

*United States Marine Corps  
Command and Staff College  
Marine Corps University  
2076 South Street  
Marine Corps Combat Development Command  
Quantico, Virginia 22134-5068*

# ***MASTER OF MILITARY STUDIES***

***TITLE:***

## **UNITED NATIONS SANCTIONS AGAINST IRAQ AND IRAQ'S CURRENT MILITARY STATUS**

**SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF MILITARY STUDIES**

**AUTHOR:**

LCDR Steven J. Brackett

**AY 2000-01**

**Mentor:** \_\_\_\_\_ **Dr. Richard W. Bishop**

**Approved:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Mentor:** \_\_\_\_\_ **CDR David A. Mee**

**Approved:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## Report Documentation Page

<b>Report Date</b> 12 Jan 2001	<b>Report Type</b> N/A	<b>Dates Covered (from... to)</b> -
<b>Title and Subtitle</b> United Nations Sanctions Against Iraq and Iraq's Current Military Status	<b>Contract Number</b>	
	<b>Grant Number</b>	
	<b>Program Element Number</b>	
<b>Author(s)</b>	<b>Project Number</b>	
	<b>Task Number</b>	
	<b>Work Unit Number</b>	
<b>Performing Organization Name(s) and Address(es)</b> United States Marine Corp Command and Staff College 2076 South Street MCCDC Quantico, VA 22134-5068	<b>Performing Organization Report Number</b>	
<b>Sponsoring/Monitoring Agency Name(s) and Address(es)</b>	<b>Sponsor/Monitor's Acronym(s)</b>	
	<b>Sponsor/Monitor's Report Number(s)</b>	
<b>Distribution/Availability Statement</b> Approved for public release, distribution unlimited		
<b>Supplementary Notes</b>		
<b>Abstract</b> The United Nations Sanctions against Iraq from 1990 to 2000 have had little impact on Iraq's weapons of mass destruction capabilities in researching and developing nuclear, biological, and chemical weapons. Iraq's previous use of chemical and biological weapons during the Iran-Iraq War of the 1980's, as well as Iraq's resolve to manipulate the United Nations Weapons Team Inspectors by hiding key documents and equipment and submitting false reports shows the extent of what Iraq is capable of doing. Prior to the Gulf War in January 1991, Iraq implemented a crash program to expedite its nuclear weapons program; Iraq already maintained stockpiles of both biological and chemical weapons. After Iraq expelled the United Nations weapons team inspectors in September 1998, Iraq has had a clear opportunity to expand its nuclear, biological, and chemical weapons programs.		
<b>Subject Terms</b>		
<b>Report Classification</b> unclassified	<b>Classification of this page</b> unclassified	
<b>Classification of Abstract</b> unclassified	<b>Limitation of Abstract</b> UU	

**Number of Pages**

66

**REPORT DOCUMENTATION PAGE**

FORM APPROVED - - - OMB NO. 0704-0188

public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters services, directorate for information operations and reports, 1215 Jefferson davis highway, suite 1204, Arlington, VA 22202-4302, and to the office of management and budget, paperwork reduction project (0704-0188) Washington, dc 20503

