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DETERRENCE DURING HOSTILITIES:  
A NEW "TRIAD" FOR THE MIDDLE EAST

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Operations Curriculum.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Due to the presence of weapons of mass destruction and the will to employ them in the Middle East, the operational commander of the next conflict must understand and employ a new deterrent triad. This triad is composed of the strategic, operational, and tactical levels of deterrence. Current Marine, Army, and Air Force doctrine naturally support it. However, to work, it must be intelligently orchestrated--it will not happen just because the doctrine supports it. As the warfighting professional, the operational commander must conduct future campaigns with an integral, multi-level deterrent focus. It will be his responsibility to maintain a viable force in theater, and thus it will be his responsibility to execute the new triad for the Middle East.			
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Abstract of  
**DETERRENCE DURING HOSTILITIES:  
 A NEW "TRIAD" FOR THE MIDDLE EAST**

Due to the presence of weapons of mass destruction and the will to employ them in the Middle East, the operational commander of the next conflict must understand and employ a new deterrent triad. This triad is composed of the strategic, operational, and tactical levels of deterrence. He must frustrate the potential enemy's ability to develop NBC weapons through cooperative and unilateral initiatives. He must sap the enemy's will to employ them through the promise of retaliation, the promise of limited objectives, and the fact that friendly forces are ready to operate in the hostile NBC environment. The operational commander must frustrate the determined enemy's effort to target his weapons by blinding him to friendly troop locations and intentions and by maintaining a superior operational tempo. The safety and effectiveness of friendly forces engaged in future conflict can only be maximized by approaching deterrence as a multi-level endeavor. This deterrent focus to campaign planning will not detract from the war effort. Current Marine, Army, and Air Force doctrine naturally support it. However, to work, it must be intelligently orchestrated--it will not happen just because the doctrine supports it. As the warfighting professional, the operational commander must conduct future campaigns with an integral, multi-level deterrent focus. It will be his responsibility to maintain a viable force in theater, and thus it will be his responsibility to execute the new triad for the Middle East.



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DETERRENCE DURING HOSTILITIES:  
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CHAPTER I

INTRODUCTION

Deter: "To turn aside, discourage, or prevent from acting."<sup>1</sup>

Deterrence against the use of weapons of mass destruction has long been the sole province of national level government. It has been a strategic policy directed at the national leadership of target countries. Specifically, it has been focused in two directions--towards the former Soviet Union to deter the use of any nuclear, biological, or chemical (NBC) weapon, and towards the Third World to prevent them from developing the ability to conduct strikes with such weapons. The first has been successful but the second has not.

The proliferation of weapons of mass destruction and the technology to employ them (See Appendix I.) has continued, and thus any military action in the future will involve the risk of sustaining unacceptable losses in a single enemy strike. With the streamlined military forces of the future, this could mean that any third rate military power would have the ability to halt offensive military action with a single, devastating, well-placed strike. Obviously, for a nation attempting to project power anywhere on the globe in defense of national interests, this prospect is not acceptable. Additionally, there are too many assumptions and variables in the current deterrent equation when applied to the growing number of capable third world countries to be able to depend upon it. Instead, operations must be conducted in such a manner that, by their very nature, they preclude the use of such weapons and thereby maintain a viable offensive military force in theater.

This concept of conducting operations to minimize attrition is nothing new. The limited resources of forward deployed forces responding to a contingency have for years been forcing a change from attrition tactics to the current maneuver warfare doctrine.<sup>2</sup> However, the speed and finality with which NBC weapons can end the war (and any hope of accomplishing the assigned objectives) gives a higher priority

to an old operational problem--how to accomplish assigned objectives with limited resources against opposing forces. When the opposing forces are NBC capable, it means integrating deterrence into campaign planning as a mandatory condition--an unwritten strategic objective. Maintaining deterrence against NBC warfare demands that the operational commander expand the focus of deterrence to the operational and tactical levels of war. This is not meant to imply that strategic deterrence is no longer valid and should therefore be discarded. Instead, effective deterrence should be viewed as a multi-level endeavor in which any single action or combination of actions at any level (strategic, operational, or tactical) might accomplish the desired outcome. However, knowing the right specific action or combination of actions for the occasion will never be possible. Therefore, to maximize the probability of success, the operational commander must employ (or influence to be employed) each level of deterrence--strategic, operational, and tactical. He must, as the warfighting professional, understand and utilize this new concept of a deterrent "triad." Failure to do so could result in devastating attrition of friendly forces and failure to achieve any objective. The Middle East will be the focus of this discussion because of the recent military operations in the area which lend themselves to this kind of analysis (the Iran--Iraq War and the Gulf War), the volatility of the region, and the United States' continued commitment to stability in this part of the world.

## CHAPTER II

### STRATEGIC DETERRENCE

The first leg of the triad the operational commander should understand is strategic deterrence. National level initiatives directed towards the national leadership of target countries comprise this level of deterrence. It is historically the only form of deterrence which has been practiced by the United States. These initiatives can best be described as retaliatory and preemptive. The retaliatory policy has been directed against NBC capable nations while the preemptive policy has been directed towards countries which are not NBC capable. The purpose for the operational commander in gaining an understanding of these initiatives is to determine their effectiveness in the Middle East and the extent to which they can be relied upon to provide security against NBC attack.

Retaliatory. This deterrent method has been applied almost exclusively against the former Soviet Union and Warsaw Pact countries. It is the declaratory policy of escalating the cost of any nuclear strike by responding in kind. Thus, it ensured the security of the United States by making mutual assured destruction too high a cost to pay for any potential adversary considering the feasibility of a massive or limited nuclear strike. It "focused on deterring a unitary, rational actor applying a relatively knowable calculus of potential costs and gains..."<sup>1</sup> During the Gulf War, President Bush expanded this policy to include Iraq to deter its threat of use of chemical and biological weapons. He reserved the right to respond in any manner to the use of such weapons against U.S. forces.<sup>2</sup> This comprises the retaliatory concept of deterrence.

