

Dealing with the Ballistic Missile Threat: Whether Japan Should Have a Strike Capability under its Exclusively Defense-Oriented Policy*

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Introduction

The exclusively defense-oriented policy (EDOP) is the basic foundation of Japan's defense strategy. Quoting from the Defense White Paper, the EDOP means that "defensive force may not be employed unless and until an armed attack is mounted on Japan by another country, in which case it must be limited to the minimum level necessary to defend itself, and furthermore that the extent of the defense force retained and the use of these forces should be left to the minimum level necessary for self-defense, a passive defensive strategy in line with the spirit of the Constitution."¹ While "passive" would appear to presume that Japan intercepts the enemy on Japan's own home soil, in fact, the concept of counter-strikes against the adversary's territory is not entirely missing from Japan's EDOP. In the Guidelines for Defense Cooperation between Japan and the United States (called "the Guidelines"), the US forces are assigned to perform such tasks if necessary. Moreover, while the Self-Defense Forces do not have the capability at the present time, the idea that, "if no other suitable means are available," Japan is not obligated to merely "sit and wait to die" but can engage in offensive action within certain limits, is considered to be permitted under the current interpretation of the Constitution.

With the increased ballistic missile threat in recent years, increasing number of people in Japan have begun to consider the development of an independent capability to strike foreign military bases. It is argued that this is not an attempt to abandon the basic framework of the EDOP, but rather to make a counter strike to eliminate a ballistic missile threat if necessary, while continuing to maintain the EDOP.

However, if Japan intends to consider the acquisition of strike capability against another country's ballistic missiles, one thing that needs to be remembered is that nearly all medium-range ballistic missiles are launched from transporter-erector launchers (TEL). The chief characteristic of TELs is that their position cannot be determined without tracking in real-time, because TELs can move. A realistic policy argument cannot be developed without understanding why it is so difficult to ascertain the position of TELs in order to attack them.

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¹ Edited by Japan Defense Agency, *Heisei 16 nen ban Nihon no Boei—Boei Hakusho* (Defense of Japan 2004—Defense Agency White Paper), (National Printing Bureau, 2004), p. 81.

Without an argument with a firm grounding regarding the effectiveness of a strike capability, it is impossible to determine the policy costs and benefits.

In 2003, during a debate in the National Diet regarding strike capabilities against missile sites, Minister of State for Defense Shigeru Ishiba stated, “we need to study this from various aspects. At the very least, lapsing into a cessation of thought would not be taking responsibility for the nation, for peace, and for independence. I do not believe that failure to give any thought to this can be a stance that we should take.”² With the proliferation of the ballistic missile threat, we should be pressing forward, as Minister Ishiba asserts here, with analysis from various angles on the pros and cons of a preemptive strike capability within the EDOP.

This paper is intended to provide some groundwork that can deepen the debate regarding this issue. First, I provide an overview of the development of the traditional debate regarding strike capability under the EDOP, and also of the current debate in response to the recent proliferation of the ballistic missile threat. I also examine the Scud Hunt air campaign in the Gulf War and the anti-TEL air campaign in the Iraq War, to study how much of an expected value should be set for an air strike capability to restrain or destroy TELs. Then, based on this analysis, I conclude that development of an air strike capability by Japan is desirable within the framework of Japan-US defense cooperation, complementing the intercept system and making up one part of the comprehensive anti-ballistic missile defense system.

I. Exclusive Defense Oriented Policy and Air-Strike Capabilities against Foreign Military Bases

A. A Declaratory Policy of Exclusive Defense, with an Execution Policy of Non-Possession of Air Strike Capabilities against Foreign Military Bases

The EDOP forms the basis for Japan’s unique defense strategy. But as seen in the many countries that call their military organizations “defense forces” and their military administrations “defense ministries,” displaying a defensive stance as declaratory policy is not rare. The uniqueness of Japan’s defense strategy lies not just in its articulation of a passive defense strategy as declaratory policy, but also in its voluntary restriction on possession of military attack capabilities. With the Air Self Defense Force focused on fighter interceptors and the Maritime Self Defense Force primarily consisting of anti-submarine warfare capabilities, the country has built an extremely limited power projection capability. In particular, Japan has made clear that it has no intention of possessing intercontinental ballistic missiles, strategic bombers, and attack aircraft carriers, since these weapons represent “power solely for attacking other countries.” For Japan, the EDOP is not merely a declaratory policy, but is reflected in the country’s actual force structure as execution policy.

Possession of strike capability, however, is not necessarily the equivalent of having

² *Dai 156 kai Kokkai Shugiin Anzen Hoshō linkai Kaigiroku dai 3 go* (156th House of Representatives Security Committee Meeting Minutes, No.3) (March 27, 2003), p. 8.

aggressive intent. Striking at an enemy to destroy its military capacity in order to protect one's own country from attack is one kind of defensive military strategy known as "offensive defense" or "active defense." Indeed, concentrating solely on defense in the purist sense would mean that, even if damage were inflicted upon an attacker, the attacker could recover its military strength in a rear base area safe from defenders and return to attack again. Thus, from a purely military perspective, there are situations where some sort of strike ability can be envisioned, even from a national defense perspective.³ Accordingly, many countries possess a military strike capability without necessarily possessing aggressive intent. From this perspective, there have always been those who have questioned Japan's adherence to the principles of defensive strategy through the practice of exclusive defense and non-possession of offensive defense capability, saying Japan was only tying its own hands. Even under the EDOP, however, this aspect of defense was never completely ignored. As is clearly stated in the former Guidelines for Japan-US Defense Cooperation of 1978, and in the revised Guidelines of 1997, US forces can "use air strike capability" as required in the course of offensive operations under the Japan-US Security Treaty. Moreover, as clarified by a response by Prime Minister Ichiro Hatoyama to an interpellation in 1956, it is understood that "if no other suitable means are available," Japan is not obligated to merely "sit and wait to die," but is allowed even under the present Constitution to strike foreign military bases, within certain limits.⁴

