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2022

Assessing the Effectiveness of Deterrence Options on Taiwan Contingency Operations

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https://hdl.handle.net/10945/71827

MONTEREY, CALIFORNIA

STRATEGIC DETERRENCE AND NUCLEAR WEAPONS
INFLUENCE ON TAIWAN CONTINGENCY OPERATIONS
EXECUTIVE SUMMARY

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Prepared for:
Topic Sponsor Lead Organization: N3/N5 - Plans & Strategy
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Project Summary

A team of four NPS students designed, developed, conducted, and analyzed a wargame to generate the findings for this project. The wargame was designed and developed from March to May of 2022 and then conducted and analyzed in June 2022.

The wargame investigated three key issues:

1. What are the most effective (of likely) levers of power for deterrence that would affect DOD operational level tasks in a Taiwan Strait scenario?
2. How does the United States (U.S.)/People's Republic of China (PRC) measure intent and objectives?
3. How does the U.S./PRC signal intent, objectives, and red lines?

These issues were examined in the following 2025 scenario:

Civil unrest is rising throughout China's semi-autonomous states. In response, China sends armed police to stabilize the situation. As China uses aggressive tactics to quell civil unrest, Taiwan reaffirms its status as an independent country. In response to this declaration, China begins to mobilize forces in preparation for a military exercise that will encompass all the littorals of Taiwan. The Chinese military exercise will be the largest to date, and Taiwan assesses that Chinese forces may transition from military exercises to military operations. Taiwan's armed forces take defensive positions for force protection and contingency operations.

The insights in response to the three questions were carefully analyzed from wargaming output and were compiled, briefed, and reported to the sponsor. Because of the sensitivity of these results, they are controlled unclassified information. The insights were provided to the sponsor via the Controlled Unclassified Information (CUI) Wargaming Executive Summary submitted to the sponsor in June 2022. Additionally, a paper authored by Dr. Chris Twomey was provided to the sponsor o/a 22 October 2022.

Keywords: *strategic deterrence, nuclear weapons, People's Republic of China, Taiwan, contingency operations, Taiwan Straits*

Background

Study Purpose: The sponsor requires a deeper understanding of strategic actions and counteractions that could occur between the U.S. and the PRC as capabilities of each side change over time so that the U.S. can anticipate and plan for changes and/or augmentation to U.S. strategic deterrence policy in the Western Pacific. As the U.S. and PRC edge closer to parity in military capability, both sides must be acutely aware of how these changes can increase the chance of conflict breaking out. The U.S. must maintain an effective deterrent against the PRC in the Strait. At the same time, China must ensure that its rapid military rise does not force the U.S. to act against it before PRC military capabilities outpace U.S. military capabilities. This game aims to capture lessons learned from the outbreak of conflict in the Taiwan Straits to further the deterrence relationship between the U.S., Taiwan, and PRC.

Methodology: This study was conducted using a wargame. This wargame was a seminar-based hybrid system with separate timed planning, decision, and adjudication phases. The system limits decisions in time, space, and force applications. The game consisted of sequential turn-based actions and reactions in a seminar format with a white cell enforcing guidelines based upon items such as doctrine, national-level intent, and international reactions.

Wargame Execution: In-game turns represented one-week time blocks. Units manipulated by players were at the operational level of war.

Turn Steps:
    i) Signal planning—Each side gets 15 minutes or fewer to internally discuss their moves for the turn.
    ii) Signaling—5-minute phase where actions by both teams are in the open and displayed to the other side in real time. Each team places their signal tokens and draws action cards. Signal tokens can be moved, and action cards can be picked up or discarded during these 5 minutes.
    iii) Operations Planning and Orders Writing—Each side uses their action cards and provides orders to their units. Orders include unit, type of action, and desired end state of the action.
    iv) Operations Execution—White Cell receives orders from each side and adjudicates results.
    v) Adjudication and Feedback—Any dice rolls are conducted by each time, and interviews are conducted with players to garner insights into strategies and anticipated enemy responses.

Player Actions:
    i) Prepare: Move forces out of garrison, get ships underway, ready nuclear forces
    ii) Move: Deploy a naval task force into a theater, forward deploy ground units
    iii) Operate: Conduct long-range aviation missions, conduct strikes against enemy forces, conduct combat air patrols

Order of Play: All phases of the wargame were conducted simultaneously with signaling and overt force placement conducted on a common, virtual gameboard. Covert force movements, such as Special Operations Forces deployments and underway submarines, were conducted on the respective team's physical gameboard.

Adjudication: End-of-turn adjudications included items such as resolving potential combat engagements, resolving movement intentions, and effectiveness of non-kinetic operations.

Data Collection: Data collected included orders written at the beginning of the turn, player actions, and the results of adjudication.

Findings and Conclusions
These are the three key issues that findings and conclusions were developed for:

1. Key Issue 1: What are the most effective (of likely) levers of power for deterrence that would affect DOD operational level tasks in a Taiwan Strait scenario?

2. Key Issue 2: How does the U.S./PRC measure intent and objectives?
3. Key Issue 3: How does the US/PRC signal intent, objectives, and red lines?

The insights in response to the three questions were carefully analyzed from wargaming output and were compiled, briefed, and reported to the sponsor. Because of the sensitivity of these results, they are controlled unclassified information. The insights were provided to the sponsor via the CUI Wargaming Executive Summary submitted to the sponsor in June 2022.

Limitations of the study include the following:

i) Personnel—Game volunteers were difficult to locate due to the game's execution during the final week of NPS classes and the week before NPS finals. Continuity was lost, with only three of the original nine volunteers being present for the entirety of the game.
ii) Classification—Keeping the game at the controlled unclassified information level was a barrier to realism, particularly when considering submarine operations and cyber effects.
iii) Experience—The game players lacked broad experience and often focused on their specific warfare area of expertise to achieve their objectives.

The findings both confirmed original expectations and presented areas for future research. The sponsor will take the study's results and use them to inform a path forward for future research.

Recommendations for Further Research
We recommend future wargames and similar analytic events be conducted. We recommend workshops to better understand the People's Republic of China's (PRC) capabilities and their potential actions and reactions by leveraging PRC cultural experts as necessary events to set the stage for more detailed wargaming.

Future wargames may include the following:
1) Conducting the same wargame with players who have more appropriate backgrounds and expertise.
2) Conducting the same wargame at higher levels of classification.
3) Expanding the wargame to incorporate new and emerging knowledge of PRC capabilities.

Because this is such a relevant topic whose findings should drive U.S./PRC policies, we recommend that there be an annual recurring wargame that continues to examine these issues in order to inform new policy and doctrinal choices for the U.S. Department of Defense.

Acronyms
CUI   controlled unclassified information
PRC   People's Republic of China