a false sense of security

The Role of Missile Defenses in Counterproliferation Doctrine

Martha Clark, Scoville Fellow

PHYSICIANS FOR SOCIAL RESPONSIBILITY
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Table of Contents

Introduction .................................................................................................................................................. 7
History of the U.S. Missile Defense Program During the Cold War .......................................................... 8
Post-Cold War History of the U.S. Missile Defense Program .................................................................... 9
Types of Missile Defense Systems ............................................................................................................. 11
National Missile Defense ........................................................................................................................... 11
Theater and Tactical Missile Defense ......................................................................................................... 11
The Need for Missile Defense as Defined by the Bush Administration ...................................................... 12
The History and Development of Counterproliferation Doctrine .............................................................. 13
Counterproliferation Military Operations .................................................................................................... 14
  The Counterproliferation Nuclear Use Doctrine .................................................................................... 15
Types of Nuclear Weapons to be Used in Counterproliferation Military Operations ............................... 15
Health Effects of Tactical Nuclear Weapons ............................................................................................. 16
Bush Administration Recognition of Missile Defense as an Integral Element of Counterproliferation Doctrine ................................................................................................................. 17
The Role of Missile Defense in Counterproliferation Doctrine ................................................................. 18
Missile Defense as a Deterrent: Theory vs. Reality ..................................................................................... 18
Missile Defense and Preemptive Counterproliferation Operations: Theory vs. Reality ............................ 19
The Negative Impact of Utilizing Missile Defense as a Counterproliferation Tool ...................................... 20
Allies’ Reactions and Negative Global Consequences ............................................................................. 20
A False Sense of Security: The Technical and Operational Infeasibility of Missile Defense .................... 21
A False Sense of Security: the Misguided Encouragement of U.S. Provocation and Tactical Nuclear Use ................................................................................................................................. 22
The Encouragement of Enemy WMD Proliferation ................................................................................. 23
Conclusions and Recommendations ......................................................................................................... 23
LIST OF ABBREVIATIONS

ABM – Anti-Ballistic Missile
BMD – Ballistic Missile Defense
BMDO – Ballistic Missile Defense Organization
GPALS – Global Protection Against Limited Strikes
HDBT – Hardened, Deeply-Buried Targets
ICBM – Intercontinental Ballistic Missile
MDA – Missile Defense Agency
MEADS – Medium Extended Air Defense System
NATINEADS – NATO Integrated Extended Air Defense System
NATO – North Atlantic Treaty Organization
NMD – National Missile Defense
NORAD – North American Air Defense System
NSS – National Security Strategy
NTW – Navy Theater Wide
PAAMS – Principle Anti-Air Missile System
PAC-3 – Patriot Advanced Capability-3
RNEP – Robust Nuclear Earth Penetrator
SAMP/N – Naval Surface-to-Air Moyenne Portee
SAMP/T – Ground-based Surface-to-Air Moyenne Portee
SDI – Strategic Defense Initiative
SDIO – Strategic Defense Initiative Organization
SLBM – Submarine-Launch Ballistic Missile
THAAD – Theater High Altitude Area Defense
TMD – Theater Missile Defense
TNW – Tactical Nuclear Weapon
WMD – Weapons of Mass Destruction
Executive Summary

The role of missile defenses in counterproliferation doctrine is a concept that is rarely examined, analyzed, or discussed. However, a complete understanding of this application of missile defenses is vital in the current strategic and political environment, especially as both missile defenses and counterproliferation doctrine define the main facets of President George W. Bush’s national security policy.

Therefore, the goals of this paper are to:

- Analyze the effectiveness of the shift of U.S. nuclear doctrine from a Cold War deterrence policy to a national security strategy combining missile defenses and counterproliferation doctrine.
- Examine the main facets of counterproliferation doctrine and its application to national security under the Bush administration.
- Examine the potential for the use of tactical nuclear weapons under the Bush administration’s counterproliferation policy, and determine the effects of tactical nuclear use in counterproliferation operations.
- Study the role that missile defenses play in the Bush administration’s counterproliferation policy.
- Determine the effects of a counterproliferation strategy utilizing missile defenses on the U.S. deterrence posture and on the willingness of the United States to use tactical nuclear weapons in counterproliferation operations.
- Determine alternatives to the Bush administration’s counterproliferation and missile defense strategy to better enhance U.S. national security.

The findings of this paper are as follows:

- Though Cold War deterrence was an unstable and risky national security policy, the Bush administration’s national security strategy combining counterproliferation doctrine (including preemptive strikes) and missile defenses is similarly risky and unstable. Thus, it is no better than the classical deterrence policy it purports to replace.
- In its counterproliferation role, a limited missile defense such as that being developed by the Bush administration will encourage
(rather than deter) enemy WMD and missile proliferation by raising the threshold for the number of missiles and/or warheads that must be used for an attack to be effective.

- In its theoretical counterproliferation role as a “shield” to defend against retaliation for preemptive attacks, missile defense will encourage the United States to pursue preemptive attacks, possibly with tactical nuclear weapons. However, this is a false sense of security due to the high probability for operational ineffectiveness of a missile defense system.

- The use of tactical nuclear weapons must be avoided at all costs due to the damage caused by them and their effects in lowering the threshold of use for larger nuclear weapons.

- The views of U.S. allies in the international community have not been taken into account in framing U.S. national security policy, and must be considered in order to receive diplomatic support for U.S. national security policy.

A more stable U.S. national security strategy would combine a reliance on non-proliferation regimes, diplomatic initiatives, and the engagement of rogue states into the international governing structure in order to hold them accountable for their actions.
Introduction

Missile defense has become a central tenet of U.S. national security strategy, especially in terms of its theoretical utility for counterproliferation doctrine. Citing the constant threat of nuclear annihilation present in an environment protected solely by the threat of mutual assured destruction, the Bush administration is shifting from a Cold War era policy of deterrence to a combination of deterrence, preemptive military strategies, and missile defenses. This new strategy is outlined in the recent Bush administration document, *The National Security Strategy of the United States of America*, and is largely framed around the counterproliferation strategies laid out in the 1993 *Defense Counterproliferation Initiative* (CPI).¹

Among other things, counterproliferation doctrine calls for improved deterrent capabilities against regional adversaries, preemptive strikes to destroy enemy weapons of mass destruction (WMD) “when absolutely necessary,” and both active and passive defenses. In theory, as the Bush administration argues, missile defense acts as the active defense required by counterproliferation doctrine. This argument states that as an active defense, missile defense deters adversary WMD proliferation and/or attacks by theoretically rendering such proliferation or attack useless. Missile defense also theoretically acts as a shield to protect against retaliation for U.S. preemptive strikes. However, in reality, missile defense does the opposite of what it is intended to do in its counterproliferation role. In the long term, it could hinder U.S. national security by encouraging enemy proliferation of WMD and by providing a false sense of security.

sense of security that will encourage the United States to engage in preemptive strikes, possibly with the use of tactical nuclear weapons.

