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MISSILE DEFENSE INITIATIVE

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6th PORTUGUESE ATLANTIC YOUTH SEMINAR Lisbon, 28th July to 4th Aug 2001 **MISSILE DEFENSE INITIATIVE** (by Vadm Reis Rodrigues) **INTRODUCTION** I will start my presentation with a very brief overview of what has been the evolution of the concepts of Ballistic Missile Defense in the United States. You will see soon that it has been a matter of a long-running debate which led to several re-orientations of its goals, priorities and technologies. What is really new in this subject is the high priority that President Bush has given to the Program and his determination to proceed with the deployment of a system, even limited, in the shortest time. Among several aspects of that decision, stand high as a matter of intense debate the implications of such a move on the Anti-Ballistic Missile Treaty, also the declared intention to go ahead even without waiting for a fully tested and proved system and, finally, the justifications for such a high priority. All these things make this subject of great actuality, interest and, indeed, controversial. I will try to address the main points of this issue, starting with **A BRIEF OVERVIEW OF ITS HISTORY** The United States started its missile defense program in 1946 in response to the threats posed during World War II. By the late fifties the Army and the Air Force were running competing programs but for coordination purposes, in 1958, the Army was assigned responsibility for missile defense. Soon the Army was pushing for the deployment of a national missile defense system but Mc Namara, then Secretary of Defense, insisted that the decision had to be considered in the broad context of the strategic policy of assured mutual destruction, that was about to be adopted by the United States, as the basis for deterring nuclear war. However, by mid sixties President Johnson ordered a deployment of a system designed to provide defense against a light missile attack, called "SENTINEL"; this decision was based on the assessment that the Soviets had begun their own missile defense system. Later, a re-assessment of the situation, following Nixon's victory in 1968, led to a re-orientation of the system so that it would primarily protect US deterrent forces; it was also renamed "SAFEGUARD". Based on the concern that the Soviets had achieved a first strike capability, President Reagan announced, April 1984, the Strategic Defense Initiative, a futuristic concept that became known by "Stars War". However, difficulties with the space-based interceptors which were found too large, too expensive and an easy target for Soviet anti-missile weapons and the dramatic changes in the geo-strategic situation following the fall of the Berlin Wall led President Bush to order a review of the SDI Program. Main conclusion of this review, completed in March 1990, was that the US would be increasingly threatened by irresponsible nations or groups that could be easily tempted to carry out acts of terrorism and missile attacks in anger; as such the recommendation was changed to move from preparing for an attack by thousands of Soviet warheads for a theater missile defense to protect facilities and forward deployed forces and a limited national missile defense to protect the US continent. This vision proved prophetic five months later when, in Aug 1990, Saddam Hussein responded to Operation Desert Storm with attacks by SCUD missiles against targets in Israel and Saudi Arabia, later repeated in Feb 91 in a strike that killed 28 Americans and injured 100. By that time the US had already available the short range missile defense system "Patriot" that was deployed to Israel and Saudi Arabia and allowed, on 18 Jun 91, the first operational engagement between a ballistic missile (an Iraq SCUD) and a missile defense system (Patriot). Following these incidents President Bush announced a new shift toward more emphasis on TMD, on a system known as Global Protection Against Limited Strikes. This new line of action was confirmed under the President Clinton's Administration. Given this new direction, the name SDI was changed to Ballistic Missile Defense Organization (BMDO) and a Commission to Assess the Ballistic Missile Threat, chaired by Mr. Rumsfeld was appointed in 1998; their conclusions included the following statements:- A ballistic missile armed with Weapons of Mass Destruction (WMD) payloads pose a strategic threat to US;- This threat is exacerbated by the ability of existing and emerging powers to hide their activities and deceive the US about the pace, scope and direction of their development and proliferation programs.- Within five years (2003) North Korea and Iran could have the potential to hit the US with a ballistic missile. Interestingly, six weeks after this report, the North Koreans tested a three stage missile (TAEPO DONG) that passed over Japan, on 31 Aug 98. Four months later, on 20 Jan 1999, Secretary Cohen announced a modified NMD program whose architecture would include twenty ground-based interceptors, among the other usual components. While DoD was wrestling with preparations for that deployment, the US government was working with Russia to amend the ABM treaty to allow a limited NMD system. For this purpose President Clinton adopted a different approach from his predecessors, Presidents Reagan and Bush; while his predecessors tried to use a broad interpretation of the treaty, President Clinton tried to negotiate the multilateralization of the treaty and a demarcation agreement providing criteria for distinguishing TMD and NMD systems. However, President Clinton efforts to amend the treaty met internal and external opposition and to make things more difficult, Russia approved, in quick succession, START II and the Comprehensive Test Ban Treaty, under the leadership of the newly

