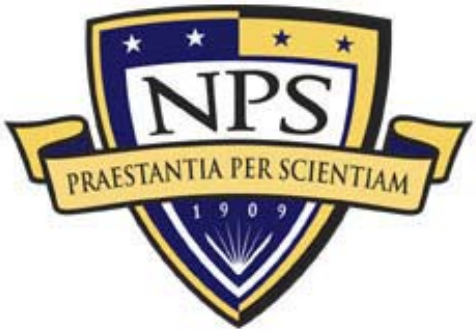

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THESIS

IS SAUDI ARABIA A NUCLEAR THREAT?

by
Steven R. McDowell

September 2003

Thesis Co-Advisors: James Russell
Peter R. Lavoy

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13. ABSTRACT ***(maximum 200 words)***

Saudi Arabia may become one of the next states to acquire nuclear weapons. The Saudis have the challenge of securing a large border area with a relatively small populace against several regional adversaries. The 1979 Iranian Revolution and subsequent overthrow of the Shah, a U.S. ally, sent shockwaves across the Gulf states and prompted the Saudis to increase defense spending and purchase the longest-range ballistic missile in the Gulf region: the Chinese CSS-2. These missiles have since reached the end of their lifecycle and the Saudi regime is now considering their replacement.

This thesis examines the potential for the Saudis to replace their aging missile force with a nuclear-tipped inventory. The United States has provided for the external security of the oil Kingdom through informal security agreements, but a deterioration in U.S.-Saudi relations may compel the Saudis to acquire nuclear weapons in order to deter the ballistic missile and WMD threats posed by its regional adversaries. Saudi Arabia has been a key pillar of the U.S. strategy in the Persian Gulf. However, a nuclear-armed Saudi Arabia would undermine the international nonproliferation regime and would trigger a destabilizing arms race in the region.

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IS SAUDI ARABIA A NUCLEAR THREAT?

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Lieutenant, United States Navy
B.S., Brockport University, 1993

Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

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LIST OF ABBREVIATIONS

ACDA	U.S. Arms Control & Disarmament Agency
AIPAC	American Israel Public Affairs Committee
AWACS	Airborne Warning and Control System
BWC	Biological Weapons Convention
CBW	Chemical Biological Warfare
CEP	Circular Error Probable
COE	U.S. Army Corps of Engineers
CTBT	Comprehensive Test Ban Treaty
CWC	Chemical Weapons Convention
GCC	Gulf Cooperation Council
IRBM	Intermediate Range Ballistic Missile
NATO	North Atlantic Treaty Organization
NNW	North North-West
NPT	Nuclear Non-Proliferation Treaty
NW	Northwest
OPEC	Organization of the Petroleum Exporting Countries
SRBM	Short Range Ballistic Missile
SSM	Surface-to-Surface Missile
SSW	South South-West
UN	United Nations
WMD	Weapons of Mass Destruction
WTO	World Trade Organization

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I. IS SAUDI ARABIA A NUCLEAR THREAT?

A. INTRODUCTION

Saudi Arabia, with its vast oil reserves and seemingly endless financial resources may become the next country to purchase nuclear weapons. It is situated in the Persian Gulf, a region that as of 1998 contained the most active efforts to acquire nuclear weapons and the highest rate of weapons proliferation in the world.[1] Among the major proliferating Gulf States are Iran and Iraq, two states that have posed considerable threats to the Saudi regime. The relationship between Saudi Arabia and the United States has provided the Saudis with a level of protection that is unprecedented on a Saudi scale, but is the informal security umbrella provided by the United States enough to keep the oil rich state from acquiring its own means of deterring foreign missile threats.

I contend that the Iranian Revolution and the overthrow of Mohammed Reza Pahlavi, the Shah of Iran, coupled with the extensive use of ballistic missiles during the Iran-Iraq War posed a tremendous threat to the Saudi regime and compelled it to purchase a ballistic missile capability. China is currently in the process of replacing its aging CSS-2 liquid-fueled ballistic missile inventory with a modern, solid-fueled ballistic missile capability.[2] I argue that Iran pose a great enough danger that would compel the Saudi regime to replace its CSS-2 ballistic missile force with a modern, nuclear tipped missile capability. Notwithstanding the removal of Saudi threats in the Gulf region, the United States may prove to be the deciding factor in the regime's decision to join the nuclear club. This thesis analyzes the Saudi CSS-2 missile purchase and the current external threats posed against the Saudi regime vis a vis the U.S.-Saudi relationship. I contend that the Saudi regime will decide to replace its aging ballistic missile force by purchasing a modern ballistic missile from one of two possible sources.

1. Contribution to U.S. Foreign Policy

U.S. foreign policy in the Middle East has been consistent over the past three

[1] Gerald Steinberg, "U.S. Responses to Proliferation of WMD in the Middle East," *Middle East Review of International Affairs* Vol. 2 No. 3 (September 1998) at <http://www.biu.ac.il/Besa/meria/journal/1998/issue3/jv2n3a4.html>.

[2] *Federation of American Scientists - DF-3A/CSS-2* at <http://www.fas.org/nuke/guide/china/theater/df-3a.htm> (November 2002).

decades despite different presidential administrations. These consistencies have focused on the stability and open access to Persian Gulf oil and its strategic waterways, the prevention of hostile powers from acquiring any strategic resources in the Gulf, and the preservation of the state of Israel.[3] The United States has viewed Saudi Arabia as a key pillar to the U.S. national security strategy in the Persian Gulf. This thesis provides an insight into the Saudi regime's decision-making process in an effort to identify conditions that might induce Saudi Arabia to acquire a nuclear capability by modernizing its ballistic missile force. The Saudi's acquisition of a nuclear capability would run counter to U.S. foreign policy in the region and could threaten U.S. military in the Gulf region.

Despite the premise that the U.S. military is currently the most powerful military in the world, one of the primary asymmetric threats it must face is from Weapons of Mass Destruction (WMD). U.S. military dominance is such that the emergence of a comparable military power may take decades before any other state can achieve a similar military capability. Consequentially, the United States will likely face an increase in the use of WMD from state and sub-state actors. WMD poses a comparable threat to U.S. policymakers in that it:

- Complicates foreign policy
- Causes instabilities that are more severe than without WMD
- Creates a greater chance for the accidental use of WMD
- Increases the likelihood that sub-state actors may acquire WMD
- WMD states are likely to be more unstable and pose a more difficult threat than other states[4]

In light of the current withdrawal of U.S. operational military units from the Saudi kingdom, the regime may feel more compelled to obtain a nuclear capability. A Saudi nuclear capability would increase instability, hamper U.S. foreign policy efforts in the region, and would become problematic for the U.S. military. This thesis aims to assist U.S. foreign policymakers by providing an assessment of the potential for Saudi Arabia to acquire nuclear weapons and the resulting impact on regional security.

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[3] David W. Lesch, "*The Middle East and the United States (2nd ed)," 277.*

[4] Steve Fetter, "Ballistic Missiles and Weapons of Mass Destruction: What Is The Threat? What Should Be Done?" *International Security* Vol. 16, No. 1 (Summer 1991): 27.

2. A Nuclear Saudi Arabia is Counter-productive to U.S. Foreign Policy

The security umbrella provided by the U.S. military has enabled the United States to maintain a level of influence with Saudi Arabia, which often exercises predominant influence on the global supply of oil. If the Saudis replace their CSS-2 missile system with a more modern, nuclear missile system, the region could spiral into a new arms race at a time when one of the region's primary proliferators [Iraq] has been suppressed. A new arms race could potentially destabilize the global supply of oil just as the United States and the global economy are rebounding from the attacks of September 11, 2001.

This U.S.-Saudi relationship would face tremendous strain if the Saudis acquired a nuclear capability. In the event of a coup, Saudi nuclear capability could potentially fall into the hands of a new and unstable leadership. In the event of a failed Saudi state following a "coup gone wrong," the effects would be even more catastrophic for the United States and the Gulf region. The purported nuclear weapons could also fall into the hands of Al-Qaeda members or other radical fundamentalist groups, which could attempt to hold the United States hostage, levy demands, and further hamper U.S. efforts in the war on terrorism.

B. BACKGROUND

The 1979 Islamic Revolution in Iran and subsequent overthrow of the Iranian leader, Mohammed Reza Pahlavi, created a new security environment in the Persian Gulf. The revolution, which culminated in the removal of a pro-U.S. Iranian regime, presented a fundamental challenge to other Gulf regimes and created widespread fears of similar "Islamic" uprisings. The newly empowered Shiite regime in Iran made public strictures against the legitimacy of the Saudi regime, while urging Saudi Shiites to revolt against Saudi rule. Soon after the Iranian Revolution, Iran became engulfed in yet another major conflict: the Iran-Iraq War. The war lasted eight years and introduced on a massive scale the use of ballistic missiles against military and civilian targets. Saudi Arabia further distanced itself from Iran by siding with Iraq during the war. The threat created by the new Iranian regime coupled with its inventory and use of ballistic missiles directly threatened the Saudi regime and in part prompted the royal family to purchase

massive amounts of arms. The United States had been one of the Saudi regime's primary weapons suppliers and has provided the Saudis with predominantly defensive weaponry. The increased Iranian threat poised against the Saudi regime compelled it to seek a ballistic missile capability, which ultimately sparked widespread controversy over Saudi intentions.

1. CSS-2 Missile Deal

The U.S.-Saudi relationship came under strain during the late 1980s when it was discovered that Saudi Arabia had purchased at least fifty CSS-2 Intermediate Range Ballistic Missiles (IRBM) with conventional warheads from China and deployed them at two sites inside Saudi Arabia.[5] The CSS-2 missiles, with a range of just fewer than 1,500 miles,[6] provided Saudi Arabia with the longest-range missile capability in the Gulf region.[7] The relative inaccuracy of the CSS-2 missile system coupled with its ability to deploy a nuclear warhead called into question the motive behind the purchase. Many analysts maintained that the missile's large CEP (the radius upon which half of the missiles fired would land) would dictate the use of an unconventional warhead for the missile to be of any utility. Adding to U.S. concerns were the public statements made by Mohammed Khilewi, a former first secretary at the Saudi mission to the United Nations. Prior to his defection, Khilewi stated, "the Saudis have sought a [nuclear] bomb since 1975."[8] Creating more unrest over the missile purchase was the denial of U.S. requests to conduct on-site inspections of the Saudi's CSS-2 missile facilities.[9]

The capability of the CSS-2 missile to deploy unconventional warheads caused the United States and Israel to express concern over the apparent covert weapons purchase immediately and in part prompted President George Bush in April of 1989 to publicly state,

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[5] *Federation of American Scientists - Saudi Arabia* at <http://www.fas.org/irp/threat/missile/saudi.htm> (February 2003).
[6] *Jane's Intelligence Digest – CSS-2 (DF-3)* at <http://www4.janes.com> (November 2002).
[7] *Centre for Defence and International Security Studies - Ballistic Missile Threats/China* at <http://www.cdiss.org/chinab.htm> (February 2003).
[8] *Federation of American Scientists - U.S. Arms Clients Profiles/Saudi Arabia* at <http://www.fas.org/asmp/profiles/saudi_arabia.htm> (November 2002).
[9] Richard L. Russell, "A Saudi Nuclear Option?" *Survival,* Vol. 43, No. 2 (2001): 74.

> I hereby certify that Saudi Arabia does not possess biological, chemical, or nuclear warheads for the intermediate-range ballistic missiles purchased from the People's Republic of China.[10]

The Saudi accession to the Nuclear Nonproliferation Treaty in October of 1988 and the declaration by President Bush appeared to satisfy the short-term concerns over the missile deployment.

Now that the CSS-2 missiles are nearing the end of their lifecycle, the Saudi regime may choose to replace them. During a March 11, 1997 interview with *Defense News*, Saudi military chief of staff, Lt Gen. Saleh Mohaya stated [referring to the Saudi's CSS-2 ballistic missile inventory], "The [Saudi Arabian] oil kingdom is now considering replacing or refurbishing the desert missile force."[11] Given the security relationship with the United States, why would the Saudi regime feel a necessity to purchase a ballistic missile force?

2. U.S-Saudi Relations and External Threats

The U.S.-Saudi relationship is often referred to as a "marriage of convenience." Saudi Arabia contains the largest oil reserves in the world and thus heavily depends on its oil revenues to maintain its economy. The United States has a vested interest in ensuring that the global market can access Saudi oil and in providing security assistance in order to safeguard the Saudi oil supply. Based on these mutual interests, the Saudi request for U.S. military assistance prior to the 1991 Persian Gulf War was granted, thereby paving the way for a large U.S. military deployment to the Islamic Kingdom.

The strong U.S. military presence in the kingdom, however, did not dissolve the regional conflicts that the Saudi regime had faced. The 1991 Persian Gulf War had a crippling effect on Iraq's military, yet it did not foster the removal of Saddam Hussein, who launched a series of ballistic missile attacks against Saudi Arabia during the war.[12] The Iraqi army had been defeated, but Saddam Hussein was still in power. Iraq remained

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[10] *Presidential Determination No. 89 13 – Arms Sales to Saudi Arabia* at <http://bushlibrary.tamu.edu/papers/1989/89041210.html> (November 2002).
[11] *Federation of American Scientists - 1997 Saudi Arabia Special Weapons News* at <http://www.fas.org/news/saudi/index97.htm> (May 2003).
[12] Yitzak Shichor, "Mountains out of Molehills: Arms Transfers in Sino-Middle Eastern Relations," *Middle East Review of International Affairs* Vol. 4, No. 3, (September 2000) at <http://meria.idc.ac.il/journal/2000/issue3/jv4n3a6.html> (February 2003).

a potential threat to the Saudis through its persistence in augmenting its WMD and missile inventories, despite the United Nation's inspections following the Gulf War.

Following the 1991 Gulf War, Saudi relations with other Gulf states were troubling. Iran's substantial conventional weapons arsenal, which included an extensive ballistic missile inventory capable of reaching Riyadh, hampered any possibilities of rapprochement between Iran and Saudi.[13] Iran's nuclear aspirations were being monitored by the United States and generated concerns for the Saudi regime.[14] Saudi relations with Yemen overall had been less than cordial and were primarily driven by violent border disputes and the potential outbreak of another Yemeni civil war that could spill across the Saudi border. The Saudi regime was also aware of Yemen's Scud B and SS-21 Scarab SSM capabilities that were within range of Saudi Arabia.[15] Israel is also on the Saudi regime's list of perceived external threats. The Saudis historically have taken a public stance against the Israelis over the Israeli-Palestinian issue and have monitored arms sales to the Israelis. Israeli military capabilities are extremely modernized and include ballistic missile capabilities with a range up to 4,500 km, well within reach of Saudi cities.[16] Israel also maintains an advanced nuclear weapons program.[17]

Since the beginning of the U.S.-Saudi relationship, the United States has provided unwritten assurances of Saudi security. Occasionally the Saudis have displayed their gratitude by manipulating oil production at times favorable to the United States. The September 11th attacks on the Pentagon and the World Trade Center, which predominantly involved Saudi nationals, impaired U.S.-Saudi relations and sparked an increase in anti-Saudi sentiments among the U.S. populace. In the wake of the attacks and the subsequent rise of anti-Saudi sentiment, it would be logical for the Saudi regime to question the future resolve of U.S. security commitments. A likely strategy for

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[13] *Centre for Defence and International Security Studies – The Threat from Iran* at <http://www.cdiss.org/threat1.htm> (June 2003).
[14] Cordesman, Anthony H. "Recent Military Developments in the Persian Gulf," *Center for Strategic and International Studies* (12 November 1998), at <http://www.csis.org> (April 2003).
[15] Cordesman, Anthony H. "The Military Balance and Arms Sales in Yemen and the Red Sea States: 1986-1992," *Center for Strategic and International Studies*, (September 1993) at <http://www.csis.org> (May 2003).
[16] *Centre for Defence and International Security Studies - Ballistic Missile Capabilities by Country* at <http://www.cdiss.org/btablea2.htm> (June 2003).
[17] Nuclear Threat Initiative – Israel at <http://www.nti.org/e_research/e1_israel_1.html> (July 2003).

providing such assurances would be to replace or to refurbish their CSS-2 conventional missile force with a modern, nuclear tipped inventory.

The decision to replace the missiles will profoundly impact Saudi security as well as the security of neighboring states. The Persian Gulf historically has been an unstable region characterized by regional arms races, the use of chemical and biological weaponry, a pre-emptive attack on a nuclear power reactor, numerous revolts and uprisings, and the destruction of oil fields during the 1990-91 Gulf War and during the recent U.S. led war in Iraq. Instability in the Gulf region has the potential to negatively impact the global economy and the supply of oil. A stable Middle East is in the interest of all states most importantly the United States that relies on oil.

Given the current conventional and unconventional inventories of Gulf states that have been hostile to the Saudi regime in the past, I argue that the U.S.-Saudi relationship will play a key role in whether Saudi Arabia will seek a nuclear capability by replacing its aging CSS-2 ballistic missile system. Without the U.S.-Saudi alliance, in particular U.S. military support, the Saudi regime could be compelled to acquire nuclear weapons in order to counter potential threats in the Gulf.