Thus, in its counterproliferation role, missile defense is an ineffective deterrent entangled in the shift of U.S. nuclear doctrine from one of strategic non-use (classical deterrence) to one of tactical use. Projected effects of the role of missile defense in counterproliferation strategy include: (1) a hindrance of diplomatic relations with many other countries who question the morality of preemptive strikes, as well as our right to hypocritically use nuclear weapons to prevent others from possessing WMD; (2) a false sense of security provided by a system which is technologically unproven and infeasible; (3) the encouragement of the use of tactical nuclear weapons such as the Robust Nuclear Earth Penetrator (RNEP, or “bunker-buster”), and the resulting health effects on civilian populations; and (4) ironically, the encouragement of proliferation as enemy states strive to develop countermeasures and other means of overwhelming limited and ineffective U.S. missile defenses. Although classical deterrence was extremely risky in its reliance on the threat of mutual assured destruction (MAD), a national security strategy based on counterproliferation and missile defenses is similarly risky and will fail to enhance the security of the United States. Alternate paths to the preservation of U.S. national security should be explored, including nonproliferation regimes, diplomatic initiatives, and the engagement of “rogue” states into the international structure. A strategy combining counterproliferation with missile defenses is only counterproductive, placing us closer to nuclear war than we have ever been.

The phenomena discussed above will be described and analyzed in this paper, which intends to:

- Analyze the effectiveness of the shift of U.S. nuclear doctrine from a Cold War deterrence policy to a national security strategy combining missile defenses and counterproliferation doctrine.
- Examine the main facets of counterproliferation doctrine and its application to national security under the Bush administration.
- Examine the potential for the use of tactical nuclear weapons under the Bush administration’s counterproliferation policy, and determine the effects of tactical nuclear use in counterproliferation operations.
- Study the role that missile defenses play in the Bush administration’s counterproliferation policy.
- Determine the effects of a counterproliferation strategy utilizing missile defenses on the U.S. deterrence posture and on the willingness of the United States to use tactical nuclear weapons in counterproliferation operations.
- Determine alternatives to the Bush administration’s counterproliferation and missile defense strategy to better enhance U.S. national security.

**HISTORY OF THE U.S. MISSILE DEFENSE PROGRAM DURING THE COLD WAR**

Missile defense has a long history in the United States, but its constantly shifting course has been far from predictable over the years. The U.S. Missile Defense Program dates back to the immediate post-WWII period, when ballistic missile defense development was recommended in response to the Nazi use of ballistic missiles during the war. Missile defense gained importance in the United States with the beginning of the Cold War and the constant fear of nuclear annihilation present during that period.

President Johnson deployed the first missile defense system, “Sentinel,” in September of 1967. The purpose of Sentinel was quickly changed, with President Nixon renaming it “Safeguard”
and reorienting it to protect U.S. intercontinental ballistic missiles (ICBMs) in 1969. Congress voted to close “Safeguard” on October 2, 1975, only one day after it was declared fully operational. This closing followed the President’s receipt of a secret message that Russia would be able to overwhelm the system with a large-scale missile attack, as well as warnings of ineffectiveness from the system’s contractor.2 The closing of Safeguard was also due in part to the Anti-ballistic Missile (ABM) Treaty signed by the United States and the Soviet Union in May, 1972.

The ABM Treaty prohibited any territorial missile defense system in either of the superpowers, and banned many types of anti-ballistic missile technology, including the development, testing, and deployment of sea-based, air-based, space-based, or mobile land-based ABM systems and their components.3 This treaty recognized the destabilizing effects of missile defenses upon deterrence, signaling to the world that strategic deterrence was the nuclear policy framing Cold War superpower relations and arms control. Until recently, the ABM Treaty restrictions insured the vulnerability of both the United States and the Soviet Union that allowed deterrence and mutual assured destruction to work. However, the United States withdrew from the treaty on June 13, 2002, following the required six-month notice given by the Bush administration on December 13, 2001.

Although the abolition of the ABM Treaty significantly reduced the restraints on the U.S. missile defense program, research and development of missile defense components continued even while the treaty was in place. This research and development was especially prevalent during the “Star Wars” program of Ronald Reagan’s administration. Named the Strategic Defense Initiative (SDI), Reagan’s missile defense program aimed to build a space-based, global defense.4 Though Reagan’s large aspirations for missile defense were never achieved, his successor built upon the missile defense developments of the SDI.

**POST-COLD WAR HISTORY OF THE U.S. MISSILE DEFENSE PROGRAM**

The ending of the Cold War altered the United States’ plans and priorities for missile defense. Within the new, post-Cold War strategic context of the early 1990’s, George Bush Sr.’s administration shifted the design of the program to integrate a ground-based national missile defense system (NMD), a ground and sea-based theater missile defense system, and a space-based global defense.5 Named Global Protection Against Limited Strikes (GPALS), Bush’s missile defense program was far from revolutionary in its contributions to overall missile defense development. Missile defense was a relatively quiet issue throughout his presidency and into the beginning of President Clinton’s first term as president.