elected President Clinton, but with caveats concerning NMD deployment. On 26 Aug 2000, Secretary Cohen made a recommendation to President Clinton to order the immediate deployment of a radar facility to Alaska (Xhemya) but the President decided against based on the risk that that might cause a major fracture in the current arms control structure. He recognized that the NMD made sense in light of the fact that the world was indeed becoming in some ways a more dangerous place. However given the fact there were still signs of technological difficulties he decided the time was not right for a deployment.

THE THREAT While the end of Cold War reduced the threat of global conflict and large scale attacks, the proliferation of Weapons of Mass Destruction (WMD) and the means to deliver them continued at an accelerated pace by a growing number of countries. The end of the Cold War also meant the end of a predictable and stable global arms market. In its place, emerged a complicated situation in which rapid technologies diffusion is making regulation of arms transfer even more difficult. Today over 20 nations possess or are developing nuclear, biological or chemical weapons. The number of ballistic missiles on the face of the earth, and the number of countries possessing them is growing as well. The probability that a missile with a WMD payload will be used is higher today than during the Cold War and it will continue to grow. Facts are as follows:

- In 1972, the number of countries pursuing biological weapons was unknown; today there are at least 13 we know of, and they are of increasing sophistication and lethality;
- In 1972, 10 countries had chemical programs we knew of; today there are 16 (4 countries ended their chemical weapons programs, but 10 more jumped in to replace them);
- In 1972, we knew of only 5 countries that had nuclear weapons programs; today we know of 12;
- In 1972, we assessed a total of 9 countries as having had ballistic missiles; today we know of 28.

And note that those are only the cases we know of. There are dangerous capabilities being developed at this moment that we do not know about, and may not know for years, in some cases until after they are deployed. That has been the case in the past, and despite our best efforts, we must understand that this might be the case today. It is based on this assessment that, for the US, BMD is crucial for its national security.

THE ABM TREATY The first round of Strategic Arms Limitations Talks (SALT) began in Nov 1969 and in 1972 those talks produced the Anti-Ballistic Missile Treaty (the ABM Treaty), signed by Presidents Brejnev and Nixon. In accordance with this agreement both sides, the US and the SU became limited to two missile sites, each one having no more than one hundred interceptors; later, a protocol reduced the number of sites to one. It only allows a local defense supported by an old technology based on ground and whose interceptors have to be maneuvered to collide with missiles approaching at speeds in excess of 15000 miles per hour and carrying multiple warheads and large number of the decoys. Indeed, not a very effective system.

