National Chengchi University College of International Affairs Center for Global Military Strategy and Defense Policy Annual Report Academic Year 113

Center Name	Center for Global Military Strategy and Defense Policy
Director	Hong-Yi Lien
Implementation Period	August 1, 2024 – July 31, 2025
Participants	**I. Key Personnel** *(e.g., Executive Director, Advisors, etc.)* 1. **On-campus:** o Su Cho-hsin 2. **Off-campus:** o Liou Shiau-shyang **II. Other Personnel** *(e.g., assistants, staff, or contracted personnel)* 1. **On-campus:** o Huang Chien-hao, Chan Chi-wei 2. **Off-campus:**
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Results Report and Future Work Plan

I. Work Achievements for the Academic Year

Please refer to the tables and descriptions below for details, including the attached materials.

II. Work Plan for the Next Academic Year

The Center plans to organize one roundtable discussion and one special lecture. The roundtable discussion will focus on **"How to Distinguish Misinformation and Disinformation,"** while the special lecture will address **"The Relationship Between Whole-of-Society Defense Resilience and All-Out Defense Mobilization."**

Participating personnel: Huang Chien-hao and Chan Chi-wei.

III. Other Matters

Taiwan Security Forum Series

Records beginning in August 2024

◉ Taiwan Security Forum (XI): China's Cognitive Warfare Against Taiwan

The various forms of military operations conducted by the Chinese Communist Party (CCP) against Taiwan have long been central to discussions of Taiwan's security. In recent years, gray-zone strategies and cognitive warfare have clearly emerged as major approaches in the CCP's operations against Taiwan. Following the tenth Taiwan Security Forum, which examined gray-zone strategies, the College of International Affairs invited Li Che-chuan, Research Fellow at the Institute for National Security Studies, and Shih Chien-yu, Associate Research Fellow at the Institute for Cyber Security, both of the Institute for National Defense and Security Research (INDSR), along with Tseng Yi-shuo, Research Fellow at INDSR's Institute for Cyber Security; Wu Chong-han, Chair of the Department of Diplomacy, whose research focuses on U.S.–China–Taiwan relations; and Hsueh Chien-wu, Professor at the Graduate Institute of East Asian Studies, who specializes in China's foreign policy. The participants presented their academic findings and exchanged research insights on the topic of **"China's Cognitive Warfare Against Taiwan."**

Research Fellow Li Che-chuan explained that cognitive warfare is a modern form of conflict that seeks to exploit vulnerabilities in

human cognition to influence decision-making and ultimately produce strategic outcomes favorable to the initiator. He then cited an article by the German Marshall Fund of the United States entitled *"From Coercion to Capitulation: How China Can Take Taiwan Without a War"* to illustrate how the CCP's approach to unifying Taiwan has increasingly shifted toward coercion and intimidation. This shift also demonstrates that cognitive warfare is likely to become an important element of the CCP's future threats against Taiwan.

Li used the narrative of "skepticism toward the United States" as an example, pointing out that the CCP repeatedly disseminates messages supporting particular positions at specific times and in particular contexts. During the U.S. military withdrawal from Afghanistan in 2021 and the outbreak of the Russia–Ukraine war in 2022, for instance, the CCP took advantage of these events to alter some Taiwanese people's established perceptions of the United States. Li cautioned that similar cognitive warfare campaigns will continue to emerge, and urged the public to remain vigilant while encouraging the government to strengthen timely preventive measures.

Associate Research Fellow Shih Chien-yu examined the effects of China's domestic cognitive warfare through the examples of Hong Kong and Xinjiang, comparing these cases with the CCP's cognitive warfare against Taiwan. He argued that the violent crackdown in Hong Kong and forced labor practices in Xinjiang in recent years illustrate the failures of China's cognitive warfare. These actions also reveal the CCP's continued reliance on traditional coercive methods, from which Taiwan should draw lessons.

Nevertheless, Shih noted that cognitive warfare is more difficult to conduct in a democratic country such as Taiwan, where elections are competitive and institutions are relatively transparent. Positions and messages that run counter to Taiwan's interests are more likely to face public scrutiny. The electoral system also provides a mechanism through which voters can remove a governing party that harms the national interest. Taiwan, therefore, is not only capable of

responding to the CCP's cognitive warfare but may also be able to take countermeasures against China.

Tseng Yi-shuo, a Research Fellow at INDSR's Institute for Cyber Security, continued the discussion by examining ways to counter cognitive warfare. He argued that cognitive warfare is characterized by its small scale and low cost, making it difficult to counter through traditional deterrence strategies that rely on threatening an adversary with prohibitively high costs. Any Taiwanese attempt to conduct cognitive operations against the CCP would also require an understanding of local contexts; otherwise, such efforts would be unlikely to achieve their intended effects.