This understanding has been confirmed several times over the years, including in a response by Defense Minister Shigejiro Ino to an interpellation in 1959,⁵ and in another by Defense

³ For example, John Warden, an expert on US air force strategy, has written that creating a situation where there are no threats to one's own air base so that the other side's air base can be attacked with impunity is the most important element in air force strategy. John A. Warden III, *The Air Campaign* (New York: Excel Press, 2000) pp. 16-20.

⁴ This response by Prime Minister Ichiro Hatayama to an interpellation at a meeting of the House of Representatives Cabinet Committee was read by Minister of State for Defense Naka Funada. The original text is as follows: "If Japan were in imminent danger of an illegal invasion, and the method of invasion were a missile attack against Japan's national territory, I simply cannot believe that the spirit of the Constitution requires that we merely sit and wait to die. In such a case, I believe that we should take the absolute minimum measures that are unavoidably necessary to defend against such an attack, so that in defending against a missile attack, for example, if no other suitable means are available, striking the missile base should be legally acceptable and falls within the range of self-defense." "In normal situations, or in other words, when other suitable means of defense are available, I can imagine a situation where striking a base within the territory of the attacking nation is merely convenient for defense. I spoke with the understanding that such a casual attack on a base does not fall within the range of self-defense." *Dai 24 kai Kokkai Shugiin Naikaku Inkai Giroku dai 15 go* (24th House of Representatives Cabinet Committee Meeting Minutes, No. 15) (February 29, 1956), p. 241.

⁵ The original text of the response is as follows: "As you know, since this discussion is a hypothetical interpretation of the Constitution for a hypothetical situation where no support is forthcoming from the United Nations, nor from the Japan-US Security Treaty, nor from any other method of support, there may be aircraft or missiles or something else. Basically this is a problem of legality where we consider what to do if we were to be subjected to a missile attack, and if no other means were available, then striking the enemy base would fall within the range of the right to self-defense, and I do not think that it is in the spirit of the Constitution for an independent nation with a right to self-defense to merely sit and wait to die. In such a case, I believe that we should take the absolute minimum measures that are unavoidably necessary to defend against such an attack, so that in defending against a missile attack, for example, if no other means are available, striking the missile base should be legally acceptable and fall within the range of self-defense." "In normal times, strike operations against the soil of foreign countries are not permitted under the Constitution's

Minister Hosei Norota in 1999.⁶ However, we need to be aware that this debate has been nothing more than a debate over legalities. The Self-Defense Force does not possess the capability to attack foreign military bases. Regardless of the debate over legalities, the National Defense Program Outline first drawn up in 1976, and then revised in 1995 and again in 2004, has never included strike capability against foreign military bases as part of defense functions or roles, and acquisition of strike capability was not incorporated into the First Defense Build-Up Plan, nor into any of the succeeding plans. In other words, even if the Self-Defense Force was allowed to perform strike operations against foreign military bases, preparation of that capability has been limited for policy reasons.⁷

B. Increased Interest in Strike Capabilities against Foreign Military Bases Under the EDOP

That said, however, North Korea's launch of a Taepodong ballistic missile in August 1998 that soared right across Japan's air space sparked a sudden jump in interest in strike capability against foreign military bases, as can be seen by questions posed in 2003 by Seiji Maehara, a Diet Member of the Democratic Party of Japan,⁸ and in 2005 by Ichita Yamamoto, an Upper House Member of the Liberal Democratic Party.⁹ These questions, however, signaled interest in preparation of strike capabilities against foreign military bases purely in the context of ballistic missiles, and did not demonstrate interest in maintaining offensive military capability

right of self defense as a first choice of action if there are other means of defense available." *Dai 31 kai Kokkai Shugiin Naikaku Inikai Giroku dai 21 do* (31st House of Representatives Cabinet Committee Meeting Minutes, No. 21) (March 19, 1959), p. 16.

⁶ The original text of the response is as follows: "In a formal government statement in 1956 [the response by Prime Minister Hatoyama, shown above], it was asserted that if Japan were in imminent danger of an illegal invasion, and the method of invasion were a missile attack against Japan's national territory, Japan should take the absolute minimum measures that are unavoidably necessary to defend against such an attack, so that in defending against a missile attack, for example, if no other suitable means are available, striking the enemy missile base is legally acceptable and falls within the range of self-defense. As a result, for the kind of hypothetical situation like that in the formal government statement of 1956, I believe that, when no other means are available, it is legally acceptable to possess the absolute minimum capability required to perform a direct strike against an enemy base." *Dai 145 kai Kokkai Shugiin Anzen Hosho Inikai Kaigiroku dai 2 go* (145th House of Representatives Security Committee Meeting Minutes, No. 2) (February 9, 1999), p. 10.