THE NEW POLICY AND THE REACTIONS Accordingly President Bush's Administration, with the end of the Cold War, there is no need to begin yet another long arms control negotiation with a Russia that is no longer an enemy. Administration officials say that the US should have the flexibility to adapt its forces, including its nuclear arsenal, as the nation's civilian and military leadership decide to. They also say that this stance reflect the end of the Cold War and the desire to give the Pentagon flexibility in devising defenses against threats from aspiring Third World Powers. President Bush posture on this issue is assessed to be a major change in American nuclear doctrine, a move that critics say will introduce instability into the nuclear balance. By proceeding with an ambitious, almost urgent plan for an antimissile shield President Bush will be, in effect, abandoning the ABM treaty. However, it is said that he envisions an understanding with Russia that would not require Senate approval, rather than amending the treaty. He is trying to move beyond the Treaty by working with Russia the development of a new security framework. To pave the way for these negotiations and in exchange of the necessary concessions in regard the ABM Treaty, Mr. Bush suggested huge cuts in America's nuclear arsenal, perhaps unilaterally. However, the problem, for my point of view, is that when we are talking about nuclear weapons numbers are not so much important as they are when we talk about conventional warfare. If a nuclear or a WMD war begins it will not make much difference who does more damage to the other; the damage will have been so great that both will lost. The system President Bush intends to build will not threat Russia nuclear deterrent force because it will be rather limited; in any case US also offered to keep Russia informed about the pace and the scope of the program. However, critics say that without well defined limits would be impossible to provide Moscow with sufficient assurance to believe that the limited shield would stay limited. The Clinton's Administration, like its predecessor, had taken the view that reductions in long-range nuclear arms were needed and that the best way to make them was part of a formal, legally binding and verifiable treaty; a treaty-less approach was found too risky. During President Clinton final year in office there was some speculation that both sides – the United States and Russia - might agree on a deal in which the US would make the deeper cuts the Russians wanted in return for Moscow's agreement to amend the ABM Treaty. But the deal was never struck. Democrats also raised sharp questions, concluding that to abandon the ABM Treaty could leave the nation less secure by sparking a new arms race. As such, they are urging the Administration to go slow both in deploying the system and in negotiating with Russia. In the field of testings there are also differences of philosophy between the President Clinton and President Bush's Administrations. While President Clinton refused to approve deployments given the fact that the program was still showing signs of technological difficulties, Defense Secretary Rumsfeld said that President Bush was prepared to go ahead even if technologies had not yet proven completely effective. As expected

not everyone outside the US supports such a radical shift; there are fears among treaty supporters that the entire edifice of strategic arms control may become under siege and that the United States may find itself in a nuclear relationship with Russia that is less predictable, less stable and less verifiable. Most European governments say that if the ABM Treaty is to be abandoned it should be succeeded by a legally binding accord. Treaties provide predictability to all sides; without predictability sides have to assume worst case scenarios. Especially, France and Germany expressed apprehension about abandoning the 1972 Treaty; they also fear this would lead to a new arms race, as an incentive for proliferation. They think the Treaty is still a pillar to preserve strategic balance. However, despite the unenthusiastic reception to the Missile Defense Initiative in Europe there is no unanimity on this issue, among European leaders; some of them have showed interest while others seem ready to offer support. With regard to testing, some European officials think "it does not make sense to decide on something that has not been proven, when you do not know whether it works or whether you can pay for it". To the Russians which are also expected to oppose the initiative, President Bush said "we are not and must not be strategic adversaries" and urged them to "work together to replace this treaty with a new framework that reflects a clear and clean break from the past". It has been said also that President Bush expects to involve President Putin more deeply in the American system by offering Russia a package of weapons purchases, joint antimissile exercises and help to rebuild its outmoded early warning radar system and a proposal to include Russian's S-300 surface-to-air missiles in the new system. But Russians authorities clarified that they remain willing to reduce its arsenal drastically only if the ABM Treaty remains in force because it is the foundation of dozens of other side agreements that have kept nuclear arms race under control. On a personal basis, as a comment, I would like to add that this posture may not take into account that the problem is no longer one of confrontation between US and SU. Now there are new players that have also come into existence, perhaps in a more dangerous way. On the other hand, I can easily understand the difficulty for Russia to accept a system that in the medium/long term may render its nuclear armament totally useless. Following the last G8 meeting in Genoa, it was announced that Presidents Bush and Putin agreed to link discussions of American plan to deploy the missile defense systems with the prospect of large cuts in both nuclear arsenal. It is still too early to anticipate the outcome of this agreement. China has a much smaller missile force and fears that its nuclear deterrent capability would be nullified by the missile defenses. China is against the American initiative because it thinks it will destroy the strategic international balance and does not favor international stability; behind this position are certainly their concerns that the system will also cover Taiwan which will drastically reduce its capability for retaliation in case of conflict with Formosa. The "Friendship Pact" signed in Moscow, two days after the US have conducted, may be, the most successful test for the deployment of the MDS (14 Jul), confirmed the common position of both countries against the MDI. China declared the intention to augment their arsenal as a response to the American move. Kofi Anan, United Nations Secretary General, is also in favor of keeping the ABM Treaty as the key element of the current system of non-proliferation and disarmament HOW TO COPE WITH THE THREAT. Traditionally, two technical problems have been the most important challenges to build a missile defense system; one is the ability to find warheads masked by countermeasures and the other is develop a guidance system sufficiently accurate to allow an intercept to physically collide with its target. Enemy missiles could be destroyed in three different phases; as they are rising from their launch pads, while they are high in space, or as they are falling back to earth toward their target. A successful interception means that all warheads and decoys will be destroyed before they can be separated from the rocket that carries them into space. The three classes of missile defense capabilities currently needed and their advantages and disadvantages are as follows: Mid-course systems: provide wide coverage from a minimum of sites against intermediate-to-long-range threats and can be configured to defend both the US and its allies: they are however vulnerable to sophisticated countermeasures that include fractionated payloads (early release of submunitions). Terminal systems: useful to defend limited areas, they will be required in large numbers if necessary to cover substantial areas or to deal with medium-size raids; they are currently under development against only short-range ballistic missiles but at least two of the ongoing systems are sufficiently mature to allow high confidence in their effectiveness and could be fielded in significant numbers in the near to mid-term. Boost phase intercept: there is only one currently program underway (the ABL system); there are still formidable challenges to fielding these systems. The US is now working on a number of fronts to develop capabilities to counter ballistic missiles of all ranges. "The goal during this period – accordingly Mr. Rumsfeld – is to explore a variety of ways that missile defense can conceivably evolve without prejudging exactly which ones will be the most fruitful. And there is no doubt that the use of land and sea and air space are all things that need to be considered". Possible components of an interlocking multi-layered system would include rocket-launched interceptors fired from the ground and from Navy ships and high-powered lasers carried by Air Force planes. Several of those components would also require new, advanced radars on the ground or at sea, and sensors in space. BALLISTIC MISSILE DEFENSE TODAY Basically, there are two main categories of systems: the so-called National Missile Defense (NMD) and the Theater Missile Defense (TMD) systems. The NMD is being designed to defend the US - all fifty states - against a limited attack involving intercontinental ballistic missiles. It