Tseng reviewed the evolution of the CCP's cognitive warfare and warned that it has gradually developed into a more comprehensive form of coercion. For example, following then-U.S. House Speaker Nancy Pelosi's visit to Taiwan, the CCP conducted military exercises around Taiwan and imposed related sanctions to intimidate the island. More recently, the Joint Sword military exercises have tended to be accompanied by legal warfare. These developments make the CCP's cognitive warfare increasingly difficult to anticipate. Taiwan should therefore continue to develop a more comprehensive fact-checking system to resist the infiltration of false information.

Wu Chong-han, Chair of the Department of Diplomacy, argued that discussions of cognitive warfare should begin with an academic examination of its definition, including who can employ it and for what purposes. Citing McCarthyism in the United States during the Cold War, Wu explained that cognitive warfare can alter perceptions and encourage people to distinguish between in-groups and out-groups, thereby deepening social divisions. Any actor with sufficient resources can engage in cognitive warfare.

On this basis, Wu emphasized the importance of education in helping people recognize that cognitive warfare may be operating in their everyday lives. Excessive polarization within a democratic society, he warned, creates particularly favorable conditions for cognitive warfare to penetrate and succeed.

Professor Hsueh Chien-wu of the Graduate Institute of East Asian Studies approached the issue from the perspective of international relations. He explained that so-called “sharp power” uses false information to overwhelm and paralyze an opponent’s attention, while cognitive warfare builds on sharp power by adding the objective of creating internal divisions. Through the dissemination of further false information, cognitive warfare seeks to alter people’s views and redirect their attention.

Citing survey findings from the Election Study Center, Hsueh emphasized that cognitive warfare may not easily change people’s national identity, but it can influence what they pay attention to. Even a slight increase in favorability or a shift toward a more moderate position may indicate that a cognitive warfare campaign has achieved some of its objectives. Hsueh also reminded participants to receive information from diverse sources and maintain an objective perspective, since excessively one-sided positions are more likely to become primary targets of cognitive warfare.

During the discussion, the experts and scholars agreed that freedom of speech and an open, democratic society are Taiwan’s strengths in responding to the CCP’s cognitive warfare. Taiwan should make use of these advantages by preserving a diversity of perspectives within society, thereby preventing social divisions from forming around any single position. Taiwan should also continue to uphold and strengthen its values, creating advantages and enhancing its appeal in the international community. In doing so, Taiwan may create opportunities to influence perceptions on the other side of the Taiwan Strait.



【College of International Affairs Dean Lien Hong-yi introduces the panelists and serves as moderator of the forum.】



【Panelists and students attending the forum.】



【Group photo of panelists and faculty members. From left to right: Associate Research Fellow Shih Chien-yu, Research Fellow Li Che-chuan, Dean Lien Hong-yi, Chair Wu Chong-han, Professor Hsueh Chien-wu, Associate Research Fellow Tseng Yi-shuo, and teacher Liou Shiauo-shyang.】



【Group photo of all participants.】

◉ Taiwan Security Forum (XII): Discussion on Defense Self-Reliance

The College of International Affairs at National Chengchi University held the **Twelfth Taiwan Security Forum: Defense Self-Reliance** on December 10. The panelists included retired Lieutenant General Huang Hsi-ju, Senior Research Fellow at the Institute for National Defense and Security Research; Shen Ming-shih, Adjunct Associate Professor at Tamkang University's Graduate Institute of Strategic Studies; Chang Wen-yang, Director of the International Master's Program in International Studies at National Chengchi University; and Huang Kuei-po, Professor at the College of International Affairs. The forum was moderated by Lien Hong-yi, Dean of the College of International Affairs.

The forum examined the increasingly important issue of defense self-reliance. Huang Hsi-ju had previously served as Director of the Department of Defense Procurement at Taiwan's Ministry of National Defense, while Shen Ming-shih, Chang Wen-yang, and Huang Kuei-po brought extensive expertise in defense and security studies. Together with the active participation and questions of students, their contributions made the forum an engaging and productive exchange.

Lieutenant General Huang Hsi-ju explained that the implementation of defense self-reliance faces policy-related constraints, including limited resources and a preference for immediate procurement. He emphasized that defense self-reliance requires a clear strategic direction and the prioritization of key development areas in order to maximize its effectiveness.

Huang presented examples of defense self-reliance in South Korea, Singapore, Israel, and Sweden. He particularly noted that South Korea now produces domestically approximately 70% of its military equipment and is even able to export some of it. The foundation of indigenous weapons production, he emphasized, is technological capability. He concluded that Taiwan should adopt a systematic, multi-layered strategy for defense self-reliance, concentrate resources on priority areas, progressively establish core capabilities, and invest in highly qualified personnel. These measures would strengthen Taiwan's indigenous defense production capacity.

Professor Shen Ming-shih began by explaining that defense self-reliance can stimulate the development of the defense industry, strengthen the defense economy, reduce dependence on external assistance, and improve domestic research and development capabilities. However, it also faces several challenges, including imitation, bottlenecks in critical technologies, uncertainty about market demand, and difficulties integrating components sourced from different countries.

