

A Study on the Enlightenment of the U.S. 2019 Missile Defense Review on the Framework Design of Military English for Rocket Force

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Abstract—Under the background of the new military reform around the world and the reform of military English teaching in military academies in China, the Foreign Language Teaching and Research Department of Rocket Force University of Engineering is actively planning to compile the Military English for Rocket Force with the characteristics of rocket force and for the future war. Based on the analysis and study of the framework of the U.S. nuclear strategy and the new version of 2019 Missile Defense Review issued by the US Department of Defense, this paper elaborates the enlightenment of the report on the framework design and content arrangement of the Military English for Rocket Force. The analysis lays a good foundation for the subsequent course compilation, and hopes to provide some reference for military academies to compile military English courses with military characteristics.

Keywords—*missile defense review, military English, framework design*

I. INTRODUCTION

Under the background of accelerating the new military reform in various countries, our military academies are also actively carrying out the reform of military English teaching. As a strategic military academy of our army, Rocket Force University of Engineering bears the responsibility of training officers for the Rocket Force. It is imperative to actively promote the reform of military English teaching in the new era. Therefore, we should make full use of the advantages of foreign language disciplines, compile Military English for Rocket Force with Rocket

Army characteristics, update teaching concepts, and establish a military English teaching system with Rocket Force characteristics. At the same time, English for specific purposes (ESP) has become one of the important subjects of higher education in the world. In China, Professor Cai Jigang, who has studied the reform of college English teaching for a long time, has repeatedly stated that college English teaching in China has entered an important transition period. Basic English teaching will be transferred to ESP. College students should continue to improve their English level on the basis of professional knowledge [1-5]. Therefore, English teaching in military academies should pay more attention to the development of military English.

As a military English course with Rocket Force's characteristics, Military English for Rocket Force should cover professional and military knowledge, such as basic missile knowledge, evaluation of major national strategic forces and national strategies, challenges and conflicts that China may face in the future and coping strategies. The purpose of this course is to improve students' comprehensive English application ability and military intelligence analysis ability, and cultivate students' military thinking habits. And focusing on building the basic framework of global strategic vision for students lays a good foundation for the future development of students [6].

The U.S. Department of Defense recently released the 2019 Missile Defense Review, which analyzed the current security situation, challenges and threats, and the U.S. strategies from multiple dimensions and strategic levels. The framework and strategic analysis of the report provide some references for the compilation of the Military English for Rocket Force.

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II. FRAMEWORK ANALYSIS OF THE U.S. 2019 MISSILE DEFENSE REVIEW

On January 17, 2019, the U.S. Department of Defense released a new version of Missile Defense Review.

Framework of U.S. 2019 Missile Defense Review:

Chapter 1: Introduction

The external security environment facing the United States is becoming more complex and dangerous than in previous years. It is necessary to continuously strengthen the missile defense system of the United States, develop new concepts and advanced technologies to provide the United States with a defense system that can cope with the growing threat of missiles.

Chapter II: Evolving External Environmental Threats

The external security threat of the United States is becoming more and more complex and severe, mainly because potential adversaries are constantly enhancing missile defense and offensive capabilities. These factors make the US national security and missile defense system face unprecedented challenges and threats.

Major missile threats facing the United States:

(1) DPRK: North Korea has issued a clear missile threat warning to the United States and its allies, and has been developing and testing missile weapons and equipment for the past 10 years. Therefore, it must be highly vigilant against North Korea.

(2) Iran: Iran wants to be the dominant force in the Middle East and regards the influence of the United States in the Middle East as the main obstacle to achieving regional power. Iran has the largest missile force in the Middle East, and its quantity, accuracy and lethality are still increasing, and it is actively developing new technologies.

(3) Russia: Russia regards the United States and NATO as the main threats to its strategic security and ambitions. It has about 1,550 nuclear warheads, 700 intercontinental missiles and heavy bombers, and a variety of killer weapons. It constantly develops new technologies, and regularly holds military exercises including nuclear strikes against the United States. This is a self-evident threat to the security of the United States.

(4) China: China seeks to replace the United States in the Indian-Pacific region and establish a new order in the Indian-Pacific region. China has about 125 nuclear warheads and a large number of operational tools, and continues to develop new weapons, which poses a huge threat to the United States.

