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CONVERTING THEORY AND WAR DOCTRINE TO REALISTIC TRAINING FOR ENSURING THE SUCCESS OF MILITARY CAMPAIGN PLANNING

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Abstract

Military campaigns in the 21st Century are extremely complex multi-dimensional undertakings. In today's globalized reality, influence of wars will go beyond the theatre of operations into issues of international economy, human migration, airspace and sea lanes, thus adding new dimensions to campaign planning. Converting theory and doctrine to practice is never easy. Realistic training may be the best bridge to ensure that classroom knowledge is correctly applied to the real battlefield. This paper looks at this challenge through the combined experience of six foreign exchange students who graduated from Indonesia's Air Command and Staff College, 2018. The purpose of this paper is to highlight some of the challenges to campaign planning, especially in light of multinational influences, extract lessons learned from recent military campaigns and then provide feedback for Indonesia's wargaming training methodology as practiced in the air command and staff college. The foundation to Indonesia's wargaming exercises is the 14-step Military Decision Making Process (MDMP). MDMP in its general form is part of the campaign planning processes for the authors' respective countries too, varying only in the sequence and emphasis on steps and tasks within the

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process and strategies for exercising the process. This paper will conclude that even the most theoretically sound campaign planning process would lead to operational failure, unless critical thinking & planning abilities are developed in upcoming military leaders through a sound understanding of theory, realistic wargaming, and deep analysis. This requires realistic training in an open learning environment, and a willingness to analyse one's own country-specific mistakes and successes.

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INTRODUCTION

Theory and doctrine provide the intellectual foundation for military operations, without which it would be a directionless waste of human life and resources. That being said, studying theory and applying doctrine is necessary, but not sufficient to ensure a successful military campaign. Realistic training, true jointness and wise application of doctrine are the prerequisites to transform theory into practice of an effective campaign.

There are at least two reasons why learning theory and doctrine is not enough to train effectively, much less execute a military campaign. One, theory and doctrine lack the field realism and fog of war. Two, overly general military doctrine may not directly apply to a country's military/strategic context, given their particular equipment or capability constraints.

This leads us to the research question to be answered in this paper. How does one translate military doctrine and theory into successful military campaign planning and execution? This paper hypothesises that realistic training, which deeply considers one's own military history and context, is a necessary but not sufficient effort to bridge the gap between theory and practice.

Military education institutions, especially ones that groom mid-ranking officers for command positions and operational planning roles, should teach more than theory, doctrine and the types of military operations. The training must be realistic, learning from successes and failures of their own military operations in

the classroom, with a focus on dynamic analysis in the exercise phase of education.

RESEARCH METHODS

The qualitative approach used in this paper will begin by discussing the theory of military campaign planning, considering some similarities and differences between national approaches. The secondary sources and national doctrine of select countries will then lead into an analysis of two case studies: Desert Storm (1991), and the Saudi campaign in Yemen (2015 to present). The campaign examples will highlight key principles of campaign planning while also pinpointing challenges in execution.

The qualitative approach then makes use of a participant observation method to discuss the importance of the Military Decision-Making Process (MDMP) as part of campaign planning, and analyse the strengths and weaknesses of MDMP in general, but also with reference to Indonesia's Air Command and Staff College education and training approach. The participant observation was completed by all six paper authors not only as full-time Indonesian Command and Staff College students but specifically, as active participants in three, week-long wargaming sessions as part of the school curriculum.

The discussion in this paper touches mostly on the strategic level with applicable operational considerations. Aside from the source documents, peer-reviewed journal citations and participant observation, this paper's unique approach benefits from the authors' previous

operational experience and their year-long participation at Seskoau.

RESULTS AND DISCUSSION

Theory and Doctrine of Military Campaigns

A military campaign is defined as prolonged military action with a regional or strategic objective, incorporating a large number of troops usually as a part of a greater war effort. A campaign consists of a number of battles or force-on-force engagements from a single country or a collection of countries, usually employing joint or combined operations. A military campaign can be fought by a single country's military inside its sovereign borders, as did Malaysia in the 1960s, or it can be as large as a multinational force fighting outside each contributing country's border, as is the case in Afghanistan.

The geographic scope and participation are important to clarify because different countries have different experiences, histories and regulations that influence their respective perceptions of military campaigns. Some nations, like Indonesia, have yet to formulate a precise law defining how their forces would engage in a campaign outside its borders. In addition, strictly non-aligned states, like Indonesia and India, and states that eschew alliances, like Singapore, might engage in multinational campaigns but under special political agreements outside of a treaty alliance.

In the 21st century, given advances in technology, globalization and irregular/hybrid warfare, it is very unlikely that one country's campaign would not affect a neighbouring country or international organization, especially considering displaced persons and inter-dependant economies. While military doctrines are a guideline to developing strategic and operational actions, military campaigns must consider more than just blunt military strategy. Now, campaign

planning must also consider multinational dynamics and cross-border impacts of conflict. As such, this essay will focus on the general theory, doctrine, training and application of military campaigns, assuming at the very least, multinational coordination.