He argued that industrial cooperation should also consider cost reduction and adopt a pragmatic approach of matching the scale of production to actual agreements and commitments. Dual-use unmanned aerial vehicles (UAVs) have become an emerging trend, and Taiwan is advancing domestic UAV production. Nevertheless, manufacturers face challenges such as their relatively small scale and high investment costs. In September of that year, the domestic aerospace leader Aerospace Industrial Development Corporation (AIDC) announced the establishment of the Taiwan Excellence Drone Overseas Business Alliance. The initiative aimed to work with organizations including the Ministry of Economic Affairs, the Industrial Technology Research Institute, and Coretronic to explore overseas business opportunities.

Professor Chang Wen-yang argued that defense self-reliance could benefit Taiwan by reducing the difficulties associated with adapting to different weapons systems and thereby improving operational efficiency. It could also reduce international dependence and help mitigate strategic risks.

Historically, Taiwan has occupied a relatively peripheral position in the international arms trade and has purchased much of its weaponry from France and the United States. Differences in measurement systems, such as centimeters and inches, can create practical difficulties in maintenance. Chang argued that developing the defense industry could generate positive spillover effects. Once the military-industrial sector becomes more mature, it can promote horizontal and vertical integration across domestic industries and help achieve breakthroughs in technological development.

Private industry also plays an important role. Greater cooperation between the National Chung-Shan Institute of Science and Technology and private-sector companies could generate positive outcomes through both competition and collaboration.

Professor Huang Kuei-po explained that defense self-reliance is shaped by defense policy and national security objectives. Its fundamental goals include preventing war, defending national territory, and combating terrorism and destabilizing activities.

Taiwan's defense budget increased annually between 2004 and 2025, with a particularly substantial rise after cross-Strait relations became more tense in 2020. According to Huang, the budget had reached approximately NT$600 billion, and the following year's defense budget was expected to account for as much as 15% of the total government budget. Huang also applied Graham Allison's three models of decision-making to analyze the issue.

He concluded by raising several questions for policy reflection. Taiwan must identify its most important priorities and avoid pursuing measures that yield little practical benefit. It should also consider whether its definition of defense self-reliance should be adopted from American experts or developed according to its own circumstances. Since defense and diplomacy are inseparable, stronger international cooperation is necessary to ensure that diplomatic efforts complement defense development. Finally, Taiwan must consider whether developing defense self-reliance while disregarding cross-Strait tensions could lead to greater dependence on U.S. arms purchases. Maintaining communication and coordination across the Strait, he argued, is preferable to having no communication at all.

During the concluding question-and-answer session, the panelists elaborated on their views and discussed the many constraints facing defense self-reliance in Taiwan. They emphasized that the government must demonstrate greater determination and commit to long-term strategic planning and resource allocation. Without government leadership, the expected benefits of cooperation between the public and private sectors may not materialize.

Unlike the traditional pattern in which military development precedes civilian applications, contemporary development requires a stronger civilian research ecosystem. Building such an ecosystem is essential to fostering effective collaboration and competition between military and civilian sectors.



【Dean Lien Hong-yi of the College of International Affairs delivers opening remarks and moderates the forum.】



【Panelists and faculty members. From left to right: Assistant Professor Liou Shiauo-shyang, Professor Chen Ping-kuei, Director Chang Wen-yang, General Huang Hsi-ju, Dean Lien Hong-yi, Researcher Shen Ming-shih, and Professor Huang Kwei-po.】



【Group photo of all participants.】

◉ **Taiwan Security Forum Series (XIII): Supply Chain Security**

Factors such as the COVID-19 pandemic, the U.S.–China trade war, and intensifying global geopolitical conflicts have made supply-chain resilience and supply-chain security major concerns for both public and private sectors worldwide. In recent years, advances in high-tech industries, particularly artificial intelligence (AI), have placed the semiconductor industry at the center of global supply-chain discussions. As Taiwan occupies a leading position in high-tech manufacturing, the security and stability of its supply chains are closely linked to the island's overall security and development.

For this forum, the College of International Affairs invited Associate Research Fellows Lin Ya-ling and Chang Wu-hua of the Institute for National Defense and Security Research, Professor Chen Ping-kuei of the Department of Diplomacy, and Assistant Professor Chang Chia-chien of the International Master's Program

in International Studies. The panelists presented their views and discussed various dimensions of global supply-chain security.

Associate Research Fellow Lin Ya-ling examined global supply-chain security through the lens of U.S.–China technological competition. She began by using charts to illustrate two major drivers of this competition: the United States' declining technological advantage relative to the past, and China's efforts to reduce its dependence on foreign countries by strengthening its domestic technological capabilities.

