

Abstract

JMSDF in the 2020s and beyond : Its lines of effort

SAITO Akira

The security environment surrounding Japan is changing at an extremely rapid rate, and in such a situation, the JMSDF should constantly adapt to changes and develop maritime defense capabilities that can respond appropriately to various circumstances.

The JMSDF has set three strategic ends: “Defense of Japan's territory and surrounding waters”, “Ensuring safety of maritime traffic”, and “Creation of a desirable security environment”. To achieve these ends, measures are categorized depending on the purpose and nature of the activity as follows: “Shaping Activities”, “Deterring Activities”, and “Warfighting Activities”.

In order to implement the three types of measures above, to gain freedom of action in the required sea and air space, and to manage the crisis proactively, the JMSDF should be able to project “force” including assets, materials, and information into the required “space” at the required “time/timing”. By doing so, the JMSDF will maintain superiority, continuously “conceive” new ideas, “defend Japan to the end” though fighting a series of battles ranging from peacetime to wartime, and have the capabilities to sustain all activities.

Although there are many issues along the way, the JMSDF will focus its efforts on development in the four areas of “Personnel”, “Function”, “Concept”, and “Cooperation”.

The significance of cost-imposing strategies, for present-day : The perspective from the peacetime competition

KASAI Koji

I would like to focus on how the competitive strategy and cost-imposing strategies have been recently dealt with in U.S. in terms of the peacetime competition with China.

The primary focus of cost-imposing strategies during cold war was military aspect. On the other hand, the latest concept by Thomas G. Mahnken includes non-military aspect. This is a difference about cost-imposing strategies between the cold war era and present day.

This paper aims to explore the background where cost-imposing strategies were highly evaluated again in the context of war of terrorism in 2000s, and clarify the outline and challenges of two complementary approaches against China from the viewpoint of cost-imposing strategies.

Air Pocket of the National Security, Taiwan as a Neighbor

YAMAMOTO Katsuya

In 2018, JMSDF's patrol aircraft was irradiated by a fire-control radar from ROK Navy's destroyer. South Korea, like Japan, is a strong ally of the United States, and many Japanese considered South Korea to be a reliable neighbor. Therefore, this incident awoke the Japanese people that international society and relations cannot be measured in terms of trust and promises alone.

Turning the security perspective from the Sea of Japan to the southwest border, the actions of Chinese military and paramilitary have been stirring up the Japanese media on a daily

basis. However, the military activities of Taiwan, another actor in the region, have not received much attention in Japan.

Although it is somewhat different from the relationship among South Korea, the U.S. and Japan, Taiwan has a special relationship with the United States under the Taiwan Relations Act. At the economic and grassroots level, the neighborly relations between Japan and Taiwan is incomparably close.

On the other hand, there are still more Taiwanese fishing boats than Chinese fishing boats entering Japanese territorial waters. In addition, Taiwan conducts military exercises in the vicinity of Japanese territorial waters.

In many previous arguments, Taiwan has been “the dependent variable” in the strategy towards China. In other words, Taiwan was argued from the perspective of a strategic space or key stone to counter China's expansion.

Therefore, this article confirms that Taiwan, with its own military power, is an “independent variable” that affects Japan's national security. It discusses the concern that inaction, even among close neighbors, can lead to the risk of unforeseen incidents or tragedies each side does not desire.

Evolving American military strategies and seapower to compete China

MORI Michiaki
NISHIDA Yoshikazu

The United States has evolved its military strategies to counter China which has increased its capabilities in the West Pacific region since the beginning of the twenty-first century. In recent years, The Navy and the Marine Corps, which support American seapower, has tackled with a new operational concept along with those strategies. Based on this context, this paper reviews the overall discussion and clarifies the major

elements regarding the strategies, and analyzes the naval operational concept from a strategic viewpoint, focusing on the Marine Corps.

In the first section, this shows the whole picture of anti-China military strategies by abstracting major points from the genealogy of the strategies and the outstanding Maritime Pressure Strategy. The picture also includes factors of the strategies and transition of their thoughts.

In the second section, this analyzes the marine-focused naval concept and clarifies roles of the seapower in the military strategies, comparing their ideas with the Army's ones.

Summarization and analysis in this paper will be significant to develop the defense posture and doctrines of Japan because those strategies and the initiative taken by the naval forces contain insightful ideas to response to the contemporary threats. In addition, they will be also beneficial further to develop Japan-U.S. alliance since the U.S. efforts influence peace and security in this region as well as Japan.

The Pacific Island Countries and The Belt and Road Initiative : Reformation of International order and China

YOSHIKAWA Naonori

In September 2019, the Solomon Islands and the Republic of Kiribati broke off diplomatic relations with Taiwan and established relations with China. These events clearly show the expansion of Chinese influence over the Pacific Island Countries. For decades, there have been several reasons for ChiNATO establish interests in the Pacific Island Countries, and in recent years, “The Belt and Road Initiative,” which was announced in 2013 by Xi Jinping, has become one of the biggest factors. Since the South Pacific has been included in “The Belt and Road Initiative”, Chinese influence in the Pacific Island Countries has been increasing rapidly, pushed by Chinese diplomatic policy.

