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Shawn W. Burns

**Dustin Martin** 

Keith Powell

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# Promoting Multinational Cooperation among Western Hemisphere Maritime Partners through War Gaming: Game Report of the 2013 Inter-American War Game

Shawn W. Burns, Doctor of Education, Game Director
Commander Dustin Martin, Game Designer
Commander Keith Powell, Game Coordinator
Professor Terry Mahoney, Game Analyst
Commander Jeff Uhde, Web Technologist, Game Analyst
Lieutenant Commander Matt Crook, Game Analyst
Lieutenant Commander Robert "Fisher" Reynolds, Game Analyst
Operations Specialist First Class Dixon, Enlisted Coordinator
War Gaming Department
U.S. Naval War College
Newport, RI
This report is for war gaming purposes only

#### 2013 Inter-American Team Members

## **Control Group:**

Admiral Guillermo Barrera (Colombian Navy, Ret.), CNO Distinguished International Fellow, USNWC

Captain Archimedes Delgado (Brazilian Navy, Ret.), Brazilian Naval War College Lieutenant Commander Savio Cavalcante, Brazilian Navy, Brazilian Naval War College

Captain Jamie Garcia, Colombian Navy, Director Naval Studies, Colombian Military War College

Commander German Gomez, Colombian Navy, Columbian Military War College

Captain Enrique Alvayay (Chilean Navy, Ret.), Assistant Game Director

Game Designer: Commander Dustin Martin, US. Navy

Logistics Officer: Commander Keith Powell, U.S. Navy

Information Technology Coordinator: Commander Jeff Uhde, U.S. Navy

Control Group Member: Lieutenant Commander Matt Crook, U.S. Navy

Control Group Member: Lieutenant Commander Robert "Fisher" Reynolds, U.S. Navy

Control Group Member: Professor Terry Mahoney (Commander U.S. Navy, Ret.)

Enlisted Coordinator: Operations Specialist, First Class Dixon, USN

Game Director: Prof. Shawn Burns, (Lieutenant Colonel, U.S. Marine Corps, Ret.)

#### Support Team:

War Gaming Department Technical Director: Mr. Jerry Lema

Events Coordinator: Mr. Al Laughton

Artistic support: Mrs. Kelly Forst

Translator: Mr. Byron Lopez

Translator: Ms. Laura Eastment

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# **Executive Summary**

The 2013 Inter-American War Game (IAWG) was hosted by the U.S. Naval War College (USNWC). The IAWG is intended to provide an opportunity for professional exchange of views among maritime war colleges in the Western Hemisphere, ultimately to enhance multinational cooperation among our maritime forces.

The 2013 IAWG was organized into an on-line planning phase in Feb 2013, an on-line execution phase in May 2013, and Closing Conference analysis phase in Aug 2013. IAWG countries include: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Dominican Republic, Ecuador, Mexico, Paraguay, Peru, United States, Uruguay, and Venezuela. Invitations were to participate were provided to each IAWG country. Twelve countries participated in the 2013 IAWG.

2013 IAWG objectives were to: explore considerations for the employment of a multinational force; explore considerations for organizing an MNF command and control (C2) structure; and consider varying national policies on the use of force when organizing MNF forces.

The game was organized into two moves. Country Teams (CTs) were presented with a scenario of a fictitious failed state Orangeland, hampered by fighting among trans-criminal organizations, and an Orangeland submarine suspected of having been seized by TCO members.

CTs presented a variety of responses to the challenges presented in the game. CTs shared many perspectives on responding to the: missing submarine, cyber threat, humanitarian problem, and handling detainees. CTs considered changes to rules of engagement as the scenario unfolded. Some CTs elected to execute multiple, simultaneous lines of operation, versus sequential phasing, due to the relatively short 90 day multi-national force (MNF) mandate.

# I. Background

The Inter-American War Game (IAWG) is an annually occurring, operational-level, 1-sided war game, blending on-line and in-person collaboration, held among up to 14 western hemisphere war colleges. The IAWG, first held in 1972, is an educational and experiential war game, with a qualitative research analytical component.

## **IAWG Purpose**

The purpose of the IAWG gaming series is to provide opportunities for professional exchange of views among maritime war colleges, discuss possible doctrinal differences, and examine unique national perspectives on the employment of naval forces in a variety of circumstances (e.g., piracy, terrorism, and natural or man-made disasters).

#### **IAWG General Game Objectives**

To accomplish the IAWG purpose, several enduring game objectives have been agreed to by all participating countries. These include a desire to:

- 1. Increase professional academic exchange, mutual knowledge and integration of the Naval War Colleges of the Americas.
- 2. Provide a forum with academic freedom and a non-binding manner, where the institutions that participate can:
  - a. Exchange ideas and knowledge,
  - b. Promote regional strategic cooperation,
  - c. Improve bases of mutual understanding, planning, analysis and solution of international crises through the use of coalition and/or combined naval forces,
  - d. Optimize the level of response to potential threats from the hemisphere,
  - e. Study cases of common interest at the operational level through the application of war gaming techniques,
  - f. Share common planning procedures, such as Navy Warfare Planning Publication (NWP) NWP 5-01, and,
  - g. Shared doctrine –NATO publications.