In response to this shifting balance, Lin explained that U.S. technology restrictions on China have expanded beyond products and technologies to include investment and capital. Measures include prohibiting U.S. companies from investing in China's semiconductor and electronics industries and expanding relevant blacklists. China, in turn, has responded by accelerating its drive for technological self-sufficiency through large-scale subsidies and the promotion of domestic products. Examples include the establishment of the third phase of China's National Integrated Circuit Industry Investment Fund, commonly known as the "Big Fund," and efforts to expand the domestic use of Chinese server operating systems.

China has also continued to develop its mature-node semiconductor manufacturing capabilities in order to consolidate its existing advantages and open another front in the competition. Lin concluded that the U.S.–China technology conflict would lead to the fragmentation of global supply chains. This dual-supply-chain pattern is particularly evident in the semiconductor industry. To reduce supply-chain risks, advanced economies have continued to support the reshoring of manufacturing and introduce localization policies. Supply-chain restructuring is therefore likely to remain a major trend.

Taiwan, Lin emphasized, should capitalize on its strengths in server manufacturing and network communications to maintain a firm position in the global supply-chain system.

Associate Research Fellow Chang Wu-hua then focused on semiconductor cooperation between Taiwan and Japan, using Taiwan Semiconductor Manufacturing Company's (TSMC) establishment of a facility in Kumamoto, Japan, as a case study of the implications and effects of supply-chain restructuring.

Chang discussed Japan's recently enacted economic security legislation and explained that Japan's approach to high-tech industries emphasizes reducing its own dependence on other countries while making other countries more dependent on Japan. Consequently, the substantial amount of Japanese investment in cooperation with TSMC—equivalent to 0.7% of Japan's GDP, according to the report—has generated domestic controversy.

Japan's simultaneous support for its domestic semiconductor company Rapidus in developing advanced two-nanometer chips illustrates this policy stance. Taiwan and TSMC, Chang warned, must not overlook Japan's ambitions in high-tech development.

Chang also cited Mike Miller, the author of *Chip War*, to argue that TSMC's dominant market position is an advantage, but that the risks associated with excessive concentration, including potential antitrust concerns, deserve careful consideration in Taiwan.

He further referred to Japan's comprehensive ban on photoresist exports to South Korea during the Abe administration to demonstrate Japan's continuing importance as a leading supplier of high-tech materials. Overall, Chang viewed close cooperation between TSMC and Japan positively but stressed the importance of technological collaboration and complementarity. TSMC must also remain alert to risks arising from such cooperation, including technology leakage and the outflow of talent. He expressed the hope that the partnership would help Taiwan strengthen its international standing.

Professor Chen Ping-kuei examined the evolution and implications of supply-chain security from the perspective of international political economy. He explained that supply-chain management is highly complex, partly because contemporary supply chains are

subject to more political interference than in the past. China's restrictions on rare-earth exports, for example, demonstrate why businesses and governments must carefully manage political risks.

Chen further observed that countries have become overly accustomed to using nontraditional measures, such as export controls, to exert pressure on their rivals. As a result, traditional dispute-resolution mechanisms have become less effective, while global supply chains increasingly serve as objects of competition among major powers. These developments negatively affect both commercial activity and scientific research.

He also argued that extensive government subsidies intended to strengthen supply-chain security would reinforce trade protectionism and distort the course of economic development. In terms of the scope of these effects, countries increasingly seek to influence not only their bilateral partners but also the behavior of their allies, further increasing geopolitical risks and accelerating the erosion of globalization.

Chen concluded that technology controls can, at most, delay the pace of another country's technological development. The costs incurred in the process, he argued, deserve even greater reflection.

Assistant Professor Chang Chia-chien concluded the forum by examining supply-chain security from a people-centered perspective, with particular emphasis on the effects of U.S. foreign policy. He argued that although the United States has experienced changes in party control, economic security has already become a broadly shared consensus between the two major parties. However, the Trump administration's methods of putting pressure on China may differ. Based on the economic-policy appointments made by Trump at the time, Chang suggested that tariffs would remain a principal instrument of the administration's efforts to pressure China.

Chang also noted that Taiwan's investment in and exports to China had fallen to historically low levels in 2023, indicating an evident process of decoupling. As the preceding speakers had suggested, the

world was increasingly characterized by competition between two major systems.

Regarding Trump's return to office, Chang argued that his tariff policies would affect Taiwan's semiconductor supply chains. While maintaining its position in global markets, Taiwan must also consider the importance of developing its own capabilities. Taiwan should carefully reflect on U.S. dissatisfaction with the excessive concentration of semiconductor production in Taiwan.

Globalization has made the security and stability of supply chains important national priorities, and the economic benefits involved can be substantial. However, governments are increasingly intervening in private-sector transactions and using commercial activity as a policy instrument. Whether this approach will ultimately benefit national interests or instead reverse the progress of globalization is a question that all countries must carefully consider.



【Group photo of faculty members and students.】



【Group photo of participating faculty members.】

◉ Taiwan Security Forum Series (XIV): “What Is Whole-of-Society Defense Resilience?”