Participation in military campaigns, whether national or multinational, are greatly influenced by politics. As a result of the legal and political constraints of each state, their involvement in military campaigns may have varying degrees of participation: from observer, medical assistance and logistics support to combat air operations and Special Forces direct action (US Joint Doctrine, 2013). A core element of planning a campaign is buy-in and support. No support, no matter how little should be rejected outright, especially in the politically diverse, culturally sensitive environment of a multinational force.

Common Elements to Campaign Planning

In writing this essay, the six authors drew on military thinking from their respective nations and their own professional experience and found that some of the most important and common elements in campaign planning are as follows:

Defining a Clear End-State

This is the first question posed in campaign planning and requires the most comprehensive response (Clausewitz, 1976). The motive/need for war will determine both the military objective and the amount of effort committed. The construction of strategy begins with identifying the war's aim, because, "the aim will determine the series of actions intended to achieve it." War is fought for politically determined purposes, and not merely as a clash of arms for its own sake. There is often a goal beyond simply winning the military conflict. Thus, the planner attempting to tie the military end to the prime objective/s must

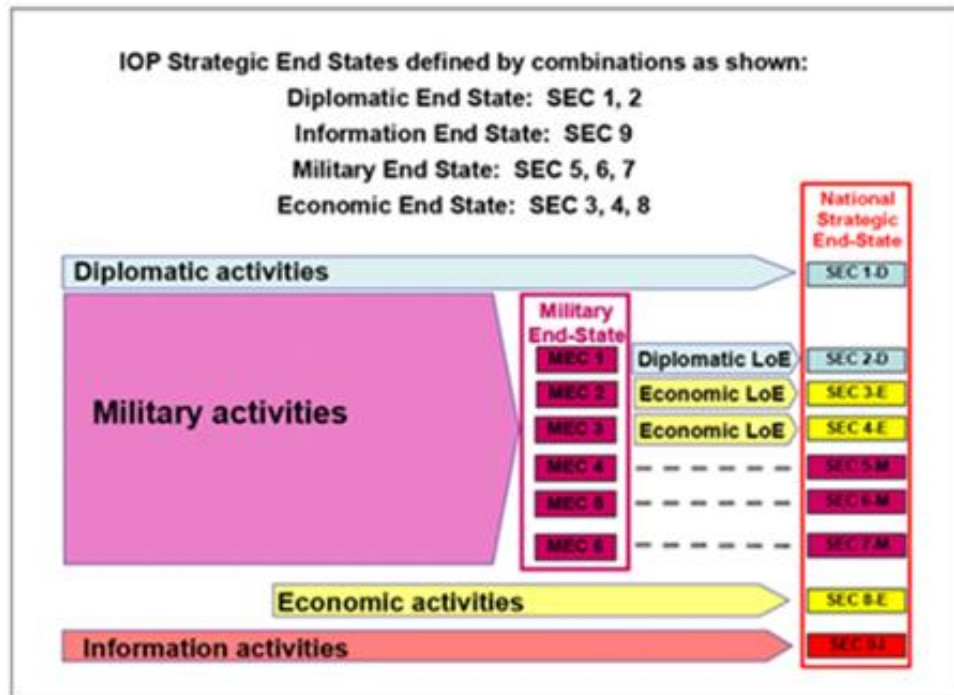


Figure 1. National Strategic Planning.

Source: Linking DIMEFIL/ PMESII to a Theory of Victory, April 2009

not only understand how the two interrelate, but also must track the logic behind each of the dozens of tasks being orchestrated, ensuring a unity of purpose.

It is sometimes difficult to define a precise military end state during the planning stages due to the numerous unknowns. The operational commanders of today are faced with situations far more complicated than those faced by their predecessors. Further, they must be adept at working in concert not only with other government organizations, but Non-Government Organizations (NGO) and Private Voluntary Organizations (PVO) as well to achieve national aims.

In spite of the commander's best efforts to secure a defined end state prior to the beginning of the operation, it is very possible that they will find themselves directing military forces and working toward the completion of objectives while still lacking either a defined end-state or an exit strategy (Strines E. J, 1997). Exit strategies between multinational forces are even more challenging and should be flexible enough to overcome friction and ensure a desired political end-state that can

be translated into a viable military strategy (Fleck C. M., 1997).

Unity of Command

As per Sun Tzu, one of the five important parameters of victory is the organization of the military, and central to that construct is to establish unity of command. Along with centralized command, Sun Tzu believed in decentralized execution of the military campaign; sub-commanders executing their orders without interference from above especially when the higher authority has no specific knowledge regarding situations in the field (Dimovski, 2012).