President Clinton built upon the GPALS concept in 1994 under pressure from Congressional Republicans, who strove to make missile defense a main defense initiative. Clinton changed the name of the SDIO to the Ballistic Missile Defense Organization (BMDO), and initiated a “three-plus-three” plan for development and deployment of a National Missile Defense (NMD) system and multi-tiered Theater Missile Defense system (TMD). Clinton’s plans called for the integration of land, sea, air, and space-based components, which were to be deployed globally. The missile defense tech-

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nologies being developed for these systems focused on intercepting missiles during either the boost or terminal phases of their flight.6 Scheduled to begin in FY1997, “three-plus-three” entailed three years of missile defense testing and development leading to an additional three years for deployment (if the decision to deploy was made in 2000). “Three-plus-three” was changed to “three-plus-five” in 1999 in response to growing criticism that missile defense proponents were “rushing to failure.” It was during the Clinton administration that the National Missile Defense Act of 1999 was signed into law, dictating that the United States must deploy a national missile defense system as soon as it was technically feasible. This legislation, however, contains a funding loophole requiring the reauthorization of missile defense funds by Congress each year.8

Clinton put off the deployment decision in 2000, leaving President George W. Bush the responsibility of directing the future of the missile defense program.9 Missile defense has taken on new meaning under the Bush administration, particularly with regard to its implications for a counterproliferation strategy. Although its role in counterproliferation doctrine will be discussed in greater detail shortly, it is important to note here that President Bush came into office with missile defense as his main defense initiative. Each year of his presidency, President Bush has asked Congress to authorize between $7 and $8 billion to fund his missile defense program. He has received the requested amount each year until FY2003, when competing concerns about Homeland Security gained precedence.10 The President increased his missile defense budget request for FY2004, requesting a total of $9.1 billion for the program.11

President Bush has once again shifted the program’s focus to begin intensive research and development on a “layered defense.” This layered defense is designed to integrate ground, sea, air, and space-based components to intercept a missile during any of its three phases of flight (the boost, midcourse, and terminal phases).12 This missile defense program under the Bush administration is managed by a new full-fledged government agency, the Missile Defense Agency (MDA), which has taken the place of the Ballistic Missile Defense Organization. Oversight of the missile defense program has been drastically altered under this new arrangement: the Missile Defense Agency is exempt from regulations that compel military commanders to specify requirements for new weapons. In addition, the MDA is not required to submit traditional reports about program timelines and costs, and its testing efforts are largely free from oversight by the Pentagon’s test evaluation office.13 A further programmatic change occurred when the Bush Administration merged NMD and TMD into one program in an effort to share all types of missile defense technology and development expertise, as well as to appease European and Asian allies of the United States.14

Until recently, the Bush administration’s missile defense program had not resulted in any deployments in the United States. However, on June 14, 2002 (one day after the official U.S. with-
drawal from the ABM Treaty), ground was broken in Alaska to begin construction on silos to house missile defense interceptors. This site at Ft. Greely, Alaska was initially to be built as a test bed to be completed in 2004, but the President announced in December 2002 that a limited missile defense would be deployed here and at Vandenberg Air Force Base in 2004. Furthermore, the joint TMD program between the United States and Israel, “Arrow,” has been deployed in Israel since October, 2000.

**TYPES OF MISSILE DEFENSE SYSTEMS**

*National Missile Defense*

National missile defense (NMD) is, in theory, a system designed to protect the American homeland from intercontinental ballistic missile (ICBM) attack. Although various administrations have had differing plans for the structure of a national missile defense system, any NMD system would have several common characteristics. NMD is to be deployed to defend American population centers and/or weapons stores, not forward-deployed troops or U.S. allies. Because NMD is necessarily an expansive system of integrated technologies, its potential for ineffectiveness is higher than that of theater and tactical missile defenses. As stated above, NMD is currently under research and development under the Bush administration, but is not yet deployable. The concept of national missile defense is subject to intense scrutiny by missile defense opponents due to its potential for technological ineffectiveness, as well as its potential to upset the strategic balance.

Theater and Tactical Missile Defenses

The Bush Administration has attempted to restructure the missile defense program in a way that blurs the distinctions between theater missile defense, tactical missile defense, and national missile defense. Theater missile defenses (TMDs) are designed to defend regions or forward-deployed forces against short to medium-range missile attack. Tactical missile defenses are essentially a subcomponent of theater missile defense that are designed to defend forces against the use of tactical nuclear weapons, usually on the battlefield. Because President Bush wanted the TMD and NMD programs to share technological developments, he merged the two into one program known as Allied Missile Defense. Allied Missile Defense is now commonly referred to simply as Ballistic Missile Defense (BMD). Despite the merging of these programs, theater and tactical missile defenses are distinct from national missile defense in their international applications, as well as their goals, methods, and the debate surrounding them.

Theater missile defense encompasses several different U.S. missile defense programs: Patriot Advanced Capability-3 (PAC-3), Theater High Altitude Area Defense (THAAD), and Navy Theater Wide (NTW). Additionally, the United States pursues several joint TMD programs with its allies, as do the Western European countries: Arrow (between the United States and Israel; it

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has been operational since October, 2000); the Medium Extended Air Defense System (MEADS), (between the United States, Germany, and Italy); the Principle Anti-Air Missile System (PAAMS), (between the United Kingdom, Italy, and France); and France’s own Naval and Ground-Based Surface to Air Moyenne Portée (SAMP-N and SAMP/T, respectively), both of which are designed to protect French military forces. Each of these systems is designed to operate within a theater of operations, whether defending forward-deployed U.S. troops, a city under siege, or an aircraft carrier. Although none of these systems is defined as a tactical missile defense system per se, there are similarities between the two types of systems and they are often referred to interchangeably.

The North Atlantic Treaty Organization (NATO) is pursuing multinational tactical missile defenses in conjunction with the United States and President Bush’s efforts to extend U.S. missile defenses to U.S. allies. Although U.S. and Canadian air defense are coordinated by the North American Air Defense system (NORAD), and are separate from European air defense under NATO, the NATO missile defense program as a whole relies heavily on research and development conducted in the United States. NATO’s European tactical missile defense program falls under NATO’s larger air defense program, which aims to eventually deploy the NATO Integrated Extended Air Defense System (NATINEADS). NATINEADS will employ maritime and ground-based weapons systems or interceptor aircraft to detect, track, and intercept aircraft and tactical missiles with a command and control system stretching from Northern Norway to Eastern Turkey and from the United Kingdom to Portugal.

Theater and tactical missile defenses are viewed as having much more technological promise than a long-range National Missile Defense system, and as such they are more likely to be deployed in the near future (and are already deployed, e.g. Patriot and Arrow). Because they defend forward-deployed forces in foreign regions and battlefield forces performing military operations, theater and tactical missile defenses are especially relevant for counterproliferation policy.