On April 14, 2025, the College of International Affairs at National Chengchi University held a lecture in its Taiwan Security Forum Series entitled **“What Is Whole-of-Society Defense Resilience?”** Several experts and scholars were invited to examine how Taiwan could build resilience across multiple layers of society amid contemporary geopolitical tensions and the widespread circulation of false information.

The panelists included Dr. Li Che-chuan, Research Fellow at the Institute for National Defense and Security Research; Dr. Tu Chen-yi, Assistant Research Fellow at the same institute; Dr. Lu Yeh-chung, Associate Dean of the College of International Affairs at National Chengchi University; and Dr. Wu Chong-han, Chair of the Department of Diplomacy at National Chengchi University. They offered in-depth observations and recommendations on various dimensions of defense resilience.

Dr. Li Che-chuan began by explaining the fundamental concept of resilience. Whether facing internal or external shocks, individuals and organizations must possess the ability to adapt and recover. Whole-of-society defense resilience, he emphasized, involves more than the military system. It also requires coordination among the government, public and private sectors, society, and industry. In crises such as war or natural disasters, a country must be able to maintain the normal functioning of society.

Li further explained that Taiwan's government began developing a more systematic "resilient nation" strategy in 2022. The strategy encompasses four major areas: the economy and industry, social systems, political institutions, and national defense.

When assessing the resilience of political and social institutions, it is necessary to examine public trust in institutions, the degree of consistency in national identity, and the public's willingness to defend the country when confronted with the threat of war. Media literacy is also an important indicator. Citing Freedom House's score of 79 for Taiwan, Li explained that Taiwanese society has developed a certain degree of ability to identify false information.

Dr. Wu Chong-han analyzed the relationship between security and resilience. He pointed out that asymmetric warfare has become a key element of defense resilience and has been an important area in which the Biden administration has actively assisted Taiwan since 2022.

Wu emphasized that the Taiwanese public's willingness to resist an adversary is closely related to whether Taiwan can obtain international assistance. According to research, attacks on civilian facilities may actually strengthen the public's willingness to resist, whereas attacks on military facilities do not necessarily have the same effect.

He further observed that, in actual wartime conditions, the distinction between civilian and military facilities is often difficult to establish. For example, if a family member is serving in the military, questions may arise as to whether the unit in which that

person serves can be regarded as exclusively military. Strictly separating civilian and military facilities, therefore, may not reflect operational realities.

Dr. Tu Chen-yi approached the issue from the perspective of communications and crisis communication, emphasizing the importance of communication in maintaining social stability. She noted that the government's daily press conferences during the COVID-19 pandemic helped build public confidence and demonstrated resilience in practice.

Taiwan should also actively develop alternative communication plans to address the risk of damage to communications infrastructure. One example is Ukraine's use of the Starlink satellite communications system. Tu cautioned that communications resilience depends on cooperation between the public and private sectors as well as international collaboration. Regular exercises are also necessary to ensure that organizations are prepared rather than caught off guard when a crisis occurs.

Dr. Lu Yeh-chung focused on the question of how to ensure that the international community becomes aware when Taiwan is under attack. He recommended that people prepare for possible wartime conditions in their everyday lives. For example, during a disaster, gas stations may become inoperable, making it necessary to consider the range and endurance of available transportation.

Lu also warned that the spread of false information can undermine public morale and social stability. Such information can originate from a variety of sources rather than from a single direction. Developing information literacy and maintaining vigilance in peacetime are therefore essential components of society's defenses.

In conclusion, the panelists jointly emphasized that Taiwan's challenges extend beyond military confrontation to include information warfare, infrastructure protection, and public confidence. Strengthening whole-of-society defense resilience requires the participation of government, industry, academia, and the general public. The goal is to establish a social system that can

continue to function reliably and maintain mutual trust during a crisis.



【Dr. Li Che-chuan (far right) shares his views.】



【Group photo of the invited panelists and organizing faculty. From left to right: Shao Huai-ping, academic advisor in the Department of Diplomacy; Assistant Professor Liou Shiauo-shyang; Dr. Tu Chen-yi, Assistant Research Fellow at INDSR; Wu Chong-han, Chair of the Department of Diplomacy; Lien Hong-yi, Dean of the College of International Affairs; Dr. Li Che-chuan, Research Fellow at INDSR; and Lu Yeh-chung, Associate Dean of the College of International Affairs.】



【Group photo of faculty members and students.】

◉ **Taiwan Security Forum Series (XV): "How to Respond to Gray-Zone Conflict"**

On May 13, 2025, the College of International Affairs held the fifteenth session of its Taiwan Security Forum Series under the theme **"How to Respond to Gray-Zone Conflict."** Experts and scholars from the fields of military affairs, national defense, and diplomacy were invited to discuss the issue and exchange views with the audience.

