maturing Submarine Force* †**

Despite new tensions surrounding the March 2004 Presidential elections on Taiwan, the United States and the People's Republic of China (PRC) have witnessed over the last two years an impressive and unexpected warming of relations.¹ Since the September 11, 2001 terrorist attacks, there have been a series of high-level meetings between the countries' leaders. China backed United States military intervention in Afghanistan and actively supports the new regime of Hamid Karzai in Kabul.² The past year has seen substantial United States-Chinese cooperation in the sphere of counterterrorism, including the sharing of intelligence and the arrest of several suspected terrorists.³ Surprising many, Beijing has supported the United States on all major United Nations Security Council resolutions related to the recent Iraq war. Even more significant, American observers have been profoundly impressed with China's quiet efforts to resolve the nuclear standoff on the Korean peninsula.⁴

Many are convinced that a major corner has been turned in United States-China relations, with Beijing embracing a much more pro-American foreign policy. An alternative explanation however, holds that Chinese leaders have instead opted for a pause in the evolving Sino-American strategic rivalry. Diplomatic gestures support the optimistic view of United States-China relations, but close inspection of Chinese military development provides ample evidence for both caution and concern.

Indeed, while the United States military remains focused on the Middle East, the Korean Peninsula, and Central Asia, China continues its rapid military modernization. As part of an increasing maritime focus, significant aircraft and destroyer purchases indicate a broad effort to improve combat capabilities. There is little evidence however, that China will endeavor to field carrier battle groups.⁵ Moreover, Chinese airpower is constrained by weak aerial refueling capabilities, and its surface fleet lacks adequate air defense.⁶ Alternatively, preliminary indications suggest that submarines will lead China's new maritime strategic orientation.⁷

† This article will appear in the Vol. 28, No. 4 (Spring 2004) issue of *International Security*.

* Note: The opinions expressed in this paper are those of the authors and do not represent the official viewpoints of the Department of the Navy or the U.S. Government.

¹ This turnaround in relations was all the more surprising given the strains that accompanied the Bush Administration's early labeling of China as a "strategic competitor." These strains came to head in the so-called "EP-3 incident" of April 2001, in which an American reconnaissance plane was damaged in a mid-air collision with an aggressive Chinese interceptor, and subsequently detained on Hainan Island after an emergency landing.

² See "Jiang Zemin Announces PRC Aid to Afghanistan," Xinhua News Agency, December 20, 2001, Foreign Broadcast Information Service (FBIS) Document No. CPP20011220000178.

³ Keith Bradsher, "3 in Hong Kong Agree to Face Charges in U.S.," *New York Times*, January 7, 2003, pg. A11.

⁴ See, for example, Evan S. Medeiros and M. Taylor Fravel, "China's New Diplomacy," *Foreign Affairs* Vol. 82, No. 6 (November/December 2003), pp. 22–35.

⁵ Despite the 2001 purchase of the aircraft carrier *Varyag* from Ukraine, most naval analysts are skeptical regarding China's intentions to use this platform to develop carrier aviation, because of the tremendous cost that would be necessary to make the vessel combat ready. This viewpoint is not universal, however. For example, one Japanese estimate notes, "It is clear that the Chinese navy has a 'blue water navy' orientation and intends to have aircraft carriers." See [editorial], "Technical Level and Future Trends of Chinese Warships," *Sekai no Kansen*, July 01, 2002, pp. 96–103, FBIS Document No. JPP20020809000036. For insight into the Chinese debate on aircraft carriers, see "Zhongguo Xuyao Hangkong Mujian? Haishi Qianting?" [Does China need aircraft carriers? Or submarines?], *Jianchuan Zhishi* [Naval and Merchant Ships], No. 247 (April 2000), p. 9.

⁶ Concerning Chinese aerial refueling, see Liu Jiafeng and Sha Zhiliang, "Haitian Duijie: Haijun Kongjun Bing Kongzhong Jiashouyou Shuenlian Jishi" [Connecting over the ocean: A record of the naval air force's aerial refueling exercise], *Jianchuan Zhishi*, No. 258 (March 2001), p. 5. This narrative reveals the exercise to be one of the first of its kind, that it was limited in scope, and that many unanticipated problems developed during the course of the maneuvers. On weak air defenses of the People's Liberation Army Navy for surface combatants, see, for example, David Isenberg, "China Buys Russian Vessels to Mount Naval Challenge to U.S.," *Navy News & Undersea Technology*, November 18, 2002, p. 3.

⁷ Certainly, land-based aircraft and surface vessels can be an effective complement to the submarine force. On China's new maritime strategic orientation, see, for example, Tang Fuquan, Huang Jinsheng and Zhang Yonggang, "Shin Shiji Haiyang Zhanlue Xingshi Zhanwang" [Prospects for a maritime strategy in the 21st century], *Junshi Kexue* [Military Science], Vol. 15, No.

Continued

This development is demonstrated most clearly by China's unprecedented signing of a contract with Russia for eight new Kilo-class diesel submarines in May 2002. Contrary to Western forecasts, China's confidence in imported Kilos has not halted domestic production of the new Song-class diesel submarine.⁸ In addition, China's nuclear propulsion program will soon field the first of its second-generation vessels, which will include both attack submarines and strategic missile boats. Finally, the PLA Navy (PLAN) is undertaking an overhaul of the submarine force's weaponry, training, recruitment, and doctrine. A Chinese appraisal of future naval warfare concludes, "The prospect for using submarines is good, because of their covertness and power. . . . Submarines are menaces existing anywhere at any time."⁹ According to another Chinese analyst, "Submarines are the maritime weapons posing the greatest threat to an aircraft carrier formation. Submarines are also our Navy's core force."¹⁰

Recognizing this priority, the 2002 Department of Defense (DoD) report to the United States Congress on Chinese military capabilities concludes, "The PLA Navy likely intends to maintain a large submarine force."¹¹ Rear Adm. Michael McDevitt (U.S. Navy, ret.), a close observer of the Chinese navy, similarly contends, "Submarines are an essential ingredient in the . . . maritime strategy of China," and calls for focused research on China's submarine force.¹²

Unclassified studies of Beijing's ability to conduct undersea warfare are rare. Unfortunately, the analyses that have been available to the wider academic community are also misleading, built on highly problematic assumptions. In particular, Michael O'Hanlon's article in *International Security*, although relatively accurate concerning the prospects for an amphibious invasion, perilously simplifies the challenge posed by China's submarine force.¹³ This sanguine approach reflects a broader inclination within the American strategic studies community. Indeed, few in the United States national security establishment view Chinese military modernization as a potential menace,¹⁴ especially given the immediate nature of other threats such as terrorism and proliferation. Many analysts make the all-too-frequent mistake of extrapolating from decades of peace in the Taiwan Strait. A deeper understanding of Chinese security policy, however, suggests that peace in the Strait during most of the Cold War (since the 1960s) was the consequence of the virulent Sino-Soviet conflict that focused Beijing's attention elsewhere, rather than the product of a stable political reality. With Soviet tanks poised to drive on Beijing, Taiwan was not an primary consideration for China's leaders. Since the end of the Cold War, the East Asian strategic landscape has fundamentally changed, and growing Chinese power and nationalism make the status quo in the Taiwan Strait especially precarious.

Given the persistence of this troubling scenario, together with China's increasing maritime strategic focus, this article seeks to assess China's evolving submarine force and its likely impact on international security. The first section describes the

1 (2002), pp. 88–97; and Hou Songling and Chi Diantang, "Zhongguo Zhoubian Haiyu de Zhanlue Diwei he Dilu Zhanlue Jiazhi Chutan," "China's Near Seas: Strategic Position and Geo-Strategic Importance," *Dangdai Yazhou* [Contemporary Asia-Pacific Studies], No. 10 (2003), pp. 47–52.

⁸ An example of a forecast that recently predicted the demise of the Song submarine program is Nikolai Novichkov, "China's Russian Kilo Buy May Put Song Submarine Future In Doubt," *Jane's Defense Weekly*, Vol. 37, No. 24, June 12, 2002, p. 3.

⁹ Capt. Shen Zhongchang, Lcdr. Zhang Haiyin, and Lt Zhou Xinsheng, "The Military Revolution in Naval Warfare," in Michael Pillsbury, (ed.), *Chinese Views of Future Warfare*, (Washington, D.C.: National Defense University Press, 1997), pp. 277–278.

¹⁰ Wang Jiasuo, "Aircraft Carriers: Suggest You Keep Out of the Taiwan Strait," *Junshi Wenzhai*, [Military Digest], April 1, 2001, FBIS Doc. No. CPP20020326000218.

¹¹ 2002 *Annual Report on the Military Power of the People's Republic of China, Report to Congress Pursuant to the FY 2000 National Defense Authorization Act*, <http://www.defenselink.mil/news/Jul2002/d20020712china.pdf>, p. 21.

¹² Michael McDevitt, "Ruminations About How Little We Know About the PLA Navy," paper presented to the Conference on Chinese Military Affairs, Washington, D.C., October 10, 2000, pp. 8–9, http://www.ndu.edu/inss/China_Center/CMA_Conf_Oct00/paper14.htm.

¹³ See Michael O'Hanlon, "Why China Cannot Conquer Taiwan," *International Security*, Vol. 25, No. 2, (Fall 2000), pp. 51–86.

¹⁴ See, for example, the discussion of China's maritime potential in Robert S. Ross, "Navigating the Taiwan Strait: Deterrence, Escalation Dominance, and U.S.-China Relations," *International Security*, Vol. 27, No. 2 (Fall 2002), pp. 67, 80. Other examples include Bates Gill and Michael O'Hanlon, "China's Hollow Military," *National Interest*, No. 56 (Summer 1999), pp. 55–62; John Wilson Lewis and Xue Litai, "China's Search for a Modern Air Force," *International Security*, Vol. 24, No. 1 (Summer 1999), pp. 64–94; and Avery Goldstein, "Great Expectations: Interpreting China's Arrival," *International Security*, Vol. 22, No. 3 (Winter 1997/98), pp. 36–73. An important corrective to these analyses is Thomas J. Christensen, "Posing Problems without Catching Up: China's Rise and Challenges for U.S. Security Policy," *International Security*, Vol. 25, No. 4 (Spring 2001), pp. 5–40.

PLAN submarine force's emerging order of battle, consisting of both conventionally-powered, and nuclear-powered vessels. The second section focuses on the all-important human and institutional dimensions that will support the major undersea platforms. The third section places the analysis into a political context: the crucial Taiwan scenario. The final section develops a sketch of emerging PLAN submarine doctrine for warfare against the United States Navy. We come to the preliminary conclusion that a dramatic shift in Chinese underwater aspirations and capabilities is under way, and that submarines are emerging as the centerpiece of an evolving Chinese quest to control the East Asian littoral.

An Asymmetric Solution for the Littoral

The PRC has long pursued a potent submarine force. Indeed, submarines were highlighted in the founding doctrine of the PLAN, as outlined by the very first commander-in-chief, Xiao Jingguang.¹⁵ Though China succeeded in amassing a rather large force over the decades of the Cold War, these efforts were constrained by Maoist excesses, which tended to retard the technical and organizational progress so critical to building, maintaining and operating a first class undersea fleet. Today's China is vastly altered since the era of Mao. Now, China is poised to make a broad effort toward creating a submarine fleet that is both large, and modern.

CONVENTIONAL SUBMARINES

On 2 May 2003, China revealed that 70 PLAN submariners had perished in an undersea accident. Details of the tragedy, hardly China's first submarine accident,¹⁶ have gradually emerged. Preliminary examination showed that the submarine had not suffered any damage and all victims were confirmed to have "died of acute suffocation."¹⁷ Most likely, the accident resulted from the failure of a critical air intake valve to open.¹⁸ Regardless of the exact cause of this accident, the event raises troubling questions about safety procedures and the fundamental state of crew training on board PLAN submarines. The *Financial Times* reported that the recent incident "cast a spotlight on China's aging and ill-equipped submarine fleet."¹⁹ But it would be a mistake to extrapolate from this incident and assume that the PLAN submarine force is incompetent and obsolete. Such a perspective fails to recognize that submarine accidents have afflicted all of the major submarine powers. Indeed, as the *Kursk* disaster and also the U.S. Navy's near loss of the *USS Dolphin* in May 2002 illustrate, even the most mature submarine forces are not immune to serious accidents.

Beijing responded to the accident with an unprecedented degree of candor. In a high profile visit carried on national television shortly after the initial announcement, new President Hu Jintao and ex-President Jiang Zemin traveled to the sub-

¹⁵ Wang Youqi, "Mao Zedong Zhuxi Shichaguo de Qianting" [The submarine inspected by Mao Zedong], *Jianchuan Zhishi*, No. 287 (August 2003), p. 6. The doctrine was encapsulated in a three character phrase to guide the PRC's new navy "Qian, Kong, Kuai"—or simply "Submarines, [Land-Based] Aircraft, and Fast [Attack Patrol Boats]."

¹⁶ There is a report of a potentially devastating loss of a large group of skipper trainees when a Romeo-class submarine was lost in 1993. See Joseph S. Bermudez Jr., et al., "China and Northeast Asia, Navy," *Jane's Sentinel Security Assessment*, November 19, 2002, www.janes.com. There is more clarity concerning an accident in the 1980s, which killed 10, and an even more serious incident in the 1960s in which there was only one survivor. See Ma Ling and, Li Ming, "Why Did China Make Public the Submarine Accident?" *Ming Pao*, May 9, 2003, FBIS Document No. CPP20030509000043. The Chinese may have lost an additional Ming to a fire. See "Ming Type 035," <http://www.fas.org/man/dod-101/sys/ship/row/plan/ming.htm>. On early submarine accidents, see Bruce Swanson, *Eighth Voyage of the Dragon: A History of Chinese Seapower* (Annapolis, Md.: Naval Institute Press, 1982), p. 214. There is also some speculation regarding a second Xia-class ballistic missile submarine that might have been "lost in a fire before it went to sea." See Bernard Cole, *The Great Wall at Sea: China's Navy Enters the 21st Century*, Annapolis, Md.: Naval Institute Press, 2001), p. 196, n. 46.

¹⁷ "Valve Problem Blamed for Submarine Accident," *Wen Wei Po*, May 8, 2003, FBIS Document No. CPP20030508000029.

¹⁸ Although the PLAN has not released the results of its investigation, a number of scenarios have been suggested. One possible sequence of events is that a crucial valve stuck shut and failed to allow exterior air to enter the submarine while the ship's diesel engines were operating. The engines consumed all the oxygen from the ship's atmosphere and rapidly asphyxiated the crew. An alternative explanation is that the diesel engines failed to shut off as intended when the submarine submerged. See "Valve Problem Blamed for Submarine Accident." A third scenario offered by Rear Adm. Lloyd Vasey (U.S. Navy, Ret.) suggests that seawater entered the ship's massive batteries, generating toxic clouds of chlorine gas that killed the crew. See Indira A.R. Lakshmanan, "Cause of Submarine Disaster Is Mystery," *Boston Globe*, May 4, 2003, p. 18.

¹⁹ James Kynge, "Hu Seeks More Modern Military," *Financial Times*, May 5, 2003, p. 4.

marine's Lushun base to console the families and inspect the vessel.²⁰ In a subsequent political development, the PLAN's leader since 1996, Adm. Shi Yunsheng, was relieved and replaced by Adm. Zhang Dingfa.²¹ This shakeup at the top may or may not herald a new accountability in Chinese governance, but it is already certain that the submarine incident is having a profound effect on China's navy. In particular, ADM Zhang's background as a submariner—his predecessor was an aviator—is one of many signs that the PLAN is accelerating its efforts in the realm of undersea warfare.²²

The scale of China's \$1.6 billion Kilo purchase from Russia suggests that PLAN strategists continue to view diesel submarines as a vital asset. The eight new Kilos, all project 636s, Russia's top-of-the-line conventionally powered submarines, will augment the two 636s and the two somewhat more limited project 877s that China already possesses. Combined, these twelve impressive submarines will over the next few years supplement China's nearly thirty aging Romeos, approximately twenty Mings (an indigenously produced modified Romeo), and its five or more of the newer Song-class submarines to become a formidable prospective undersea opponent.

Of all China's submarines, the Kilo is the most formidable. It is well respected in the West, and is very quiet, employing a variety of advanced noise reduction measures including sound-dampening tiles, a raft-like shock absorbing base, and a seven-blade propeller to achieve its noteworthy stealth. The Kilo is as quiet as the improved version of the United States Los Angeles-class nuclear attack submarine.²³ Double-hulled, it can dive to three hundred meters, has a maximum underwater speed of seventeen knots, and a crew of fifty two. China's Kilos can launch Russia's heavyweight wire-guided Test-71 ME, as well as 53-65KE wake-homing torpedoes.²⁴

The eight new Kilos, for which China has asked for "expedited" delivery within five years, will incorporate a number of significant upgrades.²⁵ They will likely possess superior batteries (correcting a long-standing problem with exported Kilos), an enhanced digital sonar system, slower turning screws, and quieter main engines.²⁶ Moreover, their weaponry will be state of the art. They will be equipped with the versatile and potent Klub weapon control system that will allow them to fire the 3M-54E antiship cruise missiles (ASCM). This fearsome missile feature supersonic

²⁰ Wang Chien-min "Story Behind the Truth of Submarine No. 361 Accident," *Hong Kong Yachou Zhoukan*, No. 20, May 12, 2003, FBIS Document No. CPP20030513000079.