Some countries welcome expanded Chinese influence within this region because of the financial aid offered. However, caution is advised

because of one-sided insolvency and the Chinese forcible style. China has taken a variety of measures to cope with these matters. ODI(Overseas Direct Investment) is examined carefully and renewed taking a number of factors into account, such as transparency and sustainability. Also, China is eager to reform or rebuilt the International Order to correspond with transformation of the International Society. Although it is not clear what the “Chinese International Order” actually is, it is noteworthy for ChiNATO be aware of the International Order.

“Free and Open Indo-Pacific Strategy”, which was announced by Prime Minister Abe in 2016, is recognized as the counter measure to china’s “Belt and Road Initiative”. But recently, it is also recognized as the “vision” to pursue the cooperation with “The Belt and Road Initiative”. As a matter of fact, Prime Minister Abe proposed four conditions for Japan to cooperate with “The Belt and Road Initiative” in 2017. And China has acknowledged this, showing a certain measure of good will for this Japanese proposal in 2019. These actions could result in China being invited to the table, where the International Order and its reforming and rebuilding will be discussed.

The Arctic Ocean and China, in the days of Great Power Competition

: From a viewpoint of the international security environment

ISHIHARA Takahiro

A competition in the global scale called the 21st Century Great Game is carried out between the United States and China, Russia.

That competition is also developed in the Arctic Ocean.

China announced the the Arctic white paper, and The Belt and Road Initiative officialy included the Arctic. Recently, China moves into action positively in the Arctic.

It is necessary to pay attention to pressure to Greenland and Iceland.

Does Greenland become independent or No.? How does the international security environment change when independent Greenland close to China?

We must consider such a possibility.

Trajectory and perspective of the security situation in Europe **: Case study from NATO's action**

ISHIWATA Hiroomi

After the Cold War era, international security situation is uncertain and unpredicted. Especially in Europe, there are some grey zone incidents such as the invasion in Georgia in 2008 and the annexation of Crimea by Russia in 2014. On the other hand, some issues affect the solidarity for the European countries from internal of European area and NATO Allies.

NATO is the one of the important body for securing Euro-Atlantic Area. There are some important decisions for deterrence and defense by NAC and the NATO Summit.

Japan had decided a new National Defense Program Guidance in the end of 2018. The paper shows Japan will seek the new domain, such as Space, Cyber and Erectro-magnetic. We have to secure not only by ourselves but also by Japan-U.S. Bilateral Corporation and multilateral corporation.

There are two types of issues affecting to NATO's solidarity. One is direct from the outer countries from NATO area by using hybrid methods. For example, Russia acts with mix methods of direct and indirect. China acts indirectly in the European area. The other is from NATO Allies such as U.S., France and Turkey. Leader's behaviors indirectly affect to NATO's solidarity.

Technical Review on Recent Progress in Quantum Technologies:

OTA Kei

A concise summary of recent progress in Quantum Technologies, which include Quantum Computers, Quantum Sensors, and Quantum Communications, are presented. 1). Five International Conferences were held in December 2019 at Kyoto, Japan, namely, ISQT, TCQC 2019, IFQMS, TCQCS 2019, and a symposium on Moonshot WG6, 2). a colloquium, entitled "Quantum Sensing and Communications", was held by the U.S. National Academies of Science, Engineering and Medicine, on August 2018, and 3). several other scientific and technological resources from academia, mostly from open sources such as arXiv, are reviewed and discussed from the perspectives of end-user for potential future Defense Applications. Technological policy on quantum technologies in the U.S., EU, China, and Japan are also compared within this article.

As research and development on NISQ (Noisy Intermediate-Scale Quantum) computers, quantum sensing technologies and quantum communications are becoming competitive internationally, the U.S. Government's position to support basic research on quantum sensing and quantum communication, while encouraging commercial sectors to invest quantum technologies R&D, serves as a useful reference when we think about Japanese R&D investment towards National Security.

Significance of the U.S. Navy's development of MQ-4C as a broad area maritime surveillance UAV

INOUE Yoshihiro

Triton (MQ-4C) is an unmanned aerial vehicle (UAV) developed for the U.S. Navy's intelligence, surveillance and reconnaissance (ISR) application based on Global Hawk (RQ-4) operated by the U.S. Air Force. The development process of Triton was confirmed by the U.S. government documents and reports among other things, and that also revealed the formation process of Triton operation concept corresponded with the U.S. government political pressure. The operation concept was formed based on the broad area maritime surveillance (BAMS) program of the U.S. Navy in the early 2000s, and was strongly influenced by the collision between the U.S. Navy EP-3E and the Chinese F-8 in 2001 and the terrorist attacks in 9.11. The reason why the U.S. Navy developed the Triton without leveraging the Global Hawk for ISR applications is because of embodying the operational concept.