Chapter III: The Role, Principle and Elements of the U.S. Missile Defense System

(1) The main role of the US missile defense system is to limit the attack intensity and the number of targets attacked by enemy missiles in the case of major strategic misjudgments and deterrence failures. It plays an important

role in safeguarding the territorial sovereignty and integrity of the United States, reducing casualties and protecting important facilities and important regions. In addition, the missile defense system of the United States can fulfill its security commitments to its allies and provide strong military support for US diplomacy.

(2) The main principle of the US national missile defense system is that it must be able to effectively curb the threat of the opponent's missile, and actively develop new technologies, adopt the passive and active defense strategies to ensure the security of the US mainland. Meanwhile, the U.S. missile defense system will be deployed globally to ensure the safety of allies and partners.

(3) The main elements of the missile defense system in the United States are to detect, jam and destroy threatening missiles before launching and after launching. If deterrence fails, the United States will adopt preemptive strike before the enemy's missile launching to take the initiative to attack and destroy enemy missiles.

Chapter IV: Effectiveness of the US Missile Defense System

The U.S. Ballistic Missile Defense System (BMDS) is an active missile defense system, which includes land-based, sea-based and space-based weapons. It can monitor, target and destroy missiles after launching.

The United States is upgrading its Ground-based Mid-course Defense System (GMD) and deploying "EKV (Exo-atmospheric Killer Vehicle)". At the same time, the United States uses active missile defense systems such as Theater High-Altitude Area Defense (THAAD), Aegis sea-based and land-based missile defense systems, Patriot-3 systems to achieve regional and cross-regional missile defense capabilities.

Chapter V: Management and Testing of the U.S. Missile Defense System

In response to the increasingly complex and deteriorating security situation, the U.S. Department of Defense and Missile Defense Agency plan to conduct a series of rigorous tests and improvements to ensure the performance and delivery schedule of weapon systems to achieve the desired goals.

Chapter VI: Cooperation between the United States and its allies.

With the proliferation and development of missile technology and missile attack capability, the United States needs to strengthen cooperation with its allies and build a missile defense system in order to achieve common security and enhance deterrence capabilities. India-Pacific region mainly strengthens cooperation with Japan, South Korea and Australia and India; Europe and the North Atlantic Treaty Organization (NATO) mainly build NATO active missile defense system and collective defense capability; Middle East-Gulf region mainly strengthens

cooperation with Gulf Cooperation Council (GCC); Middle East-Israel region mainly develops cooperation with Israel. The comprehensive cooperative relations between the two countries are as follows: South Asia is mainly actively developing missile defense cooperative relations with India; North America is mainly strengthening the cooperative relations between the North American Air Defense Command.

Chapter VII: Conclusion

The U.S. 2019 Missile Defense Review is the framework of the missile defense system established by the United States. Its purpose is to deal with potential missile threats by adopting deterrence, active and passive missile defense, offensive and other strategies. At the same time, the United States should strengthen its cooperation with its allies and partners to provide security for its own country, allies and partners. R&D efforts and investment, upgrading the existing missile defense system to cope with the more complex and dangerous security environment in the future.

III. ENLIGHTENMENT OF THE U.S. 2019 MISSILE DEFENSE REVIEW

1. The U.S. 2019 Missile Defense Review establishes a global strategic framework of missile defense.

The U.S. 2019 Missile Defense Review firstly analyzed the increasing missile threat and the changes of international security situation faced by the United States in the past 10 years, and then discussed how the United States used the missile defense system and its cooperation with its allies to safeguard the security of the United States, its allies and partners.

The report adopted the framework of "Analyzing the US Security Situation - Strategies to Deal with Threats and Challenges - How to Deal with Security Challenges in the Future", and constructed the U.S. Global Missile Defense Strategic Framework with clear logic, strong practicability and strong persuasiveness and operability.

Taking this as a lesson, "Military English for Rocket Force" should first highlight the characteristics of rocket force and the concept of "teaching for winning future wars", and emphasize practicability, aiming at building a global missile defense strategic framework for students. Unlike College English teaching, the teaching of military English focuses on cultivating students' international vision and thinking ability in the process of mastering military knowledge or understanding the military situation at home and abroad [7]. Therefore, the textbook should adopt the logic of "analyzing the situation of our surrounding areas and international security - analyzing the strategies and measures to deal with the potential threats at present - focusing on the potential threats in the future and preparing for the future war".

2. The Military English for Rocket Force should take advantage of the advantages of foreign language discipline, integrate foreign military intelligence and strategic

information, and expand the students' international strategic vision.