²¹ John Pomfret, "China Replaces Top Naval Officers Over Sub Disaster," *Washington Post*, June 12, 2003, p. 19.

²² Significantly, ADM Zhang Lianzhong, who was PLAN commander from 1988 through 1996, was also a submariner. On ADM Zhang Lianzhong, see Srikanth Kondapalli, "Chinese Navy's Political Work and Personnel," *Strategic Analysis*, Vol. 23, No. 10 (January 2000), http://www.ciaonet.org/olj/sa/sa_00kos01.html.

²³ Shirley Kan, Christopher Bolckom, and Ronald O'Rourke, "China's Foreign Conventional Arms Acquisitions: Background and Analysis," *CRS Reports for Congress*, October 10, 2000, p. 61, <http://www.fas.org/man/crs/RL30700.pdf>.

²⁴ "Kilo Class (Type 877/636) Diesel Electric Submarine," <http://www.sinodefence.com/navy/sub/kilo.asp>. Wire-guided torpedoes allow the shooting ship to guide the torpedo toward updated target positions, which can increase the probability of obtaining a hit. For a description of other advantages of wire-guided torpedoes, see Owen R. Coté Jr., *The Future of the Trident Force: Enabling Access in Access-Constrained Environment*, May 2002, p. 19, http://web.mit.edu/ssp/Publications/confseries/Trident_ForceWEB.PDF. Wake-homing torpedoes greatly simplify the problem of sinking surface ships by submarines. These are "fire-and-forget" torpedoes that detect and follow a ship's wake until they reach the ship itself. Unlike most World War II-era torpedoes, and like wire guided torpedoes, wake-homing torpedoes can follow and pursue evading targets. Increasing their lethality, they attack ships from the rear, where the target ship's propulsion machinery masks the torpedo's sound. Additionally, they are immune to towed acoustic decoys. See Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 66.

²⁵ Charles Hutzler, "Deficiencies of Chinese Weapons Makers Underlined By Arms Accord with Russia," *Wall Street Journal*, June 28, 2002, p. A11. Chinese sources report that the sale is to be completed by 2007. See "Zhongguo Haijun Jiang Goumai Ba Sou Jiluo Ji Qianting" [China's navy will purchase 8 Kilo-type submarines], *Bingqi Zhishi* [Ordnance Knowledge], (September 2002), p. 5; and "Zhongguo Zai Goumai Jiluo Qianting" [China again buys Kilo submarines] *Jianchuan Zhishi*, No. 275 (August 2002), p. 2. The latter Chinese article noted that the submarine being built at Krasnoye Sormovo was already two thirds completed. Various Russian sources have said, however, that the submarines are to be completed by 2005. See, "Russian Shipyard Begins Building Submarines for Chinese Navy," *Agentstvo Voyennyykh Novostey* [Military News Agency], January 15, 2003, FBIS Document No. CEP20030115000216.

²⁶ Regarding slower turning screws: It is essential to understand that the faster a ship's propeller rotates, the more likely it is to cavitate or produce other types of detectable noises. Since a submarine's stealth is inversely proportional to the amount of sound it generates, the ability to achieve the same submarine speeds with a slower turning screw produces a significant tactical advantage. On battery problems in Kilos, see, for example, See Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 63.

terminal homing and a 120 nautical mile range. Additional Klub weapons the Russians will likely offer for sale include ballistic trajectory antisubmarine and antisurface rocket thrown torpedoes.²⁷ The new Kilos may very well deploy Russia's supercavitating Shkval torpedo. A recent Chinese discussion of these weapons offers the following characteristics for the Shkval: it weighs 2.7 tons, is 8.2 meters long and 533 mm wide, and has a range of 6–12 km with a maximum depth of 400 meters. The speed is given as in excess of 200 knots, which is roughly three times faster than any torpedo carried by Western submarines. Disturbingly, this article claims the Shkval system may already be operational within the PLAN submarine force.²⁸ Another source suggests that China may be fabricating its own supercavitating torpedo.²⁹ Chinese periodicals also evince a great interest in defensive armaments for submarines, including noisemakers and other antitorpedo systems, as well as surface-to-air missiles for use against antisubmarine warfare (ASW) aircraft.³⁰

Air independent propulsion (AIP) technology promises to revolutionize the combat potential of future diesel submarines.³¹ When submerged and operating on batteries, modern diesel submarines are notoriously difficult to detect—and in many cases are even quieter than their modern nuclear counterparts. This stealthiness is the single most valuable tactical feature of conventional submarines, enabling them, much like a sniper on land, to lie quietly in wait for enemy ships. Diesel submarine batteries require recharging every few days, however, which forces the submarine to sacrifice stealth by running its noisy diesel engines to generate electricity to charge the batteries. When running its diesel engines, the submarine must raise its snorkel mast to take in outside air to satisfy the engine's enormous appetite for oxygen. This protrusion provides a significant radar and infrared target for opposing forces to find. Air independent propulsion, on the other hand, provides the means for diesel submarines to forgo these vulnerable snorkeling periods through continuous and quiet charging of the submarine's batteries by generating electricity using large stores of liquid oxygen.³²

Although AIP-equipped diesel submarines cannot match the endurance or speed characteristics of nuclear submarines, AIP does permit diesel submarines to remain quietly submerged for weeks at a time. The tactical advantages that this near independence from snorkeling brings has led all the European submarine manufacturers to offer AIP as an option on their newest export classes. The Pakistani navy recently accepted a French AIP system for its most modern imported submarine.³³ There is little reason to believe that the Chinese will settle for less. In fact, Chinese naval periodicals indicate a very significant Chinese interest in AIP.³⁴ Even Chinese-built diesel submarines may soon appear with AIP. Analysts noted in 2001 that China's twentieth Ming-class submarine was 2 meters longer than its predecessor, leading

²⁷ "Club Anti-ship Missile and Chinese Navy," <http://www.kanwa.com/free/2003/06/e0609a.htm>. According to this source, China will obtain fifty of these missiles as part of the deal in which it is acquiring the eight project 636 Kilo submarines from Russia.

²⁸ Zi Xuan, "Qiaoji Konghua Wuqi" [Super cavitation weapons], *Bingqi Zhishi*, (January 2002), p. 51.

²⁹ See "Navy Systems" in Richard D. Fisher, "The Impact of Foreign Weapons and Technology on the Modernization of China's People's Liberation Army," p. 18, forthcoming.

³⁰ See, for example Yu Yongtao and Qian Jin, "Fuwu: Yulei Duikang Xitong" [The Fuwu anti-torpedo system], *Jianchuan Zhishi*, No. 277 (October 2002), pp. 37–38. This is an appraisal of a European system.

³¹ It is possible, but unlikely that the eight new Kilo submarines will be delivered with AIP. The Russian Rubin submarine design bureau advertises AIP as an option on Russia's newest Amur-class diesel submarines. The premier of this class is now being built in St. Petersburg, <http://www.ckb-rubin.com/>. No country is publicly known to have purchased the AIP option from Russia. It is conceivable, however, that the technology for the Amur AIP system could be back-fitted into China's Kilo fleet. Chinese sources mention this possibility, but are noncommittal. See "Songji Zhihou de Zhongguo Qianting Jihua" [After the Song: Future Chinese submarine development], *Jianchuan Zhishi* No. 241 (October 1999), p. 2.

³² For a description of air-independent propulsion systems, as well as their history, strengths and limitations, see Edward C. Whitman, "Air-Independent Propulsion," *Undersea Warfare*, Vol. 4, No. 1 (Fall 2001), http://www.chinfo.navy.mil/navpalib/cno/n87/usw/issue_13/propulsion.htm.

³³ Joris Janssen Lok, "French Submarine Export Efforts are Gathering Speed," *Jane's International Defense Review*, Vol. 25, April 1, 2002, pp. 52–53. Given China's close military ties with Pakistan, it is likely that Chinese engineers will get a thorough look at this new Pakistani acquisition from France. On Sino-Pakistani maritime cooperation, see, for example, "Navy Chief, Chinese Envoy Talk Defense Ties," *Statesman*, February 7, 2003, FBIS Document No. SAP20030207000038.

³⁴ See, for example, a series of articles in the January 1997 (No. 208) and August 1997 (No. 215) issues of *Jianchuan Zhishi*.

to speculation that it was a test bed for an AIP system.³⁵ A major center for AIP research in China is the Dalian Institute of Chemical Physics. Illustrating the high priority of this research in China, the institute was visited by Jiang Zemin in 1999. The Dalian institute has apparently engaged in a substantive scientific exchange on fuel cell technology with German institutes, the world's leaders in fuel cells for submarines.³⁶

The 2002 DoD report to Congress on Chinese military modernization supports the idea that the Chinese are pursuing AIP, stating, "A new advanced version of the Song-class conventional submarine is expected to incorporate advanced AIP." The same report details other Song innovations: a skewed seven-blade propeller, submerged ASCM launch capability, flank array sonar of French design, and German diesel engines.³⁷ The PLAN intends the Song to be a modern replacement for its Mings and Romeos as well as a capable peer to its imported Kilos. Some disagree. Preliminary reports on the May 2002 Kilo sale projected that the purchase might signify the death knell for the Song program.³⁸ Indeed, the five years that marked the interval between launches of the first two Songs did suggest profound engineering and design troubles. But the completion of the second Song in 2001, and a third Song in 2002, with continued design improvements from their predecessors, the most obvious of which is the removal of the notch in the leading edge of the sail, suggest instead that the program is going forward in tandem with the Kilo purchase.

The new sail on the Song is a matter of some misunderstanding. One analyst wrote in *Jane's International Defense Review*, "Starting with the third vessel, the Song (Type 039) submarine is very close to the French *Agosta* 90B in external shape. The height of the sail has been lowered in order to increase stability underwater."³⁹ It is apparent, however that the sail was not lowered. Instead, the notch on the forward half of the sail was covered up by extending the top edge of the sail forward. This becomes obvious after a close examination of photos of the *Song* before and after the correction. Fortunately, several unclassified photos include human figures enabling relatively accurate (if unsophisticated) calculations regarding the height of the sail. Design considerations bolster the argument that the Song's sail height was not lowered.⁴⁰ The "smoothing" of the sail would doubtless make the flow of water around it much quieter. Thus, the speculation that the Song was unstable underwater—the supposed rationale for "lowering" the sail—is also suspect. To be sure, the five year gap in between hulls one and two is indicative of some serious problems. But these problems may well be less significant than early Western appraisals suggested.⁴¹

If this submarine is better than originally estimated, then it should not be surprising that multiple sources report that several more of these vessels are being built.⁴² According to Rear Adm. Eric P. McVadon, (U.S. Navy, ret.), an authority on the Chinese navy, the Song has entered serial production.⁴³ Another analyst even states that as many as ten Songs may be under construction, in two different ship-

³⁵ Robert Sae-Liu, "China 'Stretches' Latest Ming Submarine," *Jane's Defense Weekly*, Vol. 35, No. 1, January 3, 2001, p. 15. Since most European submarine manufacturers AIP hull sections are five to six meters long, Sae-Liu's conclusion is probably mistaken. On the other hand, there is some speculation that an AIP test-bed malfunction caused the accident aboard Ming 361 in April 2003. See, for example, "Mystery Surrounding No. 361 Submarine Accident Remains Unsolved, Outdated Equipment Become Potential Danger for National Defense," *Nanfang Ribao* [Southern Daily] May 6, 2003, FBIS Document No. CPP20030506000139.

³⁶ Fisher, "The Impact of Foreign Weapons and Technology," p. 7, forthcoming. According to Fisher, the Dalian Institute has produced a Polymer Electrolyte Membrane (PEM) fuel cell that exceeds the PEM performance that Germany has developed for the Type 212 submarines.

³⁷ 2002 *Annual Report on the Military Power of the People's Republic of China*, p. 21.

³⁸ Nikolai Novichkov, "China's Russian Kilo Buy," p. 3. This is also implied in Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 59.

³⁹ Yihong Zhang, "China's Rising Forces," *Jane's International Defense Review*, Vol. 35, No. 8 (August 2002), p. 39.

⁴⁰ Submarine sails house retractable antennas, periscopes, and air induction masts. When retracted, these devices can extend from the top of the sail down to the bottom of the hull of the submarine. A full redesign of these internal elements would have been extremely time-consuming and costly, especially when compared to the relatively simple task of filling in the notch.

⁴¹ Robert Sae-Liu, "Second Song Submarine Vital to China's Huge Defense Program," *Jane's Defense Weekly*, Vol. 32, No. 7, August 18, 1999, p. 17.

⁴² See, for example, "Type 039 (Song Class) Diesel-Electric Submarine," at China Defense Today, <http://www.sinoDefense.com/navy/sub/039.asp>, and Anthony Watts, "Janes Underwater Warfare Systems, Submarine Forces, China," June 16, 2003, www.janes.com.

⁴³ Comment made at Harvard/MIT Conference "The Strategic Outlook in the Taiwan Strait," Harvard University, Cambridge, Mass., April 21, 2002.

yards.⁴⁴ Considerable sunk costs in the Song program will certainly also propel this program forward. China's continuing acquisition of Songs, while simultaneously purchasing Kilos, does suggest that the PLA submarine force is in the midst of a major near-term buildup.

NUCLEAR MODERNIZATION

Even PRC sources concede that China's Han nuclear attack submarine (SSN) and Xia nuclear powered ballistic missile submarine (SSBN) were not only noisy but also posed serious hazards to their crews.⁴⁵ Such early problems were doubtlessly exacerbated because both first-generation nuclear submarines were designed and built during the tumultuous Cultural Revolution, 1966–69. Indeed, the chief designer of these vessels Huang Xuhua, at one point, was sentenced to raising pigs. Subsequently, a group of Red Guards even condemned him to death, a sentence that was only commuted with the direct intervention of Premier Zhou Enlai.⁴⁶ Nuclear submarine design is sufficiently challenging without such blatantly deleterious political intrusions on the process and PLAN nuclear propulsion paid a heavy price.

Despite these deficiencies, the PLAN continues to operate both classes of vessels. The problem-plagued Xia SSBN has just emerged from a major overhaul,⁴⁷ and the Chinese press continues to extol sorties by China's Han nuclear attack submarines—even claiming that they played a role in the 1996 Taiwan Straits crisis.⁴⁸ Exemplifying the importance that the PLAN attaches to its nuclear submarines, a recent Chinese article claims that Beijing's nuclear submarines are first among several factors (ranked ahead of nuclear weapons) that would stay Washington's hand in a future Taiwan crisis.⁴⁹

The PLAN is actively pursuing successors to its problem plagued first-generation nuclear submarines. The new Type 093 SSN will soon succeed the Han, the last of which was commissioned in 1990. Western sources suggest that the Type 093 will be technologically similar to the Russian Victor III, possessing enhanced sonar capabilities and advanced quieting.⁵⁰ A recent PRC article claims that the powerful indigenous reactor will propel the Type 093 to speeds exceeding 40 knots. The same report suggests that the 093 will be comparable in combat performance to the U.S. Los Angeles class SSN.⁵¹ Other Chinese media reports boast that the new Chinese nuclear attack submarine will not be left behind by the latest U.S. Sea Wolf class.⁵² American submariners may well scoff at such claims, but Western analysts underestimated the technical capabilities of late Soviet era submarines too.⁵³ A bow-on

⁴⁴ Jurrien Noot, "Introduction," *Jane's Naval Construction and Retrofit Markets*, Vol. 18, August 11, 2003, www.janes.com.

⁴⁵ John Wilson Lewis and Xue Litai, *China's Strategic Seapower: The Politics of Force Modernization in the Nuclear Age* (Stanford, Calif.: Stanford University Press, 1992), p. 109.

⁴⁶ *Ibid.*, p. 59.

⁴⁷ Zhang, "China's Rising Forces," p. 37. One source claims that the Xia was modified during this refit to accept China's newest submarine launched ballistic missile, the JL-2. See David Miller, *Illustrated Directory of Submarines of the World*, (St. Paul, Minn. MBI Publishing, 2002), p. 407. If true, this would be of enormous significance since it would allow the Xia to strike the continental United States from the East Asian littoral.