**THE NEED FOR MISSILE DEFENSE AS DEFINED BY THE BUSH ADMINISTRATION,**

As illustrated through his merging of NMD and TMD into one program, President Bush wants to streamline the missile defense program to make it progress quickly and smoothly. What are his reasons for doing so? His administration cites an impending threat of ballistic missile attack by a “rogue” state such as Iran, Iraq, or North Korea. In addition, the administration occasionally alludes to the narrow possibility that the United States will be victim to an accidental or unauthorized ICBM launch from Russia or another former Soviet state. China’s ICBM capabilities are also seen by some as presenting the threat of missile attack upon the United States. The likelihood of any of these possibilities occurring is very slight.

For one thing, none of the so-called “rogue” nations possess ballistic missiles with a range capable of reaching the United States. However, even if they did (as they may in the future), the country in question would be suicidal to lob a ballistic missile at the world’s sole superpower and possessor of more nuclear weapons and ballistic missiles than any other state. Many argue that rogue leaders like Saddam Hussein are irrational and subsequently cannot be deterred, but evidence exists that Saddam can be deterred by the threat of nuclear retaliation. The CIA recently confirmed this view, arguing that Iraq is unlikely to initiate an unprovoked WMD attack against

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the United States.\textsuperscript{21} Indeed, history has proven this fact: in the Gulf War, tacit threats of U.S. nuclear use prevented Iraq from using chemical or biological weapons against the United States, its allies, or regional states. If Saddam can be deterred, Kim Jong Il of North Korea and other rogue leaders can be similarly deterred.

Therefore, traditional deterrence and the promise of devastating retaliation make an actual ballistic missile attack on the United States by a rogue state an extremely unlikely prospect. The more likely threat arising out of a rogue state’s possession of ballistic missile technology is one of blackmail against the United States: the threat of missile attack to coerce or prohibit U.S. activity in some arena. As will be explored later in this paper, U.S. development and deployment of a missile defense system to protect against the unlikely prospect of intentional missile attack by a rogue state only serves to further motivate rogue state WMD and missile proliferation. Rather than deploy a missile defense to defend against the rogue state threat, the United States should work to strengthen nonproliferation regimes and to engage rogue states in an attempt to draw them into the international order to hold them accountable for their actions. This engagement is especially necessary given that most rogue states are developing WMD in order to gain recognition as major players in international affairs.

The threat of accidental or unauthorized launch by a former Soviet state is similarly of such narrow likelihood that defense funds would be better spent elsewhere than in building a missile defense system to protect against such a launch.\textsuperscript{22} The solution to the threat of an accidental or unauthorized launch from a former Soviet state lies in programs such as the Nunn-Lugar Cooperative Threat Reduction (CTR) program, which provides U.S. funding for the dismantling of nuclear weapons in the former Soviet states and for the purchase of excess fissile material from the former Soviet states.

Although some cite China’s ICBM arsenal (numbering approximately twenty) as a threat to U.S. security, the notion of China attacking the United States with ballistic missiles is far-fetched.\textsuperscript{23} The diplomatic consequences alone would be suicidal for a Chinese government striving to acquire friends and trading partners on the world scene, and U.S. submarine-launch ballistic missiles (SLBMs) are such secure second-strike forces that China, as well as any other country, could well expect a quick U.S. retaliatory attack.

\section*{THE HISTORY AND DEVELOPMENT OF COUNTERPROLIFERATION DOCTRINE}

The Bush administration’s counterproliferation policy elaborates upon the U.S. Defense Counterproliferation Initiative (CPI-1993) introduced by President Clinton’s first Secretary of Defense, Les Aspin, on December 7, 1993. Citing the increase in weapons proliferation due to the breakup of the Soviet Union and the “nature of technology diffusion,” Aspin called for a new approach to handling weapons proliferation.\textsuperscript{24} Counterproliferation differs from the more familiar concept of nonproliferation in its particular focus on assuring that U.S. forces and interests will be protected if confronted with an enemy already armed with nuclear, biological, or chemical (NBC) weapons, or with missile capabilities. In order to achieve this goal, the Defense CPI-1993 outlined a new mission for the Department of Defense, requiring: (1) improved active and

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\begin{thebibliography}{9}
\bibitem{24} Barry R. Schneider, Future War and Counterproliferation, Praeger: Westport, 1999, 46.
\end{thebibliography}
passive defenses; (2) the development of large area decontamination capabilities after suffering NBC attacks; (3) improved deterrence against regional adversaries armed with small but growing NBC arsenals; and (4) improved counterforce capabilities to destroy adversary WMD ‘should that become absolutely necessary’.”

Although counterproliferation doctrine was developed by the Clinton administration, it was not utilized as the defining facet of U.S. national security policy until the Bush administration. The Bush administration has placed large emphasis on shifting and shaping U.S. nuclear doctrine to fit into what it sees as the constraints and challenges facing U.S. national security in the post-Cold War world. Counterproliferation doctrine, as outlined by Les Aspin in the 1993 Defense Counterproliferation Initiative, is one of the most influential and overarching elements characterizing Bush’s defense policy. This is demonstrated in the National Security Strategy of the United States of America, a document released by the White House in September 2002. This document emphasizes the importance of preventing enemy proliferation of weapons of mass destruction, and prescribes a counterproliferation policy to achieve this:

“Our comprehensive strategy to combat WMD includes: Proactive Counterproliferation Efforts. We must deter and defend against the threat before it is unleashed. We must ensure that key capabilities—detection, active and passive defenses, and our counterforce capabilities—are integrated into our defense transformation and our homeland security systems. Counterproliferation must also be integrated into the doctrine, training, and equipping of our forces and those of our allies to ensure that we can prevail in any conflict with WMD-armed adversaries.”

Inherent to the policy outlined in the National Security Strategy (NSS) are preemptive military operations, another tell-tale signature of the Defense Counterproliferation Implementation:

“. . . we will not hesitate to act alone, if necessary, to exercise our right of self defense by acting preemptively against such terrorists, to prevent them from doing harm against our people and our country.”