could be expanded to include Europe and other allies. The TMD systems will protect facilities and forward-deployed forces; they are multi-tier systems providing defense in depth against theater ballistic and cruise missiles; they could be ground, sea or air-based. I will now explain, very briefly, the systems being developed, starting with the NMD system.

National Missile Defense (NMD)

The goal of the NMD development program has been to develop, demonstrate, and deploy a midcourse intercept capability with countermeasures launched by rogue states, such as North Korea, Iran, Iraq, and accidental launches from major nuclear powers.

First phase of NMD architecture

would include ground-based interceptors deployed in Alaska, an X-Band radar based at Shemya, Alaska, upgrades of 5 Early Warning Radars and a combination of Deployed Support Satellites and the Space-based Infrared satellite systems.

Under the Bush plan, the Pentagon would build missile test sites on Kodiak Island, off Alaska and at Fort Greely in central Alaska. These sites will provide better testing conditions than the Vandenberg Air Force Base in California and the atoll of Kwajalein, in Marshall Islands, that are currently being used. However, shifting future tests to Alaska require Russia Agreement.

Alaska is indeed where the US want to have a missile defense base aimed at thwarting attack from North Korea. Pentagon plans call for installing 10 or fewer interceptors at Fort Greely, near Fairbanks. Fort Greely will be a storage site and a command center that could be declared as a "working missile defense system" if a crisis seemed imminent, possibly by 2005. In the future it could be the base for a ground-based system capable of defending the whole country.