1. AGENCY USE ONLY ( <i>LEAVE BLANK</i> )	2. REPORT DATE 12 JAN 2001	3. REPORT TYPE AND DATES COVERED <b>STUDENT RESEARCH PAPER</b>
4. TITLE AND SUBTITLE UNITED NATIONS SANCTIONS AGAINST IRAQ AND IRAQ'S CURRENT MILITARY STATUS		5. FUNDING NUMBERS <b>N/A</b>
6. AUTHOR(S) LCDR STEVEN J. BRACKETT, USN		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>USMC COMMAND AND STAFF COLLEGE 2076 SOUTH STREET, MCCDC, QUANTICO, VA 22134-5068</b>		8. PERFORMING ORGANIZATION REPORT NUMBER <b>NONE</b>
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) <b>SAME AS #7.</b>		10. SPONSORING/MONITORING AGENCY REPORT NUMBER: <b>NONE</b>
11. SUPPLEMENTARY NOTES <b>NONE</b>		
12A. DISTRIBUTION/AVAILABILITY STATEMENT <b>NO RESTRICTIONS</b>	12B. DISTRIBUTION CODE <b>N/A</b>	
13. ABSTRACT ( <i>MAXIMUM 200 WORDS</i> ) THE UNITED NATIONS SANCTIONS AGAINST IRAQ FROM 1990 TO 2000 HAVE HAD LITTLE IMPACT ON IRAQ'S WEAPONS OF MASS DESTRUCTION CAPABILITIES IN RESEARCHING AND DEVELOPING NUCLEAR, BIOLOGICAL, AND CHEMICAL WEAPONS. IRAQ'S PREVIOUS USE OF CHEMICAL AND BIOLOGICAL WEAPONS DURING THE IRAN-IRAQ WAR OF THE 1980'S, AS WELL AS IRAQ'S RESOLVE TO MANIPULATE THE UNITED NATIONS WEAPONS TEAM INSPECTORS BY HIDING KEY DOCUMENTS AND EQUIPMENT AND SUBMITTING FALSE REPORTS SHOWS THE EXTENT OF WHAT IRAQ IS CAPABLE OF DOING. PRIOR TO THE GULF WAR IN JANUARY 1991, IRAQ IMPLEMENTED A CRASH PROGRAM TO EXPEDITE ITS NUCLEAR WEAPONS PROGRAM; IRAQ ALREADY MAINTAINED STOCKPILES OF BOTH BIOLOGICAL AND CHEMICAL WEAPONS. AFTER IRAQ EXPELLED THE UNITED NATIONS WEAPONS TEAM INSPECTORS IN SEPTEMBER 1998, IRAQ HAS HAD A CLEAR OPPORTUNITY TO EXPAND ITS NUCLEAR, BIOLOGICAL, AND CHEMICAL WEAPONS PROGRAMS.		
14. SUBJECT TERMS (KEY WORDS ON WHICH TO PERFORM SEARCH)  IRAQ, SANCTIONS, MILITARY, UNITED NATIONS, WEAPONS OF MASS DESTRUCTION, NUCLEAR, BIOLOGICAL, AND CHEMICAL WARFARE.	15. NUMBER OF PAGES: 61	
	16. PRICE CODE: N/A	

## EXECUTIVE SUMMARY

**Title:** United Nations Sanctions Against Iraq And Iraq's Current Military Status

**Author:** LCDR Steven J. Brackett, USN

**Thesis:** Are economic sanctions, imposed over an extended period of time, a viable and credible way to restrict the military potential of a rogue nation?

**Discussion:** The United Nations (UN) sanctions against Iraq began in 1990 after Iraq invaded Kuwait. From 1990 to 2000, these internationally imposed sanctions have had little impact on Iraq's weapons of mass destruction (WMD) capabilities in researching and developing nuclear, biological, and chemical (NBC) weapons. Iraq's previous use of chemical and biological weapons during the Iran-Iraq war of the 1980's, as well as Iraq's resolve to manipulate the UN weapons team inspectors by hiding key documents and equipment and submitting false reports shows the extent of what Iraq is capable of doing.

Prior to the gulf war in January 1991, Iraq implemented a crash program to expedite its nuclear weapons program; Iraq already maintained stockpiles of both biological and chemical weapons. From 1991 to 1998, Saddam marginally cooperated with the UN Special Committee (UNSCOM), producing incomplete disclosure reports regarding the WMD programs. Efforts to delay inspectors and using "hide-and-see" tactics complicated inspections and frustrated inspectors. In August 1998, after seven years of non-compliance with the UN and UNSCOM inspectors, Saddam announced that he was ceasing cooperation with the UN and the International Atomic Energy Agency (IAEA). For the last two years, Iraq has had an unhindered ability to reconstruct its WMD programs.

During Operation Desert Storm, coalition forces destroyed the majority of Iraq's forces in and around Kuwait. Regardless, Iraq still maintains over 1,000,000 personnel in its military, by far the largest in the region. Iraq has the second largest air force, behind only Saudi Arabia. The only stabilizing force in the area is the coalition forces remaining behind after the Gulf War.

**Conclusion(s) or Recommendation(s):** There are three possible ways to end this stalemate. First, the world can continue its present course of not enforcing the sanctions and inspections. Through inaction the world will have to wait and see what Saddam produces with his efforts. Second, the UN can drop the sanctions altogether and trust Saddam to turn his nation into a peaceful country. This outcome does not seem likely.