⁷ This response given by Defense Minister Hosei Norota was in response to an interpellation by Diet Member Seiji Maehara. Later, Maehara said, "While an attack on an enemy base may come within the range of self-defense and be legally acceptable under the Constitution, we have till now actually had a policy under the philosophy of an exclusively defense-oriented policy to limit our weapons so as to be unable to approach an enemy base." *Ibid.*, p. 11.

⁸ The original text of his statement is as follows: "What I am saying is that, at the very least, we should consider studying possession of this capability [striking power] to the degree that our country can do so." *Dai 156 kai Kokkai Shugiin Anzen Hosho Inikai Kaigiroku dai 3 go* (156th House of Representatives Security Committee Meeting Minutes, No. 3), p. 7.

⁹ The original text of his statement is as follows: "But in addition to the nuclear umbrella of the Japan-US Security Treaty, or to deterrent capability under the Japan-US Security Treaty, the Self-Defense Forces should have a strike capability that can independently attack North Korean bases if necessary. This is something that people not only in the LDP but also in the Democratic Party have been asserting for some time. I think that Japan must start thinking about this strike capability, and about building it, and I want to see some research results through some serious simulations." *Dai 162 kai Kokkai Sangiin Gaiko Boei Inikai Kaigiroku dai 2 go* (162nd House of Councilors Foreign Affairs and Defense Committee Meeting Minutes, No. 2) (March 15, 2005), p. 6.

beyond that context. What these questions are hinting at is that, when faced with the threat of the proliferation of ballistic missiles, interest is not limited just to ballistic missile defense (BMD), but also focuses on strike capability against foreign military bases as a means to destroy ballistic missiles on the ground before they are launched. In other words, these stated opinions can be viewed as not so much seeking to discard the EDOP concept, as stimulating a debate on strike capability against foreign military bases that is founded on basically maintaining it.

One point of caution that should be raised in the debate on strike capability in this context is its effectiveness against the ballistic missile threat. In particular, we need to make a careful calculation of effectiveness versus costs. Effectiveness refers to the practical military effect that can be obtained, while cost refers to the economic costs necessary for building a strike capability and to the strategic costs that may entail in terms of the reaction of surrounding countries. If effectiveness exceeds cost, then studying the development of a strike capability is an option of value. If effectiveness proves limited, however, it could actually lead to the deterioration of Japan's security environment. While there should also be a debate on the costs, in this paper I will focus on the effectiveness of strikes against missile sites under the EDOP. In the next section, I study how effective air strikes can be against the ballistic missile threat.

II. Effectiveness of Air Strikes Against the Ballistic Missile Threat

A. Difficulties in Attacking Moving Targets

As we have seen above, the rise in recent years of the ballistic missile threat is boosting interest in the acquisition of strike capability even in Japan. However, in the context of the ballistic missile threat, the acquisition of cruise missiles or attack aircraft alone is not sufficient for the development of an effective strike capability. This is because North Korea's Nodong missile and other theater ballistic missiles that have appeared in recent years are launched from transportable missile launchers, and accurately acquiring and destroying a moving target is not an easy task. So even if development of a strike capability to resist the ballistic missile threat is acceptable under the EDOP, we should not be setting up expectations for something that is impossible. What is needed, first of all, is to push the debate forward by clarifying what is actually possible and what is impossible to know in order to determine the realistic expected value. In this section, therefore, I examine the examples of the Gulf War and the Iraq War to investigate the capabilities of air strikes against TELs.

Before that, however, I want to explain why the use of air strikes against mobile targets is so difficult. In short, the problem lies in the time lag in the transmission of target information. In striking a certain target, it must first be detected and its coordinates specified, and then that information must be relayed to the strike platform. After that, a stand-off weapon is launched from the strike platform (a cruise missile strike from a warship or bomber), or a strike is made by the strike platform itself moving close to the target (bombing raids by aircraft, etc.), and then the strike is assessed to determine if it was successful or not. If too much time is required for this cycle of actions, the strike on the moving target cannot be effective. For example, if it

takes one hour from the time of detection to the actual strike on a target capable of moving at a speed of 30 kilometers per hour, then the target could already be 30 kilometers away from the original coordinates when the strike arrives. In other words, striking a moving target requires continuous tracking in real-time of the target coordinates, and transmission of that information in real-time to the strike platform. Furthermore, the precision of the strike weapons is also an important element affecting the success of the strike. This is because, even if the strike has successfully been applied to the acquired target coordinate, a bomb or missile with poor precision will be unable to destroy the target.

In World War I, when aircraft first came into use in warfare, close air support for attacking enemy ground units almost immediately became one of the most important tasks for aircraft. But the information systems and strike munitions that were available at that time made it difficult to deliver effective blows against enemy units that were constantly in motion. Later advances in radio and computer transmissions, as well as organizational improvements, have greatly shortened the time from target detection to strike launch from a strike platform (sensor-to-shooter), so that strike capability against mobile targets has been vastly improved. Nevertheless, acquiring and striking transportable ballistic missile launchers has never been an easy military operation, particularly when the targets are the size of a large trailer. This reality was starkly revealed during the 1991 Gulf War.