C. ORGANIZATION

This thesis contains five chapters. Chapter I, the introduction, provides an overview of the thesis research question, the purpose of the thesis and major arguments, and illustrates the relevance of the thesis to U.S. national security interests and foreign policy in the Middle East. This chapter also provides the background of the Saudi CSS-2 missile purchase and the current perceived threats in the Gulf region.

Chapter two analyzes the Saudi CSS-2 missile purchase. The chapter presents two theories that attempt to explain the motive behind the initial Saudi purchase of the CSS-2 ballistic missiles from China in the mid-to late 1980s. This chapter also analyzes the Iranian Revolution and the military conflict between Iran and Iraq during the 1980s and its percussions on the Saudi regime. The chapter concludes by determining why Saudi Arabia purchased CSS-2 ballistic missiles toward the late 1980s.

Chapter three examines the current security environment in the Persian Gulf and identifies the perceived threats that may compel the Saudis to acquire nuclear weapons.

This chapter examines Saudi relations with and the conventional and unconventional military capabilities of Iran, Iraq, Israel, and Yemen. The chapter concludes by identifying what potential threats may compel the Saudis to pursue a nuclear capability and who the Saudis may seek assistance from in order to replace its aging ballistic missile force.

Chapter IV analyzes the U.S.-Saudi relationship dating back to the 1970s. This chapter illustrates the basis and importance of the relationship, how it has evolved, and the future implications of the relationship with regard to the recent U.S. led war in Iraq and the planned U.S. military withdrawal from the Saudi Kingdom. This chapter concludes with a determination of utility of the U.S.-Saudi relationship and whether the alliance is strenuous enough to dissuade Saudi Arabia from acquiring nuclear weapons.

Chapter V provides a survey of findings from the Saudi case study based on the dominant theory that explains the reason Saudi Arabia initially acquired ballistic missiles and the Saudi propensity to acquire a nuclear capability. This chapter presents the conclusion of the thesis by determining whether existing theory provides a predictive tool that may explain what choice the Saudi regime will make regarding its aging CSS-2 missiles. This chapter also examines how the Saudi regime will proceed regarding its consideration to replace or to refurbish its CSS-2 missiles, what other weapons might replace these missiles, and who might assist the Saudis in these undertakings.

II. THE NEED FOR BALLISTIC MISSILES

A. INTRODUCTION

A main responsibility of a state is to protect its citizens against external threats. Consequently, insecure states tend to acquire weapons, such as ballistic missiles and weapons of mass destruction in order to provide state security. Some states, however, achieve security through alliances and partnerships instead of relying on their own indigenous security forces. Saudi Arabia is a state that maintains an alliance with the most powerful country in the world, the United States. This chapter draws on two competing theories to explain the reason the Saudi regime would be motivated to purchase ballistic missiles.

In 1988, the United States discovered that Saudi Arabia had purchased fifty Chinese conventionally armed DF-3 (known to the United States as CSS-2) Intermediate Range Ballistic Missiles (IRBM),[18] although the Israeli media claimed the total number of missiles purchased was sixty.[19] The $3 to $3.5 billion dollar hardware purchase on a conventional missile system that is known for its rather large CEP has caused a great deal of speculation over the Saudi regime's intentions.[20] Publicly, both the Chinese and the Saudi regime claim the missiles were delivered with conventional warheads, yet the CSS-2 missiles were designed to carry unconventional warheads, and the entire Chinese inventory of deployed DF-3/CSS-2 missiles was nuclear tipped.[21] U.S. officials have been denied access to the missiles in order to verify their claims.[22] Why would the Saudis purchase a ballistic missile capability with a conventional warhead that when deployed in Saudi Arabia is capable of reaching Africa, Turkey, Iran, Afghanistan, and parts of India, Pakistan, and Russia?[23]

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[18] *Federation of American Scientists - Saudi Arabia* at <http://www.fas.org/irp/threat/missile/saudi.htm> (February 2003).
[19] Charles J. Hanley, "Where are the Saudi's Missiles?" *Jewish Institute for National Security Affairs* (12 May 1997) at <http://www.jinsa.org/articles/print/html/documentid/324> (March 2003).
[20] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom*, 178.
[21] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute*, (17 December 1998): 19.
[22] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom,* 179.
[23] Yitzak Shichor, "Mountains out of Molehills: Arms Transfers in Sino-Middle Eastern Relations," *Middle East Review of International Affairs* Vol. 4, No. 3, (September 2000) at <http://meria.idc.ac.il/journal/2000/issue3/jv4n3a6.html> (February 2003).

1. The CSS-2 Missile

The Chinese developed two versions of the DF-3/CSS-2 missile. The first version, the DF-3 entered service around 1970 following a series of test flights between 1966 and 1968. The newer variant, the DF-3A, reportedly entered service in China around 1987. The DF-3 has a minimum range of 750 km and a maximum range of approximately 2,650 km with a CEP of 2,000 m. It is capable of carrying a single nuclear warhead weighing 2,150 kg. Between 1983 and 1984, the Chinese modified the DF-3 missile (known as DF-3A). The new variant had an increased range between 2,800 km and 4,000 km. The payload was reportedly increased to enable it to carry either a 2,150 kg or a 2,500 kg single warhead. The accuracy of the DF-3A was also improved from 2,000 m to 1,000 m CEP.

China developed a conventional, high explosive warhead for the DF-3/3A weighing approximately 2,500 kg, which decreased the missile's maximum range to 2,400 km. This conventional warhead was allegedly developed for the missiles ordered by Saudi Arabia.[24] Reports are inconclusive as to whether the Saudis received the DF-3 or DF-3A variant.

[24] *Jane's Intelligence Digest – CSS-2 (DF-3)* at <http://www4.janes.com> (November 2002).

Figure 1 CSS-2 missile (From Ref [25])

The CSS-2 missile is a single-stage liquid fueled system approximately 21.2 m long with a diameter of 2.25 m. It has a launch weight of 64,000 kg, requires two to three hours of pre-launch preparation time, and uses inertial guidance after launch. The missiles are considered mobile and require transporter vehicles. The Saudi missile purchase reportedly included 10 to 15 transporter vehicles and nine launchers.[26]

Upon delivery to the Saudis, the missiles were deployed to two sites: Al-Sulayyil and Al-Joffer. Al Sulayyil is located 500 km SSW of Riyadh (see Figure 2). Al-Joffer is located 100 km south of Riyadh. Each site reportedly contains four to six concrete launch pads. The Saudis normally

> keep one-third of the missiles armed and near-launch-ready on transporters, one-third are kept half fueled, and one-third are kept empty and serviced.[27]

A separate contract accompanying the Saudi missile deal provided Chinese personnel for missile technical support, maintenance, and training.[28] The Saudis allegedly cannot fire the missiles without Chinese support, which is under the supervision of the Saudis.[29]

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[25] *Federation of American Scientists - DF-3A/CSS-2* at <http://www.fas.org/nuke/guide/chine/theater/df-3a.htm> (November 2002).
[26] *Jane's Intelligence Digest – CSS-2 (DF-3)* at <http://www4.janes.com> (November 2002) and *Global Security - Al Sulayyil Missile Base* at <http://www.globalsecurity.org/wmd/world/saudi/facility/al-sulayyil.htm> (November 2002)..
[27] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom,* 178.
[28] *Global Security - Al Sulayyil Missile Base* at <http://www.globalsecurity.org/wmd/world/saudi/facility/al-sulayyil.htm> (November 2002).
[29] Dany Shoham, "Does Saudi Arabia Have or Seek Chemical or Biological Weapons?" *The Nonproliferation Review* (Spring-Summer 1999): 124.

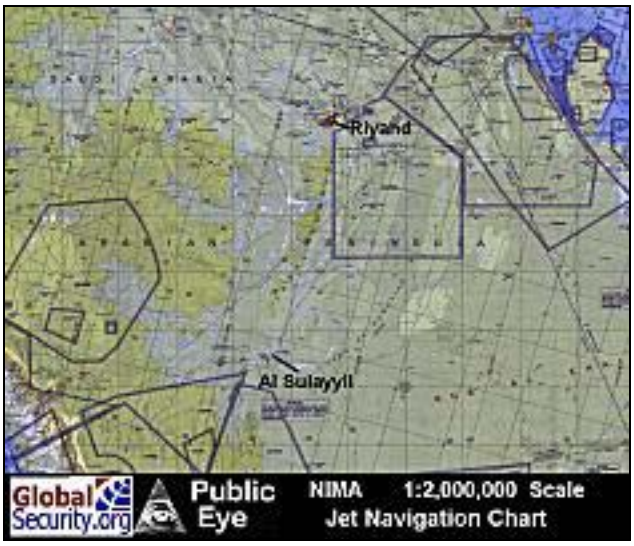

Figure 2 Al-Sulayyil Missile Base, 500 km SSW from Riyadh (From Ref [30])

2. Cause for Speculation

The Saudi missile purchase alarmed the United States and likely other Gulf countries. The missile purchase surprised the United States, as it learned of the purchase nearly two years after the deal was secretly brokered.[31] The potential nuclear payload capability of the CSS-2 alone causes U.S. concern, as it was the main proponent behind the establishment of the NPT. Additionally, the stability of the Persian Gulf region has been a vital concern for each U.S. administration since the discovery of oil in the Gulf region. The fact that the covert missile deal was "Saudi Arabia's first major acquisition of hardware from a communist country" invites further speculation as to Saudi motivations and intentions.[32] The Chinese arms purchase marked a dramatic shift in Saudi international relations, thus adding to the level of speculation regarding Saudi intentions.

Saudi Arabia's vast oil reserves combined with the increase of oil prices from the 1970s to the early 1980s provided the regime with almost unlimited financial resources. In 1978, Saudi Arabia spent $9.6 billion on defense expenditures, which increased each year reaching $24.8 billion by 1983. Despite an increase in defense spending from 1984

[30] *Global Security - Al Sulayyil Missile Base* at <http://www.globalsecurity.org/wmd/world/saudi/facility/al-sulayyil.htm> (November 2002).
[31] *Federation of American Scientists - Saudi Arabia* at <http://www.fas.org/irp/threat/missile/saudi.htm> (February 2003).
[32] Metz, *Saudi Arabia*, 256.

to 1985, the Saudi defense spending declined each year from $21.3 billion in 1985 to $13.6 billion in 1988.[33] The Saudi missile deal reportedly was finalized in the beginning of 1986 and delivery was made in 1988.[34] Both the sale and delivery occurred during a period of Saudi financial restraint due to falling oil revenues. Despite the Saudi reduction in defense spending, the Saudis faced other regional events that likely impacted its decision to purchase the missiles.

B. HISTORICAL BACKGROUND

The Islamic Revolution of 1979 in Iran and the subsequent overthrow of the Shah, Mohammed Reza Pahlavi, drastically altered regional stability in the Persian Gulf. The revolution ignited serious tensions between the new Iranian regime and other Gulf states including Iraq and Saudi Arabia. The ambitious new regime called for similar uprisings elsewhere in the region, immediately threatening many of the Gulf regimes. In response to this new threat, Saddam Hussein launched an attack on Iran that catapulted into an eight-year war.

Prior to the outset of the Iran-Iraq War, the new Iranian regime attacked the Saudi religious character and openly questioned the legitimacy of its regime.[35] During the Iran-Iraq war, Iran conducted a series of offensive maneuvers against Saudi Arabia in an effort to drive a wedge between the Saudi regime's support for Iraq.[36] These tactics included Iranian combat aircraft probes into Saudi territory and attacks on tanker traffic traveling to and from Saudi Arabia and Kuwait. Fearful of an Islamic uprising within its borders, the Saudi regime initiated a campaign to respond to the Iranian claims in order to suppress Iran's calls for religious uprisings.

Prior to the Iranian Revolution and the Iran-Iraq War, relations between the Saudi regime and the United States, in particular the U.S. Congress, had troubled the Saudi regime. These issues ensued from the political influence that the pro-Israeli lobby

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[33] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom,* 103. All numerical data in this paragraph compiled from same source.
[34] *Federation of American Scientists – Arms Sales/Saudi Arabia* at <http://www.fas.org/asmp/profiles/saudi_arabia.htm> (November 2002).
[35] Anthony H. Cordesman "Saudi Arabia Enters The 21st Century (Review Draft)," *Center for Strategic and International Studies* (June 2001) at <http://www.csis.org> (May 2003).
[36] Ibid.

exerted over the U.S. congress. The 1970s and 1980s marked an era in the U.S. congress that often pitted two highly influential lobbies against one another: the Arab lobby and the Israeli lobby. U.S. arms sales to either Israel or Saudi Arabia could be viewed as a "zero-sum" game, specifically arms shipments to either would increase the security of one at the expense of the other. During the 1970s, the Carter administration proposed to sell Saudi Arabia F-15 fighter jets with the caveat that they could be based at Tabuk air base [less than 1 hr flight time to Israeli cities] and that they be used strictly in a defensive role.[37] To make matters worse for the Saudis, the F-15s were delivered without armament.[38] In 1981 "after extraordinary arm twisting," President Reagan was able to execute an AWACS sale to Saudi Arabia, much to the opposition of the pro-Israeli lobby.[39] Despite the approval of the AWACS sale, the Saudis were growing weary of U.S. commitments to defend the Kingdom. The regime increased its diversification of arms suppliers to include European and Asian entities in the 1980s, likely in response to U.S. stipulations and restrictions on arms sales to the Saudis. Despite congressional roadblocks on arms sales, the Saudis steadily purchased arms during the 1970s and 1980s. This was likely motivated by two factors: prestige and insecurity.

C. THEORIES ON SAUDI MISSILE PROLIFERATION

1. The Prestige Factor

The first theory examined in this thesis the "prestige factor theory." This theory assumes the state takes actions to bolster its image among its peers and its citizens, which in the Saudi case is the Arab populace. Through its self-proclaimed leadership role in the Arab and Muslim world, the Saudi regime conducts its policies in order to increase and maintain its regional status and prestige. The prestige factor theory descends from the assumption that, "Missiles are important symbols of prestige and technological achievement."[40] Accordingly, the Saudi CSS-2 missile purchase was a symbolic display

[37] Ghassan Bishara, "The Middle East Arms Package: A Survey of the Congressional Debates," *Journal of Palestine Studies* Vol. 7, Issue 4, (1978) <http://www.jstor.org/> (November 2002).
[38] Richard L. Russell, "A Saudi Nuclear Option?" *Survival* Vol. 43, No. 2, (2001): 70.
[39] Jonathan Marshall, "Saudi Arabia and the Reagan Doctrine," *Middle East Report* Vol. 0, Issue 155, (Nov-Dec 1988): 13.
[40] Steve Fetter, "Ballistic Missiles and Weapons of Mass Destruction: What Is the Threat? What Should Be Done?" *International Security* Vol. 16, No. 1, (1991): 11.

of independence from the United States and the West, which ultimately boosted Saudi prestige among its peers in the Gulf region as well as the Arab populace.

a. Impediments to U.S.-Saudi Arms Sales

Historically, states have acquired weapons in order to increase their prestige and status. During the First World War, the development of battleships "altered the distribution of power, stimulated far-reaching rivalries and shaped new political alignments."[41] Similarly, modern sophisticated aircraft and ballistic missiles also serve as symbols of national prestige. Over the past four decades, the United States has been the single most predominant supplier of arms to the Saudis. From 1973-1982, U.S. arms transfers to Saudi Arabia included: F-5/F-15//E-3A/C-130/KC-130 aircraft, AH-1 Cobra gunship helicopters, Dragon anti-tank missiles, Harpoon anti-ship missiles, Maverick/Sidewinder/Sparrow air-launched missiles, Redeye missiles, various self-propelled howitzers, M-60 battle tanks, and armored personnel and command post carriers.[42] These purchases helped fortify the Saudi defense infrastructure, which had been virtually non-existent.

