Abstract

Essentials of Military Organizations
: Operational Art and Doctrine

KITAGAWA Keizo

This paper aims to analyze the historical background of the evolution of Operational Art and Military Doctrine, focus from 1980s to present, in order to clarify the related concepts, application and the future.

This paper focused on art and science, theory and doctrine, concept and vision. Based on these understanding, the paper examines the history of operational art and doctrine. Operational art became the language in the Soviet Union in 1920s, and for the English-speaking world, need to wait until 1980s, and the era to restore U.S. armed forces after the fatigue of the Vietnam War

The characteristics of operational art shall be the movement from attrition warfare to the maneuver warfare. The maneuver is not mere the physical location, but include mental, technical, time and space. So, the concept like Center of Gravity and campaign become the points of focus.

In the application and future of operational art and doctrine, the paper examined three aspects. First, as the tool of Joint and International Operation. Second, as the tool to foster the Joint education. Third, the tool to equipment development and procurement. Since the operational art links strategic level and tactical level, there is no sense that the single service or one country achieve their strategic goal.

The Innovative Methods in Operational Art
：Comparison of "Design Methods between Military and Business

MEGATA Mizuhiko

This paper attempts to explain how the innovative methods are applied in "Operational Design" of Operational Art, comparing with design methods of business.

The author's viewpoint is as follows. In business, art and design methods are in the spotlight, because the limitations on conventional methods have been indicated by many business companies; the vital factor, "Differentiation" is lost by deriving the same answers with other competitors from complicated business issues, as a result of focusing on logical and rational capabilities. This situation is similar to military operations and tasks under complicated security circumstances.

The research question of this paper is as follows. How are the innovative methods applied in "Operational Design" of Operational Art as well as business in terms of art and design methods?

In this paper, the author is comparing and considering the following elements.

a)　The concept of "Design" using military and business.
b)　The methods of analysis on each circumstance.
c)　The methods of planning for each operation.

As the result of this research, it is revealed that the concept of "Operational Design" is almost similar to it of the business methods: the system thinking and Design thinking, and also they are applied considerably in military doctrines. In a ward, Operational Art including "Operational Design" is synthesis of innovative methods.

A comparative analysis of old and new concepts of military decision-making
: From the perspective of the U.S. "Mosaic Warfare" concept

TAKAHASHI Hideyuki

　The security environment in recent years has become increasingly complex between interdependence and the international politics of diverse threats. The rise of China and Russia has made us fear the arrival of a new great power competition. U.S. is losing confidence that it may lose its next war. In that context, U.S. security experts are looking at the concept of "mosaic warfare." This paper examines the concept of mosaic warfare and its central idea, decision-centric warfare（DCW）, from the perspectives of OODA-loop, NCW, Operational art, which have been adopted by the U.S. military, in order to deepen the understanding of the goals of this concept.

　　From the perspective of the OODA loop, it was found that the OODA loop has an important of mosaic warfare, while technological elements such as AI have legal and policy constraints.

　　From the NCW's perspective, it was found that DCW is predicated on the development of technology beyond NCW and that the provision reassurance to allies and the deterrent effect on competitors may be key issues in future defense policy.

From the Operational art's perspective, the human capacity to make strategic perspective was found to be an important issue.

The issues to solve for Naval Strategy of continental nations amid transitional period for expanding Battle-Domains
: Lesson learns from German Naval Strategy at First World War

HOMMYO Ryuji

　　Nowadays, Chinese Naval developing is so rapid that it become the adverse for many countries. China is generally regarded continental nations. Therefore, it seems to have some issues to solve for naval

strategy. Furthermore, the battle-domains are also expansding such as cyber and space. This trend seems to make the issues more critical.

What are the issues to solve for Naval Strategy of continental nations amid transitional period for expansioning the battle-domains? It is informative to analyze these issues by lesson learns from naval warfare history.

This thesis answers this question, focusing on German Naval Strategy and Doctrine during First World War.

Analysis of war history by Operational Art
：A Case Study of Japanese Army and Navy Joint Operations

ONO Sayuri
MURATA Atsumi

The Japanese Army and Navy has been unable to work closely together in the island war, and has repeatedly failed in its operations.

This paper clarifies the cause of failure of the cooperative operation, and to achieve it, we analyze it from the viewpoint if strategy.

In the first section, the history of the concept of strategy is developed and the significance of strategy is organized.

In the second section, the battle of Guadalcanal and the battle of Iwo jima is taken as an example, and the cooperation of the Army and navy is analyzed at the strategy level and the operational level and the operation level from the viewpoint of Operational Art.

In the third section, the reasons for the operational failure are the differences in the objectives between the Army and Navy in the strategic level, the lack of recognition of "Ends, Ways, Means" in the operational dimension, and the rigid Japanese operation philosophy.

It is meaningful to use the operational art as guide to researching war history. The results also have many implications for modern Joint operations.

Revaluation of Convention on Cluster Munitions
: birth of an effect that "legal but illegitimate"

HIRAOKA Kouichirou

This paper is aimed to verify that "humanitarianism" grows up to be huge power in recent world and to emphasize the efficiency and risk of utilizing it. To verify it, I observed the case of Convention on Cluster Munitions（CCM）.

In recent world, some humanitarian intervention is evaluated as "Illegal but Legitimate"- typical case is Kosovo in 1999. It means the new age has come when more emphasis is put on humanitarian legitimacy than legality. I insist the case of CCM is the other side of this coin. That is, conclusion of CCM is published an effect which should be called "Legal but Illegitimate". After the conclusion of CCM, even non-signatories and financial actors could not avoid the STIGMA that Cluster Munitions is "Inhumanitarian weapons". As a result, every country including non-signatory cannot use this weapon easily.