B. The Gulf War ‘Scud Hunt’ Air Campaign

While the Gulf War was prosecuted under overwhelming US superiority, the Iraqi response with the biggest impact was ballistic missile Scud attacks on Israel and Saudi Arabia. In response to this threat, the United States made an emergency deployment of Patriot anti-ballistic missile batteries, and launched a massive strike campaign to destroy the Scud missiles on the ground. This was the so-called “Scud Hunt.” This major military operation to destroy the transportable ballistic missile launchers lasted almost the entire period of the Gulf War, and in the end merely demonstrated just how difficult it is to acquire and destroy TELs.

Of course, this does not mean that the United States had disregarded the Scud threat before the war started. US pre-war estimates had included 20 or 30 launchers, and on January 17, 1991, the first day of hostilities, the United States flew a total of 154 sorties to bomb facilities with the potential for housing launchers, as well as production facilities and other targets.¹⁰ Despite these efforts, however, the Iraqis launched eight Scuds on the next day, the 18th, followed by four missiles on the 19th, eight on the 20th, and seven on the 21st. At that point, the US Central Command Headquarters reviewed the bombing schedule and decided to redirect a large portion of the attacking force to strikes against Scud missile launchers. This marked the start of the Scud Hunt campaign.

The Scud Hunt campaign began in earnest on January 21, with 165 sorties launched. Beginning on the 23rd, four F-15Es patrolled airspace 15-20 minutes away from the Scud

¹⁰ Department of Defense, *Gulf War Air Power Survey*, Volume I, Part II (Washington, D.C.: Government Printing Office, 1993) p. 244.

launch areas in western Iraq, while four F-16s equipped with LANTIRN infrared sensors for identifying ground targets went on air patrol near Scud launching areas in eastern Iraq. These aircraft were assigned patrols in four-hour shifts, with each group assigned eight more planes as reserve back-up. In addition, two A-10s were constantly on air patrol in each of these two areas, with 12 more held in reserve. In addition to these assets, at 2015 on the 23rd, and again at 0400 the following morning, a strike package consisting of eight F-15Cs for the direct attack, four F-4Gs and two EF-111s for electronic jamming cover, and 20 F-111Fs for the strike force, was sent against areas where Scud launchers were suspected to be located (the composition of these two strike groups was identical). Another strike package consisting of two US Navy F-14s and one EA-6B covering eight GR-1s from the British Air Force was sent at 0500 hours that same morning, followed by a strike package in the afternoon consisting of 10 US Navy F-14s and two EA-6Bs covering 16 A-7s.¹¹

The campaign continued in this fashion throughout the war, for a total of 4,750 Scud Hunt-related sorties, of which about 1,000 sorties were air patrol tasks, and 1,460 sorties were strikes against ballistic missile-related facilities. Of these last 1,460 sorties, about half targeted fixed facilities believed to be hiding launchers, 30% hit production facilities, and 15% made direct strikes against Scud launchers.¹²

However, it appears that the effectiveness of these strikes was limited, because even after the large-scale Scud Hunt started, the Scud attacks continued. While there were no Scud launches on January 24, 11 were launched on the 25th, and five more on the 26th.¹³ Afterwards, the numbers of Scuds slightly declined. No Scuds appeared on the 27th or the 30th, or on February 1. But this does not mean that the Scud launches had been completely stopped, as five launches occurred on February 14 and 16, and attacks continued until the 26th. In particular, over the final week of the war, an average of two Scuds were launched each day from February 21 to 26 (see Table).

¹¹ *Ibid.*, Volume II, Part I, p. 188.

¹² *Ibid.*, Volume II, Part II, pp. 331-332.

¹³ *Ibid.*, Volume II, Part II, p. 331.

Table Scud hunt situation

Date	Planned Sorties	Scud Launches	Date	Planned Sorties	Scud Launches
January 17	154	1	February 8	100	0
January 18	92	7	February 9	90	1
January 19	40	4	February 10	114	0
January 20	70	8	February 11	153	3
January 21	165	1	February 12	135	0
January 22	133	7	February 13	98	0
January 23	105	5	February 14	121	5
January 24	126	0	February 15	153	1
January 25	117	10	February 16	132	4
January 26	147	6	February 17	148	0
January 27	124	0	February 18	130	0
January 28	149	2	February 19	124	1
January 29	83	0	February 20	95	0
January 30	83	0	February 21	90	6
January 31	142	1	February 22	100	0
February 1	111	0	February 23	116	3
February 2	103	3	February 24	96	3
February 3	75	0	February 25	90	5
February 4	84	0	February 26	104	0
February 5	106	0	February 27	88	0
February 6	120	0	February 28	149	0
February 7	147	1	Total	4902	88

Note: All dates are for 1991.

Source: Department of Defense, *Gulf War Air Power Survey*, Volume I, Part II (Washington, D.C.: Government Printing Office, 1993), pp. 244-245.

As a result, it appears that the number of launchers actually destroyed by the Scud Hunt was extremely limited. While the pilots engaged in the operation reported destroying about 100 launchers, an assessment conducted after the war concluded that most of these had actually been decoys, tank lorries, or other objects that had been misidentified.¹⁴

It appears that the biggest problem was that finding the Scud launchers proved to be more difficult than expected. For the Gulf War, the Joint Surveillance and Target Attack Radar System (JSTARS), mounting a synthetic aperture radar for the observation of ground targets, was used. But this advanced system was unable to differentiate between tank lorries and other large vehicles, and real Scud launchers.¹⁵ In addition, while there were a number of cases in which a Scud launch was detected and the launch site could be determined with a precision of about one square mile, in most of these cases the launcher location could not be confirmed by the strike force and no strike was made.¹⁶ Furthermore, while there were 42 reported cases of

¹⁴ Ibid., Volume II, Part I, p. 189.