The willingness on the part of the United States to provide Saudi Arabia with arms was not a result of action taken solely by the president of the United States. From 1975 to 1980, arms sales above $20 million dollars were periodically subjected to a congressional vote in an effort to block potential arms sales. A successful vote required a majority of both Houses.[43] Thus, the proposal in the mid-1970s of the sale of U.S. fighter jets to Saudi Arabia was subject to the review of a pro-Israeli Congress.[44] The sale of the jets was eventually approved by a narrow vote in Congress; however, the transaction came with stipulations that restricted the use and capabilities of the F-15s. The jets could not be used in an offensive nature and most importantly the jets were delivered

[41] T.V. Paul et al., *The Absolute Weapon Revisited*, 25.
[42] Joe Stork, and Jim Paul, "Arms Sales and the Militarization of the Middle East," *Middle East Research and Information Project Reports* Vol. 0, Issue 112, (1983): 14.
[43] Ghassan Bishara, "The Middle East Arms Package: A Survey of the Congressional Debates." *Journal of Palestine Studies* Vol. 7, Issue 4 (1978): 67-78.
[44] Ibid, 67-78.

unarmed.[45] Later in 1985, AIPAC proved influential enough to persuade Congress to block the sale of additional F-15s to Saudi Arabia.[46] Throughout the 1970s and 1980s, U.S. arms transfers to the Saudis were often characterized by power struggles within the U.S. government. Saudi requests for military sales typically countered the congressional concerns that the arms would pose a threat to Israel. Despite Saudi assurances of the defensive nature of arms requests, congressional influence over the process resulted in the changes in the program content and several proposal packages.[47]

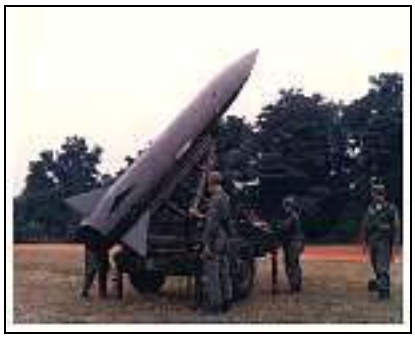

Figure 3 U.S. Army Lance Missile (From Ref [48])

During the mid-1980s, the United States refused to sell the Saudis the U.S. Army's Lance surface-to-surface missile system, shown in Figure 3 above.[49] As a medium range, all-weather missile system, the Lance missile had a maximum range of 75 miles with a nuclear warhead and 45 miles with a conventional warhead.[50] What likely frustrated the Saudi regime about the Lance missile denial was the United States had sold the missile system to its NATO allies and to Israel.[51] This compelled the Saudis to display their independence from the United States by seeking ballistic missiles elsewhere, ultimately from China. Following the purchase of the CSS-2 missiles, Saudi King Fahd delivered a statement to his military and security personnel: "The Kingdom of Saudi

[45] Richard L. Russell, "A Saudi Nuclear Option?" *Survival* Vol. 43, No. 2, (2001): 70.
[46] Josh Pollack, "Saudi Arabia and the United States, 1931-2002," *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002): 83.
[47] Metz, *Saudi Arabia*, 223.
[48] *Historical Summary of the Lance Missile System* at <http://www.redstone.army.mil/history/lance/summery.html> (June 2003).
[49] Josh Pollack, "Saudi Arabia and the United States, 1931-2002." *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002): 83.
[50] *Historical Summary of the Lance Missile System* at <http://www.redstone.army.mil/history/lance/summery.html> (June 2003).
[51] Ibid.

Arabia is not tied to anyone and does not take part in any pact that forces upon it any sort of obligations…. if things become complicated with a certain country we will find other countries, regardless of whether they are Eastern or Western…We are buying weapons, not principles."[52] Despite the display of independence from the United States, the regime was, and remains to this day, to be motivated by its desire to be the leaders of the Arab and Muslim world.

b. Once a Leader, Always a Leader

The Saudi regime has tended to envision itself as a dominant leader in the Arab and Muslim world. With virtually unlimited financial resources, and being the custodian of the two holiest sites in the Islamic world, Mecca and Medina, the Saudis appropriated the de facto leadership role of the Muslims around the world. In addition to its financial wealth and holy sites, the Saudis secured the political role of establishing various Islamic and Arab organizations. In September of 1969, the Organization of the Islamic Conference was organized in order to consolidate Muslim resources in an effort to foster and to protect Muslims worldwide. The Saudis were the main proponents of the conference and they contributed the largest financial share among the member states. [53]

In 1981, the Saudis further exemplified their leadership role by forming the Gulf Cooperation Council (GCC). This council served as the foundation for an Arab coalition against Iran and Iraq and the uncertainty of the outcome of the Iran-Iraq war. The Saudis have also displayed their concern for maintaining their prestigious leadership role by inflating their population figures. During the 1980s, the regime intentionally exaggerated its population figures, believing that a higher population would bolster its international and regional political strength. [54]

Despite the Saudi political leadership roles Iran, Iraq, and Yemen

[52] Josh Pollack, "Saudi Arabia and the United States, 1931-2002," *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002): 84.
[53] Raymond Hinnebusch and Anoushiravan Ehteshami, *The Foreign Policies of Middle East States*, 203.
[54] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom*, 97.

posed a military threat through their arsenals of surface-to-surface missiles. The CSS-2 missile purchase enabled the Saudi regime to acquire a prestigious weapon, which due to its size, was truly unique to the Gulf region. At the time of the missile purchase, the CSS-2 was the largest ballistic missile deployed outside of the five major nuclear states.[55] The symbolic missile purchase demonstrated the regime's determination to be viewed as the leader of the Arab and Muslim community by making such a bold purchase from a communist state that was in need of financial assistance and that was more than willing to sell arms to the Middle East.

c. Why Buy from China?

The United States was troubled over the CSS-2 missile deal not only because of the secrecy inherent in the CSS-2 missile purchase but also because the seller was China. At the time of the missile deal in 1986, China had been a Communist state with no formal diplomatic relations with Saudi Arabia.[56] Furthermore, Saudi Arabia had historically maintained a strong anti-communist policy, especially after it "decried [the] Chinese backing for Marxist South Yemen and Omani rebels."[57] Given that the missile deal was consummated between a communist state and a Western ally during the cold war, the Saudis simply demonstrated their independence from the United States and continued to diversify their arms suppliers. According to the ACDA, from 1979 to 1983, the Saudis imported a total of $12.12 billion worth of military imports with the top supplier being the United States at $5.1 billion. The major suppliers during this timeframe from the largest [in terms of arms transfers] to the smallest were the United States, France, the United Kingdom, West Germany, Italy, and various other countries. From 1984 to 1988, Saudi Arabia imported $19.53 billion worth of military imports with the top supplier being France at $7.5 billion. The list of suppliers was similar to previous years, except for the addition of $2.5 billion worth of military imports that originated from China. From 1985 to 1989, Saudi Arabia imported $23.04 billion worth of military

[55] Steve Fetter, "Ballistic Missiles and Weapons of Mass Destruction: What Is the Threat? What Should Be Done?" *International Security* Vol. 16, No. 1, (Summer 1991): 7.
[56] Sami G. Hajjar. "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute* (1998): 18.
[57] J. E. Peterson, *Saudi Arabia and the Illusion of Security*, *31.*

imports with the top supplier being the United Kingdom at $7.7 billion. Of note, this time period involved additional suppliers of $390 million from Latin America and $140 million from various East Asian countries, respectively.[58] The statistics show a shift in arms sales from the United States to other sources whose arms sales likely did not come with restrictions or stipulations. As the Saudi regime displayed its ability to shun the United States by seeking arms elsewhere, threats at home and in the Gulf region also compelled the regime was to purchase arms.

2. The "Insecurity" of the Saudi Regime

The second theory expounded in this thesis may be labeled the "insecurity theory." This theory stems from the realist paradigm that the international system is an anarchic environment in which states are in a constant struggle for their own survival.[59] Within this anarchic world, states tend to interact in an effort to bolster their security. The Saudi regime views the international community in the same way the regime's security interests and concerns drive its foreign and domestic relations. Therefore, this theory stipulates that two causal factors prompted the Saudi regime to purchase the CSS-2 missiles. The first factor stems from the proliferation of conventional weapons and weapons of mass destruction in the Gulf by Saudi regional adversaries, and the second ensued from Saudi concerns over a lack of American resolve to defend of the Kingdom, in particular the regime itself. This thesis concludes that the missile acquisition served to restore the regime's security to an acceptable level.

a. The Iranian Revolution and Saudi concerns

The Islamic Revolution of 1979 in Iran dramatically reduced the Saudi regime's security. Prior to the revolution, the Saudis had maintained cordial ties with the Iranian regime. Following the overthrow of the Iranian leader, Mohammed Reza Pahlavi [the Shah], and the subsequent Islamic Revolution, "Iran turned from a shield for the

[58] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom*, 110.
[59] Kenneth N. Waltz, "The Spread of Nuclear Weapons: More May Be Better." *International Institute for Strategic Studies* Adelphi Paper 171, (1981): 3.

[Saudi] Kingdom to a dagger pointed at its heart."[60] The revolution would be followed by anti-Saudi gestures as well as violence.

In November of 1979, two events took place on Saudi soil that highlighted the vulnerability of the Saudi regime and the inability of Saudi defense forces to defend the regime properly. On November 20, in an unprecedented event, several hundred armed Muslim fanatics entered and seized the Grand Mosque of Mecca. The armed gunman demonized the Saudi regime over the mosque's loudspeaker system and called for an uprising and removal of the Saudi regime. The latter was humiliated after the Saudi National Guard and army took two weeks to quell the uprising after sustaining numerous casualties.[61] According to Professor Ahmed Ghoreishi, a senior Middle East lecturer at the Naval Postgraduate School, the Saudis had to hire French paratroopers for suppression of the religious zealots.

Eight days later, a large group of Shiites located in the eastern province of Qatif conducted another embarrassing blow to the [Sunni] Saudi regime. In violation of the local governor's ban, local Shiites attempted to celebrate the Ashura ceremonies, a religious celebration commemorating the death of the Imam Hussein at the battle of Karbala in 680 AD. It took the Saudi National Guard twenty-four hours to suppress the violators at the cost of seventeen lives.[62] The impact of these two events on the Saudi regime's insecurity was depicted in the following year by the 80% financial increase in "emergency expenditures" for Saudi defense.[63] While the regime was forced to deal with Iranian sponsored violence and anti-Saudi rhetoric, the Saudis would witness one of the most brutal wars ever to take place in the Gulf region: the Iran-Iraq war.

One of the most dramatic shifts in overall Middle Eastern military strategy occurred between 1980 and 1988 during the Iran-Iraq War. During these eight years, Iran and Iraq fired close to one thousand missiles at each other.[64] The war proved to be one of

[60] Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 450.
[61] Ibid, 357.
[62] Ibid, 357.
[63] Ibid, 427.
[64] Steve Fetter, "Ballistic Missiles and Weapons of Mass Destruction: What Is the Threat? What Should Be Done?" *International Security* Vol. 16, No. 1, (1991): 6.

the bloodiest conflicts in the Persian Gulf, costing each state nearly a million casualties and eventually ending with an overwhelming show of Iraqi force, consisting of an extensive ballistic missile attack on Iranian cities. Saudi King Fahd, well aware of the "War of the Cities" that evolved into a ballistic missile exchange between Iraqi and Iranian cities had stated the (Saudi) need for CSS-2 missiles in order to defend itself against Iran.[65] Iraq's use of (chemical) WMD during the Iran-Iraq War and against its own Kurdish population likely caused the Iranian regime to reverse its proclamation of a "WMD free" religious state. Subsequently, Iran invoked a serious chemical and biological program and by the end of the war, both states had used aircraft and artillery as the delivery medium for chemical weapons. Following the war, Iran and Iraq increased their missile development programs, creating a new arms race.[66]

b. Domino Effect of WMD

The spread of proliferation of chemical and other weapons of mass destruction in the Middle East "acts as a centrifugal force."[67] Egypt employed chemical weapons during its efforts in the Yemeni Civil War during the 1960s.[68] Consequently, Israel's alleged WMD programs likely commenced upon the knowledge of the use of chemical weapons by its long time Egyptian adversary.[69] Israel's purported WMD inventory and its preemptive strike against Iraq's Osirak nuclear reactor in 1981 may have increased Iraq's desire to build up its WMD inventory. Iraq's use of chemical weapons against Iran during the Iran-Iraq War sparked a surge in the WMD programs in Iran.[70]

Saudi Arabia is nestled among a number of potentially adversarial states

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[65] Dany Shoham. "Does Saudi Arabia Have or Seek Chemical or Biological Weapons?" *The Nonproliferation Review* (Spring-Summer 1999): 125.
[66] *Centre for Defence and International Security Studies- The Strategic Missile Threat/Future Dangers: Iraq, Iran, & Libya* at <http://www.cdiss.org/smt1f.htm> (February 2003).
[67] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute*, (17 December 1998): 23.
[68] Ibid, 18.
[69] Ibid, 8.
[70] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute*, (17 December 1998): 9-10.

with weapons capable of striking Riyadh. To the south, the Saudi regime has often had to contend with its regional rival of Yemen. In January of 1967, the Saudis discovered that two Saudi sites had been bombed with chemical weapons munitions.[71] Later the Saudis joined the Geneva Protocol of 1925 banning "the use in war of CBW, but not their possession."[72] To the north, the Saudis have had to contend with the ambitions of Iraq. Despite Iraq's ratification of the NPT in 1969, "there were indications that it had been striving to possess nuclear weapons for a long time" and that Iraq was in violation of the treaty.[73] Following the 1991 Persian Gulf War, U.N. inspectors discovered that Iraq had an extensive nuclear research and development program.

Iran began its chemical weapons program in the mid-1980s as a result of the chemical warfare attacks it suffered against Iraq during the Iran-Iraq War. Ironically, after capturing chemical weapons from Iraq during the war, Iran retaliated with chemical weapons against Iraq.[74] Analysts also believe that Iran initiated an extensive biological weapons effort following the outset of the war.[75] In addition to Iran's chemical and biological aspirations, it had been constructing two nuclear powered reactors when Iraq bombed them during the Iran–Iraq War. In addition to Iran and Iraq's WMD programs, Iran, Iraq, and Yemen each possessed a surface-to-surface missile capability. Saudi Arabia found itself highly vulnerable to a ballistic missile attack due to its densely populated cities and the religious importance of the two holy cities: Mecca and Medina. Armed with the knowledge of the potential usefulness of a ballistic missile capability and fearing the WMD programs of its adversaries, a ballistic missile purchase would appear to be a necessity for the Saudi regime.

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[71] Dany Shoham, "Does Saudi Arabia Have or Seek Chemical or Biological Weapons?" *The Nonproliferation Review* (Spring-Summer 1999): 123.
[72] Ibid, 123.
[74] Barry R. Schneider, *Middle East Security Issues: In the Shadow of Weapons of Mass Destruction Proliferation*, 22.
[75] *Federation of American Scientists - Early Western Assessments: What Did We Know and When Did We Know It?* at <http://www.fas.org/nuke/guide/iraq/nuke/when.htm> (February 2003).
[76] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute*, (17 December 1998): 11.

In general, arms purchases in the Middle East have created a "domino effect" that has ultimately led to an arms race. Gulf states have been motivated to proliferate in order to narrow their perceived security gap between their own forces and those of their potential enemy.[76] U.N. inspections of Iraqi facilities following the 1991 Persian Gulf War revealed an extensive WMD program that included nuclear weapons programs. Iran has since accelerated its nuclear, chemical weapons, and ballistic missile programs while Israel is suspected of having a chemical weapons program and a nuclear inventory consisting of one hundred warheads.[77] With threats of WMD adjacent in every direction of Saudi Arabia, the likelihood of the Saudis pursuing a nuclear capability through their ballistic missile program is a serious probability. A likely constraint to this would be the regime's relationship with the United States. The Saudis have relied on U.S. security for many years, but is the U.S. relationship strong enough to suppress Saudi insecurity?

c. U.S. Reliability

The United States and Saudi Arabia have built a strategic relationship over many decades predicated on oil and security. Saudi assistance in stabilizing the global supply of oil allows the United States to maintain a foothold in the Gulf oil industry and stable oil prices. In return, the United States provided a security umbrella for the Saudis, in particular for the Saudi regime. However, events in the Middle East combined with the dynamic strategic priorities of the United States have caused the Saudi regime to seriously doubt the resolve of the U.S. security umbrella. The United States may be an ally of the Saudis, but "the Saudis are realists who understand that alliances are always influx in international politics."[78]

Prior to the fall of the Shah of Iran, the United States had been a strong

[76] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute*, (17 December 1998): 7.
[77] Richard L. Russell, "A Saudi Nuclear Option?" *Survival* Vol. 43, No. 2, (2001): 71.
[78] Ibid, 75.

supporter and ally of Iran. U.S. credibility declined when "the United States walked away when the Shah's regime began to crumble."[79] In 1980 following the American hostage crisis in Iran, the United States attempted a helicopter rescue of the American hostages held in captivity. After three of the eight helicopters failed to reach Tehran, the mission was aborted and U.S. military capabilities proved to be indecisive. In 1983 after boasting strong support for and sending American troops to stabilize Lebanon, the United States withdrew its forces, following a truck bomb attack that killed several U.S. Marines. Failing to rescue the hostages and withdrawing the Marines from Lebanon betrayed the American resolve in the eyes of the international community and placed the strength of U.S. commitments in doubt. With questionable American security commitments and a considerably weak Saudi military, how would the Saudi regime protect itself from external threats?

d. The Benefits of Ballistic Missiles

Much of the speculation surrounding the Saudi purchase of the CSS-2 missiles from China centers on the missile's warhead. Both the Saudis and the Chinese claim that the missiles were delivered with conventional warheads. Skeptics of the missile deal question the Saudi's intentions, given the missile's unconventional payload capability and the covertness of the Saudi missile deal. Whether the CSS-2 is fitted with an unconventional or conventional warhead, the missile is still a credible tool in the Saudi military arsenal.