## **IAWG 2013 Specific Game Objectives**

The IAWG 2013 Control Group derived several specific objectives from the enduring general IAWG objectives. These were:

1. Explore planning considerations for employment of a multinational force (MNF),

- 2. Explore command and control organizational options for a MNF, and
- 3. Explore differing ROE interpretations that may influence MNF employment options.

#### **IAWG 2013 Modifications**

The IAWG has undergone periodic refinements since the initial game in 1972. Changes to the 2013 IAWG included:

- Briefing and gaining concurrence from all delegates on the game concept (specific objectives, design, and scenario) at the IAWG closing conference preceding the year of game execution,
- 2. Introducing a virtual planning conference to discuss game milestones and game products delivery, reducing Country Team (CT) travel expenses,
- 3. Introducing, testing an new game management platform (Google),
- 4. Introducing cyber as maritime planning consideration into the IAWG series,
- 5. Seeking more in-depth move exploration by tailoring to two moves versus three moves.
- 6. Introducing an analysis component and game report to coherently document game findings.

## **Contact with IAWG 2013 Country Teams**

At the 2012 IAWG closing conference held in Colombia, each attending delegation was presented with details for accessing the 2013 IAWG web site, including CT user name, CT password, and instructions for accessing and using the IAWG game web site. For IAWG colleagues unable to attend the 2012 IAWG closing conference in Colombia, the IAWG 2013 Control Group attempted to contact each delegation/CT individually through previously established personal contacts, or as a last resort, through the U.S. embassy in those countries. Our IAWG colleagues in Paraguay corresponded with the IAWG 2013 Control Group during game preparation, but regrettably were not able to participate during the execution phase. The IAWG 2013 Control Group was fortunate to collaborate with IAWG colleagues from Venezuela during the IAWG 2012 in Bogota and Cartagena, Colombia, but unfortunately have not received responses forwarded by the U.S. embassy in Caracas. Additionally, our IAWG colleagues from Bolivia kindly shared

their IAWG 2013 game responses, but were precluded from attending the IAWG closing conference.

#### Conclusion

The IAWG series seeks to facilitate an exchange of views among Western Hemisphere war colleges to promote cooperation, mutual understanding, and enhance maritime responses to man-made and natural threats. The IAWG 2013 specifically explored alternative C2 structures, varying operational design approaches, with consideration of the operational impacts of nation-specific rules on the use of force. Modifications introduced into the 2013 IAWG included: briefing the design and specific objectives at the preceding IAWG closing conference; introduction of an on-line planning conference; introducing cyber threats into the game scenario; and the introduction of a written game report to record game planning, execution, and analysis.

#### **II. Literature Review**

"(N)ations have a common interest in achieving two complementary objectives: facilitating maritime commerce that supports economic security, and protecting themselves from hostile, terrorist, criminal, and other dangerous acts in the maritime environment. Due to the fact that all nations benefit from collective security, all must share in the responsibility for maintaining maritime security against the threats that emerge in this domain" (Moeller, et al., 2008, p. 93).

The maritime environment is important to countries throughout the entire world, including countries in the Western Hemisphere. There are a variety of maritime threats that challenge maritime nations, such as illicit trafficking by trans-criminal organizations (TCOs), and more recently threats in the cyber domain from a variety of state and non-state actors.

#### **Significance of the Maritimes**

The maritime environment is important to many countries. Most nation-states border an ocean, have populations that live near an ocean, and send or receive internationally traded goods moved across oceans (Martinez, 2008). Increased international trade has heightened the importance of a secure maritime environment (Del Alamo, 2008). For example, "...95% of Brazil's trade moves through the oceans, and 90% of his country's oil is produced at sea" (Taylor, 2008). Further, countries that depend on maritime trade also depend on a secure international maritime trading environment with respect for international law (Niemann, 2008).

## **Threats to Western Hemisphere Maritime States**

The new threats to hemispheric security assume to a greater extent a transnational and asymmetric character, and the probable scenario for their evolution demonstrates the need to act in a cooperative way at the level of the Americas to defend the common interest (Thornberry, Aguire, & Garcia, 2008, p. 128).

Maritime states confront many challenges, including challenges from the sea. Some challenges from the sea confronting maritime states include threats posed by transnational criminal organizations (TCOs), drug trafficking, trafficking in persons (TIP), and cyber threats.