COUNTERPROLIFERATION MILITARY OPERATIONS

Preemptive military operations are explicit in the National Security Strategy of the United States of America and implicit in several of the requirements of the CPI-1993, specifically the requirement for “improved counterforce capabilities to destroy adversary WMD.” Essentially, this requirement entails military action to take out either an enemy NBC infrastructure or an enemy arsenal of nuclear, biological, and/or chemical weapons before they can be used against the United States, its forward-deployed forces, or its allies. Although the Nuclear Posture Review calls

25 Schneider, 46.
28 Schneider, 46.
29 Martin Butcher, Counterproliferation and Nuclear Weapons (forthcoming report), 13.
for contingency plans to be made utilizing conventional weapons for these operations, there are also plans in the NPR and elsewhere for developing tactical nuclear weapons to be used specifically in counterproliferation operations. The deployment of a U.S. missile defense system will theoretically provide the sense of security necessary for the administration to deploy these weapons. This is a false sense of security and, as such, the use of missile defenses as shields for preemptive military operations utilizing tactical nuclear weapons will greatly endanger U.S. security.

The Counterproliferation Nuclear Use Doctrine

Tactical nuclear weapons, it is argued, may be necessary due to their efficacy in striking and destroying the hardened, deeply buried targets (HDBT) hosting WMD facilities or stocks. The nuclear weapons used for destroying HDBT must be able to burrow deeply underground while having a low enough explosive yield to avoid causing excessive environmental damage and civilian casualties (which would make such weapons politically infeasible). Tactical nuclear weapons (TNWs):

“... include a broad array of atomic explosive devices, ranging from so-called nuclear landmines and nuclear artillery shells to air-dropped or missile launched nuclear warheads. TNW yields range from relatively low (0.1 kiloton (kt)) to higher than the bombs dropped on Hiroshima and Nagasaki (10-15 kt, upwards to one megaton). Even a very low-yield atomic blast would create highly damaging effects, above and beyond what a conventional explosion of the same size could produce.”  

Types of Nuclear Weapons to be Used in Counterproliferation Operations

The “Robust Nuclear Earth Penetrator” (RNEP), also referred to as a ‘bunker-buster,’ is the weapon currently being researched for tactical counterproliferation use. The Bush administration requested $15.5 million for RNEP research and development in its FY2003 and FY2004 budget requests. Congress funded the FY2003 request fully, with the restriction that the funds can only be released thirty days after the Department of Defense issues a report on (1) the military requirements for the RNEP; (2) the nuclear weapons employment policy for the RNEP; (3) the detailed categories or types of targets that the RNEP is designed to hold at risk; and (4) an assessment of the ability of conventional weapons to address the same types of targets as those of the RNEP.  

One of the bombs likely to be modified in developing the RNEP, the B61-11, was deployed to Europe in 1997 and 1998. “First originated in 1993, the Mod 11 is designed as a ‘bunker buster’—capable of attacking hardened targets underground.” The U.S. Government argues that the B61-11 is ideal for military counterproliferation operations due to its earth-penetrating capabilities. Having undergone tests of its burrowing capabilities in the Alaskan permafrost, the military reports that the B61-11 can supposedly burrow up to fifty feet before exploding.  

The use of missile defenses as shields for preemptive military operations utilizing tactical nuclear weapons will greatly endanger U.S. security.

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32 Butcher, 37.
34 Butcher, 37, 41.
35 Butcher, 36-37.
These military reports may be deceiving, however, as scientists have reported that the RNEP is far from being a “clean” weapon. They estimate that the RNEP, if detonated in an urban setting, would cause 10,000 to 50,000 people to receive a lethal dose of radiation within twenty-four hours. This does not account for other injuries due to the extreme heat or the shock of the blast. According to the Federation of American Scientists:

“The earth penetrating capability of the B61-11 is fairly limited... Tests show it penetrates only twenty feet or so into dry earth when dropped from an altitude of 40,000 feet. Even so, by burying itself into the ground before detonation, a much higher proportion of the explosion energy is transferred to ground shock compared to surface bursts. Any attempt to use it in an urban environment, however, would result in massive civilian casualties. Even at the low end of its 0.3-300 kiloton yield range, the nuclear blast would simply blow out a huge crater of radioactive material, creating a lethal gamma-radiation field over a large area.”

There has been a significant amount of research and development already conducted on a “bunker buster.” The administration’s request for millions in funding to pursue this option further shows its intent to be in a position to implement a nuclear use doctrine.

Some advocates of nuclear use in counterproliferation missions are concerned that the weapons currently being considered for modification in the development of the RNEP have too large a yield to be “politically” usable. Thus, some are arguing for the development and deployment of “mini-nukes” to further reduce environmental and “collateral damage” (i.e., human casualties).

Mini-nukes are defined as nuclear weapons having less than a 5kt yield. Mini-nukes are also viewed by some as a necessary part of the new deterrent force, for “the explosive power of silo-busting thermonuclear warheads designed for the Cold War is ‘too high’ to deter small nations in today’s multipolar world.”

Although the 1993 ban on mini-nuke development was retained in the FY2003 defense authorization bill, the mere idea of developing a “mini-nuke” is a drastic step toward a nuclear doctrine of tactical use. There are several negative ramifications that could be expected if the United States were to pursue mini-nuke development. Most importantly, the use of mini-nukes lowers the threshold of use for larger nuclear weapons in the long term. Notable among the short-term consequences would be strong pressure to resume nuclear testing. Such pressure to resume testing would likely result from the intensification of nuclear weapons design and development activity at the Department of Energy laboratories. A resumption of testing in the United States would destroy any chance of bringing the Comprehensive Nuclear Test Ban Treaty (CTBT) into force some day, and have negative consequences on other nonproliferation regimes that have taken years to develop. Thus, mini-nuke development not only poses the possibility of nuclear use, it would also likely increase worldwide nuclear proliferation as other states follow the example of the United States. Such a result runs counter to the counterproliferation aims of the Bush administration.