⁴⁸ Liu Gen, "Ruguo Dalu Bude Buyong Wuli Jiefang Taiwan—Meiguo Hui Shizhuang Ganshe Ma?" [If the mainland has no choice but to use force to liberate Taiwan, will the United States forcefully intervene?], *Junshi Zhanwang* [Military Prospect], (September 2002), pp. 41–42. The last three hulls of the Han series seem to have been lengthened by 8 meters each to accommodate a special antiship missile system. Ching Tung, "Beijing's Submarine Forces and Taiwan's Antisubmarine Capabilities," *Kuang Chiao Ching* [Wide Angle] August 16, 2002, FBIS Document No. CPP20020816000067. The 1996 Taiwan Straits Crisis witnessed China's test firing of several missiles into the vicinity of Taiwan, large and menacing PLA maneuvers in the Strait and also the dispatch by President Bill Clinton of two United States carrier battle groups to the region for deterrent purposes. The main catalysts for that crisis were a visit by Taiwan President Lee Teng-hui to the United States together with the Taiwan Presidential elections of March 1996.

⁴⁹ Office of Naval Intelligence Liu Gen, "Ruguo Dalu Bude Buyong Wuli Jiefang," pp. 41–42.

⁵⁰ United States Office of Naval Intelligence, *Worldwide Submarine Challenges, 1997*, United States Government Printing Office, February 1997, p. 21. This assessment of Victor III equivalence is repeated in many other sources. There is currently insufficient unclassified data to validate or contest this ONI projection.

⁵¹ Jian Jie, "Shenhou Zhong de Xuangzi Zuo" [Myth of the twins], *Guoji Zhanwang* [World Outlook], Vol. 450, (August 2002), p. 22.

⁵² Hou Xiaomeng, "Juesheng Shenhai: Shijie He Qianting Fazhan Shianzhuang Ji Qianjing" [Decisive conquest of the deep sea: World nuclear submarine development at present and in the future], *Guoji Zhanwang* Vol. 449, (August 2002), p. 61.

⁵³ Former Chief of Naval Operations, Admiral James D. Watkins testified in the mid-1980s: "We had misjudged the absolute sound and pressure levels of the Soviet Victor III. We had made an estimating error, and found that they were quieter than we had thought ... we learned that

Continued

photograph of the vessel in dry dock suggests that the ship has both upper and lower bow sonar assemblies, as well as flank arrays. A Chinese report claims the 093 will have 65 cm torpedo tubes, which suggests it will be able to carry Russia's largest wake-homing torpedo—one developed specifically to destroy aircraft carriers.⁵⁴ The premier 093 was launched in 2002.⁵⁵

Production of the 2nd generation SSBN, known as the Type 094, appears to be well underway. Chinese sources assess that the Xia's successor aims to have a comparable acoustic signature with that of the very quiet Russian Typhoon.⁵⁶ The first of the Type 094 SSBNs may have been launched in 2003, on schedule to become operational in 2005. A second Type 094 by 2008 is a distinct possibility. A larger displacement SSBN, Type 095, which would carry a more capable set of ballistic missiles may also be planned.⁵⁷ The ample space devoted to discussing SSBN operations in China's journal of naval warfare, *Jianchuan Zhishi*, implies that the PLAN's determination to develop a functional SSBN force remains strong.⁵⁸ Regarding SLBM development, a Japanese source suggests that the PLAN's old Golf-class submarine has been engaged in tests of the new JL-2 Submarine launched Ballistic Missile (SLBM) since 1995.⁵⁹

The JL-2 promises to be a formidable SLBM. Solid fueled, with a projected range of 8,000 km, it is 13 m long, 2 m wide, and weighs 42,000 kg. Physically it is roughly comparable to the United States' Trident D-5.⁶⁰ The JL-2 will reportedly carry either a solitary one megaton warhead or alternatively three to eight multiple independent reentry vehicles with nuclear yields of up to 150 kilotons, in addition to penetration aids. It is expected to maneuver in flight using stellar and GPS navigational inputs, and may have a circular error probability accuracy of between 150 and 300 m.⁶¹ This weapon and its successors, so it seems, are being built with an eye on developments in United States national missile defense.

Taken as a whole, Chinese efforts in developing nuclear submarines suggest a measured commitment to the establishment of a blue water capability over the longer term, which complements strong efforts made in the near term to secure the littoral. Evidently, not all PLAN thinkers are satisfied with incremental development of the nuclear force. One Chinese naval strategist, for example, recently called for a future force of twelve SSBNs and thirty SSNs to augment a fleet of sixty-six conventional submarines.⁶²

they are very hard to find." Quoted in Owen R. Coté Jr., *The Third Battle: Innovation in the U.S. Navy's Silent Cold War Struggle with Soviet Submarines*, (Newport, R.I.: Naval War College Press, 2003), p. 66. It is widely believed that many Russian designers and technicians have been involved in building the type 093. Indeed, assistance from the Rubin submarine design bureau may date as far back as 1995. It is also perhaps worth noting that the Russian Victor III submarine was built in the Russian Far East at Komsomolsk. Thus, Russian expertise on SSN construction has most certainly been proximate and convenient to access by the PLAN. Fisher, "The Impact of Foreign Weapons and Technology," p. 1. On the other hand, U.S. Navy intelligence forecasts also overestimated Soviet submarine capabilities during the early Cold War. See Coté, *The Third Battle*, p. 18.

⁵⁴ Jian Jie, "Shenhou Zhong de Xiangzi Zuo," p. 23.

⁵⁵ 2003 *Annual Report on the Military Power of the People's Republic of China, Report to Congress Pursuant to the FY 2000 National Defense Authorization Act*, July 28, 2003, <http://www.defenselink.mil/pubs/20030730chinaex.pdf>, p. 27. This report predicts the 093 will become operational in 2004 or 2005. The 093 was probably launched on December 22, 2002. See Jurrien Noot, "Introduction," *Jane's Naval Construction and Retrofit Markets*.

⁵⁶ See "Zhongwai He Qianting Bijiao" [A comparison of Chinese and foreign nuclear submarines], *Jianchuan Zhishi*, No. 228 (September 1998), p. 30.

⁵⁷ Jurrien Noot, "Introduction," *Jane's Naval Construction and Retrofit Markets*.

⁵⁸ See, for example, the articles in the December 1998 (No. 231), August 1999 (No. 239), June (No. 249) and August 2000 (No. 251) issues of *Jianchuan Zhishi*.

⁵⁹ See "Chinese Navy Releases New Photos of Its Strategic Submarines," *Sekai no Kansen* [Ships of the World] November 1, 2002, FBIS Document No. JPP20021107000162.

⁶⁰ The D-5, currently deployed aboard the United States Ohio-class SSBNs, is 13.4 m in length, 1.85 m in diameter, and weighs 58,500 kg. The U.S. weapon has a published range of at least 7,360 km. Federation of American Scientists, *Trident II D-5 Fleet Ballistic Missile*, <http://www.fas.org/nuke/guide/usa/slbm/d-5.htm>. The significantly higher weight of the D-5, and comparable range, as compared to the JL-2, does suggest that the longer range estimates of 12,000 and even 14,000 km for the JL-2, are exaggerations. For these longer range estimates see, for example, Tian Ping "Julang-2' Will Be Deployed" *Hsiang Kang Shang Pao*, [Hong Kong Morning Paper], Jun 23, 2003, FBIS Document No. CPP20030623000083.

⁶¹ This entire paragraph draws from Duncan Lennox, *JL-2 (CSS-NX-5)*, *Jane's Strategic Weapon Systems*, Vol. 40, June 3, 2003, www.janes.com.

⁶² Han Tang, "Ige Wangmi de Zhongguo Haijun Meng" [A total vision for China's fleet], *Jianchuan Zhishi*, No. 232 (January 1999), p. 13. A recent Russian estimate suggests that the PLAN intends to acquire ten to twelve SSBNs. The same estimate envisions a force of twelve SSNs by the end of the decade and 100 conventional submarines. Dmitry Permyakov, "Dual

Human Resources and Institutional Dimensions

A central precept of Maoist strategy, and therefore of PLA doctrine during most of the Cold War, held that force of will trumps technology in warfare. Deng Xiaoping led a technocratic revolution against Maoist doctrines, sparking China's spectacular economic growth of the last two decades. "High-tech" also became a buzzword in the PLA during that era as China started to replace obsolete weapons systems. Recently, however, study of the United States military and the wars that the United States fought through the 1990s has led the PLA to rediscover the human factor. Beijing clearly recognizes the extraordinary emphasis that the United States military places on education and training. The PLAN, in particular, is making serious efforts to redress recognized deficiencies in recruitment, training, logistics, and underwater technology research.

RECRUITMENT AND EDUCATION

While reducing personnel levels overall, the PLAN is also building communities of intellectual excellence, including the submarine force. Recognizing that pay incentives are needed to attract qualified specialists in China's competitive labor market, the PLAN has initiated generous pay increases in recent years. For example, some ranks saw a salary increase of 100 percent in 1999–2000.⁶³ In screening applicants, the PLAN gives priority to "outstanding student cadres whom are willing to volunteer for submarine service."⁶⁴ Chinese military leaders, having identified a severe deficiency in developing competent noncommissioned officers, created a policy to redress this problem that is apparently producing an entirely new corps of specialists for undersea warfare.⁶⁵ The PLA is also putting the finishing touches on a rigorous system of professional military education, including an initiative that replicates the United States ROTC program. Using the United States military as a benchmark, the new Chinese system of military education is such that one Chinese submarine force admiral's resumé reads similarly to a United States counterpart's: Adm. Zhang Xizhao completed two tours at the Qingdao Submarine Academy and one each at the Nanjing Naval Command and Staff College and at the PLA's National Defense University in Beijing.⁶⁶

The Qingdao Submarine Academy has recently undertaken a sweeping program of reform. In a rigorous process of self-criticism, the academy's leadership concluded that "basic theories have often been stressed at the expense of operating skills." Focusing on its core mission, the leadership has concluded that the only appropriate "yardstick" for evaluating "without mercy ... existing teaching materials, including personnel and facilities" was "whether or not the relevant units are able to fight under hi-tech conditions." New courses have been added, student exchange is now encouraged, and "teaching modes marked by theory-to-theory 'indoctrination' were smashed." In addition, the reforms have introduced interdisciplinary research and a new focus on applying theory to command decisions, "flexibly dealing with sudden incidents, as well as upgrading the students' psychological quality for fighting in a complicated environment."⁶⁷

Another segment of the PLAN's education reform program concerns strategic research. There is an increasingly discernible trend in Chinese military periodicals toward the objective and methodical study of lessons learned from the study of relevant campaign histories. Although detailed discussion of the Battle of the Atlantic during World War II is discernible in these periodicals as early as the 1980s,⁶⁸ the pace of publication and the sophistication of the analyses has increased considerably. Undersea warfare figures prominently in these analyses. Hitler's U-boat cam-

Objective of China's Defense Industry," January 31, 2003, *Krasnaya Zvezda* [Red Star] FBIS Document No. 20030131000351.

⁶³ Cole, *The Great Wall at Sea*, p. 115.

⁶⁴ Ibid, p. 117. For a much more skeptical view of the PLAN submarine force's human resources, see Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 60.

⁶⁵ Su Yingcheng, Chen Wanjun, Yu Zifu, and Liu Ronghua, "The Ocean Applauds You—Getting Close to the High Quality Group of Soldiers and Officers of a Certain Submarine Unit of the Navy" *Xinhua News Agency*, April 7, 2002, FBIS Document No. CPP20020407000031.

⁶⁶ Zhang Zhennan, "'Longguan' Li Zou de Jiangjun" [The tiger admiral], *Jianchuan Zhishi*, No. 227 (August 1998), p. 5.

⁶⁷ Fan Ping, Liu Ping, and Wang Youngsheng, "Blue Whales Dive Deep to Train Skills of Fighting, Winning—True Account of In-Depth Teaching Reform Under Way at the PLA Naval Submarine Academy," *Jiefangjun Bao*, October 21, 2002, FBIS Document No. CPP20021021000066.

⁶⁸ See, for example, Yu Keliang, "Huwei Jian Hukang Fanqianting Zhan Ili" [Escorting convoys against submarine warfare: An example], *Jianchuan Zhishi*, No. 47 (August 1983), p. 13.

paing is of great interest to Chinese strategists,⁶⁹ as is Germany's broader evolution as a maritime power.⁷⁰ There is also extensive coverage of United States submarine exploits against Japan in the Pacific War.⁷¹ As highlighted elsewhere in this article, PLAN specialists continue to study Soviet tactics and strategy, in addition to other more contemporary submarine campaigns, such as the 1982 Falklands War.⁷² Thus, debates on strategy within the PLAN are now informed by an increasingly solid base of military historical research rather than ideological conformity.⁷³

TRAINING REVOLUTION

Paralleling these intellectual innovations, the PLAN appears to be implementing a training revolution. As good students of United States military operations, Chinese planners have become increasingly conscious of the imperative for joint planning and operations.⁷⁴ Indeed the PLAN may have even exceeded the United States in selected areas of joint training. For example, the PLAN has developed an innovative program of cross-training surface and submarine commanders.⁷⁵ Beyond coursework and simulations, this program incorporates a system of cross-posting. A striking facet of the PLA's effort to upgrade training is a distinct shift from rote, repetitive drills to what is described as "confrontational training," which allows for more free-play elements. As is the case of joint operations, this notion appears to be an effort to imitate successful United States military practices. In fact, a recent Chinese article describes China's "Fort Irwin," where "red teams" compete against an elite "blue team," with the goal of forcing the red team commanders to depart from prearranged plans and make on-the-spot adjustments.⁷⁶ Thus, "confrontational training" or competitive, realistic war games are becoming increasingly common in the Chinese fleet, and, in particular, within the submarine force.⁷⁷ Rounding out this trend toward interoperability, the Chinese armed forces, including the navy, have also recently executed a number of intertheater exercises.⁷⁸

Analysts generally agree that after the 1996 Taiwan Strait crisis the PLA focused on the United States as its most likely future adversary. Training with United States capabilities in mind has driven China's submarine force to incorporate substantial innovation into its exercises. For example, fighting the United States would likely mean that PLAN bases might be heavily damaged by air and cruise missile strikes at an early point in hostilities. Working under this assumption, the submarine force has recently conducted a drill in which torpedoes were loaded onto a submarine at a small civilian port employing mobile cranes and other special equip-

⁶⁹ See, for example, Zhou Ming, "Qixi Sicapa Wan," [The daring raid on Scapa Gulf], *Guoji Zhanwan*, Vol. 456, (December 2002), pp. 74–81; and A Yu, "Weiri Diansha" [The electric shark that almost was], *Bingqi* [Weaponry], (April 2002), pp. 36–40.

⁷⁰ See the series of articles on German sea power by Song Yichang in the April (No. 223), May (No. 224) and June (No. 225) 1998 volumes of *Jianchuan Zhishi*.

⁷¹ See, for example, Hu Qidao, "Huangsha Chuji" [The yellow shark goes on the attack], *Bingqi* (March 2002), pp. 28–30; Tian Shichen, "Jingang de Fumie" [The destruction of the Jingang], *Guoji Zhanwan*, Vol. 439, (October 2002), pp. 71–73; and Tian Shichen, "Anye Liesha" [Night of the hunting shark], *Guoji Zhanwan*, Vol. 457, (December 2002), pp. 74–77.

⁷² See the articles on Soviet naval power by Song Yichang in the 1999 volume of *Jianchuan Zhishi*. For discussion of the Falklands campaign, see Chen Juan, "Weishenme Shueisheng Duikang" [Why sonar countermeasures], *Jianchuan Zhishi*, No. 255 (December 2000), p. 30.

⁷³ This is obvious in, for example, "Zhongguo Xuyao Hangkong Mujian?" p. 9.

⁷⁴ See, for example, Yuan Wenxian, "Strengthening Command Training in Joint Operations," *Jiefangjun Bao*, April 9, 2002, FBIS Document No. CPP20020409000117. An example of a recent joint exercise is Yao Yan, "Certain Destroyer Detachment Explores New Road for Joint Sea, Air Training with Certain Airman Unit," *Jiefangjun Bao*, January 13, 2003, FBIS Document No. CPP20030107000053.

⁷⁵ "Cutting Through the Waves as Well as Riding the Whale into the Sea," *Keji Ribao* [Science and Technology Daily], February 2, 2002, FBIS Document No. CPP20020201000184.

⁷⁶ Zhang Kunping, "China's 'Fort Irwin': The Fires of War Burn from Spring Until Winter," *Junshi Wenzhai*, July 7, 2002, FBIS Document No. CPP20020719000182. See also, for example, Zhang Linlin, "Never Set Up a Weak Opponent in Combat Drills," *Jiefangjun Bao*, September 6, 2002, FBIS Document No. CPP20020906000027.

⁷⁷ Zhang Luocan and Sun Shiwei, "Submarines of a Submarine Detachment Brave the Winds and Storms—Sinking Into the Sea for Confrontational Exercise," *Jiefangjun Bao*, January 21, 2002, FBIS Document No. CPP20020122000030; and Liu Xinmin, "East Sea Fleet Submarine Detachment Takes New Tactics to the Training Area," *Jiefangjun Bao*, January 3, 2003, FBIS Document No. CPP20030103000018.