Or third, the world can once again enforce the sanctions by implementing more extreme resolutions that include swift military intervention if not completely followed by Iraq's government. Keeping the resolutions in place accomplishes many things: reduces Saddam's ability to build weapons of mass destruction (embargo and inspections); maintains a positive flow of food and medical supplies to the population (oil-for-food programs); and helps maintain the regional balance of power by reducing Iraq's threat to other nations. The sanctions should remain in effect until Iraq complies with full, final, and complete disclosure of its WMD programs. If Iraq does not completely disclose, or attempts to conceal its programs, then immediate military action could be appropriate. Striking immediately would show the UN's resolve to bring the Iraq problem to a close.

Saddam remains a threat to the world as long as he possesses the ability to produce NBC weapons. Currently, the world does not know the extent of Iraq's WMD programs; the extent of the programs were not known before the Gulf War, and they certainly were not revealed through inspections in Iraq. Diplomatic efforts have not worked in the past, and it is doubtful that they will work in the future. It is only a matter of time before support for the sanctions erodes, and the UN, unable to enforce them, will be compelled to eliminate the sanctions. When this happens, the world will finally find out what Saddam has been doing for the last ten years.

17. SECURITY CLASSIFICATION OF REPORT  <b>UNCLASSIFIED</b>	18. SECURITY CLASSIFICATION OF THIS PAGE:  <b>UNCLASSIFIED</b>	19. SECURITY CLASSIFICATION OF ABSTRACT  <b>UNCLASSIFIED</b>	20. LIMITATION OF ABSTRACT
--	--	--	----------------------------

## DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

## CONTENTS

	Page
DISCLAIMER.....	ii
LIST OF ILLUSTRATIONS.....	iv
LIST OF TABLES.....	v
INTRODUCTION.....	1
UN SANCTIONS AGAINST IRAQ.....	4
Sanctions Prior to the Gulf War.....	4
Sanctions After the Gulf War.....	8
International Humanitarian Efforts.....	11
Weapons of Mass Destruction Inspections.....	13
Effectiveness of Sanctions.....	15
CURRENT SITUATION.....	17
Desert Storm Results.....	18
Oil smuggling.....	21
MILITARY IN 2000.....	24
Weapons of Mass Destruction.....	28
Chemical.....	31
Biological.....	33
Nuclear.....	35
Missile Technology.....	38
Threat to region.....	43
CONCLUSION.....	46
BIBLIOGRAPHY.....	50



## ILLUSTRATIONS

	Page
Figure 1. Map of Iraq.....	5
Figure 2. Selected Nuclear, Chemical, Biological, and Missile Facilities.....	28
Figure 3. Operational Iraqi Missile Force During Operation Desert Storm.....	40

## TABLES

	Page
Table 1. Iraqi Use of Chemical Weapons.....	31
Table 2. Iraqi Biological Warfare Program.....	34
Table 3. Middle East Ground Forces.....	44
Table 4. Middle East Air, Air Defense, and Naval Forces.....	45

## INTRODUCTION

On 2 August, 1990, less than one month after accusing Kuwait of stealing oil from the al-Rumaylah oil field bordering Kuwait and Iraq, Iraqi President Saddam Hussein ordered his troops to invade and occupy the country of Kuwait. After Kuwait's emir fled to Saudi Arabia, Iraq took control of the country and then massed its troops along the Saudi border.<sup>1</sup> Immediately after the invasion, the United Nations (UN) denounced Iraq's aggression and placed severe sanctions on Iraq. United Nations Security Council Resolution (UNSCR) 660 condemned Iraq's invasion and demanded immediate withdrawal.<sup>2</sup> Four days later the UN followed with UNSCR 661, which imposed trade embargo on Iraq.<sup>3</sup> For almost six months, the world explored diplomatic means for resolving the crisis. The sanctions did not work; Saddam's forces remained in Kuwait, and the world prepared for Operation Desert Storm.

On 17 January, 1991, the US led coalition forces responded militarily by attacking Iraqi forces stationed in Kuwait and along the Iraqi-Saudi border. The Iraqi military suffered a crushing defeat in the Gulf War, and the UN imposed sanctions are still in place today. The sanctions, now in their tenth year, persist because Saddam has not complied fully with relevant UN resolutions. "The end of the war could have been the beginning of Iraq's recovery and reintegration into the family of nations. All that was

---

<sup>1</sup> Harry G. Summers, Jr, "Persian Gulf War Almanac," (New York, NY.:Facts on File Press, 1995), 18.

