

An Invigorated Approach to Wargaming

New emphasis from the CPG
by Staff, Wargaming Division

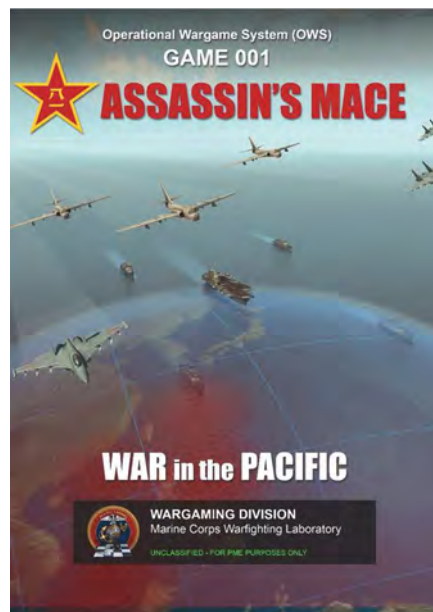
“Essential to charting our course in an era of strategic fluidity and rapid change will be the effective integration of professional wargaming in force design, education, and training.”

—CPG

In the 38th Commandant’s Planning Guidance (CPG) published in July 2019, Gen Berger made a clear call for an invigorated approach to wargaming. Spanning nearly four pages of the CPG, his guidance laid out objectives that require major adjustments to current approaches and significant resource investments to develop the staff, methods, and tools needed to achieve his desired end state. In the near term, this requires agile and innovative approaches to enhance methods and tools. In the long term, the Marine Corps will build and staff a new multi-million-dollar Wargaming Center, a cutting edge capability that will service not only the Marine Corps but the Joint Staff as well.

Why this emphasis on wargaming? The past few years have seen renewed energies applied to wargaming across the DOD as the Services all wrestle with adjusting to an era marked by major power conflict. Given the huge monetary investments associated with advanced technologies, there are understandable expectations by the Office of the Secretary of Defense and Congress that these investment decisions

are based on a comprehensive body of analysis. Delivering such “evidence” to support investments requires an array of



The past few years have seen renewed energies applied to wargaming across the DOD. (Photo provided by the Wargaming Division.)

techniques which blend both wargaming and operations analysis. In his guidance, the Commandant identified the

need to enhance the body of knowledge which underpins our future force development and warfighting concepts:

We have applied substantial energies to developing new concepts over the last two decades, but our “proofing” of these concepts through rigorous wargaming, experimentation, and analysis has been inadequate. Such activities are essential if we are going to translate our concepts into action. We have a poor transition record in this regard, and our lack of sufficient analysis and experimentation is a major factor contributing to this deficiency.

He also laid out a benchmark goal to ensure that our Plans, Programming, Budgeting and Execution (PPBE) process is informed by a rigorous process of analysis:

Our PPBE process by which we determine how we spend our resources will be driven by a planning phase informed by wargaming, modeling and simulation, and build on a solid analytic foundation closely integrated with the Navy. We must invest more in these learning activities.

Given this mandate, the Marine Corps Warfighting Lab (MCWL) is aggressively leaning into modernizing its wargaming tools, enhancing near-term capabilities, and working with Marine Corps Systems Command to develop the future Wargaming Center capabilities. This will be a multi-year effort.

In the near term, our wargaming efforts are focused on meeting assess-

ment requirements associated with the Commandant's new force design. The fiscal year 2020 wargame program was adjusted to orient completely on force design within the context of specified scenarios. This led to a series of rapid turn wargames in October followed by two iterative wargames through the spring, titled Ghost Fleet and Black Sheep Squadron, which will culminate in Expeditionary Warrior 20 in June 2020. This wargame series is designed to inform the Commandant's force design at the strategic, operational, and tactical levels. This effort is consistent with his specified task to the MCWL in his guidance:

We will ensure that a single wargaming entity within MCWL proceeds systematically, and rapidly, through a series of games designed to explore the implications of the designated concepts in specific, real-world scenarios based on the current NDS, National Military Strategy (NMS), and other relevant departmental guidance. This wargaming effort will be the centerpiece of my effort to generate reliable knowledge upon which to base force design and combat development.

What is important to note is that this wargaming effort is more than just the traditional wargaming done by MCWL in the past. In close partnership with the Marine Corps' Operations Analysis Division (OAD), the Ellis Group has charted a course to work closely with the Navy's Naval Aviation Enterprise-Capabilities Based Integrated Process to apply a rigorous analytic effort leveraging the best in government modeling and simulation (M&S) capabilities to enhance the overall quality and quantity of analytic data underpinning this force design. This comprehensive approach requires close integration and cooperation between wargaming and operations analysis efforts. But the desired end result is to deliver the needed analytic body of data that the Office of the Secretary Defense and Congress need in order to support the Marine Corps' force design.

There is another partnership that is key to an informed force design: the relationship between MCWL and

Marine Corps University (MCU). This relationship is mutually supporting and beneficial. First, given the available student body and faculty collocated with MCWL's Wargaming Division on the MCU campus, there is a logical advantage gained by harnessing this available brain power to innovate and wargame emerging concepts. The Commandant spoke to this relationship in his CPG:

Clearly, potential exists for synergy between MCU's educational wargaming, MCWL's wargaming efforts in support of force design, and the requirements for increased use of wargaming in tactical training. We will pursue such opportunities with determination and energy.