⁷⁸ Zhang Zhihui and Wang Jinyuan, "Air Force Division Successfully Organizes Exercise with Large Formations Making Tactical Inter-Airfield Transfer," *Jiefangjun Bao*, November 21, 2002, FBIS Document No. CPP20021121000026; and Wu Ming-chieh, "Other Side Will Launch Exercise of Three Armed Services in South China Sea after 16th CPC National Congress," *Tzu-Yu Shih-Pao* [Liberty Times], November 15, 2002, FBIS Document No. CPP20021115000106.

ment.⁷⁹ Another recent drill focused on clearing disabled ships from a vital navigation channel.⁸⁰

INFRASTRUCTURE AND LOGISTICS

The PLAN leadership also appears to understand that building and maintaining a world-class fleet of submarines entails a huge investment in infrastructure. Chinese sources suggest greater attention to logistics throughout the PLA. Planning has shifted from “charts, sand tables, and individual micro-computers,” to the development of a “theater and campaign logistics command training operations system.”⁸¹ There have also been efforts at standardization to increase the maintenance efficiency of the fleet. For example, a recent initiative sought to reduce the number of high-grade lubricating oils used by the submarine force by increasing individual oils’ quality and versatility.⁸²

PLA logistics training scenarios are also based on a hypothetical confrontation with the United States. A 2001 logistics exercise focused on disguising important targets and conducting rush repairs.⁸³ In the PLAN, similar exercises have focused on air defense; port security; the evacuation of people and equipment; in addition to the emergency provisioning of warships with oil, food, water, and medical supplies.⁸⁴ In addition, seaborne supply operations have been conducted with the newest Chinese submarines.⁸⁵ Finally, the PLA leadership recently highlighted the vital importance of naval construction units.⁸⁶ Such units could conceivably allow the PLAN submarine force to build submarine pens for its vessels—“dragon palaces under the sea”—which would not only offer the submarine fleet enhanced protection but might also allow for undetected egress from port.⁸⁷ Extensive shelters already protect the nuclear submarine fleet at Qingdao.⁸⁸

SCIENCE AND TECHNOLOGY

Beijing’s commitment to undersea warfare over the long term depends on developing an outstanding science and technology research system to sustain the fleet’s development. The outlines of such a system are beginning to appear. The PLAN leadership has selected Wuhan and Harbin Universities as sites of maritime engineering excellence. The former, which opened officially in 1999, combines the Navy Engineering Academy and the Navy Electronics Engineering Academy. The curriculum focuses on “tackling the key problem of fusing and joining electronic information to weapons systems.”⁸⁹ The latter has colleges of nuclear propulsion and of underwater engineering. Recent research achievements of Harbin University for the PLAN include technology for ocean bottom topographic mapping and a dual-use sub-

⁷⁹ Liu Xinmin and Xu Feng, “Chinese Submarine Unit Succeeds for First Time in Making Use of Civilian Port to Load Torpedos,” *Zhongguo Qingnian Bao* [China Youth Daily] January 6, 2002, FBIS Document No. CPP20020603000058.

⁸⁰ Wang Guangxin, Yu Zifu, and Wang Yong, “Vessels’ Protector and Savior—A Report on Exercises of Emergency and Rescue Operations of the Emergency and Rescue Contingent of the East China Sea Fleet,” *Jiefangjun Bao*, January 23, 2002, FBIS Document No. 20020123000063. Another especially challenging recent exercise was an undersea rescue drill conducted “under severe winter conditions.” See Yang Yue and Qiao Fei, “A Certain Rescue Regiment under the North Sea Fleet Conducts Winter Training in Sea Rescue,” *Jiefangjun Bao*, February 7, 2003, FBIS Document No. CPP20030207000046. Since the Russian *Kursk* tragedy, PLAN submarine rescue drills appear to have increased in intensity and frequency. See also Lu Wenxing and Cai Yifeng, “Chinese Submarine Successfully Conducts Lifesaving Escape in the Sea: An Interview with Chinese Navy Submarine Captain Sun Weidong,” *Haixia Zhizheng Wang* [Cross-Strait Outlook], November 22, 2002, FBIS Document No. CPP20021125000173.

⁸¹ Yin Rutao and Jiang Jianke, “Operations Automation, Networked Training, Equipping Our Military’s Logistics Command Training with High Technology,” *Renmin Ribao*, January 31, 2002, FBIS Document No. CPP20020131000068.

⁸² Chen Heying, Yuan Huazhi, and Xu Feng, “Wholehearted Attention to the Blood of Battlefields—A Research Report from the Navy’s Applied Oil Research Institute,” *Jiefangjun Bao*, January 22, 2003, FBIS Document No. CPP20030122000090.

⁸³ Liu Fazhong, Chen Duan, and Wang Shanhe, “Confrontation Drills Close to Actual Combat Situations—A Factual Record of Air Force’s Logistical Units Strengthening War Support,” *Renmin Ribao*, July 23, 2002, FBIS Document No. CPP20020723000084.

⁸⁴ See “North China Sea Fleet Conducts Emergency Logistical Support Exercises,” *Jiefangjun Bao*, November 6, 2001, FBIS Document No. CPP20011106000077.

⁸⁵ Wang Guangxin, “Certain Service Vessel Group Strives to Raise Contingency Support Capabilities at Sea,” *Jiefangjun Bao*, August 27, 2002, FBIS Document No. CPP20020827000067.

⁸⁶ Jia Junfeng, Zhang Jinming, and Xu Feng, “The Wonderful Survey Troops—A Report From the Survey Party of Engineering Design Bureau of Navy,” *Jiefangjun Bao*, July 17, 2002, FBIS Document No. CPP20020717000062.

⁸⁷ Glenn Schloss, “PLA Submarine Fleet Making Quiet Advances,” *Sunday Morning Post*, August 4, 2002, FBIS Document No. CPP20020805000034.

⁸⁸ Lewis and Xue, *China’s Strategic Seapower*, p. 123.

⁸⁹ Cole, *The Great Wall at Sea*, pp. 123–24.

mersible for mine detection and deep-ocean salvage.⁹⁰ Undersea mapping, in particular, appears to be a significant PLAN priority. Naval survey units have recently produced a three-dimensional digital chart of China's coastal waters. This software not only conveys images for mariners but also sounds an audio alarm to warn of potential obstacles.⁹¹ On an even more sophisticated level, Chinese naval cartographers are mapping regional deviations in the ocean's gravity, because of this force's influence on the accuracy of long-range weapons fired from submarines.⁹² Among other topics that Chinese researchers are exploring are lasers for submarine detection and sophisticated remote seabed hydrophone systems.⁹³

These research efforts are complemented by espionage. Chinese hydrological research vessels maintain an increasing presence in the waters of Taiwan and Japan, prompting the suggestion that they are busy "collecting information for the (PLAN) submarine force."⁹⁴ The director of the acoustic noise laboratory at Russia's Pacific Oceanography Institute stood trial in Vladivostok for trying to smuggle secrets to the Chinese.⁹⁵ Of related interest, one might note the somewhat curious fact that Harbin has been selected as a premier maritime research institution, despite the city's considerable distance from the sea. On the other hand, the university, just a few hours drive from the Russian border, is conveniently located for tapping underemployed former Soviet scientists. Naturally, the United States is also a major target for Chinese submarine-related espionage. The most notorious example concerns allegations against Wen Ho Lee with regard to the fate of plans for the W-88 warhead, a design optimized for SLBMs. Less well known is another case involving alleged attempts by a Chinese graduate student at Iowa State University to illegally obtain detailed knowledge on the fabrication of Terfenol-D, a substance that promises to be crucial to future sonar system development.⁹⁶

It would be a major mistake, however, to assume that China's future science and technology defense prospects are wholly dependent on Russian expertise. Indeed, many United States analysts fall into the trap of extrapolating from the PLAN's historical development, gravely underestimating the impact of "systemic shocks" to that development, above all: the Korean War, the Sino-Soviet conflict, and the Cultural Revolution. It would be an error, therefore, to predict future developments within the Chinese submarine force based on the very slow development of the Han class SSN, for example, which was begun in 1958, but only went to sea in 1974. Given the PRC's extraordinary efforts in education and especially basic science research, the ascendance of a generation of scientific personnel trained in the West, and market incentives that have vastly enhanced the technological sophistication of contemporary China, it is not surprising that one of the United States' foremost Sinologists warns that the next generation of Chinese-made weaponry will represent a marked departure from the past.⁹⁷

The Taiwan Scenario

The PLAN's near-term focus on diesel submarines is one of several indicators that suggest that Beijing's immediate focus is on the Taiwan problem. Observers of the military balance across the Strait generally agree that an invasion of Taiwan will

⁹⁰ Zhang Shimin, "Harbin Engineering University for Ships, Sea and Defense," *Jianchuan Zhishi*, No. 274 (July 2002), FBIS Document No. CPP20020723000222.

⁹¹ Han Fanzhou, Chen Xianjie, and Xu Feng, "Record of Surveying of China's Marine Territory by Marine Surveying and Mapping Forces," *Jiefangjun Bao*, December 11, 2002, FBIS Document No. CPP20021211000077.

⁹² Ibid. The force of gravity is not uniform. It varies due to local topographic features such as undersea mountains and trenches. Although these variations in gravitational fields are small, they have a significant effect on the accuracy of gyroscopically-aided navigation systems, such as those used by submarines and long range missiles.

⁹³ Guo Yan and Wang Jiangan, "PRC S&T: Detecting Thermal Track of Submarines by Infrared Image," *Haijun Gongcheng Xueyuan Xuebao* [Journal of Naval University of Engineering] June 1, 2002, FBIS Document No. CPP20020812000168; and He Zuoyang and Wang Wenzhi, "PRC S&T: Design of Acoustic Holography Measuring Array," *Harbin Gongcheng Daxue Xuebao* [Journal of Harbin Engineering University] April 1, 2002, FBIS Document No. CPP20020627000203; Sun Guiqing, Yang Desen, Zhang Lanyue, and Shi Shenguo, "Maximum Likelihood Ratio Detection and Maximum Likelihood DOA Estimation Based on the Vector Hydrophone," *Shengxue Xuebao* [Journal of Acoustics] January 1, 2003, FBIS Document No. CPP20030123000416.

⁹⁴ See Stratfor, "Spy Incident Highlights Taiwan's Submarine Concerns," Stratfor.com, April 16, 2002.

⁹⁵ Oleg Zhunusov, "Eavesdropping in the Ocean Deemed Illegal," *Izvestiya*, July 4, 2002, FBIS Document No. CEP20020705000214.

⁹⁶ Scott L. Wheeler, "PRC Espionage Leads to 'Terf' War," *Insight Magazine*, October 29, 2002, p. 26.

⁹⁷ Comments of Ambassador Chas Freeman, Asia-Pacific Forum, September 31, 2001, U.S. Naval War College.

continue to elude the PLA for at least the next decade. Despite the steady upgrading of the PLA Air Force, the revamping of Chinese special forces, and particularly the fielding of a vast array of short-range missiles, the paucity of modern amphibious landing craft among other factors makes a full-scale invasion an unlikely, if still conceivable possibility.⁹⁸

A BLOCKADE WITH CHINESE CHARACTERISTICS

Enhanced submarine capabilities and numbers increasingly give credence to an alternative strategy for coercing Taiwan: the naval blockade.⁹⁹ As an island with few resources, Taiwan may be uniquely vulnerable to this form of coercion. The volatility of Taipei's stock market during the 1996 crisis indicates that Taiwan's entire economy could face a meltdown if confronted with determined mainland efforts to subvert it. Moreover, the former ruling and now opposition party in Taipei, the Kuomintang, has been critical of the current Democratic Progressive Party government's tendency toward pro-independence rhetoric. This suggests a strong possibility that the mainland could succeed in exploiting Taiwan's internal political fissures in a crisis. In other words, Washington cannot count on a united front within Taiwan—speedy capitulation is conceivable if Beijing confronts Taipei with a sophisticated strategy of sticks and carrots.

A recent Chinese article strongly suggests that PLA strategists are closely examining options for blockading Taiwan. Reflecting on the 1962 Cuban missile crisis, for example, the author concludes, "The United States achieved its objective of a deterrent blockade, forcing the Soviet Union to give in." According to this analysis, "A maritime blockade should be imposed suddenly, after thorough preparations, so as to have the effect of taking the enemy by surprise." It is noted, moreover, that "a maritime blockade in a civil war . . . does not come within the scope of application of international maritime law."¹⁰⁰ As another Chinese author explains: "Once China blockades Taiwan, sea transportation would be cut, Taiwan's economy would be paralyzed and its political situation would become unstable."¹⁰¹

Chinese diesel submarines would be the decisive force in this troubling scenario. Employing its older submarines as mine-layers and decoys would allow China to rely on its more modern submarines to patrol north, south, and east of the island. Even a few ship sinkings would prompt insurance brokers to revoke their coverage of merchant shipping, and commerce at Taiwan's two biggest ports, Taipei and Kaoshiung, would swiftly grind to a halt.¹⁰²

TAIWAN'S ASW POTENTIAL

While the United States considered its options, Taiwan's navy might try to break the blockade on its own. Its chances of success, however, would be relatively low. Taiwan's otherwise formidable air force might well fall victim to PRC missile impacts. Even without such strikes, Taiwan's aircraft are not well suited for ASW operations. Indeed, a recent report suggests that out of Taiwan's twenty-six S-2T Trackers, only six are operational.¹⁰³ This is not surprising given that the aircraft have been in Taiwan's service since 1976, and were considered obsolete by the United States before that. Taiwan's budget crunch, moreover, has cast doubt on the expected purchase of twelve P-3C Orions from the United States, so that the Taiwan navy may seek a life-extension on the S-2Ts through 2008. The imminent delivery of the four Kidd-class destroyers from the United States will not significantly help the Taiwan navy in its ASW efforts either, even though the Kidd is potentially a capable ASW platform.

The root cause of Taiwan's ASW woes is an inadequate number of ASW platforms overall.¹⁰⁴ Finding and destroying submarines requires enormous resources. As

⁹⁸ See O'Hanlon, "Why China Cannot Conquer Taiwan," pp. 54–73.

⁹⁹ Of course, Beijing would very possibly integrate missiles and other aerial operations into a naval blockade. Thus, it has been suggested that "China's warplanes and missiles . . . can effectively break up Taiwan's antisubmarine troops." See Ching Tung, "Beijing's Submarine Forces and Taiwan's Antisubmarine Capabilities," *Kuang Chiao Ching*, August 16, 2002, FBIS Document No. CPP2002082000067. See also Christensen's discussion of a "missile blockade" in his "Posing Problems without Catching Up," p. 29.

¹⁰⁰ Gao Hongyan, "A Chat on Naval Blockade Warfare," *Xiandai Junshi* [Modern Military], January 5, 2003, FBIS Document No. CPP20030127000191.

¹⁰¹ Ching Tung, "Beijing's Submarine Forces and Taiwan's Antisubmarine Capabilities," *Kuang Chiao Ching*, August 16, 2002, FBIS Document No. CPP20020816000067.

¹⁰² Christensen, "Posing Problems without Catching Up," p. 29.

¹⁰³ Brian Hsu, "Taiwan Hopes to Extend Life of Submarine Aircraft," *Taipei Times*, August 12, 2002, FBIS Document No. CPP20020812000122.

¹⁰⁴ The authors wish to thank Rear Adm. (ret.) Michael McDewitt for this insight and many that follow.

Owen Coté observes concerning the Battle of the Atlantic in World War II, “the price of sea control was ... substantially ... [higher] than the price of contesting it. ...”¹⁰⁵

The problem is exacerbated both by the large number of submarines that China can deploy and by the nature of the area in which China’s submarines will operate, much of which is characterized by shallow, noisy waters that make ASW exceedingly difficult. Also affecting this calculus are the rapidly improving effectiveness and ease of operation of the weapons that China’s submarines will carry. Modern wake-homing torpedoes form a particularly cogent threat against surface ships. They also have the benefit of requiring only rudimentary submarine skills to fire, in contrast to previous torpedo-homing schemes.