<sup>2</sup> United Nations, "Resolution 660," adopted by the Security Council at its 2932nd meeting, on 2 August, 1990.

<sup>3</sup> United Nations, "Resolution 661," adopted by the Security Council at its 2933rd meeting, on 6 August, 1990.

necessary was for Saddam Hussein to meet the requirements insisted by the Security Council.<sup>4</sup> The sanctions have devastated Iraq's economy and caused widespread hunger and disease among Iraq's people. Despite the sanctions' harsh effects, Saddam is firmly fixed in power, unopposed and unaffected by the sanctions.<sup>5</sup>

In addition to economic sanctions, UNSCR 687 dictated the requirement on Iraq to ensure its weapons of mass destruction are identified and verified destroyed.<sup>6</sup> In August 2000, United States Secretary of State Madeleine Albright, commenting on the tenth anniversary of Iraq's invasion of Kuwait, stated "Saddam lied repeatedly to UN weapons inspectors and sought to conceal and preserve his capacity to build weapons of mass destruction. As a result, the UN-required process of disclosure, inspection, and monitoring that should have taken months to establish instead took years and is still not complete."<sup>7</sup> In October 1998, Iraq announced that it was ceasing all cooperation with the United Nations Special Commission (UNSCOM) including monitoring activity of its weapons of mass destruction (WMD) sites. This has given Saddam over two unmonitored years to rebuild his conventional military forces and possibly reconstruct his Nuclear, Biological, and Chemical (NBC) warfare and ballistic missile capabilities. Although the extent to which he has increased his military capability is not known, "Saddam Hussein's goals remain almost identical to those in effect prior to the war: to

---

<sup>4</sup> Madeleine Albright, "Op-Ed For Tenth Anniversary of Iraq's Invasion of Kuwait," August 2000, n.p.; on-line, Internet, 11 August 2000, available from <http://usinfo.state.gov/regional/nea/iraq/albright807.htm>.

<sup>5</sup> Samuel Berger, "Saddam is the Root of all Iraq's Problems," Financial Times, 4 May, 2000, n.p.; on-line, Internet, 5 Oct 2000, available from [http://www.state.gov/www/regions/nea/000504\\_berger\\_iraq.html](http://www.state.gov/www/regions/nea/000504_berger_iraq.html).

<sup>6</sup> United Nations, "Resolution 687," adopted by the Security Council at its 2981st meeting, on 3 April, 1991.

<sup>7</sup> Albright.

establish Iraq as the leading Arab political and military power in the Middle East and to dominate the Persian Gulf.<sup>8</sup>

This paper will cover the significant UN Security Council Resolutions regarding Iraq's aggression against Kuwait, Iraq's unwillingness to cooperate with UN WMD inspectors, and Iraq's current military status and threat against its neighbors in Southwest Asia. Finally, it will offer a prognosis for continued UN economic sanctions and possible military intervention against Iraq.

---

<sup>8</sup> DefenseLink, "Department of Defense Response, Proliferation," 2000, n.p.; on-line, Internet, 28 September, 2000, available from [http://www.defenselink.mil/pubs/prolif/me\\_na.html](http://www.defenselink.mil/pubs/prolif/me_na.html).

## UN SANCTIONS PRIOR TO THE GULF WAR

On July 15, 1990, Iraqi President Saddam Hussein accused Kuwait of stealing oil from the al-Rumaylah oil field that borders Iraq and Kuwait. Saddam charged Kuwait of slant drilling from Kuwaiti oil fields to the oil supply located under Iraqi territory. Two days later Saddam publicly accused the US and Kuwait of waging economic war against Iraq.<sup>9</sup> Kuwait had exceeded its OPEC export quota and had driven down the world price of oil.<sup>10</sup> The next day, Iraqi troops began massing on the Kuwaiti border (see Figure 1, Map of Iraq). On August 2, 1990, after being frustrated by dropping oil prices, Saddam ordered his forces to invade Kuwait. Saddam now controlled 20 percent of the world's petroleum oil reserves. That same day, the United Nations (UN) met and issued Security Council Resolution (SCR) 660. UNSCR 660 “determined that a breach of international peace and security had taken place; condemned the Iraqi invasion; demanded its withdrawal from Kuwait; and called upon Iraq and Kuwait to negotiate.”<sup>11</sup>