This policy, as a stand alone measure to prevent use of NBC weapons, has problems when applied to the Middle East. In short, "deterrence based on US/USSR common understanding could be useless to a society that welcomes martyrdom or might use a retaliatory strike for its own ultimate purpose."<sup>3</sup> The United States and the Soviet Union (and NATO and the Warsaw Pact) essentially grew up together in the nuclear world. In doing so, a mutual set of rules were established such that

there was a "knowable calculus" by which each could be expected to act. This mutual understanding is illustrated by the U.S. Joint Chiefs of Staff in their statement of the required ingredients for a credible deterrent:

A credible deterrent against the use of nuclear and other weapons of mass destruction requires a reliable warning system, modern strategic and theater nuclear forces, a spectrum of response options, the capability to hold offensive systems at risk, and a defensive system for global protection against limited strikes.<sup>4</sup>

This formula for obtaining a deterrent solution is so permeated with the assumption of a common set of values that it does not even mention the human side of the equation--the possibility of a nation or ruler not playing by the same set of rules that to now have been the only game in town. Instead, it concentrates solely on the technical ability to conduct a flexible counter strike which can "hold offensive systems at risk." It is not reasonable to assume this can provide the margin of security desired to put forces on the ground in a region where an individual would welcome the opportunity to drive a bomb into a military complex. Against Islamic fundamentalism, the basic assumptions in this type of solution are rendered invalid when the "offensive system" may be valued less than the impact of a devastating strike using an NBC weapon. Losing "offensive systems" to retaliation after a first strike has eliminated U.S. forces as an offensive threat (in theater) could be perceived as an equitable trade.

Another aspect that undermines the retaliatory policy of deterrence is the national resolve of the United States. When threatened with nuclear annihilation, the policy of striking back has been justifiable in terms of national defense and ensuring the safety of American citizens. However, when confronted with a limited strike on military forces in a country far removed from the continental United States, the same solution, although declared, is not so easily justified. In fact, during the air operation phase of the Gulf War, when questioned on what the United States response would be to an Iraqi chemical or nuclear attack, Vice President Quayle stated that the United States was unlikely to respond in kind due to the political and moral costs to the nation.<sup>5</sup>

The likelihood of a retaliatory policy of deterrence being successful is good if the opposing party holds the same beliefs, capabilities, and values under which the policy was developed and successfully implemented for the past 40 years. However, applying this policy to a country which does not share the same values could result in a very costly delusion. Similarly, applying the concept to a rival which does not have the same ability to conduct a massive strike against the continental United States could have the same negative result if he knows his enemy and is aware of the retaliatory debate which occurred during Desert Storm.

Preemptive. This is the second method of strategic deterrence and can be described as cooperative. Unlike retaliatory deterrence, this initiative has almost exclusively been directed towards third world countries in an effort to prevent them from acquiring the necessary technology and materials to produce weapons of mass destruction. Cooperative strategic level deterrence has been executed through treaties and agreements. In essence, it has been an attempt to convince all capable nations that it is in their best interests to bound the NBC problem and enter into agreements between the "haves" against the "have-nots."

Nuclear. The only agreement originally conceived to prevent proliferation was the 1968 Nuclear Non-Proliferation Treaty.<sup>6</sup> It was designed to prevent any state other than the original five nuclear capable nations (United States, U.S.S.R., United Kingdom, France, and China) from obtaining a nuclear weapon capability. This was to be achieved by preventing nuclear material and technology from being transferred out of the member nations.

Today, Israel, Pakistan, and India are known or suspected to have the capability.<sup>7</sup> The undermining problem is that the "have-nots" have not been satisfied with the status quo. Such was the case with Israel who, due to extreme national security needs, commenced a nuclear program in the 1950s.<sup>8</sup> This solution is now being mimicked throughout the Middle East. In Iran, China has been discovered aiding an infant nuclear program. When confronted, the Deputy President of Iran, Ataollah Mohajerani, stated "'Because the enemy has nuclear facilities, the Muslim states, too, should be equipped with the same capacity.'"<sup>9</sup>

The dissolution of the Soviet Union has added a new dimension to the proliferation problem. Unconfirmed reports have stated that Iran has gained control of three Soviet tactical nuclear weapons and, based on declared policy, it is obvious that they would seek them. There have been reports of nuclear private holding companies in the new Commonwealth which, due to the need for hard currency, are operating under the guise of promoting "peaceful nuclear explosives" and are exempt from existing export regulations.<sup>10</sup> Finally, there are thousands of ex-Soviet nuclear scientists out of work without a way to support their families and third world countries are hiring.<sup>11</sup> All of these developments serve to undermine the existing status quo and thus present the operational commander with a nuclear capable opponent in the next Middle East conflict.

Chemical. A similar lack of success has been experienced in the effort to curb chemical weapon proliferation. Although designed to prevent the use but not the production of chemical weapons, the 1925 Geneva Protocol provided the framework to support a policy of non-proliferation.<sup>12</sup> However, being inherently weak, the agreement was not effective in preventing such a spread or ultimately in preventing the actual use of chemical weaponry (See Addendum I.). The most recent example is Iraq (a signee of both the 1925 Geneva Protocol and the 1968 Nuclear Non-proliferation Treaty<sup>13</sup>) who extensively produced and used chemical weapons during the Iran-Iraq War and in suppression of Kurdish opposition in its northern provinces.<sup>14</sup>

The weakness of the 1925 Geneva Protocol in combination with the threat posed by chemical weapons during Desert Storm has resulted in a new series of agreements designed to curb proliferation. They began 1 June 1990 with an independent initiative between the United States and former Soviet Union which halted chemical weapon production and provided for the reduction of inventories to 500 tons.<sup>15</sup> They continued locally under the impetus of the Gulf War with the Senate passing the Omnibus Export Amendments Act of 20 February 1991 which required the President "to impose sanctions on countries developing or using chemical or biological weapons."<sup>16</sup> President Bush expanded the initiative on 7 March 1991 by increasing the number of controlled precursor substances from 11 to 50 and by issuing a list of nations

(including the entire Middle East) which would come under particularly strict export controls.<sup>17</sup> Internationally, the President's export controls were adopted by 19 other industrial nations on 30 May 1991 with the agreement to require, in addition to the previously stated restrictions, export licenses for any country not a member of the agreement.<sup>18</sup> The sum effect of these agreements is to greatly strengthen the non-proliferation effort.