During the Iran-Iraq War, both countries launched ballistic missiles against the other. Despite the conventional armament of the missiles, they proved to be a vital asset in the war. Toward the end of the war, Iraq launched over 160 Scud missiles against the Iranian capital of Tehran.[80] The overwhelming ballistic missile attack on Iran

[79] J. E. Peterson, *Saudi Arabia and the Illusion of Security,* 39.
[80] *Centre for Defence and International Security Studies- The Strategic Missile Threat/Future Dangers: Iraq, Iran, & Libya* at <http://www.cdiss.org/smt1f.htm> (February 2003).

caused it to accept a cease-fire.[81] By the war's end, Saudi Arabia, in addition to Iran and Iraq, recognized the influence of ballistic missiles.

Ballistic missiles also provide the Saudi regime with the added benefits of increased security with less required manpower. The Saudis must defend a total area of 2,150,000 sq. km and 2,510 km of coastline.[82] This makes for a particularly difficult task, considering the shortage of Saudi military forces directly correlated to its low civilian population. When faced with the large military personnel of both Iran and Iraq, ballistic missiles help to alleviate the perceived gap in Saudi military capabilities. Another benefit is that missiles cannot defect. The Saudi regime must also contend with defections of Saudi military personnel. In 1977, seventeen officers and a number of civilians reportedly were tried for plotting against the Saudi regime. Included among the military officers were three air force officers "who were tried in absentia after flying their planes to Iraq."[83] Ballistic missiles provide an added dimension of a "pilot-less weapon" without the risk of defections. The possession of ballistic missiles and their associated infrastructure places the Saudi regime even closer to a latent nuclear capability, should it decide to join the nuclear club.

D. CONCLUSION

The Saudis are realists. The fall of the Shah of Iran and the subsequent Iranian Revolution severely decreased the regime's security in two ways. First, the new Islamic regime made public its anti-Saudi rhetoric and openly demonized the "Islamic" Saudi regime. Public statements were backed by blatant attempts at multi-scaled attacks ranging from Iranian aircraft probes to instilling riots during the annual hajj pilgrimage. Behind the Iranian castigation of the Saudi regime was a very capable military arsenal that included ballistic missiles more than capable of hitting Riyadh. Secondly, the perception that the United States virtually "sat and watched" the removal of the Shah with no U.S. military assistance caused grave Saudi concerns as to the commitments of

[81] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute*, (17 December 1998): 21.
[82] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom, 3-4.*
[83] Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 429.

their U.S. ally. U.S. congressional "foot-dragging" on Saudi arms sales and the periodic restrictions or denials of arms sales deepened the Saudi concerns and the regime's insecurity.

The Saudis with their realist views assessed that they needed a ballistic missile capability in order to counter those of their potential adversaries, particularly Iran. Following the U.S. denial to sell the Saudis the Lance missile system, there should have been no surprise that the Saudis purchased a ballistic missile capability from an alternate source. When the Saudis witnessed the atrocities of the Iran-Iraq War and the culmination of the war with a ballistic missile exchange their desire for a ballistic missile capability was sealed. Once the missiles were deployed to Saudi Arabia, they were reportedly aimed at Tehran and other densely populated Iranian areas.[84] The relatively large monetary purchase of $3 to $3.5 billion arose during a time when the Saudi oil revenues had been declining and the regime was exercising financial restraint.

What is unclear about the Saudi missile purchase is whether the Saudis intended to buy only a conventional capability or whether they merely desired to "upgrade" to a nuclear capability in the future. The Saudis may be signatories of the Nuclear Non-Proliferation Treaty (NPT), but so was Iraq prior to the Persian Gulf War. Mohammed Khilewi, a former first secretary at the Saudi mission to the United Nations until 1994, claimed, "the Saudis sought to buy nuclear reactors from China, supported Pakistan's nuclear program, and contributed $5 billion to Iraq's nuclear weapons program from 1985 to 1990."[85] The CSS-2 purchase might have been the first step toward a Saudi nuclear capability. Saudi ties with China and Pakistan make these two countries prime candidates as Saudi suppliers. In the interests of regime security, the Saudis would likely exercise their right of self-defense and pursue a nuclear capability if their insecurities reached unacceptable levels.

As the Saudi CSS-2 missiles currently reach their life expectancy, the regime has a vital decision to make: Will it replace or refurbish the missiles, and if so, with what? Is the Saudi regime currently facing the same insecurity that it felt when it initially

[84] *Federation of American Scientists – Saudi Arabia* at <http://www.fas.org/irp/threat/missile/saudi.htm> (February 2003).
[85] Ibid.

purchased the missiles? In the wake of the removal of Saddam Hussein from power and the subsequent withdrawal of U.S. forces from the Saudi Kingdom, does the regime feel more threatened by its adversaries? The next chapter will examine the current external threats of the Saudi regime.

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III. CURRENT THREATS TO SAUDI ARABIA

A. INTRODUCTION

The debate over whether Saudi Arabia has the motivation to replace its aging CSS-2 missile inventory and possibly acquire a nuclear capability has increasingly concerned policymakers. The removal of Saddam Hussein from power in Iraq and the Saudi hints of a possible rapprochement with Iran indicate that Saudi Arabia's perceived threats are diminishing. The current U.S.-led Operation Iraqi Freedom has focused on restoring stability, establishing democracy and locating Saddam Hussein's weapons of mass destruction. As that relationship continues, U.S. policymakers as well as the Saudi regime must question whether the regime still faces threats similar to those that compelled it to purchase ballistic missiles in the 1980s. Are there threats in the Gulf region that would compel the Saudi regime to become a nuclear state? This chapter answers this question by analyzing the current threats to the Saudi regime and by analyzing whether these threats would pressure the Saudis to acquire a nuclear capability.

1. Why Do States Acquire Nuclear Weapons?

States tend to acquire nuclear weapons for reasons ranging from the quest for power and prestige to the need to deter other states who present a considerable external threat. As discussed in the second chapter, Saudi Arabia is a realist state that faces a security dilemma. Its alliance with the United States reassured the Saudis that their security needs are covered, thus reducing the Saudi desire for nuclear weapons. However, in the wake of the planned U.S. military withdrawal from the Kingdom, the Saudi regime will likely re-examine its security needs with respect to the removal of U.S. troops.

The shift from a bipolar international structure consisting of the United States and the former Soviet Union had a dramatic impact on the security alliance between the United States and Saudi Arabia. One of the initial consequences of this change was the propensity among states to proliferate weapons of mass destruction, thereby establishing a causal relationship between the structure of the international system and the

proliferation of weapons of mass destruction.[86] Benjamin Frankel argues the unipolar world that exists today and the diminished technological difficulties of acquiring nuclear weapons that facilitates the spread of nuclear weapons as their acquisition "becomes a matter of political decisions." The Saudi incentives to acquire a nuclear weapon are directly related to the credibility of the security guarantees provided by the United States, which will be discussed in further detail in Chapter four. In short, the perception of the U.S. security guarantee has been considerably weakened, causing the Saudi regime to explore the need to provide its own security interests, especially in the event that U.S.-Saudi relations deteriorate further. U.S. actions taken such as the military withdrawals from Lebanon in 1984 and Somalia in 1993 demonstrate a dynamic strategic environment that may have prompted Saudi Arabia to question the resolve of the U.S. security umbrella. Furthermore, the Saudi regime must address: What is the level of threats in the Gulf region and are they acceptable to the regime?

B. REGIONAL ADVERSARIES

Historically, Saudi Arabia has been involved in major disputes with four Middle Eastern states. Some of these are unresolved or still present the possibility for escalation. Since its 1979 revolution, Iran seemed such a threat to the Saudi regime that the regime was compelled to seek a ballistic missile capability. Iran currently possesses an extensive military capability that warrants Saudi surveillance. The Iraqi leader, Saddam Hussein, was systematically removed from power in 2003 by a U.S.-led coalition, allowing Iraq to begin establishing a democratic government. Various Iraqi Ba'ath Party elements still exist and may again endanger the Saudi regime, as it did following the Iraqi invasion of Kuwait in 1990. The Saudis have categorically stated their opposition to Israel and its policy toward Palestinians in the disputed region of Palestine. Public stances by both the Saudis and the Israelis over the Israeli-Palestinian crisis indicate opposing views that show minimal signs of resolution. Over the years, Israel has evolved into one of the most powerful military countries in the world and

[86] Benjamin Frankel, "The Brooding Shadow: Systemic Incentives and Nuclear Weapons Proliferation," *Security Studies* 2(3/4) (Spring/Summer 1993), 37.

maintains an "undeclared" deterrent capability.[87] To the south, border disputes between Saudi Arabia and Yemen continue to undermine the security of the Saudi regime owing to the weakened Yemen economy. Any future instability in Yemen may again spill across the border into Saudi territory and may invite the use of Yemen's surface-to-surface missile capability.

1. Relations with Iran

Saudi relations with Iran must be analyzed from the impact of the Iranian Revolution on Saudi Arabia. The differences between the Saudi and Iranian regimes have stemmed from a "historical, ideological-religious competition, as well as national rivalry."[88] The differences between the religious affiliations of the Saudi and Iranian regimes [Sunni and Shiite Muslims] quickly came to the forefront of the dispute. Subsequent public statements combined with Iranian sponsored attacks in Saudi Arabia against the legitimacy of the Saudi regime compelled the Saudi regime to bolster its military forces by acquiring ballistic missiles. The physical destruction in the Iran-Iraq War as a result of the "War of the Cities" was observed by the Saudi regime and provided proof of the utility and destructiveness of ballistic missiles.

Since the election of Iranian President Khatami in May 1997, the Iranian regime has demonstrated diverging interests between Iran's "moderates, traditionalists, and extremists."[89] Iranian statements divulged through international relations tend to raise the question as to which "governmental view" is being promulgated, whether it represents the radical views of the Iranian mullahs or the moderate views of Khatami. Thus, recent attempts at rapprochement facilitated by the Iranian regime will likely be viewed with caution by the Saudi regime. Saudi Arabia is still the primary power within the Gulf Cooperation Council (GCC), which was initially formed as an alliance against Iran and Iraq. The restoration of ties between Saudi Arabia and Iran has not bode well for the

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[87] Anthony H. Cordesman, "The Evolving Threat from Weapons of Mass Destruction in the Middle East," *U.S. State Department,* <http://usinfo.state.gov/journals/itps/0702/ijpe/cordesman.htm> (February 2003).
[88] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute* (17 December 1998), 9.
[89] Anthony H. Cordesman, "Recent Military Developments in the Persian Gulf," *Center for Strategic and International Studies* (12 November 1998), at <http://www.csis.org> (April 2003).

United Arab Emirates which is currently involved with territorial disputes with Iran over three islands in the Gulf: Abu Musa, Greater Tunb and Lesser Tunb.

Iran has survived many years of sanctions, yet it still maintains comparable military forces and an indigenous ballistic missile production capability. Iran has learned its lesson from the Iran-Iraq War and will not likely face the same terror generated by the chemical and ballistic missile attacks that it faced against Iraq. Prior to assuming the presidency in 1989, Hashemi Rafsanjani stated, "With regard to chemical, bacteriological and radiological weapons… it was made very clear during the [Iran-Iraq] war that these weapons are very decisive…. We should fully equip ourselves in the defensive and offensive use of (these) weapons."[90] Iran's acknowledgement of the usefulness of WMD coupled with its ambitious history and quest for hegemony in the Gulf will likely restrain Saudi-Iranian ties from achieving total peace with one another.

a. Iran and WMD

Iran maintains a large military with an extensive strike capability that allows it to attack several key civilian and military targets inside Saudi Arabia. As of 2002, Iranian active duty personnel numbered approximately 500,000 personnel with 350,000 reserves.[91] It has an extensive ballistic missile program, which was accelerated following its participation in the Iran-Iraq War and in the "War of the Cities" ballistic missile exchange with Iraq. The Iranian inventory includes Scud Bravo and Charlie variants and CSS-8 SRBMs as well as the Shihab 3 and 4 variants and the Zelzal 3 MRBMs. Iran could target a majority of the Saudi Gulf coast with its Scud Bravo and Charlie variants and is capable of targeting a majority of the Kingdom with its Shihab 3.[92] Iran's Zelzal 3 and Shihab 4 enable the targeting of Saudi Arabia's Red Sea coast, which include the two holy cities of Mecca and Medina.[93] Iran fired several ballistic missiles

[90] Barry Schneider, *Middle East Security Issues: In the Shadow of Weapons of Mass Destruction Proliferation*, 5.
[91] Anthony H. Cordesman, "The US and Saudi Arabia: A Key Strategic Partnership." *Center for Strategic and International Studies* (01 February 2002) at <http://www.csis.org/burke/saudi21/USSaudiPartner.pdf> (April 2003).
[92] *Centre for Defence and International Security Studies – The Threat from Iran* at <http://www.cdiss.org/threat1.htm> (June 2003).
[93] Ibid.

during the Iran-Iraq War, including one at Kuwait.[94] It has the capability to manufacture Scud Bravo and Charlie missile variants using foreign parts[95] and has focused its research and development efforts on extending its ballistic missile ranges. Iran has also developed an extensive missile hardening system that may constitute a valid second-strike capability. Iran tested a sea-launched ballistic missile in 1998 and has the capability to modify its HY-2 Silkworm anti-ship cruise missile and its SA-2 surface-to-air missiles to deploy WMD.[96]

Other evidence of Iranian WMD aspirations have been discovered by Western sources. Toward the middle of 2002, the discovery of two covert nuclear facilities unveiled a uranium-enrichment program and a heavy-water production plant in Iran.[97] The United States has alleged that these nuclear facilities may lead to an indigenous nuclear weapons production capability.[98] The United States also contends that China has sold WMD to various Middle Eastern countries that include Iran. The sales allegedly involved the "technology for development of chemical, biological, and nuclear weapons."[99] These discoveries drastically reduced predictions of when Iran could achieve a nuclear weapons capability.

Iran likely does not recognize the legitimacy of international arms control regimes. It ratified the Biological Weapons Convention (BWC) in 1973 and the Chemical Weapons Convention (CWC) in 1997, and it is a cosignatory of the Nuclear Non-Proliferation Treaty (NPT); however, Iran's attitude toward international regimes, in particular the CWC, was altered following Iraq's use of chemical weapons against Iran during the Iran-Iraq War and the subsequent lack of intervention demonstrated by the international community as a result of the WMD attacks. Of increasing concern for Iran's regional adversaries, Iran's WMD is maintained and controlled by "hard-liners and

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[94] Anthony H. Cordesman, "Weapons of Mass Destruction in the Middle East." *Center for Strategic and International Studies* (15 April 2003) at <http://www.csis.org> (May 2003).
[95] Ibid.
[96] Ibid.
[97] Nuclear Threat Initiative – Iran at <http://www.nti.org/e_research/e1_iran_1.html> (July 2003).
[98] Ibid.
[99] *World Tribune.com - U.S.: China Sells Weapons of Mass Destruction to Finance Military* at <http://216.26.163.62/2002/ea_china_07_16.html> (February 2003).

extremists" within the government and "almost certainly is developing nuclear weapons."[100]

2. Relations with Iraq

Saudi relations with Iraq can best be depicted as a roller coaster ride. During the Iran-Iraq War, the Saudis provided Iraq financial assistance and also sided with Iraq. Almost a decade later, following the Iraqi invasion of Kuwait in August 1990, Saddam Hussein launched a series of ballistic missiles against Saudi Arabia. Unlike the religious differences between the Saudi and Iranian regimes, Saddam Hussein and the Saudi regime are members of the same Sunni sect of Islam. Saudi security was so threatened by Saddam that the Saudis willingly allowed the deployment of American forces to the Saudi Kingdom in order to defend it against Iraq. Until Saddam is either killed or captured, he will likely remain a possible threat to both the Saudis and Iraqis.