As a result of Iraq’s invasion of Kuwait and subsequent refusal to withdraw, the UN adopted SCR 661. UNSCR 661 was “determined to bring the invasion and occupation of Kuwait by Iraq to an end and to restore the sovereignty, independence and territorial integrity of Kuwait.” Resolution 661 levied complete economic sanctions against Iraq, which included weapons and military equipment. “Supplies intended strictly

---

<sup>9</sup> Grant Wakefield, “Iraq Chronology”, n.p.; on-line, Internet 9 October 2000, available from <http://www.wakefieldcam.freeserve.co.uk/iraqchronology.htm>.



**Figure 1. Map of Iraq**

for medical purposes, and, in humanitarian circumstances, foodstuff” were excluded from the sanctions.<sup>12</sup> At the same time all Iraqi assets abroad were frozen.

Saddam Hussein told the world that he had no intention of withdrawing from Kuwait when, on August 8, 1990, he proclaimed the annexation of Kuwait as the “nineteenth province” of Iraq.<sup>13</sup> On 9 August 1990, the UN responded with UNSCR 662.

---

<sup>10</sup> Stephen Ambrose, “Rise to Globalism,” (New York, NY.: Penguin Press, 1997), 381.

<sup>11</sup> United Nations, “Resolution 660.”

<sup>12</sup> United Nations, “Resolution 661.”

Resolution 662 reaffirmed 660 and 661 and “decided that annexation of Kuwait by Iraq under any form and whatever pretext has no legal validity, and is considered null and void.” It also “calls upon all States, international organizations and specialized agencies not to recognize that annexation, and to refrain from any action or dealing that might be interpreted as an indirect recognition of the annexation.” Lastly, it “demands that Iraq rescind its actions purporting to annex Kuwait.”<sup>14</sup>

Saddam ignored the UN resolutions and continued to send troops into Kuwait. Most of them massed along the Saudi border in response to a build-up of coalition forces in the region: US aircraft carrier battle groups entered the Persian Gulf waters and the initial US Air Force fighter planes arrived in Saudi Arabia.<sup>15</sup> Deeply concerned for the safety and well being of third state nationals in Iraq and Kuwait, the UN issued UNSCR 664 which demanded “that Iraq permit and facilitate the immediate departure from Kuwait and Iraq of the nationals of third countries and grant immediate and continuing access of consular officials to such nationals,” as well as “further demands that Iraq take no action to jeopardize the safety, security or health of such nationals.”<sup>16</sup>

Even with the economic sanctions in effect, Saddam was still trying to get around them. “It was quite clear, that there was an Iraqi tanker, trying to run the gauntlet of the sanctions and

---

<sup>13</sup> BBC News “The Rise of Saddam Hussein,” n.p.; on-line 9 October 2000, available from [http://news6.thdo.bbc.co.uk/hi/english/events/crisis\\_in\\_the\\_gulf/road\\_to\\_the\\_brink/newsid\\_29000/29099.stm](http://news6.thdo.bbc.co.uk/hi/english/events/crisis_in_the_gulf/road_to_the_brink/newsid_29000/29099.stm).

<sup>14</sup> United Nations, "Resolution 662," adopted by the Security Council at its 2934th meeting, on 9 August 1990.

<sup>15</sup> Rick Atkinson, “Crusade: The Untold Story Of The Persian Gulf War” (Houghton Mifflin. 1994), <http://www.pbs.org/wgbh/pages/frontline/gulf/cron/>.

<sup>16</sup> United Nations, "Resolution 664," adopted by the Security Council at its 2937th meeting, 18 August 1990.



coming down the Gulf.”<sup>17</sup> This was a direct violation of UNSCR 661 as the UN subsequently issued resolution 665 on 25 August 1990. “Gravely alarmed that Iraq continues to refuse to comply with resolutions... and in particular at the conduct of the Government of Iraq in using Iraqi flag vessels to export oil,” this resolution “calls upon those Member States co-operating with the Government of Kuwait which are deploying maritime forces to the area to use such measures commensurate to the specific circumstances as may be necessary under the authority of the Security Council to halt all inward and outward maritime shipping in order to inspect and verify their cargoes and destinations and to ensure strict implementation of the provisions related to such shipping laid down in resolution 661.”<sup>18</sup> Resolution 665 allowed coalition naval forces to intercept, board, and inspect vessels bound for and leaving Iraq.