From a US perspective, US army doctrine, FM 101-5, describes unity of command in practice beginning with clear guidance and objectives, including stated key tasks to unite all actions of supporting forces in a military campaign (Walter N. Anderson, 1998). US Joint doctrine, JP 3-0, Joint Operations, defines unity of command as an essential element of command and control and a requisite for achieving unity of effort, defined as coordination and cooperation toward

common objectives, even if the participants are not necessarily part of the same organization (Bury S., 2014).

Basic Indian airpower doctrine recognises an important fact about evolving doctrine, that

“In the future, there is a likelihood of large and varied forces including non-military elements being employed; hence unity of command may not be feasible at all times. It is here that coordination and cooperation between different agencies becomes the guiding principle. Joint planning, training, a clear perspective about the functioning of the other services and the establishment of supportive organisations will be essential to ensure synergy.”

Local, Partner, Foreign and Ally Support

Three types of diplomatic arrangements strengthen a defence posture: collective security systems, defensive alliances, and balancing behaviour by neutral states (Van Evera, 1998). In theory, states in a collective security system, such as the former League of Nations, promise mutual aid against aggression by any party member. Neutral states act as balancers when they join the weaker of two competing coalitions to restore balance between them. Coalitions have proven useful in building limited multilateral political consensus for military action, when global UN Security Council consensus or a formal alliance does not exist.

Most importantly, no country's military, plans and executes a campaign in a vacuum. At the very least they must integrate with civilian authorities in security, health or transportation sectors. For example, a crucial, and often difficult management step is airspace coordination. Even within a coalition, operations have shown a lack of partner coordination in C4ISR (Command, Control,

Communication, Intelligence, Surveillance and Reconnaissance), collaborative planning and the sharing of airspace information etc. In Desert Storm, a case study discussed later, failures in airspace management resulted in 11 of the US military's 35 'friendly fire' casualties, which equates to 7.5% of total combat deaths (Barton Gellman, 1991).

Access and Logistics

This category is closely related to the above. Access and proximity to the area of operations are crucial for military success. The military footprint should be as small as possible and consider the environment, relying on local and multinational integration to achieve the campaign objectives. Access, especially in a campaign conducted farther way from the military's logistical hubs, usually requires diplomatic cooperation, temporary military bases and the agreements with host nation. Even campaigns executed within one's own national borders must consider the economic strain of wartime logistics, and the physical and sociological impact of a large military footprint.

Standardization and Interoperability Between Services and Nations

Standardization and interoperability refer to shared communication procedures, similar processes in reporting and information dissemination and even technical and mechanical compatibility between pieces of military equipment. While essential, standardization and interoperability is not something that can be achieved only days, even months before executing a campaign. One of the best ways to ensure standardization is to train using the tactics, techniques and procedures described in doctrine. Multinational forces must consider the extent of sharing equipment or even sharing and combining doctrine to harmonise procedural differences.

Comparison of Campaign Planning Approaches

Considering the general theory of campaign planning, multinational operations must acknowledge slight variations or sources of influence in each country's military doctrines. The following are some of the differences in approach or priority campaign planning perspectives in the United States, Australia, India and Singapore.

In terms of interoperability planning, the United States and Australia place a high priority on transparency in military doctrine. The US military's own doctrine has been adopted in part by many militaries around the globe as a result of this transparency, which in turn optimizes interoperability. Australia is open in sharing doctrine and planning processes with regional neighbours and allies, especially in humanitarian response efforts. In contrast, Singapore is less open with its doctrine manuals, but not at the expense of coalition synergy. Singapore has successfully led joint operations like anti-piracy efforts in the Gulf of Aden and contributed significantly to NATO-led campaigns in Afghanistan.

Both Singapore and India are countries that are reluctant to enter treaty alliances. For India, it is part of its long-standing non-aligned (NAM) policy. For joint operations, India uses the Joint Operations Planning Process (JOPP) and for air campaigns, the Air Operations Planning Process (AOPP). India's long-term goal is to solidify a structure of fluid joint operations between its services (Mukherjee, 2017). For Singapore, the concept of operations is centred around Task Forces which have different elements assigned for operational control.

In contrast to Singapore and India, US defence doctrine relies specifically on a defence policy of coalitions and treaty partners. Australia's defence concerns are more closely related to its immediate surroundings, maintaining defence alliances with numerous nations and

multilateral parties such as the Australia-New Zealand-US alliance (ANZUS) and the Five Power Defence Arrangements (FPDA) comprising Australia, New Zealand, Singapore, Malaysia and the UK.

Military Campaign Example: Iraq 1990 - 1991

Previous to the US 1991 invasion of Iraq, the US military corrected gross errors in joint force planning and execution during conflicts in the 1980s like Grenada and Panama. The Gulf War (2 August 1990 – 28 February 1991), was comprised of two phases. The first was a military mobilization for the defence of Saudi Arabia, Operation Desert Shield (2 August 1990 – 17 January 1991). The actual fighting took place in the second phase, Operation Desert Storm (17 January 1991 – 28 February 1991). A coalition force consisting of troops from 35 nations, led by the United States, fought against Iraq in order to counter and repel Iraq's invasion of Kuwait and prevent Iraq's further aggression into Arabia.