¹⁵ Ibid., Volume II, Part II, p. 334.

¹⁶ Ibid., Volume II, Part II, p. 335.

Scud launches being spotted by strike force planes already in the air, only eight of those strike planes actually got bombs off against the target position, and none of them were actually able to confirm destruction of the launcher.¹⁷

As can be seen here, the Scud Hunt campaign did not achieve its expected goals. But of the total number of 88 Scud launches, about 40%, or 35 launches, occurred during the first seven days. In other words, the number of launches clearly declined after the Scud Hunt went into serious operation. This shows that repeated large-scale aerial bombing campaigns, while unable to destroy the launchers themselves, may have had an impact in limiting their freedom of action and reducing the number of launches. In this paper, I call the effects of this aerial bombing the “suppression effect.” I believe that this effect should be taken into consideration in the study of Japan’s strike capability against the ballistic missile threat.

C. Anti-Ballistic Missile Operations in the Iraq War

In the 1990s, the United States promoted military modernization based on the information revolution, calling it the Revolution in Military Affairs (RMA, or the Information-based RMA). What is emphasized in the RMA is that developments in information systems, weapons systems, and command and control systems will greatly boost military capabilities. For example, advances have been seen in such areas as improvements of various kinds of sensors through the practical application of such systems as unmanned aerial vehicles (UAV), improvement and integration of information network capabilities, and expanded use of precision-guided munitions. As a result, the United States has made great strides in its strike capabilities against moving targets. The Iraq War of 2003 became a showcase for these results.¹⁸ While the Iraq War did require 72 hours for preparation of the air tasking orders (ATO) used for general control of the air campaign, revisions of orders, which had required a period of four hours at the time of the Gulf War, were shortened in the Iraq War to 30 minutes.¹⁹ Specifically, the strike against President Saddam Hussein on March 19 immediately before the start of the war required only three hours from the point in time information regarding Hussein’s position was obtained until the actual strike, including time in Washington for making a decision. Later, when B-1Bs were used on April 7 and 10 to bomb sites where Hussein and his close relatives were meeting, the strikes only required 45 minutes and 30 minutes, respectively, after the information was obtained.²⁰

So, what happened with strikes against transportable ballistic missile launchers? During the Iraq War, the Iraqis launched 18 ballistic missiles and four cruise missiles at the US and British forces (of this total, Patriot missiles destroyed nine ballistic missiles, and eight others were either ignored as posing no threat or were detected too late to respond, while one missile

¹⁷ Ibid., Volume II, Part II, pp. 335-336

¹⁸ There is as yet no comprehensive report for the Iraq War to compare with the *Gulf War Air Power Survey*.

¹⁹ Anthony H. Cordesman, *The Iraq War: Strategy, Tactics, and Military Lessons* (Washington, D.C.: The CSIS Press, 2003), pp. 281, 283.

²⁰ Ibid., p. 281.

blew up in flight).²¹ In response, the US Air Force allocated 10.2% of its total air operations to tasks related to ballistic missiles and weapons of mass destruction.²² As a result, including the destruction of three launchers before the war started, a total of 46 launchers were successfully destroyed during the war by aerial bombing.²³ Since Iraq is believed to have possessed about 80 launchers before the war, this means that 55% of them were destroyed by aerial bombing (another 15 launchers were either destroyed or captured during ground combat). These results appear to show that, while missile launchings themselves could not be prevented beforehand, forces in the Iraq War, unlike in the Gulf War, were able to inflict quite a large amount of damage on the enemy. In other words, while being unable to completely stop first strikes, the counterstrikes showed that it was possible to attrite away the enemy's missile launch capability. Moreover, it is clear that US forces' capability to strike TELs had improved since the Gulf War period. So, when studying Japan's own air strike capability against missile launchers, we can probably set a fair degree of capability for an expected value. Moreover, even the actions taken during the Gulf War, of repeated aerial bombing of launchers that limited their action and had a suppressing effect in reducing the number of ballistic missile launches, are useful examples that should probably be taken into consideration.

Of course, we need to be aware that the Iraq War was fought under special conditions. The Iraqi Air Force had been badly damaged during the Gulf War, and its war readiness level probably remained extremely low because of the weapons ban that was put in place after that war. As a result, US forces in the Iraq War were able to quickly establish virtually absolute air superiority. This meant that US forces had virtually free rein in Iraqi skies to engage in launcher detection and strike operations. But if the enemy force were able to maintain even limited air superiority, the chances of such operations showing the kind of results seen in the Iraq War would be slim. In addition, while the details are not yet forthcoming (and probably will not be for the foreseeable future), in the Iraq war special operations forces infiltrated into the country to confirm launcher coordinates. As these special operations forces are believed to have received support from neighboring Kuwait, their activities would surely be more restricted in cases where no such support base can be acquired adjacent to the operations target area. Such a case would also mean a greater degree of difficulty for operations striking against mobile launchers.

III. Issue to Consider—Strike Capability against Missile Sites Under the EDOP

A. Strategic Objectives

²¹ 32nd Army Air and Missile Defense Command (AAMDC), "32nd AAMDC: Operation Iraqi Freedom," (September 2003)

<http://www.globalsecurity.org/military/library/report/2003/32aamdc_oif-patriot_sep03.ppt> pp. 27-31. Accessed on August 2, 2005. The missile that was detected too late for a response was a cruise missile.