Many regard submarines as the best ASW platform, and there has been much talk of expanding Taiwan’s small fleet of four diesel submarines, two of which date from World War II. Superficially, Taiwan’s prospective purchase of eight modern diesel submarines from the United States would help to restore some measure of equity to the increasingly lopsided undersea balance in the Taiwan Strait. The purchase is plagued by numerous obstacles, however, and even if it does go forward, these submarines would do little to redress China’s fundamental undersea superiority. Unlike nuclear fast attack submarines, their diesel counterparts are not well suited to searching for other submarines. Taiwan’s diesel submarines might do well in chance encounters against their mainland adversaries, but they could not conduct the wide-area sanitizing operations required to lift a blockade. Instead, additional modern submarines for the Taiwan navy would give Taipei some offensive undersea capability, but they would probably have little effect on PRC submarine operations against Taiwan.¹⁰⁶

The timing and rate of submarine acquisition also mitigates against the notion that eight new submarines will help Taiwan’s ASW prospects. As noted previously, the PLAN expects to take delivery of eight Kilos between 2005 and 2007.¹⁰⁷ These ships are being simultaneously built in three different Russian shipyards, which may suggest that Beijing is in a hurry.¹⁰⁸ In addition, the PLAN may well have a system for accelerating crew training given that it maintains a large force of submarines and that it already has Kilos in its arsenal.¹⁰⁹ A United States Navy delegation told Taiwan officials in November 2003 that Taiwan was unlikely to get its eight new diesel submarines before 2019.¹¹⁰ Moreover, Taiwan’s crew training would likely be a major bottleneck, suggesting some additional years before the vessels are truly operational. This time lag, even under assumptions that favor Taiwan, will still significantly widen the already substantial capability gap later in the present decade. The aforementioned Taiwan budget crunch that affects the P-3 Orion sale also casts doubt on the proposed submarine purchase. With the Taiwan defense budget reaching an eight-year low in 2002,¹¹¹ the \$4–5 billion commitment seems unlikely. Also complicating Taipei’s calculations regarding this purchase is the ominous challenge of water space management. To avoid the problem of fratricide, Taiwan’s submarine force would have to be shielded from potential United States ASW operations. Making this point, former Taiwan Vice Defense Minister Ku

¹⁰⁵ Coté, *The Third Battle*, p. 12.

¹⁰⁶ For an alternative view, see Capt. Bo Rask, Royal Swedish Navy, “Submarine Operations in Taiwan Waters,” *The Submarine Review*, January 2003, pp. 47–49. Rask views Taiwan submarine mining operations as a potentially major obstacle to PRC offensive operations. But given that the PRC is free to choose the timing of the campaign, we have little confidence that these mines could halt the successful egress of Chinese submarines. Moreover, Taiwan’s submarine fleet is likely to suffer attrition in the initial Chinese attack.

¹⁰⁷ “Zhongguo Haijun Jiang Goumai Ba Sou Jiluo Ji Qianting,” p. 5.

¹⁰⁸ Nikolai Novichkov, p. 3. The three shipyards are in St. Petersburg, Komsomolsk-on-Amur, and Nizhny Novgorod.

¹⁰⁹ On “explor[ing] a new way of training on one new submarine and storing up multiple groups of personnel for the new armament,” see “PLA Submarine Detachment Implements Advanced Training for New Armament Personnel,” *Jiefangjun Bao*, June 23, 2002, FBIS Document No. CPP20020624000065. A recent report also describes how two separate crews use one submarine to train. This raises the troubling possibility that China’s submarine force could quickly undertake a major expansion at some point in the future. See Liu Xinmin and He Desheng, “Submarine Detachment Conducts ‘Vessel Exchange System’ Training—Going to Sea ‘on Other’s Vessel’ to Train Reserve Personnel,” *Jiefangjun Bao*, November 29, 2000, FBIS Document No. CPP20001129000037.

¹¹⁰ David Eisenberg, “Taiwan’s Ssubmarine Saga Continues,” *Asia times*, November 21, 2003, <http://www.atimes.com/atimes/China/EK21Ad03.html>, cited in Fisher, “The Impact of Foreign Weapons and Technology,” p. 6.

¹¹¹ Brian Hsu, “Taiwan Defense Spending Hits Eight-Year Low,” *Taipei Times*, September 4, 2002, FBIS Document No. CPP20020904000138.

Ch'ung-lien recently warned, "Taiwan submarines [may] be mistakenly attacked." He concluded, "[Submarines] may not necessarily meet Taiwan's actual needs."¹¹²

Simply stated, Taipei is unwilling or unable to devote the necessary resources to mount a credible defense against a sustained submarine campaign. It is therefore unlikely that Taiwan will be able to cope with such a scenario at present or for the foreseeable future. The more salient question is: Could the United States break the blockade? Certainly yes, but the growing capability of the PLAN submarine force will increase the risk to United States naval forces operating in the vicinity of Taiwan.

ASW IS HARD, AND GETTING HARDER

The United States ability to wage ASW has withered significantly since the end of the Cold War. O'Hanlon estimates that "in an extreme case, a United States ship or two could even be sunk" in breaking a PRC blockade of Taiwan.¹¹³ Our analysis shows this estimate to be too optimistic—off by an order of magnitude. The discussion below reveals the flaws in O'Hanlon's estimate.

As one PLAN strategist correctly explains, "Attempting to track submarines in the tremendous expanse of the ocean is extremely difficult."¹¹⁴ This assessment fully corresponds to U.S. Navy experience. Côté, for example, cites one participant in the increasingly difficult hunt for quiet Soviet submarines in the late Cold War: "[There were] several incidents in which the entire navy had to deploy in order to find and maintain contact on one submarine."¹¹⁵ Finding and neutralizing quiet submarines requires an intricate choreography and the integration of the specialized characteristics of multiple aircraft, surface ships, submarines, and remote cueing systems. The more physical assets that can be devoted to the problem of finding submarines, the more likely that adversary submarines can be found and destroyed, or at least driven off. Similarly, the more highly skilled and trained the hunters are, the more likely their success. Unfortunately, the United States Navy's ability to field large numbers of skilled submarine hunters and ASW platforms has fallen precipitously.

During the Cold War, United States carrier-borne S-3 Viking aircraft were effective submarine stalkers, capable of finding periscopes at long ranges with their potent radar. But the S-3s have been taken off of their ASW mission, and have become full-time aerial refueling aircraft. Land-based P-3 Orion ASW aircraft, have suffered a 50 percent overall force reduction, and in most regions they no longer focus on ASW as their principal mission. A third of the remaining P-3s are scheduled to be removed from service by 2005 due to corrosion problems.¹¹⁶ The U.S. Navy has effectively mothballed its Sound Surveillance System (SOSUS), and it has scaled back on the number and ASW prowess of its Surveillance Towed Array Sensor System (SURTASS)-equipped T-AGOS ships, especially by failing to build beyond the first prototype of the Impeccable-class. The navy has been unable to adequately test that ship's Low Frequency Active (LFA) sonar system due to lawsuits stemming from environmental concerns about possible harm to marine mammals. This is a severe blow to the navy's shallow water ASW efforts given that the LFA system can provide particularly good long-range detection probabilities against modern diesel submarines in shallow waters.¹¹⁷ Significantly, only 5 of the navy's 22

¹¹² Quoted in Chieh Yang, "Taiwan Needs Key Weapons," *Taiwan News*, October 17, 2002, FBIS Document No. CPP20021023000197. Ku asserts, "The sale of submarines to Taiwan by the United States is fundamentally a political issue." He goes on to suggest that only "key weapons" (i.e. nuclear weapons) can maintain Taiwan's security and avoid "the quagmire of [an] arms race." Ibid.

¹¹³ O'Hanlon, "Why China Cannot Conquer Taiwan," pp. 78–79.

¹¹⁴ Anonymous quoted in "Zhongguo Xuyao Hangkong Mujian?" p. 9.

¹¹⁵ See Côté, *The Third Battle*, p. 70.

¹¹⁶ The U.S. Navy intends to purchase 108 Multi-mission Maritime Aircraft (MMA), but this platform is not supposed to reach initial operating capability until 2013. There are also plans to purchase fifty Broad Area Maritime Surveillance unmanned aerial vehicles to augment the MMAs. See Mark Selinger, "Navy Plans Early Retirement For A Third Of P-3 Fleet," *Aerospace Daily*, November 19, 2003. These timelines suggest the possibility of a rather wide window of vulnerability with respect to U.S. airborne ASW capability. Moreover, using these aircraft to find and destroy submarines requires an uncontested aerial maritime environment. Robert Rubel, a professor at the Naval War College, observes that some aircraft in China's inventory, including especially the Su-27, would be highly effective against U.S. maritime surveillance aircraft because of the Su-27's speed and impressive range.

¹¹⁷ Fred Engle, "Sharing the Seas with Marine Mammals," *Currents: The Navy's Environmental Magazine* (Winter 2003), p. 19.

Cold War-era T-AGOS ships continue to perform ASW missions.¹¹⁸ The navy's fleet of surface combatants is also much reduced. Such capable ASW ships as the remaining nineteen Spruance class destroyers are slated for accelerated decommissioning as a cost-saving measure.¹¹⁹ In fiscal year 2004, five Spruance destroyers are scheduled for decommissioning, as are four T-AGOS ships.¹²⁰

During any United States attempt to break a Chinese submarine blockade, American nuclear submarines are certain to form the leading strike force. The United States, however, now has only fifty-four fast attack submarines, barely more than half of the 100 SSNs operational in 1985.¹²¹ Nor are current building rates particularly reassuring.¹²² The remaining United States SSNs are individually more capable than they were eighteen years ago, but whereas during the Cold War SSNs focused primarily on their blue water ASW mission, today's SSN force must divide time between ASW, surveillance operations, and most prominently, the attack of targets ashore with cruise missiles. Added to this reduction in force and shift in mission is the irreducible difficulty of finding the modern, quiet diesel submarines in China's shallow and noisy littoral waters.

American SSNs could conduct a methodical search-and-destroy campaign against Chinese submarines, especially in the deep waters to the east of Taiwan where they can make full use of their superior technology, weapons, and training. But as one analyst notes "shallow water is ideally suited for [Chinese] submarine operations. ... [They] can hide between the layers of the underwater thermals and maneuver among the rocks and shoals, where acoustics are clouded."¹²³ In the vicinity of Taiwan, even the United States submarine force will be strongly tested, given the difficult environment, the large number of interfering merchant and fishing vessels that mask the quiet adversary, improvements in the PLAN submarine force's ASW weaponry, and the sheer weight of Chinese numbers. This fundamental difficulty is exacerbated if United States SSNs are expected to operate in the Taiwan Strait, which is so shallow as to nearly preclude United States SSN operations there.¹²⁴ Much of the East Asian littoral is comprised of shallow water, defined here as less than two hundred meters in depth. (See Figure 1.) This area, which encompasses nearly the entire Yellow and East China seas, provides severely disadvantageous conditions for United States SSN employment, weapons, and sensors. Such conditions constitute nearly all of the waters to the west and north of Taiwan.

Taking into account the forgoing analysis, the problems with O'Hanlon's analysis become readily apparent. First, he claims that the "overall outcome of [the blockade campaign] is hard to predict, given the rough parity in numbers between Chinese submarines and Taiwanese escorts."¹²⁵ This appraisal gives short shrift to the history of ASW warfare, which has repeatedly shown that ASW campaigns are extraordinarily resource intensive. Thousands of United States and British escorts and aircraft were required to curtail the threat from several hundred Nazi submarines, and despite this great numerical advantage, this campaign was "a damned near run

¹¹⁸ Only one of the original eighteen Stalwart-class ships still conducts ASW missions. See "Counter-Drug Operations/Ocean Surveillance Ships-T-AGOS," <http://www.chinfo.navy.mil/navpalib/factfile/ships/ship-tagos3.html>. All four of the Victorious class T-AGOS ships still perform ASW. See "Victorious Class Ocean Surveillance Ships," <http://www.hazegray.org/worldnav/>. The Navy also uses the *Cory Chouest* Ocean Surveillance ship as a test platform for the Low Frequency Active Towed Sonar array, bringing the number of active T-AGOS ships to six. See *Cory Chouest* Ocean Surveillance ship, <http://www.hazegray.org/worldnav/>.

¹¹⁹ Hunter Keeter, "Mullen: Navy to Back Further Program Cuts, More Business Efficiencies," *Defense Daily*, January 17, 2003, p. 1.

¹²⁰ Rear Adm. A.T. Church, *FY 2004 President's Budget Overview*, January 31, 2003, slide presentation http://navweb.secnv.navy.mil/pubbud/04pres/highbook/31Jan_Budget_Rollout_brief.pdf.

¹²¹ "U.S. Navy Active Ship Force Levels, 1917-" <http://www.history.navy.mil/branches/org9-4.htm>.

¹²² In 2003, according to the former United States Submarine Force commander Vice Adm. Grossenbacher, "The problem we have today is just numbers, ... We don't have enough. ... In my opinion, we're about as thin as we can be. ..." Robert A. Hamilton, "Lack Of Subs Could Slow Pace Of Technology, Admiral Warns," *New London Day*, September 30, 2003, p. A3. This same article observes, "The Navy is [currently] building one submarine a year, which will eventually result in a force of 30 boats." A looming budget shortfall later this decade endangers long-range plans to boost this low building rate.

¹²³ Frank C. Borik, "Sub Tzu and the Art of Submarine Warfare," in Mary A. Sommerville ed., *Essays on Strategy XIII* (Washington, D.C.: National Defense University Press, 1996), p. 16.

¹²⁴ One informed observer states that a "Modern nuclear submarine, as presently configured, can [only] operate safely on a routine basis in waters that exceed 120-140 feet in depth." Richard M. Rosenblatt, "Submarine Air Independent Propulsion and the U.S. Navy," *Submarine Review*, (July 1997), p. 122.

¹²⁵ O'Hanlon, "Why China Cannot Conquer Taiwan," p. 78.

thing.”¹²⁶ Similarly, during the Falklands War, the British navy expended nearly all of their ASW ordinance without sinking or disabling the two modern Argentine submarines that were active in the theater.¹²⁷

In assessing the United States Navy's overall present and future effectiveness against China's submarine force, O'Hanlon's analysis is again flawed. He attempts to extrapolate from certain estimates regarding United States Navy effectiveness versus Soviet submarines. Yet he ignores numerous problems with the comparison: Diesel submarines are quieter than nuclear submarines; acoustic conditions in the littoral are much more complicated and difficult than in deep blue water; and there is no reason to believe that United States forces could rely on SOSUS hydrophones in the vicinity of Taiwan, as O'Hanlon assumes. As demonstrated above, United States ASW is not what it was during the Cold War, nor is the likely future operating environment. O'Hanlon's quantitative assumptions regarding a United States ASW campaign against Chinese submarines are also not sustainable. Thus, his notion that each Chinese submarine would only have a 20 percent chance of detecting an adversary ship before being detected is, again, far off the mark.¹²⁸ Our estimate is that this number could be at least 50–60 percent if not higher.¹²⁹ Similarly, he estimates that 75 percent of Chinese submarines would be destroyed after one “round” of combat, a rather optimistic appraisal of United States ASW capabilities (and Chinese incompetence).¹³⁰ Such changes in assumptions have major consequences in calculating possible United States losses.

O'Hanlon's mistaken estimates may stem from a misreading of Cold War submarine operations. He extrapolates from a source claiming that in the late 1980s, forty United States SSNs could destroy all Soviet SSBNs in the Sea of Okhotsk within fourteen hours.¹³¹ He neglects, however, the original author's caveat that this measure assumed no reaction by the Soviet armed forces, a truly bizarre assumption.¹³² The suggestion, moreover, that a few dozen Taiwan and United States ships and aircraft could adequately patrol his suggested 300,000-square-mile safe “corridor” is also highly questionable.¹³³ Finally, O'Hanlon's analysis is based on faulty estimates of Chinese submarine capabilities. The analysis suggests that only 10 percent of China's armed forces will have “late Cold War equivalent hardware” by 2010. If the Song proves to be a capable platform, the Chinese submarine force in 2003 is already over that modest hurdle. Given recent developments, including especially the large new Kilo purchase and the imminent appearance of China's new SSN, there is no possibility that O'Hanlon's estimate on PLAN capabilities will hold to 2010. Thus, O'Hanlon's conclusion that “in an extreme case, a United States ship or two could be sunk” does not meet the test of closer scrutiny.

PLAN Submarine Doctrine

Since at least 1996, the PLAN has been preparing to do battle with the United States Navy. Consequently, PLAN submarine doctrine is developing with a distinct understanding of the asymmetric nature of its rivalry with the United States Navy.

ASYMMETRIC TACTICS

In such an environment, PLAN submariners realize they must overcome the technological gap with innovative tactics that will allow them to confront a technically superior military.¹³⁴ Of course, this is a condition that has prevailed in almost all of modern China's military conflicts and has therefore become deeply embedded in Chinese strategic culture. Contemporary Chinese military journals frequently dis-

¹²⁶ Côté writes: “In World War II, the peak number of U-boats operational was 240 in March 1943, and this force faced in the Royal Navy alone approximately 875 ASDIC-equipped escorts, 41 escort carriers, and 300 Coastal Command patrol aircraft.” Côté, *The Third Battle*, p. 12. Modern technology may reduce this ratio, but the needle-in-the-haystack nature of the ASW problem will likely always demand large numbers of platforms.

¹²⁷ Adm. Harry D. Train, commander in chief of the U.S. Atlantic Command and also NATO Supreme Allied Commander Atlantic during the Falklands War, writes that Argentina's two German Type 209 diesel submarines “created enormous concern for the British. It dictated, at least as much as did the air threat, the conduct of British naval operations and caused the expenditure of a vast supply of antisubmarine warfare weapons. Virtually every antisubmarine weapon in the task force was expended on false submarine contacts.” Train, “An Analysis of the Falkland/Malvinas Islands Campaign,” *Naval War College Review*, Vol. 51, No. 1 (Winter 1988), p. 40.