Airborne Laser (ABL)

In the near future, a promising approach might be the Airborne Laser (ABL) Program being developed by Boeing, Lockheed Martin and TRW and promoted as the first laser-armed combat aircraft; the contractors plan to test the system in 2003, using a retrofitted Boeing 747 Jumbo jet; laser modules are already being assembled. This system is being designed to shoot down short and medium-range missiles, like Iraqi SCUDS, in the initial phase of its flight - the so-called boost phase. This is considered the first chance to shoot down an enemy missile, as its thrusters are firing in the atmosphere and its blazing plume can be easily detected and tracked. The basic idea is to modify seven Boeing 747 Jumbo jets to carry high-powered chemical lasers that can target and destroy theater-missile boosters hundred of miles away. Because the system is self-contained, mobile and above clouds, it can quickly and effectively respond to almost any threat within reach of US or allies troops. It will have to operate at stand-off ranges where it is safe from threatening SAM sites.

NAVY AREA

Navy Area is a lower-tier sea-based terminal defense that consists of modifications to the combat system (AEGIS) and radar (SPY-1) deployed on destroyers and cruisers and to enable these ships (from the "Ticonderoga" and "Arleigh Burke" classes) to detect, track and engage short-range ballistic missiles using an updated version of the Navy's Standard Missile. It will take advantage of the Navy's worldwide presence to provide a highly mobile and responsive capability to protect underdeveloped theaters of operation, early entry forces, seaports of debarkation, and other valuable sites. It is designed with direct hit guidance that provides hit-to-kill performance a large percentage of the time and it also uses a blast fragmentation warhead to ensure lethality in stressing scenarios where direct hit may be not achievable and to engage anti-air warfare threats in defense of the fleet.

IN 1999, two Aegis cruisers, USS Port Royal and USS Lake Erie were augmented with appropriate software and the ability to test-fire the new missile as an interim Navy Area TBMD tracking software capability. Some European navies (RN; RNLN; SPN; GEN; ITN and FRN) are also following programs of adaptation of some of their ships to this new requirement.

NAVY THEATER WIDE (NTW)

Navy Theater Wide is an upper-tier hit-to-kill system that will provide defense in depth from the threat of theater ballistic missile attack for US and allied forces overseas, critical military assets, population centers, and large geographic regions. It builds upon the USN Area system. It takes advantage of available sea room and ship mobility to achieve intercepts of the target in the ascent, mid-course and terminal stages of exo-atmospheric flight. It could also represent an important contribution to NMD, with ships carrying the interceptors - possibly, AEGIS cruisers - being positioned as necessary. It is currently estimated that just one or two of these ships, with the improved radar and faster missiles, in the Mediterranean could protect South Europe from Libyan; a handful of this cruisers roving the seas may cover the whole US continent. Japan that operates 4 batteries of Patriot missiles and 4 AEGIS cruisers may choose the acquisition of a "theater wide" capability for the cruisers as the best option for an advanced defense capability.

Patriot Advanced Capability-3 (PAC-3)

PAC-3 is a Army lower-tier system that remains the top priority to defeat short-range ballistic missiles. It will provide critical operational capability to defend our forward-deployed forces, allies and friends against short and some medium range ballistic missiles threats. It is the most mature and most successful system to date. It is the only near-term active defensive system for local and limited area defense capable of countering short-range ballistic missiles armed with WMD.

Theater High Altitude Area Defense (THAAD)

The THAAD is a upper-tier system designed to intercept incoming missiles at high altitude; it will counter short and medium range ballistic missiles. Its extended range relative to the PAC-3 and the Navy Area, which are terminal defense systems, will allow area defense of critical military assets and population centers. It is a ground-based Army system that can be deployed to a theater of operations using strategic air, ground or sea transportation. It also provides multiple shot opportunities and, in comparison to other terminal defenses, is capable of engagements farther from targeted areas. It uses hit-to-kill technologies and can operate in both the endo and exo-atmosphere.

CONCLUSION

Before finishing I

would like to read three transcriptions that might help us in the following debate: I will start with Colin Gray when he reminds us that "it is not the weapons but who owns them that matter". As an example, he says that "no matter how similar the US and the Iraqi nuclear forces might be in their technical characteristics and standard practices of operation they are very different things". To this point, George Will adds that "arms control should not be agreements to make the world safer by limiting technology; unfortunately - as its believers envision it - they rest mainly on the notion that the threat to peace is technological not political; that the threat is the nature of particular weapons, not of particular regimes". Finally, let me cite Mr. Kissinger when he argues that "deliberate vulnerability, when technology is available to avoid it, cannot be an acceptable strategic objective". As a conclusion I would like to say that given the intense rivalry and animosity between countries that possess a weapons of mass destruction capability and whose leaders may feel no longer restricted by the Cold War bi-polar system, there is the possibility of at least an occasional use of those weapons. If this happen, this would produce a very different world than the one we now live in. There is an urgent need to move away from where we are.