²² T. Michael Moseley, "Operation Iraqi Freedom: By the Numbers," (April 30, 2003)

<http://www.globalsecurity.org/military/library/report/2003/uscentaf_oif_report_30apr2003.pdf> Accessed on August 2, 2005.

²³ 32nd AAMDC, "32nd AAMDC: Operation Iraqi Freedom," pp. 22-23.

Because military measures are used on behalf of certain political objectives, merely thinking about them from a hardware-based perspective is meaningless. Even if Japan, under the EDOP, were to develop a strike capability to counter the proliferation of the ballistic missile threat, it must first clarify what the objective of that strike capability is, and what kind of objectives should be held for it. If we were to go back to a blank sheet in the development of a strike capability against ballistic missiles, we could consider the following three types of objectives.

The first is deterrence by punishment, through the development of a counterstrike capability to be used after ballistic missiles have been launched. In this case, the capital or another major city in the enemy country would be the strike target, and development of the capability for striking such an unmoving target is far easier than strikes against targets such as mobile launchers.

The problem, however, is that such an action would go far beyond the current interpretation of the Constitution, which allows strike operations against an adversary's territory "if no other suitable means are available." In addition, since a counter-city capability based on conventional weapons is limited in its destructive force, reliance on conventional weapons alone, no matter how high-tech the weapons may be, will be limited in its deterrence effect on the enemy. As a result, development of a capability that ensures a high degree of certainty will require taking steps toward the development of nuclear armaments. And even if a counter-city capability based on extremely efficient conventional weapons could be developed, use of such conventional weapons to strike the other side's capital city or other important site would only invite retaliation by nuclear weapons, if the enemy had nuclear weapons. In this case, therefore, nuclear weapons would be necessary as a means of deterring a nuclear counterstrike by the enemy.

Needless to say, however, the acquisition of nuclear forces to strike a foreign city cannot be justified under the current Constitution. Moreover, possession of nuclear weapons by Japan would have a huge impact on regional security, far more than any development of conventional air strike capability would have within the EDOP. In view of this aspect, and in light of the fact that current policy functions based on reliance on extended deterrence by the United States, the development of strike capability for the objective of deterrence by punishment is not desirable.

The next possibility is disarmament through a first strike as a means of nullifying the other side's ballistic missile strike capability by a preemptive strike. In our understanding of "to sit and wait to die is not in the spirit of the Constitution," development of force capability for situations when "no other means are available" is legally allowed. In this case, however, the problem is effectiveness. If a preemptive strike fails to destroy all of the launchers, a retaliatory counterstrike from the remaining launchers will come. When we consider that not all of the launchers were destroyed before they could launch missiles in the Gulf War, or even in the Iraq War, it appears that first strike disarmament is an extremely risky option.

Moreover, even assuming that the positions of all of the launchers can be destroyed, another problem arises. Assume that Japan has obtained the capability of destroying all of the other side's launchers in a first strike. In these conditions, if a crisis should arise between Japan and that other country, the other side has an incentive to make a preemptive strike before Japan

initiates its own first strike. This is because doing nothing raises the possibility that the ballistic missiles of the adversary will be nullified. In other words, to use the terminology of nuclear strategy, “crisis stability” is undermined. From this perspective, therefore, first strike disarmament cannot be considered a suitable strike option for Japan.

Another possibility that can be considered is a strike capability complemented by an interception system to resist the ballistic missile threat, or in other words, to position strike capability as one element within a comprehensive defense system against ballistic missiles. An interception system consists of responses to three separate phases, the boost phase, the mid-course phase, and the terminal phase. Interception during a fourth phase (actually, the very first phase), or in other words, the phase prior to the boost phase, would position strike capability as one aspect of a layered defense system.

In terms of legality, as with the first strike disarmament option, our understanding of “to sit and wait to die is not in the spirit of the Constitution” allows the development of capability for situations when “no other means are available.” Moreover, since there is no requirement to completely destroy all launchers with the first strike, this method is more efficient than the first strike disarmament option. But because prevention of the actual flight of all ballistic missiles is impossible, the expectation for strike capability is to demonstrate a suppressing effect that restricts the other side’s behavior, reducing the number of ballistic missile launches, and forcing attrition of missile launchers in the course of repeated strike operations. In particular, since a reduction in the number of ballistic missiles launched will enhance the probability of success for the interception system, strike capability would play a role of amplifying the capabilities of interception missiles.

Furthermore, the problem of “crisis stability” that arose with the first strike disarmament option is not such a major issue here. Since there is no longer any intention of preemptively destroying all of an enemy’s missiles before they are launched in a first strike, the effectiveness of that opponent’s first strike would now be most affected by the capabilities of Japan's interception system. As a result, Japan’s strike capability is no longer an incentive for the other side to make a preemptive strike of its own. On the other hand, if our strike capability is perceived by the other side as capable of causing attrition of its launchers over time, the opponent may attempt to fire off as many of its missiles as possible in the early stages. Preparations for such an attack would have to include civil defense preparations, as well as development of the interception system.