Unfortunately, recent history has shown that initiatives undertaken to prevent the proliferation of NBC weapons or technology can never be totally effective. In the Middle East, Iraq demonstrated a military use for the weapons in the Iran-Iraq War. Because international reaction to that use was low key, some barriers to proliferation were lowered and, as more countries gained the capability, the more other nations sought to acquire it for their own defense.<sup>19</sup> With respect to all NBC weapons, national and international export controls have been demonstrated to be only effective at making the product more expensive.<sup>20</sup> As long as there are real security concerns among the nations in the Middle East, no price will be too high nor penalty too great to forego an effective military weapon which might ensure national security.<sup>21</sup>

In summary, U.S. strategic deterrence has been exercised through both retaliatory and preemptive means. Unfortunately, retaliatory deterrence cannot be relied upon to be effective when dealing with different cultural values, nor can it be relied upon to be effective when ambiguous statements are given to the media concerning whether it would be exercised in response to a limited enemy strike in a distant theater of operations. Preemptive deterrence cannot be relied upon because total cooperation is required for non-proliferation type action to be effective and, due to the urgent security needs of the Middle East, no cost is going to be too high to protect against a threat. In addition, with respect to chemical weapons, the mild international reaction to their past use has actually encouraged their use in the future.<sup>22</sup> Consequently, to maintain the security of his forces, the operational commander must expand the deterrence concept to include options other than at the strategic level.

## CHAPTER III

### COMBINED DETERRENCE

The "combined" deterrence policies are so listed because they transcend the strategic and operational levels. The two initiatives in this category are preemptive strike and limited objectives. Preemptive strike, although a strategic initiative during peacetime, becomes an operational concern in time of open hostilities. Similarly, limited objectives also migrate from the strategic to the operational level depending on the size of the conflict. In either instance, the operational commander must know each method to properly integrate them into his campaign if it is within his prerogative or properly assess their effectiveness if it is not.

Preemptive Strike. This type of deterrence is unilateral action taken to eliminate production and storage facilities. The best example of this type of deterrence has been Israel's attempts to dissuade Iraq from developing a nuclear capability.

Saddam Hussein began Iraq's quest for a nuclear capability when he came to power in 1979. France was the vehicle he was attempting to use to get it. In response to his actions and fearing for their own national security, Israel began a series of initiatives to deny Iraq the necessary materials and talent to get the job done. On 5 April 1979, Israel used five saboteurs and one physicist to plant charges and blow up a reactor core and parts which were in France and destined to be shipped to Iraq.<sup>1</sup> On 13 June 1980, Yahia El Meshad, an Egyptian born physicist who was head of the Iraqi nuclear program and was coordinating with the French, was assassinated by the Mossad for his refusal to cooperate with Israel's demands.<sup>2</sup> On 7 June 1981, Israeli F-15s and F-16s conducted an air strike from Beersheba against the Iraqi production reactor located at Tuwaitha outside of Baghdad (also known as the Osiraq reactor) just prior to the reactor coming on line, totally destroying the core.<sup>3</sup>

The United States has also exercised a policy of preemptive strikes only not so overt. In this example, the target was Libya. The initiative began on 15 April 1986 with Operation "El Dorado Canyon" in

which 11 U.S. Air Force F-111Fs from bases in Great Britain and 12 U.S. Navy A-6Es from sea based carriers successfully attacked five terrorist-related targets within Libya. This was in response to increased terrorist activity against U.S. personnel and installations (such as the bombing of the La Belle discotheque) from terrorist units sponsored by Libya.<sup>4</sup> The attack demonstrated United States' resolve in areas of national interest and the ability to conduct strike operations without a carrier task force present in the Mediterranean.<sup>5</sup> It continued on 27 April 1986 when Secretary of State Schultz stated that a conventional military attack was not the only response available to the United States.<sup>6</sup> This declaration was followed from May through October 1986 with a series a U.S. Navy SEAL landings on the Libyan shoreline which disrupted telephone distribution centers and left Israeli and Syrian cigarette butts along with American Kleenex for the Libyan patrols to find.<sup>7</sup>

The policy of preemptive strike evolved on 23 December 1987 when the Reagan Administration announced the construction of a Libyan chemical production plant at Rabta (41 miles south of Tripoli).<sup>8</sup> This report was frequently expanded upon in the press throughout the next year. On 21 October 1988, Vice President Bush stated that nations which engage in chemical warfare should be punished and not with just a fine or sanction that could be ignored.<sup>9</sup> This proclamation was followed on 21 December 1988 by President Reagan's announcement that the Libyan chemical weapons production plant was being discussed with allies and that the military option to destroy it was not being ruled out.<sup>10</sup> Then, on 4 January 1989, two Libyan fighters were shot down by U.S. carrier-based aircraft. The declaratory statement was the incident had no connection with the chemical production plant and was conducted in self defense.<sup>11</sup> However, from the Libyan point of view, the implication had to be all too clear. Although the production facility itself was not struck, the deterrent focus of the U.S. policy had been communicated to Libya.

All these operations have been apparently successful. However, through the execution of the United Nations Resolution 687 (the NBC disarmament of Iraq following the Gulf War), it has been discovered that Iraq was not deterred nor prevented from developing a nuclear capability. Instead, they were only one year from building an atomic

bomb.<sup>12</sup> The Israeli efforts were only successful in driving the Iraqi nuclear production facilities into hiding. The post Gulf War estimates (including the effects of coalition strikes during the war) were that only one-third of Iraq's chemical warfare ability was destroyed.<sup>13</sup> In addition, the hubs of the Iraqi nuclear weapons research and production--the Al Atheer and Furat plants--were either only slightly damaged or totally undiscovered.<sup>14</sup> Similarly, Libya has not been deterred from pursuing the completion of the largest chemical weapons facility in the Middle East. Therefore, although inherently satisfying because they give the appearance of decisive action with immediate feedback as to effectiveness, unilateral strikes have not been effective in accomplishing the ultimate goal of deterrence.

Limited Objectives. Sun Tzu has stated "To a surrounded enemy you must leave a way of escape."<sup>15</sup> This is the essence of establishing limited objectives to support deterrence. With an NBC capable enemy, to force him into a "do or die" mentality by establishing unconditional surrender as the only acceptable vehicle for war termination or to broadcast elimination of the existing government as a military objective is to undermine the strategic level of deterrence. It undermines all efforts which were focused at preventing the enemy from developing the will or intention to employ weapons of mass destruction. Failing to keep military objectives limited to a scope which an enemy, although he may vigorously oppose them, can accept could cause an escalation of force which could preclude obtaining any military objective. It could result in the concept of retaliatory deterrence applied in reverse.