1. Transnational Criminal Organizations. Transnational criminal organizations (TCOs) pose a hemispheric threat through exploitation of "...under-governed areaswhere state capacity is weak and corruption and impunity are rampant-to consolidate

control over drug, money, weapons, and human smuggling networks that span the hemisphere" (Kelly, 2013, p.9). Further, TCOs "...have access to key facilitators who specialize in document forgery, trade-based money laundering, weapons procurement, and human smuggling, including smuggling of special interest aliens" (Kelly, 2013, p.11). TCOs use several techniques and modes of transportation.

- **a. Illicit Trafficking.** Illicit trafficking such as drugs, persons, weapons pose challenges to maritime states.
- **b. Drugs.** Illicit trafficking, such as with drug trafficking, is a challenge (Del Alamo, 2008).
- **c. Transport means.** There are several methods to transport illicit cargo, including by air or by sea, such as with semi-submersible submarines.





"An average of 14 planes per year are stolen in Colombia, presumably by drug traffickers making their way north through Central America, Colombian media reported Tuesday (Fox News Latino, April 10, 2012).







## Cyber Threats.



"Knowledge of the cyber threat landscape and government responses in Latin America and the Caribbean is incomplete" (OAS, 2013, p. 1). "The 32 OAS Member States from Latin America and the Caribbean were invited to voluntarily provide information on the types and extent of cyber security (OAS, 2013, p. 1). Further, "...discussions with participating Member States revealed that a lack of effective communication and information sharing within governments in reporting cyber incidents remains a key challenge (OAS, 2013, p.3). "In 2012, governments generally noted an increase in the frequency of cyber incidents compared with 2011, even where definitive quantitative data was incomplete or unavailable" (OAS, 2013, p.1). "The minimum assessed increase in cyber incidents over the period 2011 to 2012 reported by a government was 8–12%, while on the high end, two others reported an increase of 40% (OAS, 2013, p. 3).

## **Need for Cooperation among Maritime States**



Collaboration among states facing comparable maritime challenges presents opportunities for multinational cooperation. Multinational cooperation responds to a need for "...need for coordinated, cooperative and multinational responses" (Moeller, et al., 2008). "(I)t is essential to look for points of consensus and to establish the bases upon which to redefine the current defense system" (Thornberry, Aguirre, and Garcia, 2008, p. 125). Collaboration among hemispheric institutions is a key instrument for enhancing hemispheric mutual confidence (Thornberry, Aguirre, & Garcia, 2008, p. 125). Reflection on successful and unsuccessful intercultural interactions is a one of several principles of international education (Crichton & Scarino, 2007). "The system of hemispheric security must be an instrument of operational cooperation...(and) redesigned so as to deal with the threats that exceed the capabilities of individual states or transcend national borders" (Thornberry et al., 2008, p.125).

#### **Challenges to Multinational Maritime Cooperation**



An absence of common operating and communications procedures hinders multinational cooperation. "The ability to operate with others is a basic condition for achieving effective cooperation" (Niemann, 2008, p.49). To operate together, compatible communications systems and processes are required. Integrated communication among navies may enhance the ability of maritime forces to confront non-traditional threats (Rogerio, 2008). "The participants are responsible for developing mutual knowledge and common procedures, reinforcing trust, training the units, and sharing real-time information, goods, and services, in order to unite efforts so as to meet common interests" (Niemann, 2008, p. 49). "Common training is a key aspect in developing interoperability" (Niemann, 2008, p.49). Some specific areas of exploration to facilitate cooperation among partner navies include:

- 1. Command and Control (C2). C2 matters are often national-navy specific and introduce challenges to overcome when operating in a multinational environment (Texieira Martins, 2008).
- 2. Interoperability. Mutual interaction through common procedures, training interaction, and logistics sharing facilitates interoperability (Niemann, 2008).
- 3. International Law and Rules on the Use of Force. There is a tension between respected national maritime responsibilities contrasted with international responsibilities (Balaresque, 2008). Therefore, the 2013 IAWG specific game objectives focused on

C2, planning and the employment of forces, with consideration of international and nation-specific rules on the use of force.

Admiral Niemann's and Captain Rogerio's views directly relate to the enduring and 2013 IAWG specific objectives. The IAWG provides an opportunity to explore different perspectives on ways of confront maritime challenges, varying perspectives on multinational command and control arrangements, varying perspectives on multinational planning and conduct of multinational operations, and finally varying national perspectives on international and national policies on the use of force.

# III. IAWG 2013 Game Design & Anlaysis Methodology

#### **Game Design Methodology**

The 2013 IAWG was a 1-sided, educational and experiential game, hybrid blend of on-line and in-person war game, played at the operational level of war. Players from each of the 14 country team (CT) players were presented with an initial scenario for Move 1, and scenario updates introduced into Move 2, fully developed only after the Control Group analyzed player Move 1 responses. The IAWG is an unclassified game, held for educational purposes and to facilitate mutual understanding and cooperation among military colleges and ultimately among naval operating forces. Therefore, players broadly and generally represented specific national policies and capabilities. International agreements and circumstances for delegation of command were characterized only to highlight the importance of national distinctions when planning multi-national operations.