¹²⁸ O'Hanlon, “Why China Cannot Conquer Taiwan,” p. 82, n. 115.

¹²⁹ This estimate is based on the professional experience at sea of one of the authors.

¹³⁰ O'Hanlon, “Why China Cannot Conquer Taiwan,” p. 82, n. 115.

¹³¹ Ibid., p. 79, n. 104.

¹³² Tom Stefanick, *Strategic Antisubmarine Warfare and Naval Strategy* (Lexington, Mass.: Lexington Books, 1987), p. 36. Stefanick himself calls this assumption “highly unrealistic.”

¹³³ O'Hanlon, “Why China Cannot Conquer Taiwan,” p. 78.

cuss the option of striking first as a key means of coping with inferiority.¹³⁵ This finding is consistent with that of the 2002 DoD Annual Report to Congress on the Chinese military.¹³⁶ Strategic timing is vital, but so is tactical timing. One Chinese military author, for example, envisages the sortie of Chinese submarines from port during bad weather so that adversary ASW aircraft are temporarily grounded.¹³⁷ Speaking to reporters after a recent patrol, a PLAN submarine captain explained, "When we penetrated the first island chain, we took advantage of bad weather as cover, which did well in ensuring the concealment of our submarine."¹³⁸ Similarly, another Chinese strategist suggests that the Luzon Strait (between Taiwan and the Philippines) is ideal for submarine operations, because of the notoriously bad weather.¹³⁹ In this and like manners PLAN submariners intend to exploit the fact that hostilities are likely to take place in and around China's home waters.¹⁴⁰ Thus, PLAN submarine commanders are working toward an intimate acquaintance with the topography, thermoclines, currents, and other hydrographic peculiarities of China's coast and particularly in close proximity to Taiwan. One Chinese source says of the waters east of Taiwan: "Owing to the enormously strong and warm western Pacific current in these waters, submarines operating there can submerge to a certain depth of water and antisubmarine sonar above the water finds it very difficult to detect them directly."¹⁴¹

A recent description of PLAN submarine exercises details operations in which the submarines stop their engines and rest either on the seabed or drift silently on a thermal layer as if "perched on the clouds."¹⁴² Another notes repeated practice in cloaking as a "submerged reef" and riding the rapid local currents.¹⁴³ These peculiar phrases suggest that Chinese submariners clearly recognize the importance of having comprehensive local environmental knowledge and exploiting that knowledge to maintain stealth and other tactical advantages.

Chinese sources also note that PLAN submarines will work in conjunction with mining operations.¹⁴⁴ They observe that submarines played a role in the United States' campaign to mine Japanese waters during World War II, which led to the sinking of 670 Japanese ships.¹⁴⁵ Indeed, there is great interest in mines, and particularly deep-water rising mines.¹⁴⁶ Submarines and mines are not the only underwater weapon systems receiving close scrutiny by PLAN strategists. Minisubmarines, special operations, and unmanned underwater vehicles (UUVs) also appear to be of great interest.¹⁴⁷

Previous discussions of PLAN doctrine have noted the potentially significant fact that China's submarine force has not been officially tasked with an ASW role.¹⁴⁸ This aspect of doctrine is in transition, however, and the development of submarine ASW tactics now appears to be a priority.¹⁴⁹ Indeed, the latest model diesel sub-

¹³⁴For PLA discussions of asymmetric warfare, see Christensen, "Posing Problems without Catching Up," p. 9.

¹³⁵See, for example, Wang Jiasuo, "Aircraft Carriers: Suggest You Keep Out of the Taiwan Strait," *Junshi Wenzhai*, April 1, 2001, FBIS Document No. CPP20020326000218; and Dong Ping, "Qianting de Yinbi he Yinbi de Gongji" [Submarine concealment and concealed attack], *Bingqi Zhishi* (May 2002), p. 52.

¹³⁶See the 2002 *Annual Report on the Military Power of the Peoples Republic of China*, p. 13–14. The United States would also face strong incentives to preempt before China's submarine fleet had effectively dispersed. On this point, see Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 69.

¹³⁷Yi Wen, "Wo Bangjiale Yi Sou Hangkong Mujian" [I kidnapped an aircraft carrier], *Guoji Zhanwang*, Vol. 440, (April 2002), p. 78.

¹³⁸Lu and Cai, "Chinese Submarine Successfully Conducts Lifesaving Escape in the Sea."

¹³⁹Su Sen, "Batu Haixia: Chouliang de Qianting Youji Qu" [The Bashi Channel: A favorable environment for submarine attack operations], *Jianchuan Zhishi*, No. 241 (October 1999), p. 13.

¹⁴⁰See, for example, Christensen, "Posing Problems without Catching Up," p. 11.

¹⁴¹Ching Tung, "Beijing's Submarine Forces and Taiwan's Antisubmarine Capabilities," *Kuang Chiao Ching*, August 16, 2002, FBIS Document No. CPP20020816000067.

¹⁴²Wang Xinsen, "A Close Look as a Submarine Puts to Sea," *Jianchuan Zhishi*, No. 272 (May 1), 2002, FBIS Document No. 200205300000157.

¹⁴³Zhang, "'Longguan' Li Zou de Jiangjun," p. 5.

¹⁴⁴Wang, "Aircraft Carriers."

¹⁴⁵Ying Nan, "Gongshi Bulei de Bingli Yunyong he Tedien" [Tendencies in offensive mine warfare delivery systems], *Jianchuan Zhishi*, No. 240 (September 1999), p. 10.

¹⁴⁶See, for example, Li Kefeng, "Eluosi Shin Huoquian Shang Fu Shuilei" [Russia's new rocket-propelled rising mines], *Jianchuan Zhishi*, No. 277 (October 2002), pp. 34–35; and Zhou Yi, "Aircraft Carriers Face Five Major Assassins," *Junshi Wenzhai*, March 1, 2002, FBIS Document No. CPP20020315000200.

¹⁴⁷On UUVs, see, for example, the series of articles in September 2001 issue (No. 264) of *Jianchuan Zhishi*. On mini-subs and special operations, see, for example, a series of articles in the April 2001 (No. 259) issue of *Jianchuan Zhishi*.

¹⁴⁸Cole, *The Great Wall at Sea*, p. 139.

marines are apparently training for this mission.¹⁵⁰ Against the formidable passive sonar systems of the United States submarine force, Chinese submarine captains recognize that frequent resort to active pinging is tantamount to suicide.¹⁵¹ The emphasis is therefore on improving the performance of passive Chinese sonar and the incorporation of towed arrays.¹⁵² Another improvement is that Chinese submarines are increasingly equipped with digital (versus less capable analog) sonar systems that make extensive use of commercial off-the-shelf computer processing technology.¹⁵³ Western diesel-electric submarines have been successful during exercises in conducting mock attacks against American nuclear submarines.¹⁵⁴

Conceivably, a future Chinese submarine force could be guided to ASW engagements, cued by acoustic information obtained from remote seabed hydrophone arrays, by a form of Chinese SOSUS, which has elicited considerable PLAN interest, as noted above.¹⁵⁵ Chinese military analysts are also interested in sonar counter-measures,¹⁵⁶ including the use of acoustic signal masking with China's extensive merchant and fishing fleets. A United States naval strategist speculates, "[Chinese] fishing vessels would seed periscope decoys, transponder buoys, and floating radar reflectors. Merchant ships would transmit false radar signals and would tow acoustic jammers."¹⁵⁷ Describing a recent incident involving the USS *Bowditch* surveillance ship, one Chinese commentator observes, "Only after a Chinese fishing boat rammed and damaged its sonar equipment did the ship resentfully go away. China used civilian to resist military, and outwitted the United States ship."¹⁵⁸ This behavior may well indicate broader Chinese intentions to extensively employ civilian assets to confound the enemy in the midst of military operations.

NUMBERS MATTER

In addition, PLAN submarines will attempt to make use of their superior numbers to offset the qualitatively superior United States submarine fleet. Thus, older and less sophisticated submarines will likely be employed to screen the higher-value assets. Chinese sources openly describe using certain submarines as "bait."¹⁵⁹ Employing this tactic, it is conceivable that United States submarines could reveal their own presence to lurking Kilos by executing attacks against nuisance Mings and Romeos. No wonder China continues to operate the vessels, which are widely derided as obsolete by Western observers. The threat from these older submarines cannot be dismissed out of hand. Informal United States Navy testimony suggests that the PLAN can operate the older classes of diesel submarines with surprising tactical efficiency.

Despite increasing attention to ASW, PLAN writings leave little doubt that destruction of United States aircraft carrier battle groups is the focal point of doctrinal development. As one PLA general recently observed: "We have the ability to deal with an aircraft carrier that dares to get into our range of fire. ... The U.S. likes vain glory; if one of its aircraft carriers could be attacked and destroyed, people in the U.S. would begin to complain and quarrel loudly, and the U.S. President would find the going harder and harder."¹⁶⁰ The singular PLAN focus on targeting United

¹⁴⁹ Lin Zailian and Lu Yongzheng, "Certain Submarine Detachment under North Sea Fleet Conducts Drills and Develops 12 New Combat Methods," *Jiefangjun Bao*, March 22, 2002, FBIS Document No. CPP20020325000052; Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 60; and 2003 *Annual Report on the Military Power of the People's Republic of China, Report to Congress*, p. 22.

¹⁵⁰ See, for example, Jiang Guangxin, Liu Ronghua and Yu Zifu, "Yong Shin Ban Xiang Dayang: Ji Mou Qianting Tingzhang Wang Zaizhu" [A courageous new crew sets sail: Recollections of a certain submarine captain Wang Zaizhu], *Jianchuan Zhishi*, No. 269 (February 2002), p. 8.

¹⁵¹ Dong Ping, "Qianting de Yinbi he Yinbi de Gongji," p. 51.

¹⁵² Ibid. By incorporating towed arrays on its submarines, the PLAN would be indicating a clear intent to operate in deeper water. Towed arrays are generally heavier than the water they displace, and would drag along the bottom in shallow water, making them useless.

¹⁵³ See the 2002 *Annual Report on the Military Power of the Peoples Republic of China*, p. 23.

¹⁵⁴ Most recently, Nathan Hodge "Australian 'Hit' On U.S. Sub Gets Attention," *Defense Week Daily Update*, October 1, 2003. Also see Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 67.

¹⁵⁵ China may have developed passive acoustic sensors, possibly for coastal surveillance. See the 2003 *Annual Report on the Military Power of the People's Republic of China, Report to Congress*, p. 33.

¹⁵⁶ Wang, "Aircraft Carriers."

¹⁵⁷ Borik, "Sub Tzu and the Art of Submarine Warfare," p. 11.

¹⁵⁸ Huang Tung, "The Inside Story on How a Chinese Fishing Boat Outwitted U.S. Spy Ship," *Yazhou Zhoukan* [Asia Weekly], October 7, 2002, FBIS Document No. CPP20021008000063.

¹⁵⁹ Wang, "Aircraft Carriers."

¹⁶⁰ Maj. Gen. Huang Bin, quoted in Richard D. Fisher, "To Take Taiwan, First Kill a Carrier,"

States carriers is likely related to the very high profile of carrier battle groups in the 1996 Taiwan Strait crisis (and in virtually every other significant crisis over the past five decades). The strike potential of a carrier's embarked air wing represents significant power projection, just as the carrier itself is symbolic of United States military might. China clearly recognizes this significance, and has developed its submarine force to the extent that it is now the greatest Chinese threat to United States carriers. Interestingly, Chinese sources suggest that lurking PLAN submarines inhibited the movement of United States carrier battle groups during the 1996 crisis.¹⁶¹

STALKING AIRCRAFT CARRIERS

China will rely on a new generation of air and space assets to track United States carrier battle groups. Indeed, Beijing recently launched the second of its latest generation photo-reconnaissance satellites.¹⁶² Also, it will soon receive Russian built A-50E early warning aircraft for surveillance of ships at sea.¹⁶³ These new capabilities will be supplemented by merchant vessels, high-frequency direction finding, and a formidable network of spies. Chinese planners estimate, "There is no way [for United States carriers] to evade ... reconnaissance and tracking."¹⁶⁴ Not surprisingly, the PLAN appears to be especially interested in developing the technology and doctrine for communicating effectively with its submarine fleet, so that its submarine captains get the most up-to-date targeting information from these remote sources.¹⁶⁵ Without a doubt, achieving this capability is no easy task, but Beijing recognizes the magnitude of the problem.

Chinese strategists do not underestimate the formidable defenses of American carrier battle groups, but they hold that success against United States capital ships is possible. One author, for example, writes, "Although aircraft carriers have powerful submarine killer aircraft on board, and despite the fact that there are antisubmarine vessels in the formation and their magnetic and infrared detectors are very advanced, antisubmarine warfare is by no means easy to implement."¹⁶⁶ China's current strategy may even be a calculated response to "vulnerabilities that the PLA has identified in the United States Navy's high-tech armory." Thus, a Hong Kong-based military analysts suggests, "The development of the Chinese submarine force is very much based on Beijing's assessment that they have found gaps in United States capabilities. The U.S. has a lot of trouble tracking submarines when they are under way."¹⁶⁷ A top American submarine admiral's assessment does not contradict this Chinese appraisal. In a speech before a select group of defense contractors Vice Adm. John Grossenbacher observed, "Our ASW capabilities can best be described as poor or weak."¹⁶⁸

Chinese planners, in the Russian tradition, believe that a carrier battle group can be destroyed with multiwave and multivector saturation attacks with cruise missiles. One recent analysis calculates, "In order to paralyze a carrier, there must be 8 to 10 direct hits [by] cruise missiles ... and nearly half of the escort vessels have to be destroyed. This ... requires the launch of 70 to 100 anti-ship cruise missiles from all launch platforms in a single attack."¹⁶⁹ The same analysis describes Russia's Cold War-era "anti-carrier forces" in great detail and concludes, "This is Russia's asymmetrical and economical answer to the threat of United States aircraft carriers. In the Russian armed forces, no other force could surely fight this threat

sia.jamestown.org/pubs/view/cwe_002_014_004.htm. On the widespread conviction among Chinese strategists that American society is casualty averse, see Christensen, "Posing Problems without Catching Up," pp. 17-20.

¹⁶¹ Xin Benjian, "United States Concerned Over China's Anticarrier Strategy for Fear of Exposing Its Own Weakness and Plays Up 'Threat' of Other countries," *Huanqiu Shibao* [Global Times], February 7, 2003, FBIS Document No. CPP20030212000035. According to this article, "Once the carriers are threatened, the Americans will run away."

¹⁶² Philip S. Clark, "China Launches New photo-Reconnaissance Satellite," *Jane's Defense Weekly*, Vol. 36, No. 19, November 6, 2002, p. 14.

¹⁶³ Xin, "United States Concerned Over China's Anticarrier Strategy."

¹⁶⁴ Zhou, "Aircraft Carriers Face Five Major Assassins."

¹⁶⁵ Wang Gong and Tong Shaosi, "Qianting Zhiming Shang: Tongxin Maoduen Luohou Dui Qianting de Shengcun Weixian" [A submarine's fatal flaw: The danger of communications backwardness for submarine survivability], *Junshi Zhanwang* (March 2002), pp. 57-59.

¹⁶⁶ Xin, "United States Concerned Over China's Anticarrier Strategy."

¹⁶⁷ Schloss, "PLA Submarine Fleet Making Quiet Advances," Some PLAN authors may respect Japanese ASW capabilities more than those of the United States. See Wang Xiaoxuan, "Ribben Hangkong Fanting Liliang de Zuozhan Tedian" [Trends in Japan's aerial anti-submarine warfare capabilities], *Jianchuan Zhishi*, No. 208 (January 1997), p. 32.

¹⁶⁸ Vice Adm. John Grossenbacher, "Remarks at 2002 NDIA Clambake," *Submarine Review*, (January 2002), p. 12.

¹⁶⁹ Dong Hua, "An Aircraft Carrier's Natural Enemy: The Anti-Ship Missile," *Junshi Wenzhai*, July 1, 2002, FBIS Document No. CPP20020710000185.

except submarines.”¹⁷⁰ Chinese fascination with the Russian Oscar-class “carrier-killer” SSGN (nuclear-powered cruise missile submarine) is evident in PLAN publications.¹⁷¹ Another article highlights the importance of saturating the carrier battle group’s anti-cruise missile defenses with “numerous cruise missile salvos forming up dense waves of attacks, and with the interval between the launch of each wave being several seconds or several minutes, so that the enemy aircraft carrier formation is subjected to multiple waves of continuous, concentrated attacks. . . . [It will be] unable to react effectively to the follow-on waves of attack, and ultimately [will] take hits.” On this problem, Owen Coté explains, “Flying low and fast, antiship missiles are extremely difficult to defend against in the endgame of their engagements, which is why the United States Navy’s traditional approach . . . [was] to kill the archer rather than his arrow.”¹⁷² The serious shortfall in contemporary United States ASW limits reliance on this Cold War-era tactic.