There are two fairly recent examples of failing to apply limited objectives--the Yom Kippur War and the Iran-Iraq War. The Yom Kippur War was a combined offensive conducted by Egypt and Syria against Israel in October 1973. The Egyptian war aims were to recover a portion of the territory lost to Israel on the Sinai Peninsula during the Seven Days War of 1967. The Syrian war aims were similar except their lost territory extended from the Golan Heights to the Jordan River.<sup>16</sup> Israel saw the combined offenses as threatening the very existence of the state which the Arab nations had repeatedly stated had no right to exist. Therefore, Israel responded as if its existence were at stake

and deployed its nuclear arsenal on 8 October 1973.<sup>17</sup> Due to the ultimate success of conventional counter-offensives, the nuclear threshold was not crossed. However, there can be no doubt as to the Israeli perception and resolve to resort to weapons of mass destruction if the tide of battle had not changed.

The second example, the Iran-Iraq War, began on 22 September 1980 with the Iraqi invasion of Iran. The Iraqi war aims were to regain control of the Shatt-al-Arab--the economically important confluence of the Tigris and Euphrates rivers. This was an historically disputed region which had most recently had control ceded to Iran by the Algiers Agreement of 1975. Iran responded to the Iraqi invasion with total war. It saw the attack as a direct affront to the Islamic revolution in Iran and an opportunity to spread the revolution of Islamic fundamentalism throughout the Arab world.<sup>18</sup> Iran adopted the war aims of overthrowing Saddam Hussein and the ruling Ba'th party.<sup>19</sup> When confronted with the unrestricted war aims of Iran coupled to reverses in the war, Iraq faced the same situation as had Israel during the Yom Kippur War. However, in this instance, Iraq was unable to counter the human wave tactics of the Iranians with conventional weapons. Faced with the choice of escalating the war to unconventional munitions or collapse of the regime, Saddam Hussein chose chemical weapons to prevent Iranian breakthroughs, and ultimately forced Iran to abandon its war aims.<sup>20</sup> By adopting unconditional objectives, Iran forfeited its limited gains and lost the ability to obtain even the most limited of objectives.

Both preemptive strike and limited objectives demonstrate key principles for the operational commander maintaining deterrence as a strategic objective during campaign planning. First, preemptive strike will never be totally effective. In fact, if the Gulf War with the ability to conduct unopposed strikes were to be taken as the test case, the best effectiveness the operational commander should expect to achieve is about 30% destruction of NBC capability. Second, limited objectives act as a deterrent. They, although unprovable, must have had a bearing on the non-use of chemical weapons in the recent Gulf War. Third and last, the opposing leadership must be informed that the objectives are limited. If not, it becomes immaterial whether they are limited or not--the perception of the enemy will dictate his response.

## CHAPTER IV

### OPERATIONAL DETERRENCE

Up to this point, all deterrent initiatives have been directed at preventing a country from obtaining the technological ability to conduct NBC strikes and at preventing an opponent from developing the will to use them. However, successful execution of these operations may not always be a luxury the operational commander can enjoy. Preventing the technological ability to wage chemical warfare and, in some cases, biological and nuclear warfare in the Middle East has been overcome by events. Relying on a retaliatory deterrent for protection against limited strikes is futile against an opponent who relishes the opportunity to give his life in support of his cause. Relying on limited objectives to prevent the escalation to unconventional weapons may not be a military alternative or, if it is, may not be believed by the opposing leadership. Under these conditions, when the enemy has the capability and the intent of using weapons of mass destruction, the operational commander requires a different orientation, an expanded concept, to maintain an effective deterrent.

This expanded concept was best described by BGEN Hopgood, USMC, who stated "Before any sizable enemy force can be destroyed, it must ideally be 'fixed' in place somewhere."<sup>1</sup> It makes accomplishment of two tasks mandatory. A commander must be able to locate the opposing force in some number and he must be able to complete the decision loop and execute his NBC attack while the force is still there. Undermining these precepts is the focus of the second leg of the triad--operational deterrence. As an illustration of the extremes of this spectrum, operations can proceed at a snail's pace without risk of NBC attack if the enemy can be totally blinded as to intentions and location. Likewise, the enemy can be totally omniscient as to intentions and location if he is incapable of acting within the existing tempo of operations. Obviously, neither extreme is likely in battle. However, a balance can be struck between shaping enemy expectations and maintaining superior tempo which can maintain a viable degree of deterrence. The concept is summarized well by Sun Tzu: "...As

unfathomable as the clouds, move like a thunderbolt."<sup>2</sup> The recent operations in the Persian Gulf provide a wealth of examples of this concept and how it might be applied in a Middle East conflict.

Shaping Enemy Expectations. This facet of operational deterrence is directed at blinding the enemy to the opposing force's intentions and location. In the context of super power confrontation, the idea of "blinding" the enemy would have been rejected--it probably would have precipitated the outcome the operation was attempting to deter. However, in the context of limited conflict in the Middle East where a global capability is not present and the objectives are limited, "blinding" the enemy can be crucial. It is accomplished through coordinated aerospace force application, deception, and utilization of the media. Force application removes the enemy's ability to perceive the truth with respect to location and intentions. Deception and utilization of the media insert the desired "truth." They provide a reasonable facsimile of reality to appease the enemy's curiosity and remaining intelligence apparatus.

Aerospace Force Application. United States' military capabilities and Aerospace Doctrine have evolved to the point where effective force application (strategic attack, interdiction, and close air support) at commencement of hostilities is a reality. This was amply demonstrated during Phase I of the air operation of Operation Desert Storm. Iraqi command and control facilities, known NBC production and storage facilities, air defenses, and offensive air capabilities were all targets in this phase of the Gulf campaign.<sup>3</sup> By successfully completing it, the Coalition blinded Iraqi forces to friendly troop locations and intentions.<sup>4</sup>

Success in aerospace force application was achieved through the establishment of a Joint Force Air Component Commander (JFACC) who utilized an integrated target plan (the Air Tasking Order or ATO). This plan coordinated the different air forces (Army, Navy, Air Force, Marine, and Coalition) and other deep interdiction capabilities (Tomahawk cruise missiles, Special Operating Forces, F-117As)<sup>5</sup> into an orchestrated effort with a single focus. This is the lesson the operational commander should apply when seeking to establish a deterrent. It reflected the timeless relevance of Sun Tzu: "Thus the

momentum of one skilled in war is overwhelming, and his attack precisely regulated.<sup>6</sup> The JFACC concept was very effective in establishing momentum in the first three days of the war in a systematic manner and in blinding Iraqi forces.<sup>7</sup> The application of force in accordance with aerospace doctrine thus contributed to operational deterrence.