With U.S. and other coalition forces currently focused on rebuilding Iraq in Operation Iraqi Freedom, only time will reveal the new Iraqi ideologies and the policies of the new Iraqi leadership. Saudi Arabia is well aware that Shiites comprise 60 to 65% of the comparatively larger Iraqi populace, which could dramatically strain future relations with the Sunni regime in Saudi Arabia.[101] The Saudis will likely monitor the new Iraqi government closely until it matures and establishes a stable government.

a. Iraq and WMD

Under the reign of Saddam Hussein, Iraq acknowledged the legitimacy of international regimes, however, while it was a cosignatory to the NPT, it heavily pursued a nuclear weapons program. Iraq's nuclear program was so advanced that by early 1991 it may have been only one to three years away from constructing a nuclear weapon.[102] Iraq has neither signed nor ratified the CWC and ratified the BWC conditionally following the 1991 Persian Gulf War. Prior to the ratification, Iraq's biological program

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[100] Anthony H. Cordesman, "The Evolving Threat from Weapons of Mass Destruction in the Middle East," *U.S. State Department,* <http://usinfo.state.gov/journals/itps/0702/ijpe/cordesman.htm> (February 2003).
[101] *The World Factbook 2002 – Iraq* at <http://www.cia.gov/cia/publications/factbook/geos/iz.html#People> (July 2003).
[102] Nuclear Threat Initiative – Iraq at <http://www.nti.org/e_research/e1_iraq_1.html> (July 2003).

had been underway for almost six years and reportedly had acquired anthrax, botulinum toxin and aflatoxin. Reports also concluded that Iraq conducted research on the use of the camelpox virus, human rotavirus, enterovirus 17, and ricin. Iraq has also reportedly produced a mustard blistering agent and the nerve agents, tabun, sarin, and VX. It also conducted chemical weapons attacks in the Kurdish town of Halabja and against Iran during the Iran-Iraq War.[103]

Iraqi motivations for the acquisition of WMD arose from its ambitions of becoming a Gulf regional hegemon.[104] Iraq's historic use of WMD and Saddam Hussein's years of successfully concealing his WMD programs put a question mark on the amount of WMD that still remain in Iraq. Based on UNSCOM reports in January 1999, U.N. inspectors were unable to account for approximately 360 tons of chemical warfare agents, 3,000 tons of precursor chemicals, growth media for biological agent production, and more than 30,000 special munitions used for delivering chemical and biological agents.[105] Due to Iraq's extensive nuclear research programs in the fields of agriculture, biology, chemistry, materials and pharmaceuticals, it is highly probable that Iraq still maintains knowledgeable personnel and adequate technology necessary to produce possible WMD.[106] With Ba'ath Party members still at large inside Iraq and many Iraqi displays of anti-American sentiment, the possibility exists for Iraq to remain unstable and to pursue the ambitious ideals of the previous Ba'ath party. Until Iraq has achieved a continuous level of self-generated stability, it will continue to present a potential threat to the Saudi regime.

3. Relations with Israel

Saudi Arabia's approach to Israel has evolved from the short-term successes and

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[103] Nuclear Threat Initiative – Iraq at <http://www.nti.org/e_research/e1_iraq_1.html> (July 2003). All information in this paragraph was compiled from the same source. During the Iran-Iraq War, Iraq also used mustard gas and other nerve agents – see Anthony H. Cordesman, "The Evolving Threat from Weapons of Mass Destruction in the Middle East," *U.S. State Department,* <http://usinfo.state.gov/journals/itps/0702/ijpe/cordesman.htm> (February 2003).

[104] Sami G. Hajjar, "Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East," *Strategic Studies Institute* (17 December 1998), 20.

[105] British Government. "Iraq's Weapons of Mass Destruction." *The Stationary Office* (24 September 2002), 16.

[106] Ibid.

failures of the Israeli-Palestinian crisis. The Saudis maintained a strong anti-Israeli stance up until the Iranian Revolution of 1979, upon which the regime became engulfed with other regional security issues. Absent any domestic security concerns, the Saudi regime has generally increased its anti-Israeli rhetoric at times when the conflict tends to favor the Israelis. Upon the outset of the Second Antifada, which was intensified by the visit to the Al-Aqsa mosque in Jerusalem by the Israeli leader Ariel Sharon, Saudi Crown Prince Abdullah advanced his anti-Israeli rhetoric by accusing Israel of Palestinian massacres. Adding to the anti-Israeli sentiment, Saudi Arabia has been aggravated by the notion that while it has complied with international arms control regimes, Israel's "refusal to sign the NPT and allow inspections of its nuclear facilities … constituted a threat to regional security."[107]

The Saudi regime also resents the power and influence of the pro-Israeli lobby in Washington. Saudi arms sales have historically faced congressional opposition primarily led by the influential Israeli lobby. In the eyes of the Arab world, the Israeli lobby largely affects U.S. foreign policy. Following the attacks of September 11, the pro-Israeli lobby wasted no time in exploiting the fact that a majority of the attackers were Saudi Arabian. Based on this notion, the lobby attempted to draw a wedge between U.S.-Saudi relations by alleging that Saudi Arabia was a "breeding ground" for radical Islamic fundamentalists.[108] The pro-Israeli campaign attempted to reduce the status of the Saudi regime while demonstrating Israeli loyalty to the United States. Israel has stated that it will not consider a change in its nuclear policy until all Middle Eastern countries sign a peace treaty and maintain normal relations with Israel for a period of at least two years.[109]

a. Israel and WMD

Israel has one of the most extensive offensive and defensive military capabilities in the Middle East. It retains an advanced ballistic missile capability that

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[107] *Saudi Embassy – Saudi Arabia Advocates A Nuclear-Free Mideast* at <http://www.saudiembassy.net/publications/june/advocates.html> (November 2002).
[108] Dr. Ahmed Selim Al-Borsan, "The Israeli Lobby and U.S. Strategy in the Middle East," *The International Politics Journal* (October 2002), at <http://www.siyassa.org.eg/esiyassa/ahram/2002/10/1/ESSA1.htm> (July 2003).
[109] Barry Schneider, *Middle East Security Issues: In the Shadow of Weapons of Mass Destruction Proliferation*, 67-8.

includes three variants of the Jericho missile system. The Jericho I has a range of up to 400 miles and has the capability to deploy a conventional, chemical, or nuclear warhead. The Jericho II has a range of up to 800 miles. The Jericho III has a range just over 3,100 miles, and it is unknown whether it has a nuclear warhead capability, whereas the Jericho I and II variants are believed to have a nuclear warhead capability. The Israeli missile inventory also includes the Shavit space launched missile system, which has a reported range just under 2,800 miles. Israel has conducted test flights of submarine launched cruise missiles that could be nuclear armed with ranges of up to 560 miles and has demonstrated its potential for continuous at-sea submarine capability that would constitute a second strike capability. [110] Israel also has the versatility to use satellites, ballistic missiles and refuelable strike aircraft for long-range nuclear targeting.[111]

Israel's commitments to international regimes convey its interests in WMD. Israel is a cosignatory of the Comprehensive Test Ban Treaty (CTBT) and the CWC but has not ratified the CWC. It has not signed the BWC or the NPT. Israel has the capability to produce both chemical and biological weapons as well as the capability to arm its F-15 and F-16 aircraft with nuclear bombs. Israel maintains a strong and extensive military capability that is well within the range of key Saudi Arabian cities and facilities.

4. Relations with Yemen

Saudi relations with Yemen are largely derived from their disputes over their 1, 458 km border area where during the 1930s, these disputes led to a war between the two states.[112] Yemen consequently lost the war and had to agree to the "unfavorable" terms of the 1934 Taif Agreement, which awarded Saudi Arabia territory in regions of Jizan, Asir, and Najran, which Yemen still disputes.[113] In 1984, the discovery of oil in the

[110] Anthony H. Cordesman, "Weapons of Mass Destruction in the Middle East," *Center for Strategic and International Studies* (15 April 2003) at <http://www.csis.org> (May 2003). All information in paragraph cited from same source.
[111] Anthony H. Cordesman, "The Evolving Threat from Weapons of Mass Destruction in the Middle East," *U.S. State Department,* at <http://usinfo.state.gov/journals/itps/0702/ijpe/cordesman.htm> (February 2003).
[112] Anthony H. Cordesman, "The Military Balance and Arms Sales in Yemen and the Red Sea States: 1986-1992," *Center for Strategic and International Studies* (September 1993) at <http://www.csis.org> (May 2003).
[113] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom*, 9.

Marib/Al-Jawf basin, located in NNW portion of Yemen's border with Saudi Arabia further added to the value of the disputed lands. Border disputes between the two increased concurrently with the increase of Yemeni oil production. By 1992, Yemeni oil reserves had reached four billion barrels and gas reserves were at 7,000 billion cubic feet.[114] That same year, the Saudi regime sent letters to six leading oil companies in Yemen claiming that twelve out of the twenty oil concessions were located on Saudi soil.[115]

Saudi-Yemeni disputes dramatically escalated following the 1991 Persian Gulf War upon which Yemen sided with Iraq. Saudi Arabia subsequently cut off aid to Yemen in addition to expelling nearly 800,000 Yemeni expatriate workers, who at the time were contributing $350 million dollars a month in remittances to Yemen.[116] Since the Gulf War, relations between the two states have deteriorated.

Some analysts speculate that Saudi Arabia's most serious external threat has been from Yemen.[117] Prior to the unification of Yemen in May of 1990, North Yemen presented a threat to the Saudi border while South Yemen was viewed by the Saudi regime as a Marxist/terrorist state.[118] In 1990, Yemen had joined the Arab Cooperation Council comprised of Iraq, Egypt, and Jordan, the same year Saudi Arabia deployed troops to its Yemeni border. Yemen has claimed that Saudi Arabia meddled in its unification process in 1990 by financially contributing to Yemeni tribes in order to disrupt the unification.[119] The unification may have fostered state unity, however, in the eyes of the Saudi regime, it did not diminish the Yemeni threat. Yemen is still the only southern gulf state that is not a member of the GCC, and if the World Bank estimates are correct, the Yemeni population will increase from 17 million in 2000 to 24 million in

[114] Anthony H. Cordesman, "The Military Balance and Arms Sales in Yemen and the Red Sea States: 1986-1992," *Center for Strategic and International Studies* (September 1993) at <http://www.csis.org> (May 2003).
[115] Ibid.
[116] Ibid.
[117] See Anthony H. Cordesman, "Saudi Arabia Enters the 21st Century (Review Draft)," *Center for Strategic and International Studies* (June 2001) at <http://www.csis.org> (May 2003).
[118] Ibid.
[119] Anthony H. Cordesman, "The Military Balance and Arms Sales in Yemen and the Red Sea States: 1986-1992," *Center for Strategic and International Studies* (September 1993) at <http://www.csis.org> (May 2003).

2010, which would cause considerable Saudi concerns over the propensity for Yemeni instability that could spill over into Saudi Arabia.[120]

a. Yemen and WMD

Yemen's involvement with WMD is significantly restricted due to its weak economy. According to one prominent Middle East analyst, Yemen is currently "the only country to have voluntarily given up such [WMD] weapons, and did so only because the deterioration of its small stock of chemical weapons and its inability to obtain continuing foreign support for its FROG and Scud B missiles left few other options."[121] Nonetheless, Yemen has invested more money in national defense than analysts believe its economy can handle. Yemen does, however, possess a surface-to-surface missile capability through its SS-21 Scarab with a range of approximately 75 miles and retains a number of Scud Bravo missiles with a range of approximately 186 miles.[122] In December of 2002, Yemen took shipment on fifteen Scud missiles and fuel from North Korea.[123] Reports also indicate that Yemen also possesses twelve FROG –7 surface-to-surface missile launchers, but it is unknown if they have any missiles to fill them.[124] Yemen's missile capability combined with its historical border disputes and questionable financial future will continue to provoke unrest for the Saudi regime.

C. SAUDI MISSILE REPLACEMENT OPTIONS

Within the past few decades, declining oil prices and an increasing Saudi populace has in part prompted the Saudi regime to re-examine its distribution of wealth and initiate spending restraints. Despite fiscal constraints, the Saudis still face potential threats and cannot allow their military defenses to lag. In Saudi Arabia, regime security takes precedence over state security, meaning the regime will do whatever is necessary to

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[120] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom*, 11.
[121] Anthony, H. Cordesman, "The Evolving Threat from Weapons of Mass Destruction in the Middle East," *U.S. State Department,* <http://usinfo.state.gov/journals/itps/0702/ijpe/cordesman.htm> (February 2003).
[122] *Centre for Defence and International Security Studies - Ballistic Missile Capabilities by Country* at <http://www.cdiss.org/btablea2.htm> (June 2003).
[123] Nuclear Threat Initiative – North Korea: Scuds Reach Yemen at <http://www.nti.org/d_newswire/issues/2002/12/16/13s.html> (July 2003).
[124] Anthony H. Cordesman, "The Military Balance and Arms Sales in Yemen and the Red Sea States: 1986-1992," *Center for Strategic and International Studies*, (September 1993) at <http://www.csis.org> (May 2003).

ensure its survival. During the 1980s, the regime believed its survival as well as the state's survival was threatened by Iran to the point that the Saudis purchased a ballistic missile capability. Consequently in 1997, over a decade after the missile deal, Saudi Arabia reportedly solicited Chinese assistance in replacing the Saudi CSS-2 inventory as the missiles approached the end of their lifecycle.[125] China was in the process of refitting its own CSS-2 inventory with solid-fueled DF-21 (CSS-5 Mod 1) launchers and missiles.[126] Analysts estimated that the missiles would be removed from service in China from 2001 onwards.[127] It is likely that China will offer to replace the Saudis CSS-2 inventory with a Chinese-produced, solid-fueled ballistic missile variant. Additionally, continued Chinese arms sales to the Saudis would enable the Chinese to maintain access to Saudi oil.

1. Liquid vs. Solid-fueled Missiles

In order to understand the factors contributing to the Chinese and Saudi decision to replace their CSS-2 inventories, a brief overview of the advantages and disadvantages of liquid and solid-fueled propellants is essential. In general, liquid fuels are more powerful,[128] can provide greater propulsive thrust and can throttle their power.[129] But, the disadvantages of liquid fuel are extensive. Liquid fuel requires a more complicated support infrastructure and additional ground handling equipment, which consequently requires additional expenditures and resources to protect them from any hostile forces. Additionally, the volatile and corrosive liquid fuel is more vulnerable to an attack and fatal if inhaled.[130] Liquid fuels also cannot be stored for long periods of time. This

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[125] Nuclear Threat Initiative – China's Exports and Assistance to Saudi Arabia at <http://www.nti.org/db/china/msarpos.htm> (August 2003).
[126] *Federation of American Scientists - DF-3A/CSS-2* at <http://www.fas.org/nuke/guide/china/theater/df-3a.htm> (November 2002).
[127] See *Land-Based Ballistic Missiles – CSS-2 (DF-3)* at <http://www.aeronautics.ru/archive/wmd/ballistic/ballistic/css2-01.htm> (August 2003) and *Federation of American Scientists - DF-3A/CSS-2* at <http://www.fas.org/nuke/guide/china/theater/df-3a.htm> (November 2002).
[128] *Global Security – Rockets for Rookies* at <http://www.globalsecurity.org/military/systems/munitions/intro-missile.htm> (August 2003).
[129] *Federation of American Scientists - Theater Ballistic Missiles* at <http://www.fas.org/nuke/intro/missile/tbm.htm> (August 2003).
[130] *U.S. Centennial of Flight Commission - Solid Propellants for Missiles and Rockets* at <http://www.centennialofflight.gov/essay/SPACEFLIGHT/solids/SP13.htm> (August 2003) and Thomas

usually dictates that the missiles be fueled just prior to launch, causing a delay in launch response time.[131]

Solid-fueled missiles are more advantageous than their liquid-fueled counterparts. Solid fuels do not require sophisticated engine technology, can launch much faster and accelerate quicker than liquid-fueled missiles.[132] The (solid-fueled) U.S. Minuteman ICBM was so named because it could be launched "in a minute."[133] Contrary to liquid fuels, solid fuels are generally more stable, do not require pre-launch fueling or the extensive support equipment required of liquid fuels.[134] The major disadvantages to solid-fueled missiles are they require greater scientific technology and durability in order to withstand the intense pressures associated with the missile,[135] and they generate less thrust than their liquid-fueled counterpart.[136] This drop in thrust from liquid to solid fuel prompted China "to develop smaller, lighter warheads with much better yield-to-weight ratios than its older weapons."[137] In summary, solid-fueled ballistic missiles provide greater advantages than liquid-fueled missiles, a concept that would benefit the Saudis.

Aside from the benefits of solid-fuel missiles, other motivational factors would compel the Saudi regime to refurbish or to replace their ballistic missile capability. From the Saudi viewpoint, the regime does not have the luxury of constructing a large military force similar to some of its regional adversaries (Iran's present force and Iraq's previous force). Maintaining a large force increases the potential for regime disloyalty and potential coups from within the military, which ultimately decreases the regime's security. A large military force would be difficult to establish in Saudi Arabia in light of its comparatively small population. A ballistic missile capability thus provides a

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Woodrow, "The Sino-Saudi Connection," *The Jamestown Foundation, China Brief Vol. 2, Issue 21* (24 October 2002) at <http://www.jamestown.org/pubs/view/cwe_002_021_003.htm> (August 2003).
[131] *Global Security – Rockets for Rookies* at <http://www.globalsecurity.org/military/systems/munitions/intro-missile.htm> (August 2003).
[132] *U.S. Centennial of Flight Commission - Solid Propellants for Missiles and Rockets* at <http://www.centennialofflight.gov/essay/SPACEFLIGHT/solids/SP13.htm> (August 2003).
[133] Ibid.
[134] *Federation of American Scientists - Theater Ballistic Missiles* at <http://www.fas.org/nuke/intro/missile/tbm.htm> (August 2003).
[135] *U.S. Centennial of Flight Commission - Solid Propellants for Missiles and Rockets* at <http://www.centennialofflight.gov/essay/SPACEFLIGHT/solids/SP13.htm> (August 2003).
[136] Gill, Bates and Mulvenon, James. "The Chinese Strategic Rocket Forces: Transition to Credible Deterrence." *National Intelligence Council* and *Federal Research Division* (05 November 1999) at <http://www.odci.gov/nic/pubs/conference_reports/weapons_mass_destruction.html> (August 2003).
[137] Ibid.

comparable strategic deterrent without the need for a large military force and helps to close the "gap" in military capabilities between Saudi Arabia and its potential adversaries in the region.