The forum was moderated by Lien Hong-yi, Dean of the College of International Affairs. The panelists included retired Major General

Ko Yung-sen and Associate Research Fellows Wu Tzu-li and Liu Hsiao-hsiang of the Institute for National Defense and Security Research, as well as Professor Huang Kuei-po and Department of Diplomacy Chair Wu Chong-han of National Chengchi University. They examined the methods and objectives of the CCP's use of gray-zone strategies in the Taiwan Strait and considered Taiwan's possible responses from a range of perspectives.

In his opening remarks, Dean Lien Hong-yi explained that gray-zone conflict has become a prominent issue in international security. Because the concept covers a broad range of activities and lacks a universally clear definition, it must be analyzed through multiple dimensions, including military affairs, security, law, cognition, and psychology, in order to develop a more comprehensive understanding.

The first panelist, retired Major General Ko Yung-sen, delivered a presentation entitled **"Preventing Conflict and Defending Effectively."** He analyzed the current cross-Strait military balance and the characteristics of the CCP's gray-zone military activities. He pointed out that the People's Liberation Army continues to use ostensibly nonmilitary means—including research vessels, fishing boats, and the China Coast Guard—to exert pressure in the airspace and waters surrounding Taiwan. These activities highlight the ambitions behind the CCP's military-civil fusion strategy.

Such activities are also accompanied by military actions, including crossings of the Taiwan Strait median line, incursions by unmanned aerial vehicles, and live-fire exercises. Together, these measures are intended to gradually wear down Taiwan's defenses through asymmetric methods.

Ko emphasized that, despite the disparity in military capabilities, Taiwan can draw on its geographical advantages and highly mobile forces to strengthen its defense resilience. He called on Taiwan to improve risk management, establish military communication mechanisms, accelerate the development of unmanned defense capabilities, and enhance defense self-reliance. These measures

would help implement Taiwan's military strategic objectives of firmly defending its territory and maintaining dual deterrence.

Dr. Wu Tzu-li then focused on the legal-warfare dimension of gray-zone operations. He noted that gray-zone strategies have attracted international strategic attention since 2010. The CCP has also actively used its "Three Warfares" strategy—public opinion warfare, psychological warfare, and legal warfare—to reinforce its sovereignty claims and shape a strategic environment favorable to China.

Against Taiwan, the CCP places particular emphasis on psychological and legal instruments. These include spreading false information and obscuring the facts surrounding its pressure on Taiwan, thereby influencing domestic public opinion.

Wu recommended that Taiwan actively articulate the status of its waters under international law and make use of the principle of innocent passage by allowing friendly countries to transit the Taiwan Strait. Such measures, he argued, could strengthen the legitimacy of Taiwan's position regarding the Strait. Taiwan should also strengthen its international messaging on related issues to increase its visibility and legitimacy as a political entity and counter the CCP's continuing legal-warfare pressure.

Dr. Liu Hsiao-hsiang analyzed the far-reaching psychological effects of the CCP's gray-zone activities on Taiwanese society. He explained that actions such as incursions into Taiwan's Air Defense Identification Zone (ADIZ), military exercises, and damage to undersea cables not only increase public anxiety but also constrain Taiwan's room for strategic countermeasures.

In response to these threats, which involve the manipulation of perceptions, Liu called for stronger psychological preparedness across society and the establishment of a regular mechanism for issuing national security strategies. Taiwan must maintain a balance between strategic ambiguity and concrete commitments in order to build public consensus, sustain domestic support, and prevent society from being divided.

Professor Huang Kuei-po approached the issue through the spectrum of conflict, clarifying the distinctions between gray-zone confrontation and armed conflict. He argued that gray-zone activities are neither peaceful nor full-scale warfare, yet can involve intense confrontation. Their methods include military demonstrations, economic coercion, psychological manipulation, cyberattacks, and political infiltration. Their purpose is to weaken an opponent's access to resources and willingness to defend itself.

Huang observed that since 2016, the CCP's use of gray-zone strategies against Taiwan has increasingly involved multiple methods, extended periods, and large numbers of activities. In addition to continuously strengthening its whole-of-society and psychological defense systems, Taiwan should defend the legitimacy of its governance through diplomatic and legal means and cooperate with like-minded countries to build regional security mechanisms.

Finally, Wu Chong-han, Chair of the Department of Diplomacy, examined the structure and evolution of gray-zone activities through theories of international conflict. Drawing on theories of war, he explained that gray-zone activities fall between military demonstrations and small-scale clashes, without yet reaching the threshold of war.

Wu emphasized the dialectical relationship between avoiding war and preparing for war, a longstanding debate between realist and liberal schools of thought. Historical experience repeatedly demonstrates, however, that wars can result from inaccurate information, false promises, and ineffective communication. When responding to gray-zone challenges, national decision-makers should therefore exercise greater caution, prioritize interagency communication and strategic coordination, and work collectively to avoid miscalculation and preserve peace.

During the question-and-answer session, participants discussed whether gray-zone activities constituted a form of quasi-aggression and whether Taiwan might have opportunities to participate in the U.S.–Philippines Balikatan military exercises. The speakers noted

that the frequent presence of the China Coast Guard in the waters around Kinmen and Xiamen has taken on the character of a sovereignty assertion, requiring Taiwan to respond carefully.