Deception. This operation is designed to provide the enemy with the desired "truth" so that he may not too strenuously attempt to recover actual force deployments and intentions. To be effective, it must be credible. Ideally, this means it must conform to enemy expectations based on information received prior to being "blinded" and rest upon proven force capabilities.

Two examples of credible deception in Operation Desert Storm were the amphibious feint and Task Force Troy. The amphibious feint was an operation involving 17,000 embarked U.S. Marines, 31 amphibious ships, and U.S. Navy SEALs. It was ultimately used to distract Iraqi forces and make them devote assets to defend against the possible threat from the sea.<sup>8</sup> It was an ideal application of deception in support of deterrence because it adequately deceived the enemy as to the coalition's true intentions while the force remained invulnerable to NBC attack due to the mobile and covert nature of ships at sea. The deception was made credible by advertising the amphibious assault capability before commencement of hostilities. This was done by conducting exercises such as Imminent Thunder.<sup>9</sup> The feint was given more credibility by U.S. Navy SEALs the night preceding the beginning of ground operations. Specifically, on the night of 23 February 1991, six SEALs conducted a series of raids along the Kuwait coast. Using explosives and gunfire, they convinced the defenders that an amphibious assault was beginning which was later confirmed by the movement of two Iraqi divisions towards the coast.<sup>10</sup>

In the second example, a part of the U.S. Marine Corps First Division, coordinated by BGEN Draude, was tasked to confuse the Iraqis as to when and where the First Division was coming. They created Task Force "Troy" which utilized Sea Bees to build fake tanks and howitzers near the southern Kuwait border. Then, they used real tanks, artillery, EA-6Bs, and security elements to conduct raids. Finally, helicopters

and radio traffic were used to make it seem as if a real division was located there.<sup>11</sup> All of these efforts served to keep the Iraqis unsure of both the true location and intent of the First Division.

Utilization of the Media. The media can go far in promoting what the operational commander wants the enemy to believe. However, this is not meant to imply that the press should also be deceived. Typically, attempts in that direction are eventually uncovered and tend to do more damage than good.<sup>12</sup> Instead, the media should be employed to provide the proper emphasis to the commander's deception. For example, the credibility of the amphibious assault was strengthened by advertising the results of the Iminent Thunder exercise.<sup>13</sup> The operational commander must not neglect this medium which might be the only effective means during a period of open hostilities in which he can communicate to the enemy what he wants him to know.

Shaping enemy expectations is integral to conducting a campaign with a deterrent focus. But like the other facets of deterrence, it is not a solution in itself. A single blunder can disclose an important position and thus make it vulnerable to NBC attack. To provide security in this type of situation is the second precept of operational deterrence--maintaining superior tempo.

Maintaining Superior Tempo. In a deterrent application, this precept means to operate inside the enemy's decision making cycle in both time and space to minimize the probability of his being able to place an NBC weapon on target. It demands creating a situation which develops a relative speed in the tempo of operations between opponents. U.S. Marine Corps Campaigning links the ability to create operational tempo to undertaking multiple tactical actions simultaneously, anticipating tactical results and developing sequels to capitalize immediately on outcomes, utilizing decentralized command and control under a unifying intent, and avoiding unnecessary combat.<sup>14</sup> The current U.S. Marine Corps doctrine of Warfighting and the developing U.S. Army doctrine of AirLand Battle-Future support and promote this high tempo concept of operations. They emphasize speed, mobility, combined arms, and strikes oriented on enemy weaknesses vice strengths.<sup>15,16</sup> They emphasize a cycle of operations in which forces disperse, mass, attack,

redisperse, and reconstitute.<sup>17</sup> All of these factors promote relative speed in time and space, and thus promote deterrence.

A few additional methods of accomplishing relative speed have already been discussed. Deception, for example, not only protects a commander's location and intentions, but also forces the enemy to attempt to cover non-existent contingencies. During Desert Storm, the amphibious feint forced Iraq to concentrate a great deal of its forces (6 of 11 divisions) along the Kuwait coast which made them extremely vulnerable to a flanking attack and to attrition from air assets.<sup>18</sup> Thus the speed of coalition operations was enhanced. Another method was utilization of the media. News coverage of American soldiers in the field, combat ready and of high morale had to be a force multiplier when viewed by an Iraqi unit or by Iraqi leadership suffering from the effects of the embargo.<sup>19</sup> This too promoted a relative speed in operations. In general, all efforts directed at shaping enemy expectations in order to promote deterrence will also assist in developing relative speed and once again promote operational deterrence. Other areas which support developing tempo are command and control, psychological operations, logistics, intelligence, "fighting smart," and allies.

Command and Control. Given the tempo modern doctrine and effective deterrence is trying to generate, modern command and control functions must be flexible, fast, accurate, and practiced. The emphasis here is on the people and organizations--not the hardware.

An example which has been enjoying success is the U.S. Marine Corps concept of Rapid Response Planning. It is a highly structured, crisis response form of planning designed to produce a viable operational plan within six hours of initial tasking. What the operational commander can apply from this example is not the particular methodology which is based on concepts taught at every War College. Instead the most important aspect of the concept is that it is practiced. Practicing command and control from initial tasking through actual movement of assets achieves a number of goals which will increase operational efficiency and speed. These are validation of notional plans, increased refinement of possible missions, periodic and realistic updates of existing plans to current regional conditions, standardized planning

procedures with a quick, competent "battle" staff, and validated Standard Operating Procedures (SOPs) which allow planning by exception instead of detailed operating orders.<sup>20</sup>

Examples of the successful application of Rapid Response Planning were operations "Eastern Exit" and "Sharp Edge." Operation Eastern Exit was a non-combatant evacuation operation (NEO) conducted on 5 January 1991 in Mogadishu, Somalia. Fifty-one Marines and nine SEALs evacuated 36 Americans and 246 foreign nationals from the U.S. Embassy under hostile fire with no fatalities.<sup>21</sup> Operation Sharp Edge was another NEO conducted 5-12 August 1991 in Monrovia, Liberia. In this example, over 1600 people were evacuated from the U.S. Embassy.<sup>22</sup> In both cases, the operations were short-fused and occurred when the major thrust of U.S. effort overseas was directed towards Iraq. Both were successfully completed under less than optimum conditions. Both required flexible, fast, and accurate planning and execution, and both had it. These were U.S. Marines operating in concert with naval forces--a highly practiced team. The same ability must be achieved by the operational commander in control of joint forces if command and control is going to enhance rather than detract from operational tempo. The practiced staff will promote operational deterrence through superior tempo.