The focus of the reform of military English teaching is to make use of the advantages of foreign languages to "teach for winning the future war". Our military academies should focus on the transition of language teaching to military subjects, such as military training, major battles, future weapons, and lay a solid foundation for future military English learning from the aspects of knowledge system and ideological theory [8].

IV. FRAMEWORK OF MILITARY ENGLISH FOR ROCKET FORCE

The compilation principle of Military English for Rocket Force is based on the basic missile knowledge, analyzing the development of foreign missile forces and the threat to our country, analyzing the surrounding and international security environment of our country and possible future conflicts and coping strategies. Modular teaching method should be adopted in the teaching of military English according the Military English for Rocket Force. Modular teaching (MES) is a new teaching mode based on constructivism. It develops teaching contents into different teaching modules on the basis of in-depth analysis of occupational positions, work processes and skills, and according to the concept and principle of program modularization, thus forming a teaching mode similar to building blocks combination [9]. According to the modular teaching method, Military English for Rocket Force should integrate relevant research reports from foreign think tanks, official documents such as White Paper on National Defense of Potential Opponents, decrypted foreign military documents, relevant military news reports and other materials, so as to provide first-hand materials for students to gain a deep insight into the trends of foreign military and expand the students' international strategic vision and building a global missile defense strategic framework.

The framework of Military English for Rocket Force is designed as follows:

Part I: Missile Technology

This part introduces the basic knowledge of missiles and constructs the basic knowledge framework of missiles for the students. It consists of two chapters.

Chapter 1-1: Brief History of Missile

Chapter 1-1 mainly introduces the development and evolution of missile weapons from the missile V-1 and V-2 in Germany in the late period of World War II, as well as the performance and development of major types of missile weapons in the world.

Chapter 1-2: Brief History of Missile Technology

Chapter 1-2 mainly introduces the brief history of missile technology, including English terms and knowledge of missile performance, structure and technology.

Part II: Missile Defense Strategy

The second part mainly includes six chapters. According to the regional division, it analyses the basic national conditions, national military strength, development of strategic missile forces, national strategy and other relevant information of major countries, including the United States, Russia, NATO, India and Pakistan, North Korea, the Middle East and other regions. In this part, by analyzing the comprehensive national conditions of major countries, the development of national strategies and strategic missile forces, students can gain a deeper insight into the development trends of foreign forces and build a strategic defense framework.

Chapter 2-1: The United States

Chapter 2-1 includes the basic national conditions of the United States, the analysis of U.S. military strength, the analysis of U.S. missile strength and the analysis of U.S. national defense policy.

Chapter 2-2: Russia

Chapter 2-2 includes analysis of Russia's basic national conditions, Russia's military strength, Russia's missile strength and Russia's national defense policy.

Chapter 2-3: NATO

Chapter 2-3 includes analysis of NATO basic situation, NATO military strength, NATO missile strength and NATO defense policy.

Chapter 2-4: Indo-Pakistani Region

Chapter 2-4 includes analysis of the basic situation of India and Pakistan, military strength, missile strength and India and Pakistan defense policy.

Chapter 2-5: Korea, Japan and Korea

Chapter 2-5 includes analysis of the basic situation of Korea, Japan and Korea, military strength, missile strength, Korea-Japan-Korea defense policy.

Chapter 2-6: Middle East

Chapter 2-6 includes analysis of the basic situation of Middle East, military strength, missile strength and defense policy in the Middle East.

Part III: Future Strategy

Chapter 3-1: Future Development of New Technologies

Chapter 3-2: Development Direction of Missile Technology

Chapter 3-3: Analysis of Areas of Potential Risk

Chapter 3-4: Possible future conflicts and Countermeasures

The third part mainly focuses on the analysis of the future trend of technological development, possible conflicts and countermeasures analysis, cultivates crisis awareness, and provides a way of thinking for solving future crises.

V. CONCLUSION

Based on the analysis of the structure of the U.S. 2019 Missile Defense Review, this paper provides a way of thinking for the framework design of Military English for Rocket Force. If the content of Military English for Rocket Force can be scientifically arranged according to the framework, the book will surely be able to broaden the students' international horizon and help them establish a global strategic framework. However, due to the complex national security environment of China and international situation, the framework and content of Military English for Rocket Force should be adjusted and revised according to the need of national security in the future.

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