The campaign planning began well in advance, based on assessments and forecasting processes. The UN Security Resolutions 661 (Economic sanctions on Iraq), 665 (Naval blockade) and 678 (ultimatum to Iraq for withdrawal from Kuwait), laid the groundwork on which the actual military campaign was founded. The campaign planning was as much political as it was operational. Consistent with US strategy, the planning phase emphasized rationalization and standardization between coalition forces. The majority of the coalition forces were from the US, Saudi Arabia, the UK and Egypt. Operation Desert Storm began with an aerial and naval bombardment campaign – lasting five weeks, followed by a ground invasion, which resulted in a victory within 100 hours. Seen this way, Operation Desert Storm was one of the most successful campaigns in modern history.

It is often the case that the planning process for big wars is often muddled by lack of political vision or inadequately articulated strategic objectives. In this case, the political decision-making process was mature and timely. The cohesion between the national leaders of the Coalition governments also helped make the process efficient.

The naval forces mobilized in the Persian Gulf consisted of six carrier battle groups. Total coalition force consisted of 956,600 troops. The air campaign involved 2,780 fixed wing aircraft, flying 18,466 air deployment missions, and nearly 116,000 combat air missions, demonstrating the size and scale of the campaign.

The force structure was combined joint in nature, right from the beginning. The CENTCOM (Central Command) and CJCS (Chairman of the Joint Chiefs of Staff) worked together at all stages and all levels, and included other Coalition force commanders. The Command Relationship Hierarchy can be seen in attachment 3. To achieve the stated end-state, a concise four-phase campaign was planned as follows:

Phase I: Strategic Air Campaign against Iraq; Phase II: Kuwait Air Campaign against Iraqi air forces in the Kuwait; Phase III: Ground Combat Power Attrition to neutralize the Republican Guards and isolate the Kuwait battlefield; and Phase IV: Ground Attack, to eject Iraqi forces from Kuwait.

Some important aspects of campaign planning are briefly analysed in this section. The military objectives were derived from the President's objectives. Unity of command and standardization were established across the complete coalition force, through mutual trust, respect and close coordination.

One of the most important steps in the MDMP is analysing CoGs and possible enemy courses of action. The coalition spent substantial effort on analysing the operational environment, identifying the CoG and developing an operational plan

accordingly. A targeting model was developed by the Air Staff's deputy director of plans (CHECKMATE team), which planned to concentrate airpower in a massive air campaign. Take for example, the plan to destroy 84 Iraqi strategic targets in a single week. This plan would gain air superiority quickly, paralyze Iraqi leadership, degrade their military capabilities and neutralize their will to fight. As a lesson learned from the 1970s and 1980s, US national leadership meddled less in tactical and operational execution.

At the sub-commander level, American military culture had evolved since the Vietnam War days through reforms carried out by Gen. Bill Creech. It now encouraged units to report actual states of readiness and shortcomings, which led to realistic campaign planning. As a staple of US doctrine, Rules of Engagement were clearly established and passed on to operational commanders. The combination of good leadership and streamlined communication meant that tactical decisions could be made more speedily than ever before.

With a concise plan and end-state in place, coalition forces could train and exercise accordingly. Such planning allowed for realistic campaign preparations. The Iraqi forces, on the other hand, held totally generic exercises based on outdated intelligence and incorrect assumptions of US doctrine.

While the coalition forces were equipped with the most advanced military weaponry, to include Joint Stars for location enemy positions, Compass Call for rapid fire support, Electronic Attack, aerial refuelling and airborne Command and Control (C2) platforms (AWACS), it was practice and planning that created the force-multiplying effect. Effective joint training meant that during execution, the ground and air components understood how to better communicate and integrate.

The logistics portion of the campaign was enabled by staff, knowledgeable about

the complexities campaign and the maintenance requirements for each platform, and capable of handling substantial data and material flows.

Air supremacy allowed Coalition land, sea and air forces to manoeuvre and fight as they desired. It validated the concept of a campaign in which air power, applied precisely against centres of gravity, significantly degraded enemy capabilities – simultaneously at strategic, operational and tactical levels. At the ground level, the ability to conduct large, complex, multi-mission, multi-mix missions was made possible by planning, staff work and coordination of highest order, ably supported by technology and organizational climate. A bureaucratic approach, or slow information processing/decision making is inadequate for a modern military campaign.

This campaign again reinforced the lessons of earlier wars (e.g. Bekka Valley '82) regarding the centrality of technology, intelligence and Electronic warfare. Space systems support is essential in today's wars. Campaign planners must be trained to be able to take the full advantage space based capabilities. These 'force multipliers' enable a relatively small number of offensive assets to execute much bigger attacking roles than with conventional platforms.