Of course, the decision on whether or not Japan should develop a strike capability in response to the ballistic missile threat is a highly political issue, and is not an issue that can be easily steered to a conclusion. Nevertheless, if a political decision were ever to be reached for building a strike capability, the basic concept that should be considered is presented in the above analysis. This is that the strike capability should not attempt to respond to ballistic missile threats solely with knock-out blows, but should instead be set up for the objective of striking at the pre-boost phase, as part of and embedded into a composite ballistic missile defense system in combination with an interception system. Next, I will analyze the points of

debate that should be considered regarding development of a strike capability for the objective of a pre-boost phase strike.

B. Issues in Strike Capability as a Pre-Boost Phase Strike

In the development of a strike capability as a pre-boost phase strike, one point of debate is the allocation of resources. Because resources capable of utilization for defense are limited, deciding what degree of resources to allot to interception missiles and strike capability within a general ballistic missile defense system is a serious issue. This is, in some sense, a cost performance problem, or in other words, a problem of determining what costs are required to destroy one enemy ballistic missile, and obtaining an answer is difficult.

For example, let us assume that the required amount of ballistic missile defense capability is X . Of this amount, first we assume that 75% of the capability will be developed through the interception system. So the problem lies in how to develop the remaining 25% capability. One method would be to use strike capability to equip the 0.25 X capability, while another method would be to further strengthen the interception system capability to equip the 0.25 X capability. Let us assume, for example, that it takes two trillion yen to develop the 0.75 X interception capability, and one trillion yen to develop the 0.25 X preemptive strike capability, while the 0.25 X interception capability requires about one-third of the cost for the 0.75 X interception capability, or 700 billion yen. In this case, the discussion is plain to see at a glance. Spending 2.7 trillion yen to develop the interception system for 0.75 X capacity and an additional interception system for 0.25 X capacity is plainly less expensive than building a composite system with both an interception system and preemptive strike capability. However, the discussion is not actually so simple. If we assume that the 0.25 X strike capability has a suppressive effect or damage to the enemy that results in the 2 trillion yen cost of the 0.75 X capability actually being attainable for just 1.5 trillion yen, then the X capability can be developed for a total of 2.5 trillion yen. Moreover, application of the law of diminishing marginal utility means that boosting the capability of interception systems by 0.25 X up from 0.75 X requires far more expense than boosting the capability by 0.25 X up from 0.50 X . To look at the above example, where development of a 0.75 X interception capability required two trillion yen, development of the remaining 0.25 X would not be one-third that amount, at 700 billion yen, but instead cost a full one trillion yen. If we plug these revised numbers into the above calculation, it would therefore be much more desirable to develop a composite system for 2.5 trillion yen than to develop a pure interception system for three trillion yen.

In either case, however, what is needed first of all is a definition of the required interception capability X . To repeat a point made above, the defense budget is limited and cannot respond to unlimited threats. Once it is clarified how much of a ballistic missile threat needs a response, what is next required is a study into what kind of resource allocation will achieve that response at the lowest possible cost. As I have argued, the answer to this problem can only be ascertained after a complicated calculation that takes into account such factors as suppression effectiveness and the law of diminishing marginal utility.

Another major debate is about how Japan's strike capability should be positioned within its

cooperation with the United States based on the Japan-US alliance. Japan's independent establishment of such a capability is not realistic in a number of different senses. Merely establishing a strike force, or at least the ability to attack mobile ballistic missile launchers, requires the use of high-resolution reconnaissance satellites, of ground-observation unmanned air vehicles (UAVs), and of ground-based target-acquisition special operations forces, to discover the locations of launchers, as well as the use of networks capable of processing the real-time information and transmitting it to ground attack units. Moreover, since destroying one or two ballistic missiles does not mean that the situation will have been resolved, a fairly large strike force must be available to sortie for strike operations against ballistic missile launchers. Electronic jammer aircraft are also needed for operations support. While the United States possesses these capabilities, it would require a vast amount of resources and time for Japan to develop a similar level of capability.

Practically speaking, then, it would appear that a strike capability for ballistic missiles would best be implemented as a coalition operation with the United States.²⁴ In this case, as well, the basic goal would most likely be a pre-boost phase strike. For Japan to develop a strike capability with the objective of providing quantitative support for a US military strike force would be quite significant. If Japan were to develop a certain degree of strike capability, whether it be cruise missiles or ground attack aircraft, it would also lead to an increased number of assets for counterstrikes, and this could be expected to boost the attrition rate or suppression effectiveness on enemy launchers.

Pursuing strike capability in this form would require allocation of roles based on much closer Japan-US defense cooperation than has been seen to date. However, in the

²⁴ In a House of Representatives Security Committee Meeting of March 2003, there was a debate on Japan-US cooperation for preemptive strikes between Democratic Party Diet Member Seiji Maehara and Minister of State for Defense Shigeru Ishiba. The original text is as follows.

Committee Member Maehara: I fully understand what has happened to date. That we rely on the United States for the strike force is just as you say. But I am talking about what happens next. In this discussion about what happens next, the debate should not be all-or-nothing.

In other words, Japan cannot possibly try to do all the things that America has been doing for us. While I will bring up this subject of information-gathering capability and such things again later on, let me say that information-gathering capability is not just satellites, and that America is a superpower where the "super" applies in all sorts of ways in various sectors. So it's not that the relationship with America is all-or-nothing, or that possession of a strike force means that we do not trust America, and I'm sure that the Minister of State understands this better than anyone. Moreover, if we decided to possess a strike force, it would be impossible to do so without America's cooperation.