They also observed that, given international political realities, Taiwan may find it difficult to participate openly in multinational exercises. Nevertheless, it could potentially contribute in less public ways, such as through joint training or related support activities. Taiwan's strategic importance within the First Island Chain, they stressed, is undeniable.

Regarding the relationship between military preparedness and the risk of triggering war, the scholars agreed on the necessity of strengthening defense resilience and improving the effectiveness of deterrence. Further discussion is still needed on the practical details of implementing these plans effectively.

Bringing together experts in military affairs, law, and psychological warfare, the forum provided concrete insights and forward-looking perspectives on Taiwan's response to gray-zone conflict. The College of International Affairs will continue to organize this forum series to deepen public understanding of security issues and strengthen the broader defense awareness of Taiwan's democratic society.



【Group photo of participating faculty members. From right: Wu Chong-han, Chair of the Department of Diplomacy at National Chengchi University; Wu Tzu-li, Associate Research Fellow at INDSR; Liu Hsiao-hsiang, Associate Research Fellow at INDSR; Lien Hong-yi, Dean of the College of International Affairs at National Chengchi University; retired Major General Ko Yung-sen of INDSR; and Professor Huang Kuei-po of the Department of Diplomacy.】



【Group photo of faculty members and students.】

◉ Taiwan Security Forum Series (XVI): Applications of Computer-Assisted Wargaming Systems

On May 17, 2025, the College of International Affairs held the sixteenth session of its Taiwan Security Forum Series, entitled **"Applications of Computer-Assisted Wargaming Systems."** Academic and professional experts were invited to discuss developments in wargaming and its future applications in technology and defense decision-making.

The forum was moderated by Professor Wei Pai-ku, Associate Dean of the College of International Affairs and Executive Director of the

National Security Program. The panelists included Dr. Ho Tseng-yuan, Director of the Institute for Cyber Security at the Institute for National Defense and Security Research; Dr. Lin Chuan-kai, Associate Research Fellow at the same institute; Dr. Tu Chang-ching of the Institute of Strategy at the National Defense University; Professor Chen Ping-kuei of the Department of Diplomacy at National Chengchi University and Executive Director of its Strategic Studies Program; and Lien Hong-yi, Dean of the College of International Affairs.

The speakers offered diverse and in-depth observations and recommendations on tactical simulation, AI integration, decision analysis, and the promotion of all-out defense education.

In his opening remarks, Associate Dean Wei Pai-ku described the forum as an interdisciplinary exchange on the applications of wargaming. He particularly highlighted the Institute for Cyber Security at INDSR, whose dual focus on cybersecurity and decision simulation provides forward-looking contributions to Taiwan's efforts to address complex information-warfare threats.

Wei also introduced the College's course on AI technology and national security, as well as the Ministry of Education's University and College All-Out Defense Education Resource Center. He expressed the hope that the forum would deepen dialogue between academia and policymakers and improve public understanding and acceptance of computer-assisted wargaming.

Dr. Ho Tseng-yuan, Director of INDSR's Institute for Cyber Security, used the application of wargaming systems to unmanned aerial vehicle tactics as an example to explain recent developments in operational simulation. He noted that wargaming systems are an important technology for decision simulation and are widely used at INDSR. Two professional systems, CMO and MASA, are used respectively for maritime and air operations and for land warfare simulation, improving the precision of wargaming and the diversity of scenarios.

Ho further explained that current systems can simulate the use of high-energy lasers to attack UAVs. Because these scenarios are complex, a single round of simulation can take approximately one week to complete. With the introduction of AI techniques—including supervised learning, reinforcement learning, and genetic algorithms—the systems can search large sets of parameters more rapidly to identify optimal solutions.

However, Ho cautioned that although AI can significantly improve efficiency, its predictions often diverge from actual outcomes. Human review and repeated calibration remain necessary, as do more precise input conditions and parameter constraints, to ensure that results are reasonable.

Drawing on his own experience with generative AI, Ho explained that when simulating missile-interception scenarios, AI may fail to provide useful recommendations if accurate data are not supplied. This illustrates why professional expertise and human judgment remain indispensable to the effective use of wargaming systems.

Associate Research Fellow Lin Chuan-kai drew on his practical experience to explain how INDSR integrated resources from its wargaming center to develop what the report describes as Taiwan's only unit with dedicated computer-assisted wargaming research capabilities.

Lin argued that wargaming should not be regarded as an inaccessible military specialty. Rather, it should be treated as a tool for everyday decision-making, with its core functions being the simulation of alternative options and the evaluation of their potential outcomes.

Using the India–Pakistan conflict as an example, Lin explained how wargaming can assess aircraft exchange ratios and missile range performance. He also discussed the possibility that China might use arms sales to help Pakistan acquire medium-range missiles, such as the PL-15, that could be used to shoot down Indian aircraft. From the perspective of wargaming, he analyzed the geopolitical implications of China's arms-export strategy.