There are also certain shortcomings observed from the study of Desert Storm that offer valuable lessons. Modern technology that proved so effective is also very expensive. Most nations do not have those kinds of resources, hence they would need to plan with a mix of high and low tech weapon systems. In addition, a campaign waged by a more powerful military may cause greater than optimum amount of damage, which has long-term fallout for the entire population of the affected country, such as the destruction of electrical facilities in Iraq. In such actions often lie the seeds for civilizational animosity and future conflict. A concise

end-state does not necessarily translate to assured post-war stability.

The use of Warden's Model (CoG Identification process), while effective overall, was not as decisive as predicted. The targeting strategy based on this process did not achieve the desired effect to destroy the will of Iraqi leadership, and required modifications. Further, the target nomination process often saw inter-service disagreements. A possible solution is to have representatives from all arms at the Joint Force Component Command from the beginning, so that the needs of ground forces can be better attended to.

Shortcomings were also felt in obtaining Battle Damage Assessments, which need to be addressed by all militaries to enhance the effectiveness of their planning process.

Finally, despite the latest in technology, intelligence proved inadequate in locating mobile Scud launchers. The TLAM cruise missile also proved its worth as a long distance, accurate weapon. These are indicators of future trends in weapon platforms. More countries are expected to acquire ballistic missiles and will be prepared to use them in future conflicts, necessitating new doctrines and missile defence systems.

The standout feature of the Desert Storm Campaign was that the political leaders understood the process. They played their role effectively, and allowed space for each component and military commander at each level to also play their roles. At the operational level, Desert Storm demonstrated the effectiveness of a focused joint campaign. The theatre campaign strategy exploited wise investments in technology, superior planning, training and doctrine to achieve overwhelming battlefield superiority. The campaign succeeded through cohesive organization and application of all forms of military power. This was facilitated by a coordinated, cohesive, well-thought out, integrated campaign planning process.

Military Campaign Example: Yemen 2015 - Present

The current Saudi Campaign in Yemen, which began in 2015, is a good contemporary example of challenges in military campaign planning and execution.

As in most cases, it is important to emphasize the political dynamics of this campaign. The Kingdom of Saudi Arabia's stated military objective is to restore Mansour Hadi's political authority as president after former Yemeni president, Ali Abdullah Saleh, took back power with the help of Houthi rebels. Having formerly been ousted in 2011, Hadi's supporters and Houthi rebels succeeded in controlling large portions of northern Yemen and controlling Sanaa. The Saudi military motive is also influenced by the fact that Iran is suspected of directly assisting the Houthi movement.

In terms of rationalization and regional support, the Saudi coalition received logistical and intelligence support from the US, UK and France, to include weapons and ammunition acquisitions. Saudi Arabia attempted to rally as much international support as possible, coordinating access, airspace and logistics support. Almost three years of fighting appears to have entrenched both sides, while three UN-organized efforts to negotiate a peace deal have failed (BBC, 2018).

The planning and execution of Operation Decisive Storm and its follow-on Operation Restoring Hope can be considered from at least these three principles of military campaigns: unity of command and interoperability; access and placement; information dissemination and intelligence analysis.

In terms of unity of command, the Saudi led coalition commanders formed a combined Coordination, Communication, and Integration Centre (C3IC) for coalition decision-making. The C3IC was a joint, combined organization which had the primary focus of coordinating the coalition efforts from each contributing force. The C3IC was headed by a Saudi Army Major General. The C3IC consisted of a number of Army, Navy, Air Force officers, and a Saudi contingent. The focus was primarily on land operations. Another C2 decision that improved the clarity of the commander's guidance came in the form of a Force Instructions Document, outlining in more detail the Operation Order.

In terms of communication and interoperability, mission planning sessions standardized the data-link architecture and system employment with face-to-face participant engagement. The C2 structure and data-link architecture (joint and combined) employed sufficient scope and complexity to warrant maximum

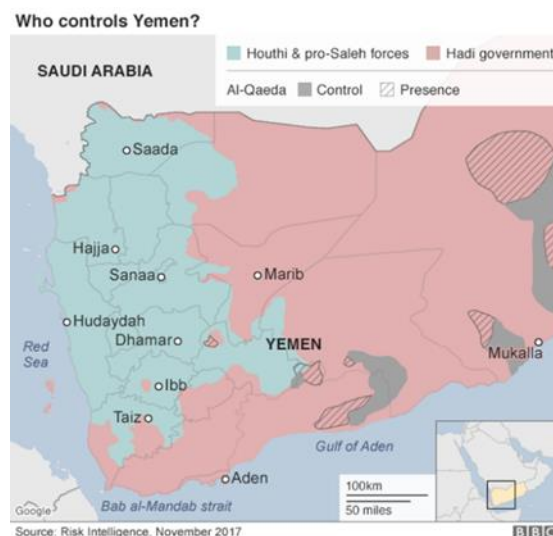


Figure 2. Yemen Conflict Map, 2017

preplanning and briefing among participants. This was especially important where primary interface participants were involved, eg Tactical Air Control Centre (TACC), Airborne Early Warning and Control System (AWACS) and U.S. Navy (USN) assets.