This does not mean that I am arguing for destroying the trust relationship with the United States, or for all-or-nothing. What I am saying is that in reviewing the alliance relationship, we should at the very least consider studying the possibility of possessing such a capability to some degree in our own country. I would like to hear your response regarding what your future intentions are, and whether you see any value in studying this issue.

Minister of State Ishiba: I think that there is value in studying this issue, to be honest. As the Committee Member has indicated, this is not all-or-nothing. Japan cannot be expected to do everything, and even if we possessed such a capability, we couldn't possibly know where such an objective even exists without the cooperation of the United States. While I had thought that all-or-nothing was a good expression, I do not think that it will damage trust between Japan and the United States. However, I think that the debate over where the balance should be placed is an altogether separate issue. *Dai 156 kai Kokkai Shugiin Anzen Hoshō Inkaikai Kaigiroku dai 3 go* (156th House of Representatives Security Committee Meeting Minutes, No. 3) (March 27, 2003), pp. 7-8.

interpretation of the Constitution favored to date, air strikes against foreign military bases are limited to when “no other suitable means are available,” and since US forces are understood as being one of these “other suitable means,” Japan-US cooperation in this form for strike operations would probably require study into whether these are compatible with the favored interpretation. If these issues can be resolved, then it will be possible to determine allocation of roles in a coalition strike campaign by Japan and the United States against the ballistic missile threat.

However, division of labor by Japan and the US would not be limited to the strike campaign, but would proceed within a comprehensive package that includes the interception system. For this reason, Japan would not necessarily be developing its own strike capability and engaging directly in bombing raids. For example, in a joint Japan-US strike campaign, Japan might be limited to playing such support roles as aerial refueling or dispatch of escort fighters, or might concentrate its resources in interception systems and rely on US forces for the strike campaign, which would constitute a continuation of the present division of labor. Regarding this issue, in addition to the debate about what form a “best mix” package consisting of a strike capability and interception system should take for handling the ballistic missile threat, there is the issue of what answer should be found in the Japan-US defense system in the course of building a general allocation of roles that is not limited to responses to the ballistic missile threat, while also considering what role Japan should play in the alliance relationship. At any rate, if this kind of Japan-US cooperation can be pushed forward, a comprehensive package for resisting the ballistic missile threat in Northeast Asia can probably be jointly formed by Japan and the United States. This would surely have great significance for the security environment in Northeast Asia, where the ballistic missile threat is rising.

Conclusion

EDOP is a concept positioned as the basis of Japan’s defense policy. It has been interpreted to mean that possession of strike forces is not in itself excluded, and that enemy bases may be attacked under certain conditions. Japan’s defense preparations to date, however, have never included development of a strike capability. Nevertheless, with the proliferation of ballistic missiles and weapons of mass destruction (WMD), it is probably natural that people have begun calling for acquisition of a strike capability within the range acceptable to EDOP, in order to cope with these threats. The progress in military technology from the Gulf War to the Iraq War can be lauded as achieving a strike capability that obtained a certain degree of success against the ballistic missile threat.

There is one problem, however. Under the EDOP, Japan has voluntarily restricted its acquisition of offensive weapons, in an almost hypersensitive fashion. This self-abnegation has not been limited to nuclear missiles, attack aircraft carriers, strategic bombers, and other “weapons that are used solely for the destruction of enemy countries,” but also has long precluded the introduction of such equipment as midair refueling tankers and ground attack precision guided weapons. As a result, the force composition of the Self-Defense Forces in terms of the balance between offensive and defensive forces is unique among the world’s

advanced nations, and it is undoubtedly true that these severe self-restrictions on force capability preparations underpin Japan's international assertions that it will "never again invade" other countries. So even if EDOP is maintained as a declared policy, acquisition of a strike capability that breaks through this self-restriction would surely be viewed by surrounding countries as an effective reversal of strategy. In such a case, it is impossible to predict at the present time what sort of repercussions would result.

For example, let us look again at the hypothetical situation described in this paper, where in order to obtain the necessary interception capability X, it would require three trillion yen (again, a hypothetical number) to develop a pure interception system, and 2.5 trillion yen to develop a composite system that also incorporated a preemptive strike capability. In this case, while the composite system could be obtained for 500 billion yen less, if the surrounding countries were to respond to Japan's acquisition of a strike capability by expanding their own arms expenditures, resulting in deterioration of the regional security environment, either more defense expenditures would be needed in response or regional economic activities would be adversely affected, and the end result would be costs far in excess of the 500 billion yen. As a result, the three trillion yen plan would actually be less costly. When we consider such a scenario, it is plain that the decision on whether or not Japan ought to develop a strike capability under the EDOP should be made after a careful calculation of the costs and benefits.

With the proliferation of ballistic missiles and WMD, the threat has become increasingly serious. However, there is no wild card that can reduce these threats in one blow. In the final analysis, probably the optimum solution for Japan would be to strengthen its information gathering and analysis capabilities regarding the countries near Japan that have deployed ballistic missiles, and to proceed one step at a time through diplomatic efforts in the area of security cooperation, beginning with confidence-building measures for arms control, nonproliferation, and regional stability, paralleled by military efforts to develop high-performance missile defense systems, and to strengthen deterrent capability through further promotion of Japan-US cooperation. As the ballistic missile threat grows, what Japan's security policy needs is the political and strategic creativity for skillfully combining these various methods.