**HEALTH EFFECTS OF TACTICAL NUCLEAR WEAPONS**

The health effects of a shift to a tactical nuclear use strategy have the potential to be horrifying. The *NATO Handbook on the Medical Aspects of NBC*

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**Notes:**


Defensive Operations thoroughly outlines the possible health effects of a nuclear explosion:

“A nuclear bomb explosion produces both a blast wave and intense thermal radiation. A blast wave causes rapid compression and decompression of the surrounding air, which can damage lung tissue and the gastrointestinal system, ultimately leading to hemorrhaging or an air embolism. The heat from a 100-kt bomb, which is eight times stronger than the 12.5-kt bomb used over Hiroshima, creates air temperatures above the boiling point of water, producing super-fires, toxic smoke, and gases. This can lead to a near 100 percent death rate within 4.3 km of the explosion. Heat from such a blast causes burns directly, through the skin’s absorption of thermal energy and indirectly through exposure to fires.”

It is almost preferable not to survive the initial blast, for the lack of medical treatment and/or radiation received in the aftermath of the blast would just prolong the suffering and destroy scores of lives:

“Those who survive such a blast would not have access to adequate medical care. The destruction of transportation, energy and communication systems would make it impossible for victims to be moved to surviving medical facilities... Fallout from just one 100-kt blast would create a radiation zone of 30-60 square kilometers... The exposed patients themselves could pose the risk of radioactive contamination for health professionals. Even limited contact with radiation affects the brain’s ability to regulate its blood supply, lowers fertility, and increases the probability of cancer. The radiation received from the contaminated area is compounded by the ingestion and inhalation of contaminated substances. The result could lead to more secondary deaths than initial deaths. Long term survivors could be left with damaged cells which may become cancerous, or damaged DNA, which can lead to genetic mutations and birth defects in future generations.”

Although this scenario is the result of a 100-kt weapon (as opposed to the smaller tactical nuclear weapons most likely to be used in counterproliferation missions), any use of nuclear weapons would be “absolutely catastrophic in human and environmental terms.” This is true not only in that smaller nuclear warheads have devastating potential (as illustrated by the projected effects of the RNEP described earlier), but also in that their use carries with it the possibility of escalation to larger nuclear weapons use.

BUSH ADMINISTRATION RECOGNITION OF MISSILE DEFENSE AS AN INTEGRAL ELEMENT OF COUNTERPROLIFERATION DOCTRINE

Missile defenses are a vital part of the Bush administration’s new counterproliferation strategy. As part of the Clinton administration’s Department of Defense Counterproliferation Implementation (CPI-1996) released on July 9, 1996, the Under Secretary of Defense for Acquisition and Technology was directed to “ensure that the Director, Ballistic Missile Defense Organization, includes counterproliferation as an integral element within the developmental framework for defense against ballistic missiles.” The emphasis placed

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39 NATO Handbook on the Medical Aspects of NBC Defensive Operations.
40 Butcher, 44.
A False Sense of Security: The Role of Missile Defenses in Counterproliferation Doctrine

by the Bush administration on both counterproliferation doctrine and missile defenses speaks to the fact that Bush has continued and even enhanced this relationship developed during the Clinton years between counterproliferation and missile defense.

The Chairman of the Joint Chiefs of Staff Concept Plan (CONPLAN) 0400-96, a document serving in 2001 as the campaign plan for U.S. military efforts to counter the spread of WMD, continues the recognition in the CPI-1993 of missile defenses (“active defenses”) as one of the major elements of counterproliferation. In addition, Proliferation: Threat and Response, an annual policy document released by the Department of Defense in 2001, lists a core set of capabilities needed to improve NATO’s counterproliferation capabilities. These capabilities include “Extended integrated air defenses, including theater ballistic and cruise missile defense for deployed forces.”

The May, 2002, Counterproliferation Program Review Committee’s Report on Activities and Programs for Countering Proliferation and NBC Terrorism discusses the Bush administration’s missile defense program as its “key active defense activity.” The importance of the missile defense program in counterproliferation planning was further stressed in September, 2002, with the release of The National Security Strategy of the United States of America. The document states:

“We will build defenses against ballistic missiles and other means of delivery. We will cooperate with other nations to deny, contain, and curtail our enemies’ efforts to acquire dangerous technologies. And, as a matter of common sense and self-defense, America will act against such emerging threats before they are fully formed.”

Clearly, the Bush administration sees a relationship between missile defense, counterproliferation, and preemption as all part of a grand strategy to enhance U.S. national security.

THE ROLE OF MISSILE DEFENSE IN COUNTERPROLIFERATION DOCTRINE

Missile Defense as a Deterrent: Theory vs. Reality

As stated above, counterproliferation doctrine includes a requirement for improved deterrence of regional adversaries. Deterrence strategy throughout the Cold War operated on the premise that the strategic nuclear forces of both the United States and the Soviet Union would prevent either side from attacking the other due to the knowledge that such an attack would be subject to retaliation and lead to all-out nuclear war. This strategy called for massive levels of strategic nuclear arms pointing at the enemy on hair-trigger alert.

With the collapse of the Soviet Union in 1990 and the end of the Cold War, the United States Department of Defense has begun looking at deterrence in a new light. Although Cold War deterrence was an unstable long-term policy that was effective mainly by chance, the Bush administration’s integration of counterproliferation missile defenses into the U.S. deterrent posture is not the solution. Missile defenses will only serve to weaken U.S. deterrence. Their limited nature and potential for ineffectiveness will instead encourage WMD proliferation and either

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43 Proliferation: Threat and Response, 82.
large-scale missile attacks (to overwhelm the system) or covert unconventional attacks (to avoid the missile defense altogether).

The Bush administration believes missile defense will decrease the value of WMD and raise the threshold of the level of weapons needed for a successful attack upon the United States or its allies. This theory leads the administration to believe that missile defense will enhance the U.S. deterrent against enemy proliferation of WMD and/or a WMD attack. The Nuclear Posture Review Report (NPR) presented to Congress by the Bush administration in 2002 illustrated that the current direction for American nuclear forces is shaped not by the traditional notion of strategic nuclear deterrence, but by a new interpretation of deterrence which includes offensive strike systems (composed of nuclear and sophisticated conventional weapons) and missile defenses:

“First and foremost, the Nuclear Posture Review puts the Cold War practices related to planning for strategic forces behind us... This new approach should provide, over the coming decades, a credible deterrent at the lowest level of nuclear weapons consistent with U.S. and allied security... The second leg of the New Triad requires development and deployment of both active [missile defense] and passive defenses—a recognition that offensive capabilities alone may not deter aggression in the new security environment of the 21st century... by denying or reducing the effectiveness of limited attacks, defenses can discourage [deter] attacks, provide new capabilities for managing crises, and provide insurance against the failure of traditional deterrence.” (emphasis added)45