With the continuation of the embargo, Saddam’s unwillingness to submit, and concern that Iraq had failed to comply with its obligations under Security Council resolution 664 with respect to the safety and well-being of third State nationals, the UN issued UNSCR 666 on 13 September 1990. Resolution 666 recognized that “circumstances may arise in which it will be necessary for foodstuffs to be supplied to the civilian population in Iraq or Kuwait in order to relieve human suffering.”<sup>19</sup> The UN was paying particular attention to those most likely to suffer, “such as children under 15 years of age, expectant mothers, maternity cases, the sick and the elderly.”<sup>20</sup>

---

<sup>17</sup> Margaret Thatcher, “Gulf War Interview,” PBS, n.p.; on-line, Internet, 9 October 2000, available from <http://www.pbs.org/wgbh/pages/frontline/gulf/oral/thatcher/2.html>.

<sup>18</sup> United Nations, “Resolution 665,” adopted by the Security Council at its 2938th meeting, on 25 August 1990.

<sup>19</sup> United Nations, “Resolution 666,” adopted by the Security Council at its 2939th meeting, on 13 September 1990.

<sup>20</sup> “Resolution 666.”

After almost two months, the UN stepped up the sanctions by issuing UNSCR 670 on 25 September 1990. Resolution 670 called for all countries to “deny any aircraft to take off or land from their territory if the aircraft would carry any cargo to or from Iraq or Kuwait other than food in humanitarian circumstances,” and “to detain any ships of Iraqi registry which enter their ports and which are being or have been used in violation of resolution 661.”<sup>21</sup>

Months of constant and virtually endless diplomatic activity on the part of the United Nations, the United States, and many other countries could not convince Saddam to withdraw from Kuwait. Five months of economic sanctions also did not persuade him. On 15 January 1991, President George Bush issued a deadline “for Saddam Hussein to choose peace over war.”<sup>22</sup> Bush’s Four Point Program to end Saddam’s aggression was: (1) “The immediate, unconditional and complete withdrawal of all Iraqi forces from Kuwait; (2) the restoration of “Kuwait’s legitimate government;” (3) an American-enforced guarantee of “the security and stability of the Persian Gulf,” which meant disarming Hussein; and (4) to protect the lives of American citizens abroad, which meant the hostages held in Kuwait.<sup>23</sup> The Gulf War began on 17 January 1991 and ended with the liberation of Kuwait on 27 February 1991.

## **SANCTIONS AFTER THE GULF WAR**

---

<sup>21</sup> United Nations, "Resolution 670," adopted by the Security Council at its 2943rd meeting, on 25 September 1990.

<sup>22</sup> George Bush, "Message to Allied Nations on the Persian Gulf Crisis," January 8, 1991, U.S. Information Agency WORLDNET satellite network; on-line, Internet, 9 October 2000, available from <http://www.csd1.tamu.edu/bush/>.

<sup>23</sup> Ambrose, 384.

With Iraqi armed forces expelled from Kuwait, the UN issued resolution 687, known as the “cease-fire agreement,” which “welcomed the restoration to Kuwait of its sovereignty, independence, and territorial integrity and the return of its legitimate government.”<sup>24</sup> It reaffirmed that Iraq was liable under international law for any direct losses or damages, including environmental damage and depletion of natural resources, or injury to foreign governments, nationals and corporations, as a result of Iraq’s unlawful invasion and its occupation of Kuwait. It also required the future assurance of Iraq’s peaceful intentions in the light of its actions leading to Desert Storm. The UN was also conscious of the threat that all weapons of mass destruction posed to the peace and security in the Middle East, and as such established the following key requirements and statements.