Access and placement of the TACC Message Processing Centre (MPC), which functioned as the Interface Control Unit (ICU), the AWACS planning cell, and naval assets in port, afforded an excellent opportunity for a rapid and effective mutual planning effort. Planning sessions attempted to ensure overlapping AWACS coverage but was often limited due to lack of input from key ICU players, familiar with the tactical constraints of the AWACS. The Command and Control (C2) operators and battle management personnel were crucial to ensuring all units were aware of what link information was available to them and capabilities that each air, ground and naval platform offered to create the best C2 picture for the warfighting.

Despite possessing some of the most advanced technology along with a coalition of ready partners, there were numerous challenges to planning and conducting the Saudi military campaign in Yemen. First, in terms of C2, due to coordination challenges, operations did not always take full advantage of the capabilities and situational awareness that was available to them. Data-link-capable aircraft and pilots were not always trained on how best to use the capabilities available to their agency on the digital data links. As a result, the desired sequence of tactical tasks to detect, track, and evaluate the threat, followed by friendly forces acting to neutralise the threat, often failed. Even though unity of command was maintained at the C3IC, Commander's guidance and orders to subordinate units and coordination between coalition partners were not always received.

Secondly, rules that specified the Law of Armed Conflict (LOAC), were initially

separate or only supplemental to the basic elements of the operational order. Legal considerations were later applied to every operational planning step and incorporated into the military decision-making process. It was crucial to convey the significant risks of collateral damages and other humanitarian concerns connected to each strike mission ("Decision Making Process in Military Combat Operations," 2013).

Third, it was initially a challenge to establish a commonality of information and intelligence functions to analyse the enemy's capabilities and vulnerabilities. In short, it was difficult to identify the enemy's CoG, a crucial step in the military decision-making process in campaign planning. To overcome this challenge, the coalition designed an Analysis Cell devoted to not only defining the enemy's CoG but suggesting the legal status of potential targets and possible enemy courses of action, which facilitated campaign planning and management.

Fourth, similar to the enemy forces cell, the Saudi coalition developed a Friendly Forces Cell which brought together the actual capabilities and limitations of the coalition forces, in order to achieve unity of aim as per commander's mission guidance. This Cell also maintained situation awareness on all friendly forces, enabling SAR, humanitarian responses and support to local population.

Finally, the lack of realistic field training and live-fire exercises prior to the Yemeni campaign meant that Saudi pilots were unprepared for their targeting challenges. Many of the mistakes initially committed by the Saudi coalition were the result of poor and unrealistic training. Pilots built expertise through trial and error, in the middle of war. As the Saudi contribution noted from personal experience, today's Saudi pilot lieutenants often have more skill and are better trained than Majors and Lieutenant Colonels. While war is the ultimate training ground, realistic training remains the only

substitute for operational preparation and readiness.

Military Decision-Making Process: Training for Reality

In light of the two real-world examples above, it is evident that proper planning, using a realistic military decision process, is crucial to military campaign success. Generally speaking, the critical elements of successful military decision-making exercises are as follows. Firstly, clear and deliberate objectives for participants and planners. This alone will enable supervisors to assess the degree of effectiveness of the exercise conducted. These objectives could focus on deliverables, processes, strategic, operational or tactical level concerns, but doing all at once may be cumbersome. A separate exercise objective might test the internal and external communication linkages for coordination in the execution.

Secondly, criteria for good training comes in an environment that encourages critical and creative thinking, and where the established thinking can be logically questioned. Wargaming provides for a safe and insulated environment for players to explore different Courses of Action (CoA) and to evaluate the risks and feasibility of certain actions and operational choices.

Thirdly, training must be as realistic as possible. One such necessary element of realism is communication linkages between elements; both within the military structure, as well as outside the military structure, with Government Organizations, NGOs and International Organizations (IO). Exercising these linkages brings awareness that a military operation is not conducted in a vacuum.

Fourthly, the use of technology should mirror the setup in an actual campaign. The weapon and resource assumptions must be realistic for feasible scenarios to emerge. These include the ways and means messages and orders are communicated.

The key factors here would be reliability, security and speed. In addition, the training exercise should make use of technology to enhance learning value and realism by using simulation systems during presentation and evaluation.

Finally, depending on the objectives laid out for a training exercise, more often than not, there will need to be an opposition force; the simulated enemy. The simulated enemy should be a thinking/responsive enemy, ensuring that CoAs (Courses of Action) are properly evaluated. This also enhances the realism of the exercise.