Psychological Operations. Out of all the operations involved with generating superior tempo, the psychological operation is the only one which specifically targets slowing the enemy down vice speeding friendly forces up. It is designed to destroy the will of the enemy to resist and thereby impart relative speed to the operational commander. It can be accomplished by breaking the will of the resisting forces or by breaking the will of the resisting leadership. First, in Operation Desert Storm, psychological operations (PSYOPS) were employed to break the will of the resisting forces. The best example of this occurred when members of the Fourth Psychological Operations Group dropped leaflets and conducted a broadcast over the "Voice of the Gulf" (a mobile PSYOP radio station) stating "'Tomorrow if you don't surrender we're going to drop on you the largest conventional weapon in the world.'"<sup>23</sup> Nobody surrendered and, on 7 February 1991, a 15,000 pound bomb was dropped on the advertised location. On 8 February, an Iraqi battalion commander and his staff surrendered.<sup>24</sup> Debriefs of prisoners

of war showed this type of operation to be a major contributor to Iraqi surrenders.<sup>25</sup> The ability to advertise a location and still strike at will proved devastating to their morale.

The second way PSYOPS can be employed is to break the will of the resisting leadership. There are no examples during Desert Storm when this was overtly exploited but it had an effect just the same. The strategy is to remind or convince the opposing leadership that, win or lose, they cannot afford to terminate the conflict with a substantial reduction in military capability. The most direct way to accomplish this is to concentrate on the security concerns of the opposing leadership which exist outside the scope of the current conflict. This has resulted in the opposing leadership withholding the best of its troops as a hedge against future security concerns. The effect is that substandard troops end up being committed to the current conflict--troops which are more easily demoralized and who are frequently characterized as not having the will to fight. This situation has developed twice in recent history--the Falklands War and the Gulf War.

In the Falklands War, Argentina invaded the Falkland Islands without expecting opposition. It was assumed that the invasion, once successfully completed, would be accepted as a fait accompli. However, Great Britain responded militarily. Argentina, who faced a real security concern in the form of Chile, could not allow its military capability to be degraded in the conflict over the Falklands to the point where Chile would attempt to capitalize on the situation. As a result, the bulk of the forces set to defend the Falklands against the impending British counter-offensive were raw conscripts who were relatively easily overrun.<sup>26</sup>

Likewise, the war in the Persian Gulf developed along similar lines. Saddam Hussein expected his invasion of Kuwait to be accepted as a fait accompli. When the United States and Coalition states intervened, Iraq was faced with a situation in which it could not afford to end the conflict militarily debilitated. Its real security concerns were the restless Kurds (an internal problem) and the Iranian fundamentalist threat (both an internal and external problem). As a result, by the day the ground phase of operations began in Desert Storm, not a single division of Iraq's best troops, the Republican

Guard, remained inside the borders of Kuwait.<sup>27</sup> The result was the remaining troops were relatively easily demoralized and this multiplied the relative speed of the coalition forces.

It has been frequently mentioned in the press that not too many lessons should be drawn from Desert Storm because it was clear that the enemy did not possess the will to fight. The operational commander should study this phenomena with respect to future operations in the Middle East and exploit it. The situation was not just a lucky break. All countries in the Middle East have the same vulnerability of multiple internal and external security concerns and are equally susceptible to being undermined and demoralized through psychological operations. Thus operational deterrence has a substantial possibility of being enhanced through the intelligent use of these operations.

Logistics. This area of promoting high tempo military operations is by far the Achilles' heel for the operational commander. By its nature, logistics requires fixed time tables and locations which restrict operational speed in both time and space, and thereby increase the operational force vulnerability to an NBC attack. However, a solution was obtained for Desert Storm to make long logistic lines of 80 to 250 miles work.

The solution which maintained the ability to conduct operations so as to maintain a deterrent posture was a "push" policy of logistics. It was executed by the First and Second Force Service Support Groups (FSSGs). The concept entailed preventing combat elements from having to ask for materials to fill existing deficiencies by "pushing" materials to combat elements to fulfill a predicted future need. The mechanical execution involved the First FSSG basing itself in Al Jubayl to take receipt of materials coming into the theater of operations and coordinate with the Saudi Arabian government. The Second FSSG conducted a forward based direct support effort from two base stations--Kibrit and Al Khanjar. The first depot built was Kibrit and it was initially 100 kilometers north of the closest U.S. position. It took a month to complete and contained 30 days worth of supplies. Al Khanjar was built second to support the flanking attack of the Marine divisions. It took two weeks to complete, contained two weeks worth of supplies, and was located 150 kilometers northwest of Kibrit and about nine kilometers south of the Kuwait border. Materials from these depots were supplied

to the fighting elements (regiments or task forces) by Mobile Combat Service Support Detachments (MCSSDs) which maintained a one day supply of materials.<sup>28</sup> As previously mentioned, this arrangement worked to support a high tempo ground operation and therefore was effective in promoting operational deterrence.

When considering Desert Storm with respect to logistics, there are some aspects to the example which must be addressed. First, there was six months in which to plan, transport, and distribute materials within the theater. A competent enemy studying the lessons of this conflict cannot be expected to allow so much time to pass while his initiative languishes. Second, the facilities which received materials coming into theater were superb--another advantage which cannot be assumed to exist in the next conflict. What this means to the operational commander is that he may have to apply the concepts of seabasing and selective offloading.<sup>29</sup> In order to maintain the necessary tempo of operations (and avoid being stalled waiting for a sufficient material reserve to develop), he may have to delay coming into theater or fight with a lower margin for error. Sun Tzu stated that "Those adept in waging war do not require a second levy of conscripts nor more than one provisioning."<sup>30</sup> The operational commander of the next Middle East conflict may have to weigh the risk of an uncertain ability of the enemy to resist (and therefore cause the expenditure of supplies) as opposed to the risk of delaying offensive operations waiting for a logistic reserve. Waiting may allow the enemy to gain the initiative and conduct a single devastating strike.