Key requirements and statements included that Iraq and Kuwait “respect the inviolability of the international boundary and the allocation of islands set out in the ‘Agreed Minutes Between the State of Kuwait and the Republic of Iraq Regarding the Restoration of Friendly Relations, Recognition and Related Matters,’ signed by them in the exercise of their sovereignty at Baghdad on 4 October 1963 and registered with the United Nations and published by the United Nations in document 7063, United Nations, Treaty Series, 1964.” The Security Council also guaranteed “the inviolability of the Iraq/Kuwait boundary and will take as appropriate all necessary measures to that end in accordance with the Charter of the United Nations.” Iraq’s responsibilities were to “unconditionally accept the destruction, removal, or rendering harmless, under international supervision, of: (a) all chemical and biological weapons

---

<sup>24</sup> United Nations, "Resolution 687," adopted by the Security Council at its 2981st meeting, on 3 April 1991.

and all stocks of agents and all related subsystems and components and all research, development, support

and manufacturing facilities; and (b) all ballistic missiles with a range greater than 150 kilometers and related major parts, and repair and production facilities.” For the stability and security of the future, “Iraq shall unconditionally agree not to acquire or develop nuclear weapons or nuclear-weapons-usable materials or any subsystems or components or any research, development, support or manufacturing facilities.” Iraq was held financially responsible for past debts in that “all Iraqi statements made since 2 August 1990 repudiating its foreign debt are null and void, and that Iraq must adhere scrupulously to all of its obligations concerning servicing and repayment of its foreign debts.” The resolution also created the Compensation Fund to pay for claims against Iraq and established a Commission that will administer the fund. An additional guarantee of security in the area required that “Iraq must inform the Security Council that it will not commit or support any act of international terrorism or harbor terrorists within Iraq; Iraq must unequivocally condemn and renounce all practices of terrorism.”<sup>25</sup>

UNSCR 687 also highlighted the UN’s awareness of the use of ballistic missiles in unprovoked attacks and therefore specific measures would to be taken in regard to these missiles located in Iraq. The UN was also concerned by reports that Iraq had attempted to acquire materials for a nuclear-weapons program<sup>26</sup> contrary to Iraq’s obligations under the Nuclear Non-Proliferation Treaty of July 1, 1968.<sup>27</sup>

---

<sup>25</sup> "Resolution 687."

<sup>26</sup> "Resolution 687."

<sup>27</sup> Signatories And Parties To The Treaty On The Non-Proliferation Of Nuclear Weapons, Signed at Washington, London, and Moscow July 1, 1968, available from <http://sun00781.dn.net/nuke/control/npt/text/index.html>.

UNSCR 687 set the stage for eliminating Iraq's WMD programs, compensating Kuwait for its losses, and re-establishing relations between the Gulf States. However, the economic embargo still remained in effect, and this resulted in the loss of life due to starvation and disease. The next section, International Humanitarian Efforts, will describe effects to provide food and medical supplies to the people of Iraq.

### **INTERNATIONAL HUMANITARIAN EFFORTS**

Because Saddam continued to suppress his people, the UN issued resolution 688 on 5 April 1991. UNSCR 688 was concerned about the repression of the Kurdish populated areas as "a massive flow of refugees towards and across international frontiers and to cross-border incursions which threaten international peace and security in the region."<sup>28</sup> Disturbed by the suffering, the UN demanded that Iraq end its repression and allow humanitarian organizations immediate access to all those in need of assistance.

On 6 April, 1991, the Minister for Foreign Affairs of Iraq officially notified the President of the United Nations of the "acceptance, irrevocable and without qualifying conditions, by Iraq of resolution 687."<sup>29</sup> The Iraqi government had fully accepted the conditions of the surrender and the resolutions of the United Nations. The United Nations Special Commission

---

<sup>28</sup> United Nations, "Resolution 688," adopted by the Security Council at its 2982nd meeting, on 5 April 1991.

<sup>29</sup> United Nations, "Resolution 689," adopted by the Security Council at its 2982nd meeting, on 9 April 1991.