#### **IAWG 2013 Game Organizational Structure**

The IAWG game series is aided by an existing organizational structure, briefly summarized below, understood by all IAWG delegates, contributing to mutual understanding of game protocols, thereby facilitating focus on the insights and distictive features highlighted from participant perspectives.

Game Director Group (GDG). This group, also known as the Control Group, was managed by NWC WGD with the assistance of members of the Colombian Military College and the Brazilian Naval War College. The GDG is responsible to organize, execute, and provide a forum for game analysis. Traditionally, the country hosting the IAWG from the previous year (Colombia in 2012) participates in the management, as does the country hosting the subsequent year's game (Brazil in 2014). The GDG reviewed CT move submissions and derived discussion topics based on CT responses.

**Game Director Assistant.** Additionally, a new position called the Assistant Game Director was established based upon a majority vote at the 2012 IAWG Closing Conference hosted by Colombia. The purpose of the three-year Game Director Assistant position is to provide continuity among the rotating IAWG hosting countries to

monitor progress toward attainment of game objectives. A more detailed description of the Assistant Game Director Duties is included in Appendix B.

Country Team (CTs). Each participating war college organized a team to represent their respective country the IAWG. During the game CTs were asked to play two roles: the first role was as the commander of one's own national forces participating in the Multi-National Force (MNF), and secondly to serve as commander all MNF forces. CTs are responsible to analyze the military problem presented in game moves, consider relevant information presented, and deliver a move response the problem presented.

**Game Phases.** The game was organized into five phases. These included an administrative, organizational phase; a planning phase; an execution phase; an analysis phase; and concluded with a closing conference phase.

1. Administrative, Organizational Phase (Sept 2012-Feb 2013). The 2013 IAWG game hosting team briefed specific game objectives, scenario, and game processes at the 2012 IAWG Closing Conference in Cartagena, Colombia. 2012 IAWG Closing Conference concurred with the objectives, design, and scenario presented by the IAWG 2013 host. Additionally, 2013 IAWG web site access procedures and passwords were provided to attendees of the 2012 IAWG Closing Conference.

During the pre-planning phase, communications were established among the Country Team players, and requests for Country Team products, such as order of battle (OOB), national specific rules on the use of force (ROE) were provided. For those CTs unable to attend the 2012 IAWG Closing Conference, the US NWC IAWG attempted communication with the last known email addresses for prior IAWG participants. If that failed, the letter from the USNWC president inviting game participation was sent to the US embassy for further delivery to the respective country war college presidents. The Control Team informally communicated with CTs to help facilitate understanding of the requested data and format to be discussed at the subsequent on-line Planning Phase. Prior to the Administrative Organizational Phase, the Control Group gathered, organized, and identified still-needed materials to prepare for the subsequent planning phase. Additionally, the USNWC president sent a letter to each of the 13 presidents of sister naval, military, or joint war colleges inviting 2013 IAWG participation.

- 2. Planning Phase (Feb 2013). The planning phase consisted of an on-line chat session among CTs to review, discuss, the adequacy of game processes, and discuss game products developed to date. The Control Group clarified procedures that may not have been previously clearly explained. An additional implied purpose of the Planning chat session was to ensure the functionality of communication among CTs using chat procedures through the 2013 IAWG on-line web site.
- 3. Execution Phase (Apr-May 2013). Game execution began 30 April with the posting of Move 1. Players were provided three days to prepare and submit responses. After CT move posting, the Control Group, consisting of representatives from the Colombian War College and Brazilian Naval War College, and U.S. Naval War College, worked in teams to review and analyze CT inputs. Control Group analysis teams briefed one-another on the main points of each CT's response, and provided an opinion on noteworthy aspects. After reviewing and briefing all CT inputs, the Control Group deliberated to identify possible discussion topics. The ten topics identified during the Control Group analysis discussion were narrowed to three for posting on the IAWG web site. CTs were then invited to comment on each of the three discussion topics. As contrasted with other IAWG real-time post-move chat sessions, the 2013 IAWG design selected asynchronous discussion, versus real-time chat, as the mechanism for providing feedback, in order to provide CTs ample time for responding in a deliberate, unhurried manner. Additionally, to foster interaction, CTs were also invited to provide discussion comments on one another's chat submissions.
- 4. Analysis Phase (May-August 2013). At the conclusion of the Execution Phase, 2013 IAWG Control Team members gathered to conduct a deliberate review of all CT move submissions for Moves 1 and 2, CT discussion comments, and initial post-game comments and lessons. From that player data, the Control Team sought to discern themes and implications to be presented at the Closing Conference for discussion among all delegates.
- 5. Closing Conference Phase (Aug 2013). The final phase of the 2013 IAWG is the Closing Conference. At the Closing Conference, senior leaders from each participating country gather to share and discuss observations on the game. The 2013 IAWG Control Team presents a game overview briefing, complemented with insights

shared by each Country Team delegation. Additionally, the Assistant Game Director will deliver a presentation on the IAWG progress toward attainment of game objectives. Finally, the 2014 IAWG host will present an overview of the subsequent 2014 IAWG objectives, design, and scenario.