Kerry Kartchner, the Senior Adviser for Missile Defense Policy in the Office of Strategic and Theater Defense at the U.S. Department of State elaborates upon the theory that missile defenses will enhance the U.S. deterrent posture:

“Put simply, effective missile defenses can diminish the threat of missile attack against us or our allies by raising the costs required to make such an attack successful, and by threatening to defeat such an attack should it occur. Deterrence would be strengthened because an attack would be seen both as futile and as triggering a devastating response.”46

To the contrary, missile defense will actually encourage rogue state proliferation. Either these countries will strive to develop weapons and countermeasures capable of overwhelming a U.S. missile defense system, or they will simply employ delivery means incapable of being intercepted by a missile defense system. These concepts will be explored further in the section on the Negative Impacts of Utilizing Missile Defense as a Counterproliferation Tool.

Missile Defense will only serve to weaken U.S. deterrence. Their limited nature and potential for ineffectiveness will instead encourage WMD proliferation.

Missile Defense and Preemptive Counterproliferation Operations: Theory vs. Reality
Missile defense plays a large role in the context of preemptive counterproliferation military operations. This role pertains specifically to the risks of retaliation inherent in preemptive attacks, especially those utilizing tactical nuclear weapons. Because

the use of such weapons to destroy hardened bunkers of WMD entails the risk of grave retaliation, possibly even with weapons of mass destruction, any comprehensive policy calling for these operations will logically provide a plan for protecting against this retaliation. This is where missile defense comes into play. Missile defense is, in effect, the shield that allows us to use the sword of conventional and/or tactical nuclear weapons in preemptive counterproliferation missions.

Theater and tactical missile defenses are especially relevant in this context, for it is likely that rogue states and/or terrorist organizations would only have the capability to fire retaliatory missiles within a short to medium range. While a national missile defense system would theoretically shield against any missile retaliation aimed at the U.S. homeland, it is extremely unlikely given present adversary capabilities that an ICBM would be launched at the United States by a rogue state or terrorist organization. Theater missile defenses would theoretically act as a shield against retaliatory strikes aimed at U.S. forces or allies in the region, while tactical defenses would be designed to allow U.S. troops to use tactical nuclear weapons (such as the Robust Nuclear Earth Penetrator) in counterproliferation operations without fear of tactical retaliation.

This is not to say that the Bush administration does not also intend to pursue national and theater missile defenses to defend the United States against an unprovoked missile attack. However, as detailed above, an unprovoked attack is a relatively unlikely threat to be defending against. Furthermore, an unprovoked attack does not appear to be the main purpose of a missile defense system in the eyes of the Bush administration. The implications of counterproliferation policy indicate that the development and eventual deployment of missile defenses support the Bush administration’s adoption of a policy of preemption and of tactical nuclear use.

**THE NEGATIVE IMPACT OF UTILIZING MISSILE DEFENSE AS A COUNTERPROLIFERATION TOOL**

**Allies’ Reactions and Negative Global Consequences**

A policy utilizing missile defenses in counterproliferation strategy carries with it important, negative diplomatic ramifications. The Bush administration stresses that some of the most dangerous countries in the world should not be allowed to possess weapons of mass destruction, and that in doing so, they are a threat to humanity. The President has argued that by depriving “rogues” of these weapons, the United States will be the protectors of liberty and freedom for the world.47

This rationale does not take into account how other actors in the international arena view U.S. actions. For one thing, a dangerous and hypocritical precedent is set by a counterproliferation policy advocating preemptive attacks (possibly with weapons of mass destruction) to destroy another country’s weapons of mass destruction. Several members of the European Union have recognized this danger:

“... if it is all right for the United States to attack another country preemptively for supporting terrorism, then what is to prevent India from dropping a nuclear bomb on Islamabad, the capital of Pakistan, in retaliation for Pakistani support for separatists in Kashmir?”48

Although some U.S. allies may support preemptive counterproliferation operations by the

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U.S. military in some circumstances, others see such a policy as dangerously hypocritical, unilateralist and immoral.59 Some members of the European Union view this policy as a U.S. declaration that the United States is an empire that will not allow anybody to get close to its capabilities, and is ready to act to prevent that from happening.50 Because it would hinder U.S. diplomatic relations with other nations and cause more security problems than it can defend against, the “shield” of missile defense is not such a shield after all.

A False Sense of Security: The Technical and Operational Infeasibility of Missile Defense

A second negative impact of missile defenses in counterproliferation policy results from the fact that missile defenses are technologically unproven and are subject to different types of enemy countermeasures. Enemy missiles can be very inexpensively designed to employ countermeasures to fool a missile defense system, including objects identical to the warhead that are released from the missile launcher simultaneously in the outer atmosphere. The lack of atmospheric resistance allows these decoys to fly at the same speed and altitude as the true warhead, even if they are extremely light. Mylar balloons are considered the most common element of effective decoys. The warhead could be wrapped in a mylar balloon and released along with many other mylar balloons, all flying at the same speed. The shiny mylar reflects the missile defense radars trying to detect the warhead. Furthermore, each balloon can be equipped with a small motor or heater to make it spin and have the same temperature as the warhead in order to avoid detection by heat-sensing radars.51

Another countermeasure comes in the form of bomblets, which are multiple “warheads” carrying chemical or biological agents. Because hundreds of bomblets are released at once, it is impossible for a defensive interceptor missile to destroy all of them. Developing countermeasures is much easier and less expensive than developing ways to overcome them with missile defenses. Thus, it is likely that even a rogue state could get a missile past U.S. defenses relatively easily if it chose to do so.

There have also been many failed tests of missile defense technology in the past several years. One such failure occurred on December 13, 2001:

“The booster rocket, launched from Vandenberg Air Force base in California, malfunctioned about thirty seconds into its flight, veered off course, and plunged into the Pacific Ocean about one mile off the coast of the base, about fifty five miles north of Santa Barbara, California.”52

Whether a small technical glitch or the use of enemy countermeasures, a missile defense system has a high potential for ineffectiveness because it can never be fully tested until it is used in an emergency or combat situation of real missile launch against the United States. This fact is summed up by George Lewis, Lisbeth Gronlund, and David Wright:

“Given today’s technology, the United States can certainly build a system that

Some U.S. allies may support preemptive counterproliferation operations by the U.S. military in some circumstances, others see such a policy as dangerously hypocritical, unilateralist and immoral.