Ballistic missiles are more advantageous to the Saudis in lieu of strategic aircraft — they are harder to defend against, they do not require pilots who may defect, and ballistic missiles are less valuable to potential coup-plotters. Saudi Arabia is situated in a volatile environment that is no stranger to ballistic missile attacks and aggressive foreign meddling. The Saudis must address all of these issues when determining the size and capability of their military forces. Therefore, it would be a rational decision for the Saudi regime to maintain a strategic ballistic missile capability by refurbishing or replacing its missiles.

2. Possible Sources for Modern Ballistic Missiles

The two states that have good relations with Saudi Arabia and have the capability to export ballistic missiles are China and Pakistan. Since the Saudis purchased their original CSS-2 missiles from China, it is a more likely source for their replacements.
The Chinese are currently in the process of converting their CSS-2 inventory to the DF-21 (CSS-5 Mod 1) missile. The DF-21 is a mobile, solid-fueled MRBM with a CEP of 300-400 meters[138] and a range of just less than 1,250 miles carrying a 600-kg nuclear warhead.[139] The DF-21 would put all of Saudi Arabia's current potential threats (Iraq, Iran, Israel and Yemen) within reach of the Kingdom. The DF-21 missiles only require ten to fifteen minutes of launch preparation time, contrary to the two to three hours required for the CSS-2 missiles.[140] Although the DF-21 was designed to carry a nuclear warhead, evidence exists that China is experimenting with a terminal guidance system[141] for the DF-21 that incorporates a conventional high explosive warhead, which would

[138] *Federation of American Scientists - DF-21/CSS-5* at < http://www.fas.org/nuke/guide/china/theater/df-21.htm> (August 2003).
[139] Stokes, Mark A. "Weapons of Precise Destruction: PLA Space and Theater Missile Development." *National Intelligence Council* and *Federal Research Division* (05 November 1999) at <http://www.odci.gov/nic/pubs/conference_reports/weapons_mass_destruction.html> (August 2003).
[140] *Federation of American Scientists - DF-21/CSS-5* at < http://www.fas.org/nuke/guide/china/theater/df-21.htm> (August 2003).
[141] Stokes, Mark A. "Weapons of Precise Destruction: PLA Space and Theater Missile Development." *National Intelligence Council* and *Federal Research Division* (05 November 1999) at <http://www.odci.gov/nic/pubs/conference_reports/weapons_mass_destruction.html> (August 2003).

enable the Saudis to import the missiles, leaving the international community uncertain as to the type of warheads mated to the missiles.[142] The DF-21 would be the ideal replacement given the probable interoperability with the CSS-2 infrastructure already in place in Saudi Arabia, and it would give the Saudi regime a mobile, quick-reacting defensive capability.

The Saudis may also show interest in acquiring China's nuclear DF-4 ICBM that has a CEP between 1,400-3,500 m and a range of 2,800 – 4,350 miles.[143] However, the Saudis will not likely purchase this system due to its long range, large CEP, and its lack of mobility. The most likely Chinese option would be for the Saudis to purchase the DF-21 with or without nuclear warheads. By acquiring the DF-21, the Saudis would be improving their strategic capability by acquiring a more versatile missile. The nuclear and potential high-explosive warhead capability of the DF-21 will keep many policy-makers guessing as to the type of warhead the Saudis purchased, similar to the speculation generated by the CSS-2 purchase. However, by acquiring conventional warheads the Saudis would avoid potential U.S. opposition and would reserve the right to take delivery of nuclear warheads in the event of a future Saudi crisis. This would ensure that both the Saudis and the Chinese would not be in violation of any international laws until an actual nuclear warhead transfer took place, which may or may not be required in the future.

Although China is the more likely candidate, the Saudis may also tap their Pakistani connection for either a conventional or unconventional ballistic missile capability. If the Saudis do, they will likely seek to replace their CSS-2 inventory with the Ghauri II IRBM. There is limited information regarding the Ghauri's capabilities. According to *Jane's Intelligence Digest*, the Ghauri II is reportedly "an improved and lengthened version of the Ghauri I" with an improved motor assembly. It reportedly has a range of 1,118 to 1,429 miles and has been test fired from a mobile launcher. Both variants of the Ghauri missile have liquid-fueled propellant systems. Since the Ghauri I

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[142] *Centre for Defence and International Security Studies – National Briefings: China* at <http://www.cdiss.org/chinab.htm> (February 2003) and *Federation of American Scientists - DF-21/CSS-5* at < http://www.fas.org/nuke/guide/china/theater/df-21.htm> (August 2003).

[143] Federation of American Scientists - DF-4 at <http://www.fas.org/nuke/guide/china/theater/df-4.htm> (August 2003).

can carry nuclear, chemical, anti-tank warhead or high explosive warheads, the Ghauri II probably has similar capabilities. The accuracy of the Ghauri II is unknown.[144]

Pakistan, in addition to China, appears to have viable replacement options for the Saudis if they choose to replace its CSS-2 missiles. Both countries have a ballistic missile export capability that can transfer either a conventional or unconventional warhead with their ballistic missiles. This concept provides greater flexibility for the Saudis in that they may purchase new ballistic missiles with nuclear warheads or select a conventional capability with the option of upgrading to nuclear warheads should the need arise. By doing so, the Saudis, and from whomever they choose to acquire their missiles, would not violate of any international arms-control agreements until the actual transfer of nuclear warheads.

D. CONCLUSION

In the Middle East, the acquisition of ballistic missiles and WMD by one state has often been perceived as a reduction in security of other Gulf states. Due to its location, historical disputes, and the conventional and unconventional capabilities of its regional adversaries, Saudi Arabia still faces adversaries who compel it to replace its CSS-2 missiles, possibly with a nuclear capability. As a result, the Saudis must monitor the capabilities of its Gulf neighbors despite the status of their relations. The Middle East is all too familiar with revolutions and military coups, which have on several occasions successfully facilitated changes in leadership. Consequentially, instability in any Gulf state causes apprehensions in Saudi Arabia. Saudi potential adversaries possess strong military forces, larger populations, and in some cases advanced WMD programs. The perceived value of WMD along with the concerted efforts to conceal them in the Gulf states will continue to distress the Saudi regime until such missiles are totally removed from all parts of the region.

Further complicating the Saudi security dilemma is the continuation of various regional disputes. Saudi border disputes with Yemen show no signs of disappearing and Saudi relations with Iran, while cordial on the surface, could face diverging interests over

[144] All Ghauri missile information compiled from *Centre for Defence and International Security Studies – The Ghauri: Technical Snapshot* at < http://www.cdiss.org/98may5a.htm> (August 2003) and *Jane's Intelligence Digest – Hatf 5 (Ghauri 1/2)* at <http://www4.janes.com> November 2002).

the price of oil in the future. This may lead to hostilities between the two states. The future of Iraq still remains unclear; however, its previous efforts to acquire WMD coupled with a yet 'unassembled' Iraqi government will remain under the watchful eye of the Saudis. Until the Israeli-Palestinian crisis is resolved, Israel with its advanced WMD programs will continue to unease the Saudis. Despite the large U.S. military presence in the Gulf region, shifting U.S. strategic priorities will continue to weaken its security commitments and cause the Saudi regime to re-evaluate its relationship with the United States.

Due to periodic instabilities in the Gulf region, Saudi Arabia may feel that a nuclear capability is warranted in order to deter potential threats. However, the United States will continue to push for diplomatic resolutions in the region, which may satisfy Saudi security concerns. A deterioration in U.S.-Saudi relations would ultimately increase the value of a Saudi nuclear capability.

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IV. THE EVOLUTION OF THE U.S.-SAUDI RELATIONSHIP

A. INTRODUCTION

The U.S.-Saudi relationship is a durable relationship that has survived numerous tests of its strength. Since the discovery of oil, U.S. interests in the Gulf region focused on the access and flow of oil from of the Persian Gulf, in particular Saudi Arabia. As investments in oil infrastructure and technologies became more prominent, it was discovered that Saudi Arabia owned the largest oil reserves in the world. Consequently, these reserves warranted protection from potential adversaries. The United States became dependent on Gulf oil and the Saudi regime became dependent on U.S. security for its oil. This mutual interest formed the backbone of the U.S.-Saudi relationship.

Several events in the Gulf region have had major implications in the regional environment and U.S.-Saudi relations during the last two decades: the Iranian Revolution, Iran-Iraq War, the 1990 Iraqi invasion of Kuwait and the subsequent Persian Gulf War, and most recently the U.S.-led war in Iraq that removed Saddam Hussein from power. Although the United States presently receives most of its oil from non-Gulf states, access and flow of Gulf oil to its consumers is still vital to the United States and the global economy. U.S. interests with Saudi Arabia have remained fairly constant, yet the United States recently announced its plans to withdraw all but four hundred U.S. troops and all U.S. aircraft from the Prince Sultan Air Base in Saudi Arabia by the end of August 2003.[145] Included in the announcement was the plan to move the combined air operations center, which had served as the base of operations for Operation Southern Watch, to the Al Udeid Air Base in Qatar. The planned U.S. withdrawal is "a major restructuring of the American military footprint in the region" based on a (U.S.-Saudi) "mutual agreement," which is not indicative of a change in the U.S.-Saudi security relationship.[146] In light of the current potential Saudi threats in the region, is the U.S.-Saudi security commitment robust enough to dissuade the Saudis from joining the nuclear club?

This chapter answers this question by examining the U.S.-Saudi relationship from the early 1970s and by identifying the basis of the relationship amid the changing

[145] *The Guardian - America Signals Withdrawal of Troops from Saudi Arabia* at < http://www.guardian.co.uk/Print/0,3858,4658240,00.html> (July 2003) and *Defense LINK News – Saudi Base to Close, Ops Center Moves to Qatar* at <http://ww.defenselink.mil/news/Apr2003/n04292003_200304292.html> (August 2003).
[146] Ibid.

strategic environment in the Gulf. The chapter concludes with an assessment of the U.S. ability to dissuade possible Saudi interests in a nuclear capability.

B. THE 1970s: BOYCOTTS AND ARMS SALES

The U.S.-Saudi relationship strengthened its roots during the 1970s. Despite the implications of key events in the Gulf, the relationship managed to prosper and to gain momentum in spite of diverging interests brought to light during the 1970s. Initially, Saudi and U.S. interests converged on the premise that Saudi Arabia was in need of protection from potential adversaries or other attempts to disrupt its oil supply. How to provide this protection adequately is where the two sides diverged. The Saudis were interested in weapons purchases, but the type and numbers of weapons became a matter of debate in Washington.

1. Construction of Saudi Armed Forces

In the beginning of the 1970s, Saudi military forces were virtually non-existent. As Saudi oil revenues increased and the withdrawal of British forces from the Gulf region became imminent, the United States was ill-prepared to fill the power void in the Gulf owing to its involvement in Vietnam.[147] Instead, the United States chose a strategy set forth in the Nixon Doctrine of 1969. This called for the defensive buildup of Iran and Saudi Arabia through U.S. arms supplies. This new U.S. strategy of augmenting Saudi defenses converged with the Saudi's desire to strengthen its defenses in response to perceived threats in the region.

The new U.S. strategy in the Gulf bode well for Saudi concerns over its southern border. The 1962 Yemeni civil war lasted until 1970, and was presented such a threat to the Saudi regime that "for the first time, the need to develop a modern, effective military force was seen by the Saudi leadership to outweigh the internal security risks inherent in creating such a force."[148] In response to Saudi requests for assistance to cope with the instability produced by Yemen, the United States initiated Operation Hard Surface, a "training mission" comprised of U.S. Air Force assets that the Saudis wanted based at

[147] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 55.
[148] Ibid, 40.

Jiddah, along the Saudi Red Sea coastline in close proximity to the Yemeni border.[149] The positive U.S. response to the Saudi request, however, was accompanied with a stipulation: the aircraft had to be based in Dhahran, located near Saudi Arabia's Persian Gulf coast, slightly northwest of Qatar.[150] To the Saudis, this defeated the purpose of the initial request for assistance. The contradictory intentions of the U.S. deployment was likely due to conflicting priorities between the U.S. administration and the Saudi regime. The United States did not want to antagonize the rising influence of the Egyptian leader, Gamel Abdel Nasser, whom the United States positively viewed as an alternative to the Soviet influence.[151] The contradictory intentions of the United States raised Saudi concerns over U.S. commitments and in part prompted the Saudis to fortify their defense forces. In response to Crown Prince Abdullah's request for U.S. security assistance in September of 1971, the U.S. Army Corps of Engineers (COE) was sent to the Kingdom in order to assist in the construction of a Saudi military infrastructure. The COE established plans for the construction of military facilities in Khamis Mushayt and Tabuk, as well as a naval base at Jubayl on the Saudi Gulf coast and a military academy in Riyadh. By March of 1973, the Saudi Arabian National Guard had been established, based on defense plans created by the United States. [152] With a military infrastructure somewhat in place, the tone was set for additional arms deliveries to the Kingdom.

The rise in oil prices during the 1970s allowed the Saudi regime to "recycle its petrodollars" by purchasing weapons from Western sources, in particular, the United States.[153] Within two years, Saudi defense purchases rose from $15.8 million in 1970 to $312.4 million in 1972.[154] Despite the increase in Saudi defense spending, Saudi arms requests faced resistance and generated debates within the U.S. congress that tended to undermine U.S.-Saudi relations. Political foes in Washington viewed Saudi arms sales as a weakening of Israeli security. Arms transfers to the Saudis subsequently acquired the attention of pro-Israeli lobbies in Washington, which led to anti-Saudi campaigns whose purpose was to block Saudi arms requests. In 1973, Saudi arms sales opponents gained

[149] Josh Pollack, "Saudi Arabia and the United States, 1931-2002." *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002), 80.
[150] Ibid, 80.
[151] Ibid, 80.
[152] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 53.
[153] Ibid, 55.
[154] David W. Lesch, *The Middle East and the United States (2nd ed)*, 346.

considerable momentum following a Saudi political decision that dramatically impacted U.S.-Saudi relations: the Arab oil boycott.

2. The 1973 Oil Embargo

The Saudis had often made their views clear on U.S. policy regarding the Israeli-Palestinian crisis. In a statement given to the *Christian Science Monitor*, Saudi King Faisal conveyed the difficulty in maintaining friendly ties with the United States by adding that, "[the United States] must adopt a more even-handed policy in the region."[155] Prior to the outbreak of the 1973 Arab-Israeli war, Arabs hinted at using the "oil weapon" as a political tool in the Israeli-Palestinian crisis. During the war on October 17, a total embargo against the United States had been discussed during a meeting of Arab oil-producing representatives but was not initiated due to Saudi opposition.[156] The same day, a delegation of representatives from Saudi Arabia, Algeria, Morocco, and Kuwait met with President Nixon and Secretary of State Kissinger to discuss the Israeli-Palestinian situation.[157] Arab use of the oil weapon was not implemented, coincidentally, until the Egyptian military recognized the shift in military favor to the Israelis during the war.[158] Once the Saudis received word of President Nixon's request for $2.2 billion in aid for Israel, the Saudis perceived this as a betrayal of U.S. assurances and the following day initiated an oil boycott.[159] Secretary of State Henry Kissinger's attempts to compel the Saudis to remove the embargo through hints of a U.S. military retaliation against the "strangulation of the industrial world" fell on deaf Saudi ears.[160] The Saudis refused to budge and responded by threats of cutting oil production by 80%.[161]

The oil embargo of 1973 clearly identified the limits of the U.S.-Saudi relationship and has likely resided in the mind of every American president since. It also prompted the United States to reorient its energy policy for the first time.[162] In February

[155] Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 154.
[156] Ibid, 157.
[157] Ibid, 157.
[158] The shift in military favor to the Israelis took place days before the U.S./Israeli aid announcement. See Nadav Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 158.
[159] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 24.
[160] Ibid, 25.
[161] Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 165.
[162] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 25.

1974, various world members gathered together for the Washington Energy Conference. The conference was a forum in which member states discussed options for an international energy plan. By the following November, the International Energy Agency was established, which set up an oil-sharing agreement in the event of a future major oil crisis.[163] The creation of the agency, prompted by the efforts of the United States, sent a clear message to the Saudi regime that the United States did not intend to be held captive by an oil embargo again. The use of the oil boycott served as a portent of future Saudi arms requests, as most if not all requests faced additional criticism, often calling into question the basis of the U.S.-Saudi relationship.