This pursuit is in progress now. In partnership with MCU's new Krulak Center staff and with select MCU faculty members, MCWL has several initiatives underway to capitalize on the opportunities presented by collocation with MCU. The first is the Gray Scholars program: a select group of Command and Staff

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College students who are focused on researching, wargaming, and writing on future concepts while working closely with the Ellis Group and the Wargaming Division. MCU's Krulak Center has its own wargame series that is also in progress. Additionally, the Marine Corps War College has an Advanced Studies Program with select students who are working with Wargaming Division to red team the force design by developing alternative strategies and force design constructs. These efforts not only reinforce the wargaming and analysis work but also help educate the Marine Corps' officer corps on the complexities of 21st century naval campaigns and great power conflict. Such campaigns require significant adaptation and new

paradigms in thinking about how we fight. Wargaming is a key means to delivering an enhanced education and to stimulating innovative approaches to warfighting concepts.

To support these multiple wargaming efforts, MCWL is developing a set of new tools to apply to both wargaming and analysis. It is important to note, given wargaming's emphasis on human decision making, there remains a role for table-top wargames that enable rapid player orientation and situational awareness, flexible execution, swift adjudication, and immersive matrixed discussions. In the past, the Wargaming Division lacked a standard table-top wargaming system. During this past year, a new system called the Operational Wargame System was developed and was used to support the General Officer Warfighting Program and the Pacific Surprise wargame executed in October 2019. The Operational Wargame System is also being integrated into wargaming efforts in Command and Staff College, the School of Advanced Warfighting, and the Marine Corps War College. The first volume in the Operational Wargame System series is titled Assassin's Mace and focuses on the Pacific Theater. Subsequent volumes will focus on Europe and the Middle East, with the goal to deliver a set of table-top wargames for operational scenarios in all theaters in support of Marine Corps PME.

Table-top wargames by themselves are insufficient to meet analytic requirements. Computer-based wargames and M&S tools capitalize on computing power and databases to deliver greater wargaming rigor and quantitative analysis. Flexible and adaptable wargames that leverage the latest technology and populated with authoritative data are needed. In the near term, both the Wargaming Division and Krulak Center are leveraging the commercial wargame Command Professional Edition as a computer-based wargame tool to enhance the rigor behind testing player decisions and to deliver quantitative outputs. Command Professional Edition elicits the human decision making associated with concepts and capabilities (the key output of a wargame) while



Assassin's Mace. (Photo provided by the Wargaming Division.)

delivering a body of data that can support quantitative analysis. Once promising ideas emerge from wargaming, they are then injected into more detailed and authoritative government M&S applications like Advanced Framework for Simulation, Integration, and Modeling as well as the Next Generation Threat System for mission and engagement-level analysis that emphasizes operations analysis techniques to identify insights. Together, this blend of wargaming and operations analysis is the optimum approach to provide the information that senior leaders need to make decisions on force design.

Key to this integrated wargaming and operations analysis approach is close coordination and integrated efforts between different organizations across Concept Development and Integration. The goal here is to better service the decision-making needs of senior leaders and to provide justification for those decisions to the Office of the Secretary Defense and Congress. In his planning guidance, the Commandant identified that this is an area that requires greater focus:

We do not currently collect the data we need systematically, we lack the processes and technology to make sense of the data we do collect, and we do not leverage the data we have to identify

the decision space in manning, training, and equipping the force.

With initiatives to leverage tools like Command Professional Edition, Advanced Framework for Simulation, Integration, and Modeling, and Next Generation Threat System, alongside integration efforts to tie closely with Navy wargaming and analysis, and across Concept Development and In-

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tegration organizations, the Service will improve our ability to collect and process the data that is needed to inform future force development decisions.

These tools are available today. However, the Marine Corps has its sights set on making a revolutionary step forward in wargaming tools and analysis capabilities. In his planning guidance, the Commandant put a stake in the ground on building a new Marine Corps Wargaming Center:

We will build a Wargaming Center on the Marine Corps University (MCU) campus ... We will need experts in wargaming, M&S, facilitation, threats, and opportunities.

This Wargaming Center will dramatically expand the Marine Corps' wargaming staff from around 20 to over 150. It will also merge wargaming and operations analysis associated with future force development and operations plan assessment into one organization. Marine Corps Systems Command is in the process of working with industry to develop prototypes for a family of software tools to enable rapid scenario generation, enhanced player situational awareness, rigorous and swift adjudication, and automated compilation of post-wargame data to support analysis. These tools, leveraged by a professional and skilled staff, will deliver a dramatically improved wargaming and analysis capability for the Marine Corps. Given the proximity to the National Capital Region and the Joint Staff, it is likely that this wargaming capability will stand at the forefront of DOD wargaming by 2025.

With his planning guidance, the Commandant set a high bar on his expectations for wargaming. Fulfilling his guidance will require a determined effort by the Service to devote time and resources to this effort. With the focus on force design over the past eight months, MCWL has executed

an energized wargaming effort that in combination with Operations Analysis Division analysis provides a body of knowledge to support senior leader decisions. These efforts will continue as future force development is never truly complete. With the landmark milestone of a new Wargaming Center that will break ground in spring of 2021 on the horizon, we are just at the beginning of a new era in Marine Corps wargaming.