Player Activities. Prior to game execution, CT players were asked to provide several products, including a CT-specific order of battle of maritime forces for contribution to the combined force, and a CT-specific ROE, formatted in a spreadsheet developed per the International Humanitarian Law handbook. Game execution was separated into two moves. Move 1 asked CT players to analyze tasking from higher headquarters, develop a plan, and consider the impacts of national ROE on plan execution. The Control Group reviewed all CT responses and identified discussion topics that were posted on the game web site for CT to comment, and/or comment on other CT's comments. In Move 2, CT players were provided a scenario update and then asked to consider whether force reorganization or redistribution was warranted, whether existing ROE was adequate, and if not adequate identify ROE modifications. Similar the post Move 1 process, the Control Group identified, posted, and solicited feedback on discussion topics.

**IAWG 2013 Game Scenario.** The fictitious scenario took place in the Eastern Pacific Ocean, Caribbean, and Western Atlantic. Most geography was realistic except for the inclusion of two fictitious island states: Orangeland located in the Eastern Pacific and Redland located in the Western Atlantic, as depicted in Figure 1.



Figure 1. Operating area presented to players in the 2013 IAWG.

The game was set in 2013 using existing, fielded IAWG-member forces. CT players were provided a global and regional context, consisting of an improving global economy, but one with increasing trans-national criminal organizations (TCOs) activity. The nexus of illicit trafficking criminals and terror-using non-state actor TCOs poses a Hemispheric threat, as highlighted as a by a senior retired Latin American naval leader during a recent an USNWC academic lecture. Per the game scenario, TCOs received support from renegade countries that support and gain economically from these activities, enabling TCOs to increase in capabilities, intelligence gathering, organization, improved technology, armament, training, and leadership enabled many TCOs to surpass the capability of many state's security forces to interdict or deter their activities. These combinations have resulted in TCOs settling within state's borders and enabling them to operate freely without a threat to their interconnected networks of illegal activity. The most recent country to be affected by the influence of transnational criminal

organizations is the county of Orangeland located in the Eastern Pacific off the coast of Panama and Colombia. Players were presented with two game moves.

**Move 1.** In the first move, players were asked to consider the scenario, guidance from higher headquarters, and develop a concept to meet a somewhat ambiguous UN Security Council resolution. Players were then requested to develop a plan, from the MNF commander perspective, to employ all MNF assets to accomplish the political objectives assigned. Players were asked to:

- 1. create a MNF command and control (C2) structure,
- 2. develop a concept of force employment to address the challenge presented, and
- 3. consider varying use of force requirements of individual MNF-members when organizing the force and developing an employment concept.

**Move 2.** In the second move, players were provided with a scenario update, further complicating their original problem. The officially neutral, Caribbean-located, fictitious country of Redland sent a Surface Action Group on a routine training exercise in the vicinity of Pacific-located and distressed Orangeland. Further, fighting erupted in Orangeland among competing TCOs. Additionally, a Sango class Orangeland submarine ceased routine communications. Subsequently, bodies, later positively identified as Orangeland submarine crew members, washed ashore in Orangeland. Later, intelligence reports noted that a Sango submarine was sighted alongside a suspected TCO mothership, but on a subsequent mothership surveillance mission, the Sango was not seen alongside. Finally, the Orangeland government reported distributed denial of service (DDOS) attack, disrupting Orangeland ability to communicate with its citizens, non-governmental organizations (NGOs) in Orangeland, and the multinational force sent to assist Orangeland.

Based upon the Move 2 scenario update, CT players were asked assess the current, including possible modifications. Specifically, CTs were asked to provide:

- 1. Description of any redistribution or reorganization of MNF forces based upon the latest scenario update and consideration of nation-specific rules on the use of force, and
- 2. Identification of requested ROE changes to the Move 1 ROE required to accomplish the multi-national mission.

**Information Technology.** The 2013 IAWG shared information with CTs through a Google internet-based platform located at: <a href="https://sites.google.com/a/usnwc.edu/iawg/">https://sites.google.com/a/usnwc.edu/iawg/</a>). **Game Analysis Methodology** 

The 2013 IAWG used a descriptive design, with a sequential explanatory strategy. Game data were inductively analyzed through content analysis to discern themes (Patton, 2002). CTs were presented with a scenario and provided two to three specific questions per each of the two game moves related to the C2, planning, and ROE game objectives. CTs were provided 2-3 days to submit a response. The format of reposnses were open-ended, without a prescribed format.

