Executive Summary

<u>**War in the Pacific: Strength Through Allies**</u>
A Pacific Theater Maritime Mission Assignments Wargame

1. **Purpose**

The purpose of this wargame is to explore how the United States (U.S.), Japan, and Australia should assign their forces to meet common mission requirements in the early phases of a maritime conflict. In addition, identifying critical logistic hubs to support assignments as well as any critical capability and/or capacity constraints for successful operations is desired. The sponsor also requested feedback from a Red team on an expected course of action (ECOA) in response to allied force assignments.

2. **Background**

In the Pacific, the U.S. and its allies may face a demanding, contested maritime environment. Concepts for combined allocation of United States, Japan, and Australian assets to counter these threats while minimizing their risk exposure is a complex problem.

To further dialogue on exploring additional opportunities for Australian and United States cooperation in the Pacific, the Naval Postgraduate School (NPS) hosted a seminar-style wargame addressing the sponsor's objectives.

The scenario for the wargame is based on a Maritime War of 2030. In the scenario, tension building in the South China Sea (SCS) led to open hostilities between China and other Southeast Asian countries. These countries have requested United Nations (UN) support – calling on the U.S. and Japan to act. In response, China has announced control of traffic through the South China Sea and warned Japan and the U.S. any interference will lead to war. They have mobilized the East and South Sea fleets and declared quarantine on all military logistics support to Okinawa.

The order of battle used in the game for Australian forces was based on their released 2016 Defence White Paper (Australian Department of Defence 2016) and the U.S. order of battle was based on programs of record.

Concepts for the Pacific Theater Maritime Mission Assignments wargame and analysis were adapted from previous wargames that addressed the assessment of Distributed Lethality's capabilities and limitations during Phase 0 (shaping operations) and Phase 1 (deterrence operations) (JP-5) in the South China Sea. The Pacific Theater Maritime Mission Assignments wargame was then put through two game pre-plays and shaped by experienced warfighters and logisticians prior to its actual game play. This wargame and scenario were used solely as an instrument to facilitate discussion on force capabilities, limitations, and employment considerations. The results were not intended to produce an operational plan or accomplish a specific military objective.

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3. Study Methods

The Pacific Theater Maritime Mission Assignments Wargame was designed to be a partially-closed seminar style wargame to discuss a hypothetical scenario and synthesize information to help inform future decisions.

The wargame attracted key participants for the Blue and Red team:

Blue Forces

1) O-6 (USN) Post-Command Surface Warfare Officer (SWO)
2) O-5 (USN) Meteorology and Oceanography Officer (METOC), former SWO
3) O-4 (USN) P-3 NFO, former CTF-72 (patrol and reconnaissance) staff
4) O-4 (RAN) Collins Class Submarine Officer
5) O-4 (RAN) SWO, Staff Officer Experimentation, Directorate of Navy Capability and Plans
6) O-3 (RAN) METOC officer
7) O-3 (ADF) Army officer, Operations Research (OR) student
8) O-3 (USN) SWO, Anti-Submarine Warfare (ASW) Weapons and Tactics Instructor (WTI) graduate
9) O-3 (USN) METOC Officer at Fleet Numerical Meteorology and Oceanography Center (FNMOC), prior CTF-74/54 staff
10) O-3 (USN) SWO, prior sonar technician, OR Logistics Track student
11) O-3 (USN) SWO, OR student
12) O-1 (USN) Undersea Warfare (USW) student, background in additive manufacturing

Red Forces

1) O-5 (USN) (ret) P-3 Naval Flight Officer (NFO), Systems Engineering background
2) O-4 (USN) E-2 NFO, former strike lead, Operations Research (OR) background
3) O-3 (USN) SWO, Mine Countermeasure (MCM) background, OR graduate
4) O-3 (USN) Information Warfare Officer, former SWO, recently rotated from Pacific Theater

Expert Observers

1) RADM (USN) (ret) USW background
2) RADM (USN) (ret) Mine Warfare (MIW) background
3) O-6 (USN) (ret) Post-Command SWO, OR background
4) O-6 (USA) (ret) Naval War College Instructor
5) O-6 (USAF) (ret) Naval War College Instructor
6) Energy Academic Group Program Lead
7) Director, Naval Science and Technology Cooperation program, distance observer
8) Group Leader, Force Design, Joint Operations and Analysis Division, Australian Defence Science and Technology Group

Data was generated in three stages and collected using our Data Collection and Management Plan (DCMP) (ACBA Pub 354). Each stage of the game built upon the previous using the Delphi method in which we hoped to gain a better understanding of the group response (Helmer-Hirschberg, 1997).

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In the first stage, players completed an Individual Scorecard consisting of a mix of open ended and numerical responses after the game familiarization briefing on Day 1 and before discussing the scenario with other players. The open ended responses answered specific elements of the DCMP and the numerical responses were analyzed further using Schools of Thought Analysis (SOTA) and clustering methods (Cameron and Pond). The second stage took place in the morning of Day 2 of the wargame and consisted of a facilitated planning session against a scripted Red scenario in which the U.S. and Australian participants were split and allowed to plan the battle space as if their nation were the commander of allied forces in the area. The third stage was held in the afternoon of Day 2 and united the allies into a combined Blue force against a credible Red team. Given a chart of the area, players assigned forces by number, type, and mission area. Data was collected throughout the two days from player discussions and plans regarding measures of effectiveness and risks when making the force assignments. Other considerations such as system performance, on station time, inter-operability between allies, water space management, logistics reach, expected Red reaction, etc. were also noted.

4. Study Findings and Recommendations

1) Geographic area of responsibility agreement. Both separate and combined planning sessions generally separated Australian and U.S. forces into geographic mission assignments, with the U.S. mainly covering the north and Australia covering the southern region of the first island chain. These assignments were near their respective logistic lines.
2) No coalition task forces assigned. Neither separate nor combined planning sessions assigned a U.S. and Australian coalition task force.
3) Delphi method revealed contradiction in Theater ASW (TASW) priority. Individual Scorecards ranked TASW as the number one priority; however, Blue forces relied on Indications and Warnings (I&W) to catch Chinese SSK deployment and did not assign many assets to the theater ASW mission in the force laydown phase of the game.
4) Logistics are a main constraint. While the quantity of bases appears to be sufficient, the capacity is lacking for such a large campaign with unknown duration. The basing is also subject to the political volatility of the surrounding Southeast Asian countries and the potential loss of Guam should the operation escalate to Phase 2.
5) Tactical Rules of Engagement (ROE) differences exist between allies during Phase 0 and Phase 1 operations. Prior to assigning combined task forces players recommend aligning ROE that is applicable in tensions short of full war.
6) China has the potential for the long, home game advantage. Red team concluded with two possible courses of action (COA): Drive wedges between alliances and/or continue to escalate forcing other Southeast Asian countries to negotiate with China. Their position as the number one trading partner in the area (to include Australia) and potential to put the stability of the U.N. will require more than a military show of force between allies in the region.
7) Blue's deterrence ability is limited due to lack of land launched anti-ship cruise missile capability.
8) U.S. willingness to lead any force response is critical to a combined Australian and U.S. defense. Put another way, players did not foresee Australian forces being committed alone in this scenario.

To obtain the full report, refer requests to CAPT Jeff Kline (ret),
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