As experienced and observed by this paper's authors, the Seskoau training approach focuses on two main instructional areas: theory & doctrine, and Command Post Exercises (CPX) to practice practical application of the theory. The CPXs take the form of a wargame, while theory and doctrine are expounded in the classroom. The theoretical aspect focuses on the existing doctrines of the TNI and its respective arms. TNI doctrine forms the basis of the TNI's roles, responsibilities and types of operations that are conducted.

The lectures are conducted by both organic staff as well as visiting lecturers who are considered subject matter experts. The lectures are informative, but based only on the published doctrines. The learning outcomes would improve if these lectures were supported and contextualized by recent Indonesian military examples.

The TNI's fourteen-step MDMP contains many of the same elements found in military planning approaches in other militaries. Shared elements include: receiving a task, analysing the task, formulating military responses (Courses of Action – CoA) to the task, choosing the best CoA and finally, issuing task execution orders. The process is designed to be used for both immediate and deliberate planning. In reality, the time it takes to complete the process is dependent

on the enemy's actions and one's own leadership priorities.

The generic planning process is designed to be domain-agnostic, meaning it can be as easily utilized by air, land or naval planning teams or indeed by sub-elements and joint forces within a domain. From the perspective of the contributing authors, the similarities in all military decision-making models is readily apparent when studying any of the main military doctrines for decision-making, such as the US Military Decision-Making Process (MDMP); the British Estimate Process; the Indian Joint Operations Planning Process (JOPP); or the Australian Joint Military Appreciation Process (JMAP). All of these processes follow the generic planning sequence described previously, sometimes with only slight differences in terminology.

One additional element that runs concurrent with the planning process is information gathering and assessment. Despite the clean, logical appearance of an MDMP, wartime realities and certainly real enemies, will shift positions and attempt to evade defeat. What is often called Operational Preparation of the Environment (OPE) uses all national intelligence resources to gain and maintain an understanding of the operational environment and the adversary. As Moltke wrote way back in 1880, "No plan survives first contact with the enemy." Without the constant updating of the tactical, operational and strategic situation, planners and commanders cannot know if their plans have remained valid throughout the duration of the planning.

Enhancing Realism in Wargaming Exercises

There were four separate wargaming sessions during the Seskoau 2018 academic year, each lasting a week long. Each wargame was structured around completing the fourteen MDMP steps, including the associated briefings and required written products. During the

second wargaming session, students were assigned "white cell" or wargame creator/manager roles, learning how to organise a wargame. The third and fourth wargaming sessions were meant to be as comprehensive as possible, incorporating strategic, operational and tactical considerations to joint and combined operations.

The key functions practiced in the MDMP wargaming were operations, intelligence, logistics, personnel, communications and electronics. The most significant influence to the wargame is the scenario, which at Seskoau is created beforehand and describes in depth the conflict background, road to war, troop dispositions, enemy capabilities and even desired military objective.

Planning and executing wargaming training is a difficult task. Wargaming is meant to highlight deficiencies in not only operational plans but deficiencies in operational knowledge. The following highlights some strengths and weaknesses of Seskoau's wargaming methods.

First in the list of strengths, wargaming required 100% participation, regardless of student experience or operational knowledge. The four wargaming sessions did build one on the other allowing students to develop a gradual understanding of the MDMP.

Second, the training was very structured, following closely the MDMP. All students were able to follow the defined planning steps and understood what product or analysis was required for each step. The wargaming sessions were meant to build on theory and doctrine already taught in class, to include analysing CoGs and weaponeering for a target (Rengunsista).

Too much structure in a wargame can also lead to a number of weaknesses. Enforcing the strict fourteen-step process puts students in a mind-set to simply complete the deliverables and written submissions (products). It becomes tempting to gloss over analysis. However,

given the deliverables, some which can exceed three hundred pages, it is physically impossible to give quality time to analysis. Further, the assessment process too does not incentivize analysis, focussing more on the process and products.

In addition, the wargaming construct attempted too much in too little time. Students were expected to think strategically, plan operationally and execute tactical tasks like weaponing (Rengunsista) aircraft for a single target. The MDPM is most beneficial when it takes on only one war level at a time per executing unit or authority.

In terms of technological advances, Seskoau is in a transition between hard-copy planning tools and computer software war-planning aids. Sometimes, inordinate amounts of time were spent updating wall maps with static orders of battle. The hands-on plotting system is useless in a dynamic battle environment; impossible to update given the kind of information flow that exists today. Simulations must transfer to computer systems which can update and project enemy movements, highlight friendly force status and provide situation updates. Many of these tasks are automated in modern operations centres.

A final critique of Seskoau's wargaming is also related to its computer-based communication system used to pass message traffic. Such a system is capable of forcing dynamic responses from the players or encouraging a serious review of CoAs. Instead, message traffic usually repeated the same data that was provided in the initial scenario. Very rarely did intelligence injects require an immediate player response or any notable change in a pre-arranged CoAs.