After receipt of CT responses, the multinational Control Group comprised of representatives from the 2012 IAWG game hosts from Colombia, the future 2014 IAWG game hosts from Brazil, and the current 2013 USA game hosts reviewed CT responses. The USNWC used the example set by previous game hosts from Mexico, the Dominican Republic, and Colombia, on how best to organize a Control Group during the execution phase.

The Control Group during the execution phase was further subdivided into four analysis sub-teams, each responsible to review to the Move submisions from three to four CTs. Analysis sub-teams were given several hours to review each of the assigned CT responses. Analysis sub-teams were then asked to:

- 1. Summarize each CT's response,
- 2. Explain whether the CTs provided a thorough response to the questions posed,
- 3. Identify similarities, distinctions, and unique aspects of CT inputs.

Each Control Group sub-team briefed responses from their respective group of CT responses, the Game Director recorded the approximately 20 noteworthy aspects on a white board. These noteworthy aspects were identified as potential discussion topics for posting on the game web site. The Control Group then deliberated on the various potential topics and narrowed them to the most significant and essential aspects. After several hours of analysis and distillation, three or four discussion topics were posted on the game web site for comment.

Next, discussion topics were shared with all CTs. CTs were then asked for an individual CT reposnse, in an open-ended on-line format. Move 2 discussion topics

were also analyzed. Finally, all Move 1, Move 2, Discussion comments from all CTs were analyzed and hopefully faithfully represented in this 2013 IAWG game report.

## **IV. Game Outcomes**

This section will describe player responses to Moves One and Two, and provide an overview of the post-move discussion portion.

#### Move 1

In Move 1, players were asked to perform several tasks. Players were first asked to evaluate an operational problem, formulate a multi-national command and control structure, and develop an operational plan for the employment of the multi-national force designed, and finally consider varying nation-specific limits on the use of force.

- 1. Command & Control. Most (7) CTs organized their forces using a functional organizational C2 construct. However, several CTs provided a nuanced, sophisticated C2 response inputs, with subdivided functional units (task groups) into geographic functional subdivisions (task elements) within a broader functional task group. Finally, one CT organized the MNF along national C2 structuctures.
- 2. Operational Design (concept of operations). Greatly summarizing, most (10) CTs developed a phased plan. However, some (2) CT players noted that due to the extremely limited, 90-day, time-horizon of the MNF authorization, traditional phasing constructs in existing planning publications may not result in MNF mission accomplishement within the prescribed (90 days) time frame. Therefore, simultaneous implementation of several lines of operations may be required, such as maritme and land security, humanitarian, and communication support to Orangeland, possibly with less than optimal efficiency and effectiveness, but needed during the restrictive time horizon.
- 3. Rules of Engagement/Rules on the Employment of the Use of Force (ROE). The third sub-facet of Move 1 sought to highlight implications of differences among CT players for the employment of maritime forces, as described by the specific-CT player force employment concept (CONOPS). Most CT players had previously taken nation-specific use of force requirements into account when developing the MNG organization C2 structure and operational design. Therefore, rules on the use of force were less relevant in Move 1.

#### Move 2

In Move 2, players were presented with a scenario update intended to prompt a reconsideration of the original plan devised in Move 1. Key aspects of the Move 2 scenario update were the presence of a Redland Surface Action Group, fighting among TCOs in Orangeland, the suspected seizure of an Orangeland submarine, and a denial of service cyber attack against Orangeland government computer networks, hindering the Orangeland government's ability to communicate with its citizens.

Given the changes to the operational environment outlined in the Move 2 scenario update, players were asked to:

- consider changes, if any, to the command and control organizational structure originally developed in Move 1, and
- identify ROE changes, such as additional measures, required to perform the MNF mission
- **1. Submarine.** The unlocated Sango submarine with an uncertain crew composition was the greatest concern of most CTs. CTs had a variety of concerns about the uncertain control of the Sango submarine such as whether the submarine was:
  - forcibly seized by pirates or a TCO, or
  - forcibly seized by some elements of the crew disloyal to the Orangeland government, but possibly with other loyal living crew members imprisoned aboard

A major uncertainty was whether there were surviving loyal crew members held against their will on the submarine.

- A. C2, CONOPS Changes. Given the uncertainty of an unaccounted for submarine with unclear intentions, most CTs modified their original concept of operations and command and control organization and composition. Some CTs reogranized forces with task groups explcitly organized for anti-submarine warfare, with some CTs forming a "Task Group Sango". Some CTs had aggressive plans to respond to the unaccounted for submarine, while others had less aggressive plans.
- **B. ROE Changes.** Most CTs identified a need for ROE changes, but with greatly varying interpretations. There also was a great disparity between CTs on whether or not to declare the submarine hostile and authorize engagement.