Other strategies outlined for attacking carrier battle groups include attempts to “scatter [the] formation,” allowing for defeat in detail¹⁷³ and also targeting the vulnerable ships that resupply the carrier battle group with fuel and other necessities.¹⁷⁴ Chinese authors have duly noted that during World War II, seventeen aircraft carriers were sunk by submarines.¹⁷⁵ PLAN strategists also draw confidence from reports of success by rather primitive diesel submarines in penetrating carrier battle group ASW screens during exercises with allied navies.¹⁷⁶ According to the Chinese press, PLAN exercises in 2001 and 2002 off China’s south coast were conducted “with the intervention of United States aircraft carriers in mind.”¹⁷⁷ Finally, aircraft carriers are seen as carrying “huge quantities of ammunition, aircraft fuel, and ship fuel,” and therefore are vulnerable to “heavy losses if hit.”¹⁷⁸

More than simple chest-thumping, the potential Chinese submarine threat has been noted in the wider Asia-Pacific region. An author writing in the *Far Eastern Economic Review* recently observed, “Defense analysts are already questioning whether the United States . . . would risk sending aircraft carrier battle groups to intervene in any clash across the Taiwan Strait if China is successful in deploying an effective fleet of submarines by the end of this decade.”¹⁸⁰ O’Hanlon’s vision of “the tide of [the sea] battle would be strongly against the PRC,” along with Robert Ross’s recent assertion that “United States maritime forces enjoy overwhelming advantages” would each seem to rest on questionable assumptions.¹⁸¹

Conclusion

Evidence suggests that China is seeking to become a first-class submarine power. While the PLAN modernization shows impressive breadth with major new purchases of naval aircraft and surface combatants, submarines appear to be the centerpiece of China’s strategic reorientation toward the sea. The May 2002 contract for eight additional Kilos, the likely continuation of the Song program, and nuclear force modernization, taken together with the evident new priority on training, technological research and doctrinal development all suggest that Beijing recognizes the value of submarines as a potent, asymmetric answer to United States maritime superiority. The recent ascendance of a submariner, Adm. Zhang Dingfa, to the position of commanding officer of the PLAN underlines these tendencies. Further investments in diesel submarines, particularly when enhanced by air independent propulsion, will afford Beijing increasing near-term leverage in the East Asian littoral,

¹⁷⁰ Ibid.

¹⁷¹ See, for example, the many Oscar-related articles in the December 2002 issue (No. 279) of *Jianchuan Zhishi*. The Oscar, a true behemoth, carries 24 300-mile-range mach 2.5, 750 kg warhead SS-N-19 cruise missiles, and can launch 65 cm wake-homing torpedoes. A recent Russian article states “The PRC also has an interest in the procurement of an Oscar class submarines,” Oleg Odnokolenko, “Watch Out, Market Closing. . .,” *Itogi*, February 4, 2003, FBIS Document No. CEP20030204000434. Rumors also persist regarding a possible sale of an Akula-class SSN to China. See, for example, Isenberg, “China Buys Russian Vessels to Mount Naval Challenge to U.S.,” p. 3.

¹⁷² Coté, *The Future of the Trident Force*, p. 11.

¹⁷³ Wang, “Aircraft Carriers.”

¹⁷⁴ Schloss, “PLA Submarine Fleet Making Quiet Advances.”

¹⁷⁵ Zhou, “Aircraft Carriers Face Five Major Assassins.”

¹⁷⁶ See “Zhongguo Xuyao Hangkong Mujian?” For a United States Government report detailing such incidents, see Kan, Bolckom, and O’Rourke, “China’s Foreign Conventional Arms Acquisitions,” p. 65, n. 234.

¹⁷⁷ Xin, “United States Concerned Over China’s Anticarrier Strategy.”

¹⁷⁸ Ibid.

¹⁸⁰ David League, “We All Live for Another Submarine,” *Far Eastern Economic Review*, August 15, 2002.

¹⁸¹ O’Hanlon, “Can China Conquer Taiwan?” p. 79; and Ross, “Navigating the Taiwan Strait,” p. 80.

while methodical nuclear modernization signifies a long-term commitment to global power projection. As one Chinese strategist recently observed, "The scale [of recent purchases] indicates that in the coming years, China will build an offshore defense system with submarines as the key point."¹⁸²

In considering China's maritime modernization, Western defense analysts commonly downplay the threat, expressing deep skepticism at PLAN aptitude for employing high technology and integrating it successfully. Given China's poor record at projecting seapower in the modern era, such skepticism is reasonable, and by no means should the PLAN submarine force be considered ten feet tall. China's submarine force has some significant weaknesses: a reliance on diesel submarines that have to approach the surface to snorkel; especially in the wake of the Ming 361 accident, it is evident that crew training and professionalism remain a fundamental problem; finally, there is little evidence of a robust, remote cueing capability, and probable weakness in the sphere of command and control.¹⁸³ Moreover, the data presented in this study must be viewed as both preliminary and limited, rendering the conclusions necessarily tentative. For example, detailed information regarding the sophistication of Chinese submarine exercises, if it exists, is highly classified.

On the other hand, the trap of projecting from the past and underestimating an opponent is timeworn folly. Here, it is useful to reflect briefly on the Israeli experience in 1973. Just a few years earlier in the Six Day War, the Israelis had shown themselves masters of high-technology air and armored warfare, while the Egyptian armed forces had demonstrated gross incompetence. Given that experience, Israeli analysts were not concerned by the threat from new antitank and air defense weapons imported by Egypt before 1973. Egypt's forces put these new weapons to such deadly effect during the first days of the Yom Kippur War, however, that Israel's survival was very much in question.

Far from inevitable, the possibility of war between the United States and China is reduced by numerous factors: the enormous volume of trade and investment between the two powers chief among them. The same economic mechanisms are also drawing Taiwan and the PRC ever closer. Close examination of Beijing's current terms for unification, in particular Jiang Zemin's "eight points," yield the conclusion that a political settlement of the Taiwan issue is not beyond the realm of possibility.¹⁸⁴ Such an outcome would do much to forestall the tendencies toward rivalry that characterized United States-China relations during most of the 1990s. On the other hand, the United States must hedge against the worst case and face China's rise with eyes wide open.

China is not the first land power to go to sea by investing disproportionately in submarines. Though both Germany and the Soviet Union ultimately failed, their submarine-centric strategies were qualified successes. Germany almost defeated Britain twice in this manner, and by the 1970s the Soviet submarine force successfully challenged United States sea control, even in such core regions as the Mediterranean.¹⁸⁵ Whether the PRC will succeed where Germany and the Soviet Union struggled is one of the greatest questions of maritime strategy for the twenty first century.

Panel IV: Discussion, Questions and Answers

Co-Chair WORTZEL. Thank you very much. That was a great briefing by both of you. Commissioner Mulloy, if I start with you, I'll just run down this way. Do you have anything?

Commissioner MULLOY. Yes, I do. This is for Dr. Goldstein and Mr. Murray. I was reading on page 38 of your prepared testimony.

¹⁸²Tang Sheng, "Mainland Strengthens Prowess of Submarines to Deter Taiwan Independence," *Ching Pao* [The Mirror], September 1, 2001, FBIS Document No. CPP20020905000021.

¹⁸³For a useful discussion of possible weak points in China's submarine force, see Kan, Bolckom, and O'Rourke, "China's Foreign Conventional Arms Acquisitions," p. 70.

¹⁸⁴In his famous "eight points" speech on January 30, 1995, former PRC President Jiang Zemin stated, "[Taiwan] may . . . retain its armed forces and administer its party, governmental, and military systems by itself. The central government will not station troops or send administrative personnel there. What is more, a number of posts in the central government will be made available to Taiwan." It is additionally worth noting that this is the opening PRC position for negotiations—suggesting that the final terms of a settlement might be even more lenient. For the complete text of Jiang's speech, see "Continue to Promote the Reunification of Taiwan," in Orville Shell and David Shambaugh (eds.), *The China Reader: The Reform Era* (New York: Vintage, 1999), pp. 498–501.

¹⁸⁵George W. Baer, *One Hundred Years of Sea Power: The U.S. Navy, 1890–1990*, (Stanford, Calif.: Stanford University Press, 1993), pp. 398–402.

You paint a very sobering scenario, but I'm encouraged by what you say there. You said far from inevitable, the possibility of war between the United States and China is reduced by numerous factors.

And then you talk about the enormous volume of trade and investment between the two powers. You believe that that is a positive in terms of this relationship. And then you say the same economic mechanisms are also drawing Taiwan and the PRC ever closer, and then you go on further and you talk that close examination of Beijing's current terms for unification, in particular, Jiang Zemin's eight points, yield the conclusion that a political settlement of the Taiwan issue is not beyond the realm of possibility.

In terms of U.S. policy, do you think we should be encouraging that type of political settlement between Taiwan and China? Some people say no, no, we're going to have a problem with China, we ought to be encouraging Taiwan as some kind of a permanent, you know, offshore carrier, and I'm just wondering where do you—I'd be interested in the whole panel. What do you think? We should be encouraging the settlement? Or do you think that's an impossibility and we ought to be going in the other direction?

And I'll start, and I'd like a quick view of each of you on that issue.

Dr. GOLDSTEIN. Okay. Yes, sir. Well, you know, addressing the wider political context is a bit outside of the thrust of our paper.

Commissioner MULLOY. It's in your testimony.

Dr. GOLDSTEIN. But let me elaborate somewhat. My own view is that one of the major implications of our work is that whereas O'Hanlon would argue that a war with China would be relatively cheap, just one or two ships lost in an extreme case, that our analysis suggests that a U.S.-China war would be much more costly, and one implication of that is especially given the considerable commitment of the United States to the global war on terrorism, that we should consider how diplomatic tools might be used to push some kind of settlement of the Taiwan issue.

When one considers how much diplomatic energy has been expended on the Arab-Israeli conflict, and yet there is no comparable efforts in this potentially explosive situation. Washington's attitude is extremely passive—limited to expressing the hope that a settlement can be found. Given the considerable military risks involved, which our study underlines, it seems that a more pro-active diplomatic approach is in order.

Commissioner MULLOY. Commander Murray, do you agree with that?

Mr. MURRAY. I don't want to contradict anything that either of the Deputy Assistant Secretaries said earlier, but I think if we could find our way to a negotiated agreement that suited all parties, that's certainly preferable to a war.

Commissioner MULLOY. The other two? You agree with their analysis on that point?

Mr. BRUZZINSKI. I'll just say that I agree unequivocally with Mr. Murray. I think that a war in the Taiwan Strait would be potentially catastrophic for the parties involved and damaging for the interests of the entire region. A war between China and Taiwan would be incredibly costly and it would be very destabilizing to

peace and security in the Asia-Pacific region. So, if a peaceful means can be discovered to resolve differences between the Mainland and Taiwan to achieve an outcome that is compatible with U.S. strategic interests as well as the desires of the free people of Taiwan, then, a peaceful settlement is, by far, the preferred course. However, I do believe that it is imperative that the United States honor its lawful security commitments as embodied in the U.S.-Taiwan Relations Act.

Mr. WANG. I have a slightly different take on this issue. I think the stated U.S. policy is to encourage a peaceful settlement of disputes between the two sides, but be careful what you're wishing for. If I were to favor a settlement, it can only happen under one condition, namely, that the two sides are relatively on equal footing parity rather than Taiwan negotiating under duress.

Other than that, I would actually favor including Taiwanese in the negotiation regarding its status and relationship with the PRC, which we did not do in the past. The Shanghai Communiqué was basically a deal brokered between the U.S. and China over the fate of Taiwan, without any input from Taiwan, and the President wants to impose a status quo that is inherently unstable, Taiwan is now a democracy, so I think the key is to involve the Taiwanese.

Commissioner MULLOY. Thank you very much. That was very helpful.

Co-Chair WORTZEL. Commissioner Ellsworth. No. Okay. Commissioner D'Amato.

Vice Chairman D'AMATO. Thank you, Mr. Chairman. Thank you very much for your testimony. It takes a lot of thought to think through the implications of what you're telling us. As I understand it, you were talking about submarine procurement at the rate of something like over \$8 billion. Was that the figure I heard you mention in terms of procurement of submarines, the KILOs?

Mr. MURRAY. Well, no, sir. The KILOs are eight KILOs for roughly, according to the open press, \$1.6 billion total at \$200 million a piece.

Vice Chairman D'AMATO. \$1.6 billion?

Mr. MURRAY. Yes, sir.

Vice Chairman D'AMATO. Yes. That sounds like a lot of money, you know.

Mr. MURRAY. It is to me.

Vice Chairman D'AMATO. It is to me, too.

Mr. MURRAY. Yes, sir.

Vice Chairman D'AMATO. But when you consider the fact that the Chinese pick up a billion dollars in trade surplus about every 48 hours, I figure they can probably afford a few of these KILO submarines.

The question is, and—the question is whether or not we have thought through a more complicated battle group strategy for the Strait's defense given the possibility of the deployment of numerous KILO submarines to challenge the battle groups? Have you been looking at that?

Mr. MURRAY. Yes, sir. We're giving that a great deal of thought.

Vice Chairman D'AMATO. We may not have as many dimensions to our Strait defense strategy, which in the absence of a Chinese blue water Navy having a couple of battle groups around would be

sufficient. But in the face of this kind of a possible future submarine deployment, then a rethinking is needed. We'd be interested in seeing any kind of papers that you all are doing in that area.

Mr. MURRAY. We'd have to talk to you separately in some other venue.

Vice Chairman D'AMATO. We would like to do that. Yes.

Dr. GOLDSTEIN. Well, I might comment that we painted a rather bleak picture of American ASW, but there are some bright spots. One is I think recognition by the Navy this year that ASW needs to be identified as a priority. We've actually set up a separate command within OP NAV under the CNO that will address ASW issues, specifically.

And there is, I think, at least a recognition on the set of programs that the U.S. Navy needs to regain proficiency in this area. I can walk through them for you, but the Navy will be looking to Congressional support for a variety of programs to regain the capability that has withered in the last decade.

Vice Chairman D'AMATO. Well, I also was very interested in your presentation on this so-called Assassin's Mace program, something that we've been looking at for several years. I don't know if you saw our first report where we went over—we'd be interested in your analysis of what was said in that report on what you know now about Assassin's Mace weapons.

Mr. BRUZZINSKI. I will be happy to review the report and comment on it for the Commission.

Vice Chairman D'AMATO. Thank you. All right.

Co-Chair WORTZEL. Okay. I'm going to break the order I have been following and turn to Commissioner Dreyer.

Commissioner DREYER. I wanted to say thank you before I have to leave. This has really been fascinating. And with regard to Dr. Wang's testimony, I was thinking, as you were talking about the Zhongxue Weiti, Xixue Weiyong, that in the 19th century for those of you who don't speak Chinese, this means Chinese learning for the essence and Western learning for practical use—there was a gentleman named Yan Fu, who in the 19th century worked in a naval shipyard and also translated the works of Western political philosophers like Bentham and Rousseau. He made a startling discovery which is that Western learning had an essence of its own, and if you don't adopt that essence, you can never actually fully utilize the things for practical use.

On my good days, I think I can adopt your statement there about the relative lack of interconnectivity in China and say that this is a two-edged sword because as connectivity increases and people are able to bounce ideas off each other, that the society may pluralize, and therefore the PRC will be less of a danger.

And then, of course, I listened to Drs. Goldstein and Murray and I got very, very depressed about the possibility of what they were describing happening. So I hope that since we do all have security clearances, we can talk to you at some point about what the U.S. Navy is doing and how that might play out in a cross-Strait confrontation. Would that be agreeable to you, gentlemen?

Dr. GOLDSTEIN. Of course.

Commissioner DREYER. Thank you. And now I have to go. Thank you very much.

Co-Chair WORTZEL. Commissioner Robinson.

Chairman ROBINSON. Thank you, Mr. Co-Chairman. It strikes me that it's a high tempo, intensely violent event if things go wrong in the cross-Strait context and there could be a lot of damage as you go out of area, IW being just one example of many. This is obviously a scenario best avoided given the attrition of our own capabilities and the non-replacement of same.

It's not the most upbeat briefing I've heard, but then again very realistic and very well presented. I want to talk about miscalculation for a moment. We've been evaluating Chinese for some time now, both from a military, strategic perspective as well as, of course, the economic trade, financial, and energy side of the equation because of the broad scope of our mandate.

And in our evaluation of Chinese perceptions, particularly on the military and strategic front, we find, a troubling propensity on their part to believe their own propaganda or doctrine, in effect too much. China possesses a number of modern, world-class weapon systems. You're dealing with asymmetric warfare. The Chinese are enamored with magic or Assassin's Mace weaponry, IW, a big emphasis here, and they're acquiring the kind of capabilities that could take down, or disable a major surface ship like a carrier, which by their own admission they regard as a "prize." China is not in my humble judgment, really appreciating the political implications of what they're talking about or preparing for here.