CONCLUSIONS

In this day and age, military campaigns requiring multinational force structures and considerations are a given. Theory and doctrine do not always keep pace with realities. Due to equipment constraints or

political policy differences between countries, the doctrines that inform operations and strategy can rarely be applied universally. But perhaps the biggest challenge to planning and executing a successful military campaign is first training realistically.

This paper concludes, through participant observation at Indonesia's premier Air Force education institution, case study and military doctrine analysis, that a country's top-tier military institutions, especially countries that have not fought in a war for decades, must find a way to convert classroom education to realistic wargaming.

One necessary addition to any institution's curriculum is real-world examples – operational examples that do not shy away from discussing one's mistakes. The case studies of Desert Storm and Decisive Storm indicate that one's own planning and execution errors also contain lessons learned that are potentially far more applicable to a nation's fighting force than merely studying the history and even mistakes of others whose culture, politics, military capabilities and experience bear little resemblance to one's own. Indonesia's military would do well to study theory and strategy but also be more self-critical, dissecting its own military activities and apply a more realistic environment to its training scenarios.

Finally, this paper concludes that the purpose of studying theory is to enable the development of good doctrine, which in turn guides realistic training to enable the execution of a military campaign. In the absence of recent operational experience, wargaming risks becoming a canned exercise in pageantry rather than one of critical analysis and creative problem-solving. As the two war examples earlier explained, wargaming is not for show, but tangibly aids war preparation and readiness.

Modern military campaigns are almost always joint operations and as such,

officers as junior as Captains and Majors should be exposed to quality education, training and exercises that is relevant to their nation's strategic context. Only by linking military doctrine with one's own military and letting training facilitate quality analysis, dynamic realism, and creative military thinking, can a military learn to successfully plan and execute a military campaign. The best militaries do not save a realistic application of MDMP for wartime only. They train the way they would fight.

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Attachment 1 – Joint Military Appreciation Process

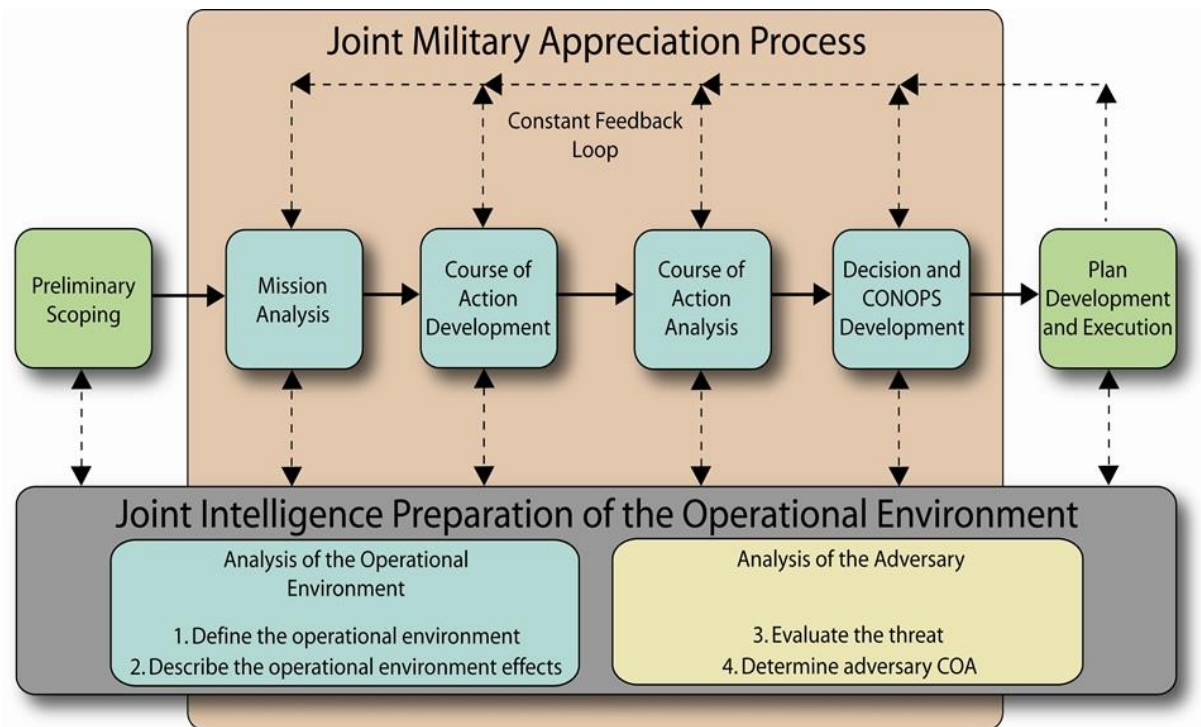


Figure 3. Flowchart *Joint Military Appreciation Process* used by the Australian and Malaysian Militaries.

Source: Australian Defence Force Publication 5.0.1 – *Joint Military Appreciation Process*.

Attachment 2 – KODAL in Operasi *Desert Storm*