Leaders of CCM are conscious about making this NEW effect. So, it must be said that CCM is the keystone in the history of treaty on disarmament. It would expand the aim and the range of treaty with making use of humanity. Simply it is good, however humanity has some arbitrary. So, this change should not always be applauded. Especially in national security, being blind with this arbitrary, it would be great risk. It is major implication of this paper.

The Significance of Sea Control and the Importance of Patrol Aircraft in Modern Times
: Focusing on the Role Analysis of Patrol Aircraft in the Cuban Missile Crisis

HAMANO Hiromi

This paper attempts to clarify that the activities of aircraft with wide-area offshore patrol ability play an important role in the dispute over the sea control in modern maritime operations by comparing the theory of sea control and the case study of the Cuban missile crisis.

　　The focus of the author is to study the case of the Cuban missile crisis, which is the beginning of modern cross-domain operations, from the viewpoint of the necessity and effectiveness of information gathering and surveillance assets as the main force for establishing and maintaining the working sea control. And the comparative examination is conducted in the following order.

　　a)Confirmation of the theory of sea control.
　　b)Role played by patrol aircraft in the Cuban missile crisis.
　　c) Relationship between sea control and patrol aircraft.

As the result of this research, the U.S. Navy acquired and maintained the working sea control during the Quarantine operations carried out by the U.S. in the Atlantic Ocean and the Caribbean Sea in the face of the Cuban missile crisis. It was confirmed that the patrol aircraft played a major role. And an aircraft with wide-area offshore patrol ability does not control the dispute over the sea control by itself. It can be said that it plays an important role in ground and maritime operations over sea control as part of a system in which various forces and each domain are networked and integrated.

Japan and the four Multilateral Maritime Conferences:1930 to1982

James Kraska

　　This article focuses on the role of Japan in the four major multilateral efforts to codify the international law of the sea. Japan was an influential presence in the Codification Conference on the Law of the Sea in 1930, and the three United Nations conferences on law of the sea (LOS) in 1958, 1960 and 1973-1982. In each of these four multilateral meetings, Japan joined with other maritime powers to preserve freedom of the seas, and it advocated a strong practical and philosophical defense of the right of all nations to use the global commons. Japan was one of the five major maritime powers, together with the United States, United Kingdom, France and the USSR that advanced the principle of free seas during the negotiations for UNCLOS. Indeed, Japan's booming postwar economy, reliance on fishing, and military security under American extended deterrence shaped its maritime diplomacy beginning in the 1960s. The country's heavy reliance on pelagic fisheries and drive for

food security profoundly shaped Japan's position during the Third UN Conference on the Law of the Sea from 1973-1982. Japan was the last state to accept establishment of the EEZ because Japanese fishing vessels routinely fished within 200 nm of coastlines worldwide. Fisheries politics were a major problem in post-war relationships between Japan and South Korea, China and the USSR, and the disputes were mixed with disagreements over maritime boundary delimitation. For China and the USSR, the disagreements also mixed with greater geo-political differences, making them especially difficult to resolve. Yet Japan also acquired a sizable EEZ.

　While the LOS conferences had major security implications, the agreements reflect a peacetime architecture and do not explicitly affect national security. The negotiations were only obliquely related to security issues in terms of rules for shipping, fisheries and offshore development. Japan and the United States favored avoidance of national security issues in the oceans treaties in order to avoid the pitfalls of political-military issues and facilitate an agreement. Most developed States, as well as the Soviet bloc states, suggested that security issues were best addressed by the UN Security Council and disarmament conferences, so the three law of the sea conferences avoided explicit references to security issues.

NATO Doctrine Article Reviewed

F.H.M.J. Gubbels

　Linking to another military organisation, even within a country, is hard. It is not only about technology, but also about terms, procedures and habits. And how do we view upon each other and how does that influence our way of working together? The cultural aspect? What about trust, a main enabler of military formations' success? As that is the case in your region, this even more applies to the European-Atlantic alliance. NATO has been existing for more than seventy years now. It has meanwhile grown to a political-military organisation with thirty member states and many partners all around the globe. These member nations support their international permanent defence oriented organisation, NATO, with offices, HQs, people and equipment. These are brought together for a common goal: to ensure security and prosperity

for their populations. Thirty plus nations with their own policies, doctrines and procedures reflecting their cultures. How to work, train, exercise together in peace and if necessary fight in crisis and wartime? A common doctrine is one of the cornerstones to achieve that.

Agile Multi-Domain Command and Control
：Key to Managing Cyber Risk to Mission

Dr. David S. Alberts

　Successful militaries have adapted their operational concepts and doctrine to respond to evolving mission challenges and to take advantage of the opportunities afforded by advances in technology. Since the introduction of Network Centric Warfare[1], militaries have made considerable progress in turning this revolutionary concept into a reality.　In addition to investing large sums to network their forces they have been working to adapt their command and control concepts, approaches and processes.　During this period, both the nature of military operations and technology have continued to evolve. This paper examines the mission and C2 challenges of today and suggests that to meet these challenges militaries need to think about C2 differently.

---

[1] Alberts, David S., John J. Garstka, and Frederick P. Stein, Network Centric Warfare, CCRP Publications Series, Washington, DC 1999.