- 2. Cyber. CT players were confronted with the challenege of how to respond to cyber attacks against Orangeland government computer networks greatly hampering Orangeland's ability to communicate with, and assure its citizens, in addition to the unlocated submarine of unclear loylaty,
- **A. Not an MNF Task.** Some CTs noted that cyber attacks against Orangeland governmental ashore communications is beyond the MNF's assigned reposnsibility.
- B. MNF Orange Help With Alternative Communications. Other CTs recognized that Orangeland's inability to communicate and assure its citizens through official governmental communications might increase unease among Orangeland citizens. These CTs, therefore, suggested that the MNF may be a source to provide alternative communication methods, with existing MNF maritime assets. For example, MNF ships could be positioned closer to population centers to forward messages from the Orangeland government. There was also the concern with Orangeland being able to effectively manage its own C2, which was a driving cause for wanting to provide SATCOM capabilities.
- **C. Form Cyber Task Group.** One CT suggested forming a task group explicitly focused on addressing cyber threats to Orangeland, as well as potential threats to the MNF task force. This "TG Cyber" would not only assist MNF members defending MNF assets from cyber threats, but also assist Orangeland protect itself from subsequent cyber attacks.
- **3. Humanitarian Assitance.** In Move 2, CTs were presented with an emerging humanitarian crisis in Orangeland. Given the changing circumstances ashore, some CTs reformed with "Task Group Humanitarian Assistance" to help Orangeland and NGOs form and mangage internally displaced persons (IDP) camps, and to assist managing the cholera problem.

#### **Discussion Phase**

Following each of the Moves, the Control Group reviewed player responses to discern possible discussion topics by looking for commonalities or unique CT responses. Once selected by the Control Group, discussion topics were posted for CT players' comment.

Move 1 discussion topics:

- 1. How do national ROE and platform capabilities influence Task Force/Group organization?
- 2. With the current OOB, mission duration and your Task Force organization, what are the risks to mission and/or forces?
- 3. How do you plan to coordinate with and synchronize Orangeland forces into your CONOPS and follow-on stability operations?

Move 2 Discussion Topics:

- 1. How should the CJTF plan to address the submarine threat while accounting for potential Orangeland Naval Forces being held hostage on the Sango (for example, search/track only, engage, sink, recapture, etc.)?
- 2. Due to national sensitivities with respect to cyber operations, what limitations/constraints must the MNF Commander consider (C2 considerations, unit assignment, cyber task force and components)?
- 3. How should the MNF handle detainees? Issues to consider: nationality of detainees, detainee status (prisoner of war, enemy combatant, criminal), where to detain and prosecute captured individuals, etc.

Based upon a review of responses to these discussion topics, the following themes emerged from player responses.

**Submarine.** The greatest volume of discussion and least consensus on how to respond invloved the missing Orangelnd submarine. Most CTs reorganized task groups (TGs), modified the Move 1 MNF CONOPS, and identified ROE changes. A concern for many countries on how to respond was the presence of crew members aboard, presumed alive, but taken hostage.

One CT suggested that since the submarine belongs to Orangeland, the MNF should first consult with Orangeland on how to proceed. Other CTs suggested finding and tracking the submarine, but did not specify what actions if any would be taken after finding the submarine. However, two other CTs suggested that they would attempt to neutralize the submarine. Two CTs reorganized the MNF forces and created a TG Sango, specifically dedicated to deal with the unlocated submarine. Another CT sought an ROE change to permit a forced surfacing of the Sango.

**Cyber.** Cyber was another topic that generated significant discussion. CTs shared a variety of views on how to respond to the Orangelend distributed denial of service (DDOS) cyber attack against its government computer network. This attack hindered Orangeland's ability to communicate and reassure its citizens that the government is effectively manageing the situation.

One CT noted the challenege of characterizing cyber in an order of battle (OOB). Does an MNF describe its cyber ability as capability (does the MNF have the means perform a cyber task) or cyber capacity ("how much cyber" does the MNF have)? A related complication of characterizing cyber in an MNF OOB is how to reflect, account for cyber capability that may be provided via reach-back from one or more MNF-member countries, sourced from outside the MNF.

Another CT noted that the real issue confronting the MNF is whether a cyber capability exists within the MNF, versus the nationality of a country providing a cyber capability. Two CTs noted that MNF cyber tasks should be focused on the defense of MNF cyber systems, and not in support of Orangeland networks.

Other CTs assessed the cyber attack as a communication problem, and sought to provide alternate communications methods for the Orangelend government to reeestablish communications, such as through providing access to MNF satellite comunication capability. Ensuring Orangeland's ability to communicate with its citizens would also contribute to Orangeland legitimacy in the eys of its citizens.