Lin emphasized that the value of wargaming extends beyond tactical validation. It should also inform education and policy recommendations, including decisions on arms procurement, troop deployment, and the design of defense exercises. Many commercially available software products, he suggested, could serve as entry-level platforms for promoting wargaming education in Taiwan.

He also proposed using competitions, demonstrations, and student participation activities to increase public interest in and understanding of national defense issues.

Dr. Tu Chang-ching of the National Defense University approached the issue from the perspective of decision-making training. He introduced the use of issue-based wargaming to simulate four major Taiwan Strait crisis scenarios, including hybrid warfare, missile attacks, and amphibious landings.

Tu argued that wargaming should not be an exclusive tool of military professionals but should instead become part of national security education for the entire population, strengthening society's strategic understanding and ability to respond to crises.

Tu explained that military wargaming systems prioritize durability and information security but may struggle to address emerging threats because of limitations on system upgrades. Commercial software, by contrast, offers greater flexibility and can be used in classroom instruction and public education.

He cited an international crisis decision-making competition organized by the National Defense University. The competition integrated an American wargaming platform with a locally developed interface to simulate Indo-Pacific security scenarios, providing an example of how academic work can be connected with policy practice.

Tu further emphasized that the true value of wargaming lies in using systematic and scientific reasoning to develop crisis-response strategies. He identified Taiwan's greatest challenge as determining

how to respond appropriately to its circumstances. Wargaming can help decision-makers move beyond subjective judgments toward more objective reasoning, building sound response capabilities and strategic literacy.

Professor Chen Ping-kuei observed that although AI computing can organize large amounts of data and estimate probabilities, decision-making ultimately remains a human responsibility. The use of AI-assisted wargaming requires decision-makers to possess a basic understanding of the underlying models. Without this knowledge, they may be unable to set appropriate conditions or interpret results correctly, increasing the risk of misjudgment.

Chen also noted that AI tends to favor a single line of reasoning and lacks the flexibility and capacity for extended reasoning commonly found in human judgment. Wargaming simulations should therefore not be mistaken for automated prediction systems. Instead, they should be treated as tools that support decision-making and must be combined with knowledge, experience, and an understanding of real-world conditions to generate strategic value.

Dean Lien Hong-yi drew on his own experience participating in computer-assisted wargaming to explain that such systems still depend on humans to define their conditions and parameters. The systems can calculate results only within the parameters provided and cannot independently adapt to rapidly changing and unexpected circumstances. The operator’s knowledge and judgment are therefore central to the process.

Lien particularly encouraged students at the College to participate in wargaming. Although students from the humanities and social sciences may not have an advantage in technical operations, their strong theoretical training can help them formulate more precise simulation scenarios, allowing models to perform more effectively.

He called for an end to the misconception that wargaming belongs exclusively to science and engineering disciplines, emphasizing that interdisciplinary collaboration and the integration of knowledge are key to the further development of wargaming systems.

Regarding simulation accuracy and the promotion of all-out defense education, Dr. Tu Chang-ching emphasized that simulation models require iterative refinement and reverse-narrative validation. Since a war in the Taiwan Strait has not actually occurred, the plausibility of wargaming scenarios must be cross-validated through expertise from multiple disciplines.

Associate Research Fellow Lin Chuan-kai added that the purpose of wargaming is to provide reasonable options rather than predict the future. Simulations, combined with expert review, can establish a credible basis for reference. He further argued that Taiwan needs to develop a security framework designed to **"make the enemy fail,"** rather than pursue total victory.

On promoting public awareness of national defense, Tu recommended integrating resources across government agencies and encouraging cooperation among academia, the military, and social organizations to strengthen whole-of-society defense resilience. Ho Tseng-yuan and Lin Chuan-kai likewise argued that incorporating wargaming into competitions and educational activities could dispel the stereotype that it is an overly difficult subject and attract greater participation from young people.

Participants also discussed how nonmaterial factors, such as morale and the effects of cognitive warfare, influence wargaming outcomes. They generally agreed that these issues demonstrate the importance of qualitative research. Current simulation systems have difficulty quantifying such variables, and future work should better integrate theoretical frameworks with measurement tools to improve simulation accuracy.

The forum explored the potential and limitations of wargaming systems across technological, tactical, educational, and cognitive dimensions. It showcased developments in Taiwan's defense technology while promoting dialogue and cooperation between academic and professional communities.

Through the panelists' expertise and experience, participants gained insight into how wargaming can evolve from a military planning

tool into a bridge for public security education, helping realize the goal of making national defense awareness more widespread.

The College of International Affairs will continue to use the Taiwan Security Forum Series as a platform for discussing forward-looking issues of public importance and helping Taiwan develop a more integrated and resilient approach to national security.



【Group photo of participating faculty members.】



【Associate Dean Wei Pai-ku, the forum moderator.】