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A False Sense of Security: The Role of Missile Defenses in Counterproliferation Doctrine

could destroy one or several ICBM warheads under controlled conditions, in which the characteristics of the target warhead are known and no serious effort is made to defeat the system. However, the essential question is whether the system will be operationally effective—that is, whether the defense would be effective in the real world, where the characteristics of the attack would not be completely known in advance and where the attacker would take steps to defeat the defense. An additional problem is that an NMD system must work the first time it is actually used. If a nuclear ICBM attack occurs, there will be no opportunity to learn on the job.” (emphasis added)53

Because other states are aware of the shortcomings of the missile defense technology currently being developed in the United States, any missile defense deployed by the United States will not adequately deter an enemy attack. On the contrary, a U.S. missile defense system is likely to motivate rogue state proliferation as our adversaries strive to develop technologies to overwhelm the limited system. Even if the missile defense system was one hundred percent effective, rogue states and terrorist organizations would develop the means to avoid the missile defense, as was shown by the terrorist attacks of September 11, 2001. Anthony Cordesman, the Burke Chair in Strategy at the Center for Strategic and International Studies, recognizes this point:

“The United States must be fully prepared for the prospect that the successful deployment of an NMD system will lead hostile states to adapt by developing improved capabilities to use covert, short-range, and proxy methods of attacking the American homeland or stepping up their capabilities to attack America’s friends and allies as a substitute for attacking the United States.”54

A False Sense of Security: the Misguided Encouragement of U.S. Provocation and Tactical Nuclear Use

Knowing the potential for a missile defense system to have technical failures, it seems the ultimate folly to build a missile defense system to protect the United States against retaliation from its own provocative actions. The United States needs to halt its provocation of other international actors, yet the use of missile defense as a shield for counterproliferation operations only aids in this provocation. As such, a reassessment by the Bush administration of its counterproliferation policy, and the role of missile defenses within it, is in order for the maintenance of our national security.

This is especially the case because the theoretically impenetrable shield of missile defense will most likely encourage the use of tactical nuclear weapons, with drastic effects on U.S. international relations and national security, not to mention the effects on the health of civilian populations where these weapons are used. No matter how false the sense of security provided by a missile defense system, once deployed it will doubtless be heeded by some as entitling the United States to act provocatively and unilaterally when it cares to.

53 George Lewis et al., 123.
funding is being requested to continue research and development on tactical, usable nuclear weapons such as the RNEP. The ramifications of such a policy are exponential, for any use of tactical nuclear weapons by the United States will signal to other states that the taboo against their use has been lifted. A norm of nuclear use will be established, with devastating results.

The Encouragement of Enemy WMD Proliferation
Aside from the dangers resulting from the false sense of security provided by a missile defense system, the Bush administration’s counterproliferation policy endangers U.S. security in that the projected effects of preemptive counterproliferation military operations actually run counter to the goal of nonproliferation. The Bush administration’s rhetoric of our intentions to use newly developed tactical nuclear weapons for counterproliferation purposes sends dangerous signals to other states regarding U.S. intentions. These signals, in turn, provide these states with an excuse to proliferate WMD. Rogue states can easily argue that they need WMD capabilities in order to protect themselves against U.S. unilateralism and U.S. tactical nuclear use policies. In addition, the ability to easily overwhelm or avoid a limited missile defense system encourages rogue state WMD proliferation, as was discussed earlier. Therefore, the combination of counterproliferation policy and missile defenses into a strategy for halting adversary proliferation serves to doubly motivate U.S. enemies to increase WMD proliferation.

CONCLUSIONS AND RECOMMENDATIONS
The emphasis placed by the Bush administration on counterproliferation as a strategy for dealing with adversary WMD possession entails unnecessary risks for the future of U.S. national security. The shift from classical deterrence to this strategy calling for military dominance and preemptive strikes marks a troubling step in U.S. security policy, carrying with it the likelihood of nuclear use both by and against the United States. Missile defenses are technologically too immature to provide a secure defense against the emerging threat being provoked by the administration’s preemptive counterproliferation policy. The administration, however, considers them as the solution to this security threat. If missile defenses continue to be developed with this purpose in mind, they will enhance the false sense of security felt by the administration currently, and in turn increase the probability of preemptive nuclear use by the United States against our enemies. Such a shift in nuclear policy will doubtless serve as a precedent establishing an international norm of nuclear use, thus putting the United States at heightened risk for nuclear attack. Thus, while missile defense may play a pivotal role in counterproliferation policy, it is a role with considerable inherent dangers that needs to be recognized and reevaluated.

Therefore, the findings of this paper are as follows:

- Though Cold War deterrence was an unstable and risky national security policy, the Bush administration’s national security strategy combining counterproliferation doctrine (including preemptive strikes) and missile defenses is similarly risky and unstable. Thus, it is no better than the classical deterrence policy it purports to replace.

- In its counterproliferation role, a limited missile defense such as that being developed by the Bush administration will encourage (rather than deter) enemy WMD and missile proliferation by raising the threshold for the number of missiles and/or warheads that must be used for an attack to be effective.

- In its theoretical counterproliferation role as a “shield” to defend against retaliation for preemptive attacks, missile defense will encourage the United States to pursue preemptive attacks, possibly with tactical nuclear weapons. However, this is a false sense of security due to the high probability for operational ineffectiveness of a missile defense system.

- The use of tactical nuclear weapons must be avoided at all costs due to the damage
caused by them and their effects in lowering the threshold of use for larger nuclear weapons.

- The views of U.S. allies in the international community have not been taken into account in framing U.S. national security policy, and must be considered in order to receive diplomatic support for U.S. national security policy.

- A more stable U.S. national security strategy would combine a reliance on non-proliferation regimes, diplomatic initiatives, and the engagement of rogue states into the international governing structure in order to hold them accountable for their actions.


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Mizin, Victor. Russian Cooperative Proposals for Missile Defenses with NATO; European BMD: “EuroPro—Any “Contra”?