Humanitarian Assistance. Several CTs reorganized the MNF structure to include TG Humanitarian Asisstance, if one had not been previously identified in Move 1. Two CTs suggested establishment of an internally displaced persons (IDP) camp, and to assist responding to the cholera outbreak. Another CT identified a need for a coordinated effort to assist Orangeland and suggested creation of a Civil Military Operations Center to coordinate Orangeland, non governmental organizations (NGOs), and MNF actions in support of Orangeland.

Rules of Engagement (ROE). Most CTs suggested ROE changes, including permission to conduct psychological operations (PSYOPS), a request for cyber ROE. Three CTs suggested that countries consider delegating ROE decision to the MNF commander to manage.

Phasing of the Operation. Interestingly, two CTs noted that due to the limited, 90 day duration of the MNF, executing MNF operations sequentially by phase may result in the MNF not completing its mission within the 90 day window. Therefore, multiple lines of operations were initiated simultaneously (e.g., MIO, sub location, HADR) to increase the likelihood that the MNF mission would be competed in the allotted time.

**Detainees.** The discussion on how to handle detainees from both Redland and TCOs generated much discussion. One CT suggested that any forces detained from Redland be treated as survivors at sea with the goal of immediate repatriation in order to avoid further escalation with Redland involvement. Many CTs agreed with this recommendation while a few others recommended Redland detainees be treated as POWs. Most CTs agreed that any TCO detainees should be transferred to Orangeland for criminal prosecution.

#### Conclusion

The 2013 IAWG provided an encellent opportunity for CT to exchange views among maritime professionals. The USNWC would like to thank Captain Garcia, leader of the Control Group delegation from Colombia, Captain Delgado, leader of the Control Group delegation, from Brazil, and Captain Alvayay, from Chile, Assitant Game Director for their superb contributions to the success of the 2013 IAWG.

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## Appendix A

### **History of the Inter-American War Game**

The following four paragraphs, reproduced verbatim, describe the history of the Inter-American War Game as recorded on the web site of the Chilean Naval War College, hosts of the 2008 Inter-American War Game. The USNWC thanks the Chilean NWC for being a repository of the IAWG game history.

"The Inter-American War Game (IAWG) is an annual, one-sided seminar type of game that was begun as a result of a decision taken during the Conference of the Naval War Colleges of the Americas (CNWCA). The first meeting of the CNWCA was held at the Naval War College, Newport, U.S.A. in 1962. The group meets every second year following the Inter-American Naval Conference, a CNO-level meeting.

The first IAWG was held in 1972 at the US Naval War College in Newport. Since then it has been played uninterrupted with only two exceptions in 2001 and 2004. The IAWG host nation rotates annually among the naval war colleges who are members of CNWCA.

The Inter-American War Game has evolved over time. At the beginning its intention was to solve military problems with emphasis on the tactical level using gaming and simulations. Since 1998 the IAWG has evolved to a seminar type of game. It is now conducted as a War Game with educational objectives at the operational level.

The IAWG has had other changes. In 1999, the CNWCA directed that the IAWG be changed from 10 to 5 days. As a result of a briefing given by the Argentine NWC at CNWCA in October, 2004, the NWC Directors agreed that from 2005 and onward, the IAWG would be divided into two stages. The first stage is conducted in a virtual environment via the internet. Prior to beginning each IAWG, a fictional scenario is developed along with specific planning for the

conduct of the IAWG. Upon execution, the game is played via internet in a series of "moves" over a time period of about two weeks. A concluding "hot wash up" and closure conference of two or three days duration is then held at a designated naval war college where the IAWG participants discuss final conclusions and recommendations" (Chilean Naval War College, 2013).

# **Appendix B**

#### **Assistant Game Director**

Our colleagues from the Chilean Naval War College generously volunteered at the 2012 IAWG Closing Conference to serve as the first Game Director Assistant and will provide and update to participants at the IAWG 2013 closing conference. Specific Game Director Assistant duties include:

- a. Support the IAWG's Game Director during the closing conference by listing the agreements, disagreements, pending actions, accomplishment dates and all other information that contribute to ensure a good control of the treated matters and the signing process of the final document by each senior officer.
  - b. Keeps the historical records of the following documents:
    - i. Agreements and Disagreements.
    - ii. Game Book of each year with its corresponding objectives.
    - iii. Results of the assessment of progress in achieving the objectives.
- c. Ensure that the above documents are received by all representatives of each delegation to the closing conference of each year.
- d. At the beginning of each year, deliver the historical record of documents indicated in section b) to the new IAWG Game Director and support him in the implementation of the previous year agreements.
- e. Keep the updated list of IAWG's points of contact (POC) of each navy with the corresponding e-mail address and telephone number, and present it to the new IAWG Game Director each year.
- f. At the end of the Assistant's period of three years, deliver a report to the participants in the IAWG considering the following:
- i. A summary of the annual agreements and the way they were implemented or the reasons why some were not.
- ii. Summary of the results of the assessment of progress in achieving the objectives.