Intelligence. Without intelligence, none of the operations contributing to operational deterrence would be feasible. Strategic level intelligence is necessary to blind the enemy and establish air superiority. As indicated by the success of that phase of the campaign in Desert Storm, strategic level intelligence was excellent<sup>31</sup> and this is an advantage which the operational commander can expect in the next conflict. However, battle field intelligence, the intelligence involved in supporting a fluid theater of high tempo operations, was not adequate and only worked due to the flexible application of organic assets (such as F-18s and remotely piloted vehicles).<sup>32</sup> This is not a new lesson learned. Therefore, the operational commander must plan to utilize organic assets to cover his emerging intelligence needs.

"Fighting Smart". "Fighting smart" is a philosophy coined in Warfighting which endorses "generating the greatest decisive effect against the enemy at the least possible cost to ourselves."<sup>33</sup> In the application of operational deterrence, it can be interpreted as the actions which generate the greatest relative speed for friendly forces at the least possible cost. Force application, deception, command and control, PSYOPS, and intelligence all fall under this heading. In addition, there are several smaller scale examples which demonstrate the same concept which the operational commander should exploit to create tempo. One such example from Desert Storm is in the area of communications. During battlefield preparation and close air support of the ground operation, aircraft could find themselves being directed and targeted by a variety of service controllers. To keep communications as simple as possible and in recognition of the true extent of the signals intelligence threat, both call signs and frequencies were locked in so that they would not change on a daily basis. Additionally, once strike aircraft were being vectored by their final controller, all transmissions were made unencrypted. The logic was that, if the enemy could react fast enough to avoid a strike which was just a few minutes away, then the battle was already lost.<sup>34</sup> This common sense approach to speed up operations by injecting simplicity and enhancing interoperability embodied the concept of "fighting smart" and thus deterrence.

Allies. The final aspect of maintaining superior tempo is allies. In Desert Storm, they were a universal speed multiplier. British and Australian mine clearance ability could have provided the mine-free channel through which an amphibious assault could have been conducted without stalling.<sup>35</sup> Free Saudi Arabian jet fuel provided the logistical support to conduct all phases of the air operation. Saudi Arabian ports, airstrips, and greater than 1000 40-ton trucks provided the logistics ability to support the ground operation.<sup>36</sup> Turkish support allowed the basing of U.S. fighters in Turkey which eliminated the possibility of a safe haven for Iraqi aircraft within their own borders.<sup>37</sup> General allied support allowed the dispersion of forces so that no one target might prove too costly for an NBC attack as opposed to having to establish a beachhead in Kuwait. The presence of a large regional coalition also emphasized Iraq's post war security concerns

(as was discussed under psychological operations) and enhanced the possibility of being ostracized internationally if unconventional weapons were employed. Clearly, allies contributed immensely to establishing a relative speed advantage over the Iraqis and must be emphasized by the operational commander in any conflict in the Middle East.

In summary, strategic level deterrence cannot always be relied upon to provide adequate deterrence against the use of weapons of mass destruction. To overcome this potential shortcoming, the operational commander must apply deterrence at an operational level. He must plan his campaign with deterrence as an implied strategic objective. Shaping enemy expectations and maintaining superior tempo should be embodied in the operational concept to inhibit the use of NBC weapons. If use is the enemy's intent, they will undermine his ability to locate or anticipate friendly forces and deliver ordinance on target.

## CHAPTER V

### TACTICAL DETERRENCE

The final leg of the triad is tactical deterrence. It is the ability which, if the other legs of the triad have been compromised, might provide a viable deterrent. Although practiced at the tactical level, it requires an operational level application if it is going to be exploited for deterrence and not just for individual unit survival.

Tactical level deterrence is the ability to conduct an effective defense and operate better than the enemy in an NBC environment. Its application should be designed to undermine the enemy's will to use an NBC weapon because it would not accomplish the intended task or confer an advantage at any level. An example is available when comparing the Iran-Iraq War to the Gulf War. In the first conflict, chemical gas was used effectively against the human wave tactics of the Iranians. It effectively instilled panic in the Iranian troops because they lacked an adequate defense.<sup>1</sup> Contrast this to the coalition troops of the Gulf War who went into combat prepared to operate in a chemical environment. The fact that they were prepared had to act to deter the Iraqis because they could not obtain an advantage. This is a facet of deterrence which only the operational commander can exploit because it must be broadcast to the enemy--particularly an enemy which has had its intelligence gathering ability disrupted.

Another example is in electromagnetic pulse (EMP) hardening. A possible use of nuclear weapons which would minimize the probability of retaliation in a limited conflict is the high altitude burst. It would produce little if any casualties but its destructive effect upon command and control could be totally disruptive for a highly coordinated force.<sup>2</sup> A tactical response to this problem is to harden equipment against the effects of EMP. An operational application of deterrence would be to advertise the successful ability to harden equipment.

This application is currently being utilized in the form of EMPRESS II--an electromagnetic field generator. It is designed to produce realistic fields equivalent to what could be experienced in a nuclear

blast. What is most significant with respect to deterrence is that EMP hardened Aegis systems have already been successfully tested with further ship classes to be tested in the future.<sup>3</sup> This information, when advertised, can produce the reluctance to employ a limited asset for fear of failing to obtain any significant advantage.

Although labelled "tactical" because of the level at which it is implemented, this type of deterrence must be an integral part of the operational commander's design to deter use of weapons of mass destruction. As the operational level provided a measure of deterrence when the strategic initiative failed, so does the tactical level provide a backstop of deterrence when the operational level fails. Not to exploit this facet would eliminate a third of the new triad which could be devastating in a limited conflict.