25 TEXTOS RELACIONADOS:

2012/05/23

AS DECLARAÇÕES FINAIS DA CIMEIRA DE CHICAGO

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2012/05/20

AS RELAÇÕES OTAN-FEDERAÇÃO RUSSA

Pedro Santos Jorge[1]

2012/04/07

A DEFESA ANTIMÍSIL NA EUROPA, DEPOIS DE LISBOA

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2011/07/22

DISSUAÇÃO SEM ARMAS NUCLEARES? (II)

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2010/11/26

O REGRESSO DO NUCLEAR E A ALIANÇA ATLÂNTICA (II PARTE)

Francisco Proença Garcia[1]

2010/09/24

O NOVO CONCEITO ESTRATÉGICO DA NATO. DUAS QUESTÕES POLÉMICAS[1]

Alexandre Reis Rodrigues

2010/08/26

DA DEFESA ANTI-MÍSIL DE TEATRO PARA A DEFESA ANTI-MÍSIL DA EUROPA

Alexandre Reis Rodrigues

2010/08/19

A DEFESA ANTI-MÍSIL. PRIORIDADE PARA A NATO?

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2009/09/21

O ESCUDO DE PROTEÇÃO ANTIMÍSIL E A QUESTÃO IRANIANA

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2009/05/10

ARSENALS NUCLEARES: UMA CHANCE PARA O MUNDO

Marcelo Rech[1] (Brasil)

2009/03/12

O DILEMA NORTE-AMERICANO NA EUROPA

Marcelo Rech[1](Brasil)

2008/01/02

AS IMPLICAÇÕES DO SISTEMA NORTE-AMERICANO DE DEFESA ANTIMÍSIL PARA A EUROPA

Joana Gonçalves, Milena Batista, Sofia Alves e Tiago Maurício

2007/10/16

UM RADAR PARA "ASSAR" EUROPEUS?

Marcelo Rech[1]

2007/07/11

A CIMEIRA DA LAGOSTA E O ESCUDO DE PROTECÇÃO ANTIMÍSSIL

Alexandre Reis Rodrigues

2007/06/09

A PROPOSTA “IRRECUSÁVEL” DE PUTIN PARA A DEFESA ANTIMÍSSIL DA EUROPA

Alexandre Reis Rodrigues

2007/05/15

OS OBJETIVOS REAIS DO SISTEMA ANTIMÍSSIL NORTE-AMERICANO NA EUROPA

Marcelo Rech [1]

2007/04/01

A DEFESA ANTIMÍSSIL NA EUROPA. UM PROBLEMA PARA A PRESIDÊNCIA PORTUGUESA DA UE?

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2007/03/04

A DEFESA ANTIMÍSSIL DOS EUA ENCONTRA RESISTÊNCIAS NA EUROPA

Marcelo Rech[1]

2006/12/11

A DEFESA ANTI-MÍSSIL E A SEGURANÇA DA EUROPA[1]

Marcelo Rech[2]

2006/10/04

A EUROPA NOS PLANOS DOS ESTADOS UNIDOS

Marcelo Rech[1]

2005/07/25

O ESCUDO DE DEFESA ANTI-MÍSSIL EUROPEU

Alexandre Reis Rodrigues

2005/07/15

A DES(ILUSÃO) DO SISTEMA ANTI-MÍSSIL AMERICANO

Vera Gomes

2004/09/08

DE NOVO O ESCUDO DE PROTECÇÃO ANTI-MÍSSIL [1]

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2004/03/24

O ESCUDO DE PROTECÇÃO ANTI-MÍSSIL

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2001/10/12

O ESCUDO DE DEFESA ANTIMÍSSIL

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