3. Saudi Arms Requests and the Battle over Congress

Saudi arms requests during most of the 1970s developed into intra-governmental battles in Washington. These battles often pitted the powerful pro-Israeli lobby, which typically applied its pressure through Congress against the Arab lobby, which tended to focus its influence on the presidential administration. The congressional debates that accompanied Saudi arms requests tended to question American commitments to Saudi security. To add to these Saudi perceptions, the Saudis felt that the United States was favoring Israel through its arms shipments. During the Vietnam conflict, demand for U.S. weaponry was exceptionally high in the United States. As a result, the Saudis expected some delays in arms shipments. The Saudis, however, were under the impression that the Israeli shipments were not facing the same "delays" as Saudi shipments.[164] Defective equipment delivered to the Saudis that was less than specification further contributed to the Saudi perception that the United States tended to favor Israel.

As negative perceptions of U.S. commitments hovered in the minds of the Saudi regime, a Saudi request to purchase F-15s in 1978 served as a "litmus test" for U.S.-Saudi relations.[165] Based on U. S. defense planners' recommendations, the Saudis were advised to replace their aging Lightning aircraft and were given the opportunity to purchase their choice of American fighter aircraft. After considering the F-14, F-15, F-16 and F-18, the

[163] Ibid, 26.
[164] Ibid, 43.
[165] Ibid, 59.

Saudis elected to purchase the F-15.[166] The United States benefited from the F-15 selection as the Saudi arms purchase lowered the production cost of the aircraft. The sale was approved by the Carter administration despite congressional debates, but the sale had provisions attached to it. In an effort to allay Israeli concerns over the F-15 sale, President Carter made public the fact that Israel would be receiving an additional fifteen F-15 fighters to "compensate" for the Saudi deal. He further stated that the Saudi aircraft would be inferior to the Israeli models.[167] Regardless of the modifications, the United States appeared to have passed the litmus test as it had, in the minds of the Saudis, kept its promise to sell the Saudis the F-15s.

In the fall of 1978, American and Saudi relations were again given an opportunity for advancement. American dependability was tested following the downfall of Mohammed Reza Pahlavi, the Shah of Iran. The fall of the Shah created the propensity for similar uprisings against the Saudi regime. The United States responded to a Saudi request for assistance by sending unarmed F-15 aircraft to the Kingdom.[168] The Saudis, in a quid pro quo, came to the aid of the United States and the rest of the world by increasing oil production from 7.5 mbd to 10.4 mbd in December of 1978 to counter the interruption in the Iranian oil supply.[169] The Saudi show of good faith, however, did not last long, as the Saudis decreased production to 9.5 mbd in January of 1979 and then down to 8.5 mbd the following April. The Saudi move to decrease production was likely a result of the regime's discord with U.S. attempts to associate Saudi Arabia with the Camp David accords. [170]

4. Camp David Accords – From Agreement To Fallout

Toward the end of the 1970s, President Carter continued to push for Saudi support of the Camp David peace accords between Egypt and Israel. On March 6, 1979, Carter had authorized a supply of arms to Yemen to help quell violence in the region and to

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[166] Ghassan Bishara, "The Middle East Arms Package: A Survey of the Congressional Debates," *Journal of Palestine Studies* Vol. 7, Issue 4, (Summer 1978): 69.
[167] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 60.
[168] Josh Pollack, "Saudi Arabia and the United States, 1931-2002," *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002), 80.
[169] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 27.
[170] Ibid, 27.

build U.S. "credit" to compel the Saudis to support the accords.[171] An Arab consensus led by Baghdad and Damascus, which was intent on initiating sanctions against Egypt in the event of an agreement reached between the two, challenged U.S. efforts to reach an agreement. On March 17, 1979, four days after the successful U.S. conclusion of an Egyptian-Israeli peace agreement, the Saudis elected in favor of sanctions imposed on Egypt. Evidence that the entire ruling family was split over the decision to do so was illustrated by Crown Prince Fahd's decision to leave the Kingdom indefinitely.[172] The decision to side with the Arab consensus "produced the most intense strain in U.S.-Saudi relations since the 1973 oil embargo."[173] Despite ending the 1970s on a strategically sour note, the following decade provided ample opportunities for the U.S.-Saudi relationship to either succeed or deteriorate.

C. THE 1980s: LET BYGONES BE BYGONES

The Iranian Revolution and subsequent regime change in Iran combined with the Soviet invasion of Afghanistan in 1979 caused a fundamental shift in U.S. foreign policy in the Persian Gulf.[174] As the decade of the 1970s began with the establishment of the Nixon Doctrine, the next decade began with the announcement of the Carter Doctrine on January 23, 1980. The new doctrine, prompted by the Soviet invasion,[175] clearly stated the U.S. intentions in the Persian Gulf: "An attempt by outside forces to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States, and such an assault will be repelled by any means necessary including military force."[176] With this bold statement, the United States launched a new strategy of acquiring access to the Persian Gulf for basing and pre-positioning of its forces. In February of 1980, National Security Advisor, Zbigniew Brzezinski, and Deputy Secretary of State, Warren Christopher, traveled to Saudi Arabia to discuss military cooperation

[171] Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 304.
[172] Ibid, 306.
[173] Ibid, 398.
[174] Barry Rubin, "The United States and the Middle East," *Middle East Contemporary Survey* Vol. 5 (1982) at <http://www.biu.ac.il/SOC/besa/meria/us-policy/data1980.html> (November 2002).
[175] F. Gregory Gause III, "Arms Supplies and Military Spending in the Gulf," *Middle East Report* Vol. 0, Issue 204, (Jul-Sep 1997), 14.
[176] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 62.

with Saudi King Fahd, however, Arab politics and opposition to the Camp David accords hindered the two sides from reaching an agreement.[177]

The lack of cooperation exhibited by both parties catapulted into political "duels" regarding other affairs between the United States and the Saudis. During the first quarter of 1980, the Saudi regime denied the United States excess oil during the U.S. attempt to increase strategic oil reserves.[178] Three months later, the United States denied Saudi requests for F-15 equipment and AWACS aircraft.[179] In October of 1980, President Carter denied the Saudi request for F-15 bomb racks, only to reverse his decision later following Saudi hints that it would seek arms elsewhere. The following January, King Fahd called upon fellow Arab nations to resist entering into any military alliances with any "superpowers" and subsequently called for a jihad against Israel.[180] Consequently, the incoming Reagan administration consummated the sale of the F-15 bomb racks to the Saudis[181] in part because it viewed the fall of the shah of Iran as "a 'serious deterioration' in Western security interests in the region" and vowed to increase arms sales to the region.[182]

1. Saudi Arabia and the Reagan Years

President Reagan's intentions with Saudi Arabia toward Iran were illustrated by his statement of October 1, 1981: "Saudi Arabia we will not permit to be an Iran."[183] Consequently, the Reagan administration hinted at increasing U.S. military presence in the Gulf in order to counter any potential threats and provide stability to the region, however the Saudi regime declined to support the proposal. During the first meeting of the Saudi led Gulf Cooperation Council in 1981, members pledged to keep the Gulf region "free from international conflicts, particularly the presence of military fleets and

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[177] *Ibid*, 63.
[178] Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 409.
[179] Ibid, 409.
[180] Ibid, 414.
[181] Barry Rubin, "The United States and the Middle East," *Middle East Contemporary Survey* Vol. 5 (1982) at <http://www.biu.ac.il/SOC/besa/meria/us-policy/data1980.html> (November 2002).
[182] Jonathan Marshall, "Saudi Arabia and the Reagan Doctrine," *Middle East Report* Vol. 0, Issue 155, (Nov-Dec 1988), 13.
[183] Barry Rubin, "The United States and the Middle East," *Middle East Contemporary Survey* Vol. 5 (1982) at <http://www.biu.ac.il/SOC/besa/meria/us-policy/data1980.html> (November 2002).

foreign bases."[184] The U.S. military presence was preferred by the Saudis to be "over the horizon" and out of sight; yet close enough to respond to a crisis. The regime was more interested in arms sales, in particular the U.S. Air Force AWACS. On April 1, 1981, the Reagan administration responded to Saudi requests by announcing the sale of five AWACS surveillance planes at a cost of $8.5 billion.[185] The sale was approved largely behind the personal efforts of President Reagan, however future arms sales would not receive such presidential success.[186]

Unfortunately for the Saudis, Saudi arms requests often pitted two branches of the U.S. government against one another: the legislative and executive branches. Following the Reagan administration's F-15 enhancement equipment and AWACS arms sale proposal in March of 1981, a Senate vote to block the arms package failed to acquire a majority vote, thus avoiding a congressional blockage of the arms sale.[187] In February of 1984, President Reagan proposed to sell the Saudis four-hundred Stinger missile launchers, four-hundred Stinger missiles, three-hundred extra missiles and additional spare parts and equipment.[188] Two months later, following congressional opposition to the proposal and the public criticism of U.S. Middle East policy by Jordan's King Hussein, the proposal was withdrawn.[189] The following month, under the authority of Article 36(B)(1) of the Arms Export Control Act, the President bypassed Congress and sent two hundred Stinger missiles to Saudi Arabia citing the threat against national security.[190] In 1985, President Reagan proposed to sell Saudi Arabia forty-two additional F-15 aircraft, Stinger anti-aircraft missiles, Harpoon anti-ship missiles, and Black hawk troop-carrying helicopters. Unfortunately for the Saudis, the American Israel Public Affairs Committee (AIPAC) had gained its first major victory by temporarily blocking

[184] Lesch, *The Middle East and the United States (2nd ed)*, 347.
[185] Jonathan Marshall, "Saudi Arabia and the Reagan Doctrine," *Middle East Report* Vol. 0, Issue 155, (Nov-Dec 1988), 13.
[186] Ibid, 13.
[187] Jonathan Marshall, "Saudi Arabia and the Reagan Doctrine," *Middle East Report* Vol. 0, Issue 155, (Nov-Dec 1988), 13 and David E. Long, *The United States and Saudi Arabia: Ambivalent Allies*, 67.
[188] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 66.
[189] Jonathan Marshall, "Saudi Arabia and the Reagan Doctrine." *Middle East Report* Vol. 0, Issue 155, (Nov-Dec 1988), 14.
[190] Long, *The United States and Saudi Arabia: Ambivalent Allies*, 67.

the sale of the F-15 fighter aircraft to the Saudis in 1985.[191] The proposal raised strong congressional opposition and was subsequently withdrawn.[192] This typical "behavioral display" in Washington catapulted U.S.-Saudi relations to the forefront of international relations following the U.S. denial of the sale of the U.S. Army's Lance missile system to Saudi Arabia.

Adamant on acquiring a ballistic missile capability, the Saudis consequently looked to another arms supplier: the Chinese. The Saudi CSS-2 purchase generated extensive congressional debates over the proper U.S. response to the purchase. Following the discovery of the missile deal, Secretary of State George Schultz traveled to the Kingdom to discuss the matter, and shortly after his arrival the Saudis signed the Nuclear Nonproliferation Treaty. [193] In return, the United States pushed through pending arms sales to the Saudis.[194] An important result of the missile purchase, however, was that the Saudi missile purchase was not accompanied with stipulations or restrictions that often accompanied U.S. arms sales. Despite stipulations associated with U.S. arms sales, the Saudis came to the aid of the United States by increasing oil production following the outbreak of the Iran-Iraq War.

2. The Iran-Iraq War

In light of Saudi security concerns generated over the commencing of hostilities between Iran and Iraq in 1980, the Saudis opted not to use their American connection and instead sided with Iraq during the war. Once Saudi oil fields and tanker traffic received hostile Iranian fire, the Saudis requested U.S. assistance. The United States responded by deploying a squadron of AWACS to the region, which allowed the United States to monitor Saudi and international airspace and to vector Saudi fighter aircraft for air intercepts.[195] The United States insisted the regime make its request for security assistance public, against Saudi desires to associate itself publicly with the United

[191] Josh Pollack, "Saudi Arabia and the United States, 1931-2002." *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002), 83.
[192] Metz, *Saudi Arabia,* 275.
[193] Josh Pollack, "Saudi Arabia and the United States, 1931-2002," *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002), 84.
[194] Ibid, 84.
[195] Safran, *Saudi Arabia: The Ceaseless Quest for Security*, 411.

States.[196] In 1987, following the Kuwaiti request for U.S. assistance against Iranian attacks on Kuwaiti shipping, the United States responded by deploying naval forces to the Persian Gulf. With an increased American presence in the Gulf region, the Iran-Iraq War concluded in 1988. Both sides had suffered heavy military and financial losses. Iraq had received financial support from both Saudi Arabia and Kuwait during the war. The Saudi regime was willing to write off the Iraqi debt, however Kuwait was not as generous. Iraq's response to Kuwaiti actions hurled the United States and Saudi Arabia into yet another unprecedented event in history: the Persian Gulf War.

D. THE 1990s

The violent Iraqi invasion of Kuwait in 1990 opened the new decade with a strong display of U.S. commitment to its Saudi ally and caused unprecedented events in Middle East history. During the buildup of the U.N. coalition against Iraq, Saudi Arabia was instrumental in organizing the "Arab portion" of the coalition. For the first time in history, the Kingdom received "hundreds of thousands" of U.S. soldiers to be used against Iraq during Operation Desert Storm.[197] The acceptance of foreign "infidels" by the Saudi regime and the populace was evident by the lack of public decrees and the fatwah [religious decree] issued by the Saudi religious establishment, approving of the troop presence.[198] However, by the spring of 1991 following the Persian Gulf War, King Fahd received a religious petition that called for the end of Saudi "alliances that run counter to Islamic legitimacy and to acquire arms from a variety of sources, including the building of a domestic arms industry."[199] During the summer of 1992, King Fahd received a forty-six page "Memorandum of Advice" that called for expanding the army to 500,000 men, obligatory military training, the diversification of foreign arms sources, and the building of a domestic arms industry.[200]

In light of the domestic opposition to its ties with the United States, the Saudi regime was still opposed to accepting an extended foreign military presence in the

[196] Ibid, 411.
[197] *Federation of American Scientists – U.S. Arms Clients Profiles/Saudi Arabia* at <http://www.fas.org/asmp/profiles/saudi_arabia.htm> (November 2002).
[198] Lesch, *The Middle East and the United States (2nd ed)*, 349.
[199] Ibid, 350.
[200] Ibid, 350.

Kingdom. Consequently, the Saudis offered to allow and to finance the pre-positioning of U.S. Army equipment in Saudi warehouses. The Saudis later rescinded the offer due to: U.S. insistence on establishing a formal status of forces agreement, flying the U.S. flag on Saudi soil, total U.S. control of the facility(s), and the presence of large numbers of American personnel.[201] The Saudis did, however, consummate several major arms contracts with the United States following the Gulf war, to include seventy-two F-15s at a cost of $7 billion dollars.[202] By early 1992, Gulf investments in U.S. markets totaled $407 billion.[203] From 1991 onward, Saudi Arabia permitted the U.S. Air Force to enforce the southern Iraqi no-fly zone from Saudi bases, in part prompting the Saudi Minister of Defense on several occasions to publicly state the Kingdom's unwillingness to allow U.S. forces to launch Iraqi attacks from its bases. The Saudi regime maintained its harsh stance against U.S. attacks on Iraq from its bases following the crisis in February of 1998 in which Saddam Hussein forced the withdrawal of U.N. weapons inspectors from Iraq. The crisis culminated in Operation Desert Fox in December of 1998, upon which the Saudi regime forbade the use of its bases for attacks against Iraq.[204] Despite previous assurances that U.S. forces would depart the Kingdom following the end of the Gulf war hostilities, U.S. forces remained throughout the rest of the decade as the U.S. foreign policy transformed into the dual containment of Iran and Iraq.

Following the inauguration of President Clinton in 1993, the United States shifted its focus toward the Middle East peace process. The U.S. stance on the Israeli-Palestinian crisis in part prompted displays of anti-U.S. sentiment in Saudi Arabia. Terrorist activities against American personnel in the Kingdom evidenced sporadic Saudi discontent with the United States. In November 1995, a bomb exploded at the American mission office in Riyadh killing five Americans. The Saudis subsequently executed four Saudi nationals for their role in the bombings.[205] In June of 1996 a car bomb exploded at

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[201] Anthony H. Cordesman, *Saudi Arabia: Guarding the Desert Kingdom*, 192-93.
[202] Josh Pollack, "Saudi Arabia and the United States, 1931-2002." *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002), 84.
[203] Lesch, *The Middle East and the United States (2nd edition)*, 347.
[204] Daryl Champion, "The Kingdom of Saudi Arabia: Elements of Instability Within Stability," *Middle East Review of International Affairs* Vol. 3 No. 4 (December 1999) at <http://www.biu.ac.il/Besa/meria/journal/1999/issue4/jv3n4a4/html> (November 2002).
[205] Alfred B. Prados, "Saudi Arabia: Current Issues and U.S. Relations." *Congressional Research Service*, (Updated 06 March 2002) at < http://fpc.state.gov/documents/organization/9049.pdf > (July 2003).

the Khobar Towers apartment building that housed American service personnel in Dhahran killing 19 Americans.[206] The same year, the United States successfully persuaded Sudan to expel the terrorist leader Osama Bin Laden, but the Saudi regime refused to have him extradited.[207] Saudi displeasure with the United States was further illustrated in 1999 during the funeral for Jordan's King Hussein. During the proceedings, President Clinton reportedly approached Crown Prince Abdullah and asked if he would like to meet Israeli leaders in attendance, to which he responded, "I believe, Your Excellency Mr. President, that there are limits to friendship."[208] Toward the end of President Clinton's term in office, the U.S.-Saudi relationship had declined from its previous level attained by President Bush Sr. The inauguration of President George Bush Jr. in January 2001 sparked a resumption of U.S.-Saudi ties analogous of the previous Bush presidency and a positive beginning to the new century.