When you fire a supersonic cruise missile at a carrier, it's important to recall that there are 4,000 to 5,000 Americans on board, and if that CLUB missile or supersonic Sunburn cruise missile, whatever, hits its target, you could have thousands of casualties.

I mean there are a far greater number of people than perished on 9/11 on that carrier. The Congress would of course react robustly to any incident of this kind, putting it mildly. I don't understand why the Chinese have a better appreciation for the stakes involved. If you want to talk about things going wrong in a hurry and an escalation that could turn into an uncontrollable spiral—driven by the reaction of the American people, the media and an outraged Congress—the Executive Branch would likely not be able to contain the political fall-out from such an attack.

So I'd be interested in your trying to get into their heads a bit for me and explain to me whether or not I've got it right that the Chinese tend to be prone to miscalculation here, as evidenced by their publications? Are you seeing this as well?

Mr. WANG. I think your point is absolutely right. The Chinese have a problem in terms of their inability to comprehend the political implications. Sometimes I think that they are probably too fascinated by the offensive advantage, for example IW will give them.

In several cases of my research, I found that they very quickly discover that they are equally vulnerable. They hope that they can inflict harm on their opponent, but in fact they are equally vulnerable. So the second generation of the scholarship of these strategic thinkers have become more sober.

I want to provide a little bit of perspective. Some of these publications like the ones that have been shown and the ones I've read

are actually results of China's economic development, namely now there is greater market competition. So some publications are trying to sensationalize and I think that if you ask the real people who have the real decisionmaking powers whether they are ready to take on the United States, that the answer would be probably different.

Chairman ROBINSON. Please.

Mr. MURRAY. Regarding the quality of these publications, they are wholly comparable to U.S. military publications. That does not mean they are immune from exaggeration, and speculation. We find these sources are generally credible, as have other scholars in this field. Of course, buying the platform doesn't necessarily give you the full capability, as Dr. Finkelstein mentioned earlier, but China definitely recognizes where they want to go and they have a clear understanding of the path they have to tread in order to get there, in our opinion.

But the actual state of their expertise or their underwater professionalism, their ability to take these aspirations and make it work, that's something we don't have a firm grip on yet, but this is something we're following as closely as we possibly can, so we'd like to say they're five feet tall and growing. They're not ten feet tall, but they know where they want to go.

Chairman ROBINSON. Tempted in the direction of miscalculation?

Dr. GOLDSTEIN. Well, sir, I think it's a very interesting question, and I think on the point of miscalculation, I've actually taken to counting how many citations one can see references to the so-called "Somalia syndrome," and this dubious notion, I have to say, shows up very frequently in the literature, and one can ask, well, do you see the opposite? Do you see any reference to the "Pearl Harbor syndrome," maybe the "9/11 syndrome," if you will, and we don't see that at all, as near as I can tell, which is most disturbing.

This may suggest on the one hand, just a complete vast misperception. On the other hand, it could plausibly suggest a determined effort on their part to suggest that they don't accept, they don't recognize the Pearl Harbor syndrome, they're not afraid of us. So that could be a propaganda effort on their part.

However, in your broader question, though, of whether they appreciate the true consequences of striking a carrier, I might just say that when we consider the military balance in this situation, it's most important to understand the tyranny of geography and how much that gives China or how that begins to level the playing field when we actually look directly into military scenarios. That may give them the kind of confidence combined with their political will which is evident from their increasing nationalism, to consider even some of the most violent scenarios.

I think there's a large tendency in the military defense analytical community to assume that this war is going to be over in 48 hours and hopefully we'll be there, we'll have the forces in place. But I do not think we can rule out a war in the East Asian littoral that lasts for years and that more closely approximates a tremendous battle of attrition, where again they leverage this advantage of geography.

And so this could well become a question of political will. I think Americans frequently underestimate Chinese will on this question.

Chairman ROBINSON. Yes.

Mr. BRUZZINSKI. Mr. Chairman, I share your concerns. I think you have made a very realistic, sober, judgment. I observe that, historically, the Chinese display a propensity for misperception and miscalculation. I would like to acknowledge the work in this regard by Dr. Michael Pillsbury, who is present here today. Dr. Pillsbury has assembled some excellent research on this for the Office of Net Assessment at the Department of Defense. In fact, I believe that Dr. Pillsbury prepared a specific study a few years ago called "Dangerous Chinese Misperceptions."

I refer to this study over and over again because it's so insightful, and also because I have become very concerned about the statements that I'm reading in translation from authoritative Chinese military journals published by the PLA National Defense University, from the PRC Academy of Military Science and other Chinese military institutions. It is clear to me that the Chinese really do believe that by using their own unique methodologies, that the United States can be deterred or defeated in combat by the PLA. While this may sound almost bizarre to us, I think it is easier for Americans to understand how the Chinese reach some of these misperceptions when one carefully examines the logic and the methodologies that the Chinese employ for their assessments. I view that both the methodologies and the logic appear to be fundamentally flawed.

To their detriment, the Chinese have been indoctrinated to draw upon the Marxist dialectic and what I will call a "relativist" perspective for their military assessments. PLA scholars (operations analysts) are trained to look at military matters from a very relativist perspective. If we take the time to understand the perspective, logic and the methodology that the Chinese use for their assessments, it becomes easier for us to understand how the Chinese reach their conclusions. However, our ability to understand this process does not necessarily make the judgments of the Chinese correct. Indeed, I view that often, the contrary is true. I believe, like Dr. Pillsbury does, that the Chinese tend to draw dangerously incorrect conclusions about the United States Armed Forces and the PLA's ability to cope with American military power. I fear that if the Chinese believe they can deter the United States or prevail in a military conflict with the United States, then China's leaders and generals might be more apt to attempt such actions.

Chairman ROBINSON. No. Thank you for that. I would just conclude by sending a message to China with regard to this kind of scenario—don't do it. It would be a huge mistake. Thank you.

Co-Chair WORTZEL. I have a couple of questions if I may before we close. Dr. Wang, you talked about in your paper digital mutually assured destruction. Now, that is a deterrence term. And what I get from that is you're suggesting that because each side is so good at digital warfare, they deter each other and there is no war.

Mr. WANG. Or they are so bad at this moment. I'm talking about China and Taiwan.

Co-Chair WORTZEL. Yes. So they would not—in other words, there's no danger. They're going to deter each other; is that what you're trying to tell us?

Mr. WANG. I'm not saying that there is no danger because either side can get a technological breakthrough. But based on the available evidence, I see that there is some kind of mutual assured destruction.

Let me give you two examples. In 1999, after Taiwan President Lee Teng-hui made the "two states theory" remarks, the Chinese hackers, called honkers (or "red hackers" in Chinese, meaning they are ideologically committed hackers), attacked the Taiwanese web sites, and planted Chinese flag and all that, and the Taiwanese hackers retaliated. So we saw a virtual war, a cyber war if you will, short of a shooting war, so the Chinese became more sober, and they know they have weaknesses as well.

Another example is the Taiwanese youth today may be a bit too sedentary in terms of lifestyle: They spend too much time in front of a computer playing games so they may not be playing basketball very well, but they know computers very well. Since Taiwan still has a conscription system, so many of them will be drafted into the military, they can become the so-called cyber warriors if you will. The Chinese have their cyber warriors. The Taiwanese military established its own electronic warfare unit in 2001.

So I think that Taiwan is responding to what the Chinese are doing, and this should give the Chinese a little bit of caution as well, but I still would not rule out the possibility of either side gaining some technological breakthrough.

Co-Chair WORTZEL. Okay. Dr. Goldstein and Mr. Murray, you're concerned about U.S. anti-submarine warfare capabilities. And because of that, I mean what I sense in your responses to more political questions is you're just ready to sort of get in the middle, sort of bargain away whatever sort of little bit of sovereignty Taiwan has in order to avoid that war because we're not as good in anti-submarine warfare as you think we should be.

So let's assume we do that. Let's assume we get in the middle and broker a deal, as you suggest, both of you, between Taiwan and the mainland. Does that China have any other goals in the western Pacific that might interfere with American and Japanese interests, assuming that Taiwan was not an issue between China and the United States?

Do they have any maritime goals that have to do with the ability to have freedom of operation and freedom of movement through the air space of the western Pacific?

Dr. GOLDSTEIN. It's quite clear to me that China does seek to be a serious maritime power. As evidence for that, you may look at the development of nuclear propulsion. If those programs are successful and as they develop, that will enable China to project maritime power well beyond the confines of the Taiwan scenario.

Certainly, we would not argue that Taiwan is the sole focus of China's naval modernization, but I think we have to recognize that China is like any other country, it goes through its guns and butter debate. The Taiwan issue focuses and supports those favoring a more aggressive pace for military modernization, and particularly the submarine and naval lobby.

And I do believe China will gradually emerge as a "natural" naval power. It's my own personal view that China's larger geopolitical goals are not akin to the expansionist aims of the Soviet

Union. They are not I think as you yourself said earlier today, that they are not seeking global hegemony, although it is clear they would like to control the East Asian littoral.

Beijing appears much more interested in commercial expansion than in military expansion. But we cannot rule out a more aggressive China in the future. Certainly, we must hedge by strengthening our military forces and various relationships. However, I question whether Taiwan is the most appropriate place to draw the defense line.

Co-Chair WORTZEL. And you both seem to have left Japanese anti-submarine warfare capabilities completely out of your equation. Are there any Japanese capabilities here?

Mr. MURRAY. Certainly there are. Japan has a very capable Navy. They have an extensive P-3 force. They have 15 submarines, not that that gives you much of an anti-submarine warfare capability or wide area search and sanitization capability. And their surface ships are excellent.

Could Taiwan count on them to assist in a situation—

Co-Chair WORTZEL. We've already given Taiwan away. Remember, you guys just gave Taiwan away and solved that one.

Mr. MURRAY. A diplomatic solution does not equate to "giving Taiwan away."

Co-Chair WORTZEL. We haven't. You have.

Mr. MURRAY. Certainly Japan is a strong ally and they have a very capable navy.

Co-Chair WORTZEL. I think Commissioner D'Amato has one and then I think we're going to close it out.

Vice Chairman D'AMATO. I'd just like to follow up on that. I've got a couple of thoughts on that. The defense line has already been drawn for us. It's too late to draw a new defense line. It's there. The problem is, as we see it, as I see it anyway, that brokering a deal between Taiwan and the mainland, that sounds very nice, but what you're talking about is a robust new democracy, how it brokers a deal with what is essentially a highly controlled and brutal and corrupt dictatorship, which is the reality of what's going on in Beijing.

I don't know where the political deal arises from that kind of a dialogue in terms of the long run. So our problem is that given the strong probability that no deal will be brokered as long as you have this political dysfunctionality because Taiwan presents a tremendous embarrassment to the Beijing regime. It's a threat because it exists in terms of an alternative political model to their own.

The problem there is that when you get to the mind-set of asymmetrical warfare and magic weapons and all this baloney, that we look for ways to make sure that miscalculation is reduced to an absolute minimum. How do we reduce miscalculation to an absolute minimum? That's the issue. I think it's a tough question because projecting our way of thinking on their regime is very, very dangerous. They think differently.

And the question of how to communicate what the extreme costs would be for miscalculation, I think, is the task that our leadership needs to address, make sure that there is not a miscalculation. As long as this dysfunctionality exists and there's a potential miscalculation, how to communicate in ways that indicate that the cost

of miscalculation are going to be too high to risk. And I think that is what we need to assure ourselves that we are able to put in place that kind of capability.

Thank you, Mr. Chairman.

Co-Chair WORTZEL. Commissioner Mulloy, you're going to wrap it up for us.

Commissioner MULLOY. Yes. I just wanted the point that the two authors make—Dr. Goldstein, I think you point out in footnote 184 of what you put in here of what the famous eight points are, and not exactly asking for Taiwan to surrender. But the other point by Commissioner Wortzel, Japan has no, they've not indicated that they're in on defending Taiwan from my understanding. We're pretty much alone in that endeavor, aren't we?

But further afield, there would be quite different calculation worldwide, I think, in terms of other adventures that may happen at some point. Is that your impression?

Dr. GOLDSTEIN. As far as Japan, I think it's very much left ambiguous. I do not believe that we can count on Japanese support in a conflict over Taiwan. If we're going to have a robust deterrence ability that the Commissioner just spoke of, then we would want to be sure that Japan is on board for these scenarios, but I don't think we can be, especially given China's clear ability to threaten Japan and in Kadena in particular, so that I do think is a grave concern.

As far as Jiang's eight points, what I find particularly interesting there is China's apparent willingness—and this is reiterated over and over again—to allow Taiwan to keep its defense forces and also to say that they will not station any PRC representatives on Taiwan. To me that suggests there's at least some room for negotiations. I leave the political details to the diplomats, but what I say is let our diplomats be creative. Let them put the energy that they put into the Arab-Israeli conflict into this. Give them a chance.

Of course, our research focuses more narrowly on the military balance and what I say to you on that question of the military balance is if you want robust deterrence, you had better invest heavily in ASW in the future.

Commissioner MULLOY. Thank you, both. Commander Murray.

Mr. MURRAY. Yes, please, I'd like to make one point. You may take the impression away that our Navy doesn't recognize the ASW problem China represents or isn't doing enough to improve anti-submarine warfare. Nothing could be further from the truth. Our Chief of Naval Operations has tasked the fleet to come up with a game plan, a way to regain the undersea supremacy that we would like to have. We're devoting what assets are available to accomplish this, but we are severely resource constrained, because of the demands of the global war on terrorism. To accomplish all of our mission effectively, the Navy will undoubtedly require more support.

Co-Chair WORTZEL. Well, to close it out, thank God that we're only dropping down to 1,800 strategic nuclear warheads. Thanks a lot for your time.

[Whereupon, at 3:40 p.m., the hearing was adjourned.]

**STATUTORY MANDATE OF THE U.S.-CHINA ECONOMIC AND SECURITY
REVIEW COMMISSION**

Pursuant to Public Law 108–7, Division P, enacted February 20, 2003

RESPONSIBILITIES OF THE COMMISSION.—The United States-China Commission shall focus, in lieu of any other areas of work or study, on the following:

PROLIFERATION PRACTICES.—The Commission shall analyze and assess the Chinese role in the proliferation of weapons of mass destruction and other weapons (including dual use technologies) to terrorist-sponsoring states, and suggest possible steps which the United States might take, including economic sanctions, to encourage the Chinese to stop such practices.

ECONOMIC REFORMS AND UNITED STATES ECONOMIC TRANSFERS.—The Commission shall analyze and assess the qualitative and quantitative nature of the shift of United States production activities to China, including the relocation of high-technology, manufacturing, and R&D facilities; the impact of these transfers on United States national security, including political influence by the Chinese Government over American firms, dependence of the United States national security industrial base on Chinese imports, the adequacy of United States export control laws, and the effect of these transfers on United States economic security, employment, and the standard of living of the American people; analyze China's national budget and assess China's fiscal strength to address internal instability problems and assess the likelihood of externalization of such problems.

ENERGY.—The Commission shall evaluate and assess how China's large and growing economy will impact upon world energy supplies and the role the United States can play, including joint R&D efforts and technological assistance, in influencing China's energy policy.

UNITED STATES CAPITAL MARKETS.—The Commission shall evaluate the extent of Chinese access to, and use of United States capital markets, and whether the existing disclosure and transparency rules are adequate to identify Chinese companies which are active in United States markets and are also engaged in proliferation activities or other activities harmful to United States security interests.

CORPORATE REPORTING.—The Commission shall assess United States trade and investment relationship with China, including the need for corporate reporting on United States investments in China and incentives that China may be offering to United States corporations to relocate production and R&D to China.

REGIONAL ECONOMIC AND SECURITY IMPACTS.—The Commission shall assess the extent of China’s “hollowing-out” of Asian manufacturing economies, and the impact on United States economic and security interests in the region; review the triangular economic and security relationship among the United States, Taipei and Beijing, including Beijing’s military modernization and force deployments aimed at Taipei, and the adequacy of United States executive branch coordination and consultation with Congress on United States arms sales and defense relationship with Taipei.

UNITED STATES-CHINA BILATERAL PROGRAMS.—The Commission shall assess science and technology programs to evaluate if the United States is developing an adequate coordinating mechanism with appropriate review by the intelligence community with Congress; assess the degree of non-compliance by China and [with] United States-China agreements on prison labor imports and intellectual property rights; evaluate United States enforcement policies; and recommend what new measures the United States Government might take to strengthen our laws and enforcement activities and to encourage compliance by the Chinese.

WORLD TRADE ORGANIZATION COMPLIANCE.—The Commission shall review China’s record of compliance to date with its accession agreement to the WTO, and explore what incentives and policy initiatives should be pursued to promote further compliance by China.

MEDIA CONTROL.—The Commission shall evaluate Chinese government efforts to influence and control perceptions of the United States and its policies through the internet, the Chinese print and electronic media, and Chinese internal propaganda.

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