## CHAPTER VI

### CONCLUSION

Due to the presence of weapons of mass destruction and the will to employ them in the Middle East, the operational commander of the next conflict must understand and employ a new deterrent triad. He must employ (or influence to be employed) the strategic, operational, and tactical levels of deterrence. He must frustrate the potential enemy's ability to develop NBC weapons through cooperative and unilateral initiatives. He must sap the enemy's will to employ them through the promise of retaliation, the promise of limited objectives, and the fact that friendly forces are ready to operate in the hostile NBC environment. The operational commander must frustrate the determined enemy's effort to target his weapons by blinding him to friendly troop locations and intentions and by maintaining a superior operational tempo. The safety and effectiveness of friendly forces engaged in future conflict can only be maximized by approaching deterrence as a multi-level endeavor. This deterrent focus to campaign planning will not detract from the war effort. Current Marine, Army, and Air Force doctrine naturally support it. However, to work, it must be intelligently orchestrated--it will not happen just because the doctrine supports it. As the warfighting professional, the operational commander must conduct future campaigns with an integral, multi-level deterrent focus. It will be his responsibility to maintain a viable force in theater, and thus it will be his responsibility to execute the new triad for the Middle East.

## APPENDIX I

### THE EXISTING THREAT IN THE MIDDLE EAST

The existence of weapons of mass destruction is prevalent throughout the Middle East. Israel is the most capable. With its Dimona nuclear power plant, it is estimated that they produce enough plutonium-239 to produce 10 atomic bombs per year.<sup>1</sup> They are estimated to have over 300 atomic warheads including neutron bombs, artillery shells, and land mines in the Golan Heights.<sup>2</sup> They are also estimated to have approximately 35 hydrogen bombs in inventory. Israel is known to have deployed nuclear weapons on two occasions--during the Yom Kippur War on 8 October 1973 and on 24 October 1973 during the post war tensions between the United States and the U.S.S.R.<sup>3</sup> They have the ability to produce both mustard and nerve gas.<sup>4</sup> Their delivery capability is limited to aircraft and the Jericho I and II series missile (range 500 and 1500 km, respectively).<sup>5</sup> Their purpose in possessing the weapons was to deter Arab aggression and guarantee the continued existence of their state.<sup>6</sup> Israel is not believed to have ever used chemical weapons.<sup>7</sup>

Iraq is the second most capable nation in the region. Prior to the Gulf War, they had five to seven chemical production plants producing blister (mustard and lewisite), blood (cyanide compounds), choking (phosgene), and nerve (sarin and tabun) agents.<sup>8</sup> The capacity of the plants was rated at 60 tons of mustard gas a month and four tons of nerve agents a month.<sup>9</sup> Since Saddam Hussein came to power, Iraq has also been pursuing a nuclear capability. The full extent of this capability is still not known although post war inspections by the United Nations have revealed that Iraq was about one year from developing their own atomic bomb.<sup>10</sup> Finally, Iraq has also produced an offensive biological capability consisting of anthrax and botulinum toxin.<sup>11</sup> Their delivery capability consisted of FROG-7 (range 65 km), SCUD-B (range 300 km), MOD SCUD-B (range 600 km and 900 km), Anbed surface to surface missile (range 2000 km) and the Tamouz-1 rocket which is capable of putting satellites in orbit. They also could employ artillery shells inconjunction with 350mm "superguns" (range 400 miles).<sup>12</sup> Iraq's purpose in developing the capability to utilize

weapons of mass destruction was to deter the Israeli nuclear threat, counter the Iranian (Shah's) conventional superiority, and suppress Kurdish opposition.<sup>13</sup> They last employed chemical weapons in the Iran-Iraq War in 1988.<sup>14</sup>

Syria has had a chemical capability since 1973. They have one plant which produces blister (mustard) and nerve (sarin) agents. Their delivery consists of aircraft, SCUD-B, FROG-7, and the SS-21 (range 120 km). The purpose of their program is to offset Israel conventional superiority, deter an Israeli nuclear strike, deter Israeli air raids, support a limited offensive to retake the Golan Heights, and deter Iraqi aggression.<sup>15</sup> They are not believed to have ever employed chemical weapons.<sup>16</sup>

Iran developed a chemical capability during the Iran-Iraq War in response to the Iraq capability. Iran currently produces blister, blood, and nerve agents. Its delivery systems consist of the SCUD-B and the Oghab missile (range 40 km). Iran's purpose in maintaining the program is to deter further Iraqi aggression.<sup>17</sup> They last employed chemical weapons in 1987 in the Iran-Iraq War.<sup>18</sup>

Egypt is probably the most technologically advanced state in the region next to Israel. They have existing nuclear research facilities and a pool of highly trained scientists. They are credited with the ability to design and produce nuclear weapons but are not believed to have the necessary nuclear material. Egypt is known to have a chemical capability but the extent of the program is not known. Although Egypt may have had security interests initially driving their nuclear program, research and development is now estimated to be driven by commercial power needs.<sup>19</sup> They last used chemical weapons in the 1960s during North Yemen's civil war.<sup>20</sup>

Libya is the last country of the region to be considered and is also the least capable. Their current capability is estimated to be based on Soviet supplied nerve agents.<sup>21</sup> However, Libya is developing the capability to locally produce blister (mustard) and nerve (tabun and sarin) agents.<sup>22</sup> They have also been pursuing across the board efforts to build or buy nuclear weapons but are not estimated to have been successful to date.<sup>23</sup> Their delivery vehicles are aircraft, SCUD-B, MOD SCUD-B (range 490 km), and FROG-7. Libya's purpose in developing the capability is to counter the Egyptian conventional and chemical

threat, deter United States' unilateral action, enhance military  
prestige, and enhance the ability to influence Middle East events.<sup>24</sup>  
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#### Chapter V

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2. Thomas M. Wilbur, "Verifying Fleet Survivability With Empress II," U.S. Naval Institute Proceedings, October 1991, p. 106.
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#### Addendum I

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2. Brinkley, p. 1:4.
3. Barnaby, p. 24.
4. Pear, "Can Words Stem a Flow of Chemical Weapons?," p. 2:1.
5. Barnaby, p. 23.
6. Brinkley, p. 1:4.

7. Pear, "Can Words Stem a Flow of Chemical Weapons?," p. 2:1.
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12. Paul Lewis, "U.N. to Impose New Arms Curbs on Iraq," The New York Times, 9 October 1991, I, p. 6:1.
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16. Pear, "Can Words Stem a Flow of Chemical Weapons?," p. 2:1.
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18. Pear, "Can Words Stem a Flow of Chemical Weapons?," p. 2:1.
19. Barnaby, pp. 79-82.
20. Pear, "Can Words Stem a Flow of Chemical Weapons?," p. 2:1.
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