E. INTO THE 21ST CENTURY: THE FUTURE OF U.S.-SAUDI RELATIONS

The turn of the century saw continued Saudi arms requests from the United States and continuing expansion of Saudi armed forces. In September of 2000, the United States announced that the Saudis had placed a request for three different arms packages: one package consisting of light armored vehicles, anti-tank missiles, and advanced communication equipment, another package consisting of F-15 contractor training and maintenance support, and a package consisting of flight simulators, spare parts and additional services for the Saudis fleet of F-15s. The arms packages cost $416 million, $690 million, and $1.6 billion, respectively.[209] These contracts enabled the Saudis to become the largest U.S. trading partner in the Middle East during the year 2000, surpassing Israel.[210] In June of 2001, the Saudis signed preliminary agreements with eight international oil companies (five of which are American) to develop three natural gas fields in addition to power plant and water desalinization programs reportedly worth

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[206] Lesch, *The Middle East and the United States (2nd ed)*, 351.
[207] Josh Pollack, "Saudi Arabia and the United States, 1931-2002," *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002), 85.
[208] Ibid, 86.
[209] Alfred B. Prados, "Saudi Arabia: Current Issues and U.S. Relations," *Congressional Research Service*, (Updated 06 March 2002) at < http://fpc.state.gov/documents/organization/9049.pdf > (July 2003).
[210] Ibid.

$25 billion dollars.[211] A media report on February 11, 2002, stated that Saudi investments in the U.S. economy totaled between $500 and $700 billion dollars.[212] Nevertheless, the Saudi regime holds a large amount of financial interests in the U.S. economy, an observation that the newly elected U.S. president was well aware of.

The inauguration of President George Bush Jr. in 2001 brought a glimmer of hope to U.S.-Saudi relations. The friendly relationship established between George Bush Sr. and the Saudi Ambassador to the United States combined with the Democratic Vice Presidential selection of an Orthodox Jew virtually made President Bush the "Arab" presidential candidate.[213] Despite cordial U.S.-Saudi relations, the Saudis maintained their views against U.S. attacks on Iraq or any other Arab state from Saudi bases. Evidence of this view was demonstrated by the Saudi response to an American attack on Baghdad in February of 2001 that originated from Prince Sultan Air Base in Saudi Arabia. The regime immediately imposed operational restrictions on allied warplanes operating out of Prince Sultan Air Base and forbade further U.S. offensive operations against Iraq.[214] In a show of defiance the following June, the Saudis announced that the suspected Khobar Towers bombers in Saudi custody would not be extradited, which added further suspicion to U.S. official claims of a Saudi "lack of cooperation" during the investigation.

In the absence of violent hostilities involving Iraq during the post Persian Gulf War, the Saudi regime refocused its efforts on the Israeli-Palestinian crisis. In mid 2001, Crown Prince Abdullah made a profound statement by refusing to travel to Washington in defiance of U.S. policy toward the Middle East peace process. The Saudi stance was significant enough that George Bush Sr. telephoned the Crown Prince in order to convey his son's "good intentions."[215] The Crown Prince subsequently indicated the possibility of the regime parting ways with the United States by stating, "a time comes when peoples and nations part. We are at a crossroads. It is time for the United States and Saudi

[211] Ibid.
[212] Alfred B. Prados, "Saudi Arabia: Current Issues and U.S. Relations." *Congressional Research Service*, (Updated 03 July 2003) at < http://www.fas.org/man/crs/IB93113.pdf > (July 2003).
[213] Josh Pollack, "Saudi Arabia and the United States, 1931-2002," *Middle East Review of International Affairs* Vol. 6 No. 3 (September 2002), 86.
[214] Ibid, 86.
[215] Ibid, 87.

Arabia to look to their separate interests."[216] While the Israeli-Palestinian issue remained a top priority for almost the entire decade following the Persian Gulf War, the events of one day alone in September of 2001 effectively reoriented U.S. priorities. The attacks of September 11th against the United States, while in some aspects implicating the Saudis, gave the regime an opportunity to take action in support of its U.S. ally.

The day after the September 11th attacks, the Saudis responded in support of the United States by revoking a promise to OPEC to cut production in order to rush oil supplies to the United States during its time of crisis.[217] As the investigation of the attacks unfolded, it was discovered that fifteen out of nineteen of the assailants were Saudi nationals.[218] Consequently, the American public quickly became outraged, spurring an increase in anti-Saudi sentiment. Allegations of Saudi links to Al-Qaeda continued to raise suspicions of Saudi participation in the September 11th attacks. Two weeks after the attacks, the Saudi regime cut its ties with the Taliban in Afghanistan.[219] In October, the Saudis reportedly froze "terrorist related funds" and by the following month had arrested four hundred individuals and claimed to have disrupted numerous cells with ties to Al-Qaeda.[220]

F. CONCLUSION

The U.S.-Saudi relationship has no doubt persevered through numerous tests of its strength and has assumed the role of a "marriage of convenience." U.S. and Saudi interests appear to diverge as much as they converge; yet it is their converging interests on oil and security that help maintain their relationship. Saudi oil reserves, its comparatively small populous and large geographic area make it a prime target for ambitious adversaries. Low military manpower combined with concerns of disloyalty within the military present the Saudi regime with a unique security situation that provides a logical justification for an alliance with a strong external power: the United States.

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[216] Ibid, 87.
[217] Alfred B. Prados, "Saudi Arabia: Current Issues and U.S. Relations." *Congressional Research Service*, (Updated 06 March 2002) at < http://fpc.state.gov/documents/organization/9049.pdf > (July 2003).
[218] Ibid.
[219] Ibid.
[220] Ibid.

The request for U.S. military assistance following the Iraqi invasion of Kuwait illustrated the inadequacies of Saudi military forces and their inability to provide adequate security from external forces. If the United States continues to provide security for the Saudis at an acceptable level, the Saudis will not seek a security relationship with another power in the foreseeable future. The regime must maintain a military force in order to pacify domestic concerns of over-reliance on the United States and in the regime's view continue to assist in providing security for other Southern Gulf states. A Saudi cost-benefit analysis dictates that breaking ties with the United States, its arms supply and logistical support far outweigh any benefits the regime may gain through an alliance with another power. Additionally, the Saudis have aspirations of joining the World Trade Organization and view the United States as both a barrier and the key to acceptance.[221] As long as the world is dependent on the flow of oil, the United States will continue to seek strong ties with the Saudi regime, as there is no other Gulf state with the power and prestige equal to that of the Saudis. As U.S.-Saudi relations appear to be effective, the lack of a formal security guarantee may compel the Saudis to seek their own security assurances by acquiring a nuclear capability.

The U.S.-Saudi relationship has demonstrated the willingness by both states to endure numerous sacrifices in order to safeguard relations. Even though the United States has never entered into a formal security agreement with the Saudis, a formal "written guarantee" may be a prerequisite for dissuading the Saudis from considering nuclear weapons in the wake of current threats in the region. However, the regime may decline a formal offer for a U.S. security guarantee on the grounds that by doing so the regime would be committing political suicide by entering into a written agreement with the United States, contrary to what it has preached for years. The Saudis have struggled to maintain an acceptable "distance" from the United States while maintaining close enough ties that satisfy U.S. needs. An agreement between the two would generate internal dissent between the Saudi populous and likely cause unacceptable domestic security concerns. Furthermore, a formal agreement between the two would likely be exploited by radical elements within Saudi Arabia and likely generate anti-Saudi rhetoric from Iran. Refraining from a formal security agreement enables the Saudi regime to

[221] Peterson, *Saudi Arabia and the Illusion of Security*, 72.

implement coercive diplomacy by threatening to acquire a nuclear capability that would run counter to U.S. and Israeli policies.

The informal security umbrella provided by the United States has arguably kept Saudi Arabia nuclear free, yet, in the event that a Saudi adversary acquires a nuclear capability, this canopy may not endure and consequentially the Saudis may be compelled to acquire a nuclear capability. A formal Saudi security guarantee by the United States would force the latter to become further involved in any and all Saudi security disputes, yet it would likely keep nuclear weapons out of the Kingdom. In the absence of any formal agreement, the United States must identify a strategy that addresses Saudi security and the possibility that the Saudis may replace their CSS-2 ballistic missiles for a modern, nuclear-tipped arsenal.

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V. CONCLUSION

A. FINDINGS

Saudi Arabia must constantly maintain a watchful eye on the intentions and capabilities of rival Gulf states. Since the 1970s, it has witnessed military coups, religiously motivated revolutions, and major regional conflicts that entailed the use of ballistic missiles and WMD. As it seeks to ensure its survival from external threats, it must also pay close attention to public opinion in order to maintain legitimacy with the Saudi populace.[222] With the recent removal of Saddam Hussein from power and indications of possible rapprochement with Iran, the Saudi public interest favors reduced defense spending.[223]

Over the past three decades, Saudi security has been preserved by the efforts of the United States. However, in the Persian Gulf, the notion that "today's friend may very well be tomorrow's enemy" is a reality that the Saudis will contend with for years to come. Adding to the Saudi dilemma is the fact that its neighbors are very well-armed and possess latent capabilities to inflict severe financial and military damage to Saudi Arabia. This situation does not favor the Saudi regime and forces it into the dilemma of how to counter or deter potential adversaries with the current military capabilities and fiscal constraints while maintaining its alliance with the United States.

The Saudi regime values its relationship with the United States, one of the primary proponents behind the Nuclear Non-Proliferation Treaty, yet it has reportedly made several attempts to invest in nuclear technology in the past. The Saudis allegedly offered to finance the reconstruction of Iraq's Osirak reactor following the Israeli attack on it in June of 1981.[224] Thirteen years later a prominent ex-Saudi diplomat produced documentation that claimed that Iraq's nuclear program was supported by Saudi Arabia. The joint project reportedly was active until the outbreak of the 1991 Persian Gulf War.[225] In addition to the Iraqi program, the CIA had been apprised of Saudi financial

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[222] Naef Bin Ahmed Al-Saud, "Underpinning Saudi National Security Strategy," *Joint Force Quarterly* No. 3*2* (Autumn 2002) at < http://www.dtic.mil/doctrine/jel/jfq_pubs/2232.pdf> (August 2003).
[223] Ibid.
[224] *Global Security – Saudi Arabia Special Weapons* at <http://www.globalsecurity.org/wmd/world/saudi/index.htm> (June 2003).
[225] Ibid.

support for Pakistan's nuclear program.[226] More recently, U.S. officials became concerned over the discovery of Saudi Prince Sultan's trip to Pakistan in May of 1999. The Prince reportedly toured a Ghauri missile factory and some of Pakistan's secret nuclear facilities, which caused further speculation over Saudi interests in the nuclear arena.[227]

The concentration of ambitious states, ballistic missiles, and WMD programs in the Persian Gulf leaves few alternatives to the Saudi regime in light of the possible Saudi replacement of its ballistic missile inventory. In order to maintain an adequate strike capability against potential adversaries, the regime will more than likely replace its CSS-2 fleet. Additionally, the regime may find that acquiring a nuclear capability based on the potential capabilities and intentions of its regional adversaries is mandatory.

There are two scenarios in which the Saudi regime is likely to acquire nuclear warheads for their ballistic missiles. In the event that Iran acquires a nuclear capability and relations between the Saudis and Iran remain stagnant or decline, the Saudis may opt to acquire nuclear warheads for their missiles. In light of historical disputes with Iran, ideological differences and the potential for regime changes in Iran, the Saudis would be putting themselves at risk by not acquiring a nuclear capability in response to an Iranian capability. Without a Saudi nuclear capability in response to an Iranian nuclear threat, the Saudis may leave themselves open to political coercion. Iran has sought a hegemonic role in the Gulf for many decades and likely perceives that a nuclear capability will enable such a role. It currently possesses the personnel and the technology to maintain its "peaceful" nuclear programs, which may lead to a nuclear weapons program. An Iranian nuclear capability would endanger the Saudi regime.

Saudi concerns over Iran may best be described by the analogy that Iran is like a smoldering fire. At any time, however, the fire could flare again for unforeseen reasons, similar to Iran's potential to threaten the Saudis in the event of instability in Iran. The Saudi regime likely views Iran as a fire that will at best smolder for years. It is for this reason that the regime likely feels compelled to maintain the "American connection" in

[226] *Global Security – Saudi Arabia Special Weapons* at <http://www.globalsecurity.org/wmd/world/saudi/index.htm> (June 2003).
[227] Ibid.

the event Iranian relations deteriorate in the future. Simultaneously, the Saudis hope to bolster their own capability by maintaining a ballistic missile force comparable to Iran.

The second scenario that would increase the potential for a nuclear Saudi Arabia would entail the withdrawal of U.S. security guarantees. Since the fall of the Shah of Iran, U.S. resolve in its security commitments has raised concerns by the Saudi regime. During an August 1990 discussion between the Saudi ambassador to the United States, Prince Bandar bin Sultan and U.S. National Security Advisor Brent Scowcroft, Bandar stated the following regarding Iraq: "Frankly, we're worried. Do you guys have the guts or don't you? We don't want you to put out a hand and then pull it back and leave us with this guy on our border twice as mad as he is now."[228] Saudi concerns were somewhat diminished following the launching of Operation Desert Storm in 1991. However, the regime is well aware that security alliances may always be in flux, especially in cases of informal alliances. The Saudis may be under the impression that American interests lie with Saudi oil, and not necessarily with the regime. As a result, it would be rational for the regime to acquire a capability that would increase its potential for regime survivability against perceived threats and that would safeguard the regime against the possibility of a future U.S. security commitment withdrawal.

A formal U.S. security agreement extended to the Saudis may diminish Saudi concerns of U.S. resolve, however, the Saudis may not accept such an offer. In the past, efforts to achieve a "formal agreement" were curtailed due to Saudi unwillingness to accept U.S. pre-positioned equipment.[229] Any proposed formal agreements must be conducive to Saudi public opinion in addition to U.S. policymakers.

B. IMPLICATIONS

The formal security guarantees of the United States extended to Japan and South Korea have arguably removed the need for a Japanese or South Korean nuclear capability, despite the aspirations of their nuclear neighbors, China and North Korea. If the United States wants Saudi Arabia to remain nuclear free, it should consider providing a formal security guarantee that is acceptable to the Saudis. A formal guarantee would

[228] Richard L. Russell, "A Saudi Nuclear Option?" *Survival* Vol. 43, No. 2, (2001), 70.
[229] Naef Bin Ahmed Al-Saud, "Underpinning Saudi National Security Strategy," *Joint Force Quarterly* No. 3*2* (Autumn 2002) at < http://www.dtic.mil/doctrine/jel/jfq_pubs/2232.pdf> (August 2003).

render Saudi Arabia much more likely to forgo nuclear weapons but would link the United States to all of Saudi security issues originating from its regional rivalries and border disputes. In order to dissuade Saudi Arabia from acquiring nuclear weapons, the United States must consider the security interests of the Saudi regime, whose primary rival is Iran. A nuclear Saudi Arabia would not only run counter to the Nuclear Non-Proliferation Treaty (NPT), but may also thrust the Saudis into the same category of NPT "violators," may jeopardize its legitimacy, and may potentially destabilize the Gulf region.

Subsequently, China and Pakistan are the two most likely candidates for supplying the Saudis with a replacement for its ballistic missile force. Both states possess a nuclear capability and the potential for transferring such technology. However, neither of the two may want to risk jeopardizing existing U.S. relations or face potential sanctions by violating international arms agreements and transferring nuclear weapons to the Saudis. The United States should remain vigilant over China and Pakistan and identify possible motivations for transferring nuclear technology to the Saudis should they request it.

C. FINAL WORDS

If the United States hopes to continue to follow its counter-proliferation policy and ensure that the Saudis do not join the nuclear club, it must also address Saudi public opinion and its security needs. The Saudis view the international structure as a zero-sum game, in which Saudi security is decreased when its rival states acquire additional weapons and pursue WMD. In light of the Saudis small populace and military force compared to those of its adversaries, maintaining the U.S.-Saudi alliance is well within Saudi interests despite the negative implications of its public association with the United States. The United States has historically provided security for the Saudi regime, but if the United States elects to withdraw from its security commitments, the Saudis may very well join the nuclear club. Iran is a large and potentially unstable state, and will likely remain on the Saudi "watch list" for many years. Until then, the Saudis will always have to contend with Iran's arsenal, rather than its public decrees and speculative intentions. A continued U.S.-Saudi alliance would help stem WMD proliferation in the Middle East.

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