(UNSCOM) oversees the process of the inspections and “Iraq must give full cooperation, in particular immediate, unrestricted access to any site UNSCOM needs to inspect.”<sup>30</sup>

In July 1991, the UN Inter-Agency Humanitarian Program for Iraq presented a report to the UN that described the serious nutritional and health situation of the Iraqi civilian population. The UN responded with resolution 706 on 15 August 1991. UNSCR 706 was the first resolution allowing the sale of Iraqi oil for the purposes of purchasing foodstuffs, medicines and materials and supplies for essential civilian needs, and paying to the Compensation Fund of resolution 687.<sup>31</sup> UNSCR 706 allowed the sale of oil not to exceed 1.6 billion US dollars for a period of six months. However, it wasn’t until 1996 that Saddam accepted the oil-for-food program.<sup>32</sup>

Over one year later, in October 1992, after Iraq’s refusal to cooperate with the implementation of the first oil-for-food resolution, the UN condemned Iraq once again for continued failure to comply with its obligations under the resolutions. UNSCR 778 allowed states in possession of “funds of the Government of Iraq, or its State bodies, corporations, or agencies, that represent the proceeds of sale of Iraqi petroleum or petroleum products,” to transfer those funds to the UN. It also decided that all States, in which there were Iraqi

---

<sup>30</sup> John Pike, “Confrontation with Iraq,” February 5, 1999, n.p.; on-line, Internet, 10 October 2000, available from [http://www.fas.org/man/dod-101/ops/iraq\\_back.htm](http://www.fas.org/man/dod-101/ops/iraq_back.htm).

<sup>31</sup> United Nations, “Resolution 706,” adopted by the Security Council at its 3004th meeting, on 15 August 1991.

<sup>32</sup> US State Department, “Fact Sheet: Setting the Record Straight About Iraq,” 2 August 2000, n.p.; on-line, Internet, 11 October 2000, available from <http://pdq.state.gov/scripts>.

petroleum or petroleum products, were authorized to sell these products and transfer the proceeds to the UN.<sup>33</sup>

The suppression of the Iraqi people became severe enough when, on 14 April 1995, the UN became concerned by the serious nutritional and health situation. To reduce the risk of further deterioration, UNSCR 986 was issued. Resolution 986 was another temporary measure to provide for the humanitarian needs of the Iraqi people. It authorized up to one billion US dollars every 90 days for the purchase of medicine, health supplies, foodstuffs, and other materials and supplies for essential civilian needs.<sup>34</sup> In addition it charged the Iraqi government with the responsibility for requesting these goods as well as ensuring the equitable distribution.

The effects of the economic embargo were recognized by the UN just months after termination of the Gulf War. Worldwide efforts to trade oil for supplies necessary for the survival of Iraq's poorest population were not accepted for five years. By essentially holding his own people hostage, Saddam forced the UN to operate according to his own terms. In the next section, Weapons of Mass Destruction Inspections, the same attitude of reluctant, minimal acceptance is seen with respect to Iraq's dealing with the UNSCOM inspection teams.

## **WEAPONS OF MASS DESTRUCTION INSPECTIONS**

---

<sup>33</sup> United Nations, "Resolution 778," adopted by the Security Council at its 3117th meeting, on 2 October 1992.

<sup>34</sup> United Nations, "Resolution 986," adopted by the Security Council at its 3519th meeting, on 14 April 1995.

Four months after issuing the cease-fire resolution, the President of the Security Council received several reports from Executive Chairman of UNSCOM and from the Director General of the International Atomic Energy Agency (IAEA) that established Iraq's failure to comply with its obligations under resolution 687. Specifically, relating to the complete disclosure of its Nuclear, Biological, and Chemical programs, that "Iraq's notifications of 18 and 28 April were incomplete and that certain related materials had been concealed."<sup>35</sup> UNSCR 707, issued 15 August 1991, demanded that Iraq provide "full, final, and complete disclosure... of all aspects of its programs" for weapons of mass destruction, ballistic missiles, production facilities, and other nuclear programs. In addition, to "cease immediately any attempt to conceal, move or destroy any material or equipment relating to its nuclear, chemical or biological weapons or ballistic missile programs."<sup>36</sup> The same issues of WMD development have caused concern throughout the world multiple times over the past seven years.

On 11 and 12 June 1996, 10 and 12 June 1997, and multiple times between June and October 1997, Iraqi officials refused UNSCOM inspection teams access to designated sites.<sup>37</sup> Resolutions 1060, 1115, and 1134 deplored and condemned these refusals and demanded that Iraq cooperate with the inspection teams and allow "immediate, unconditional and unrestricted access to any and all areas, facilities, equipment, records and means of transportation."<sup>38</sup> Resolution 1115 also expressed the firm intention "to impose additional measures on those

---

<sup>35</sup> United Nations, "Resolution 707," adopted by the Security Council at its 3004th meeting, on 15 August 1991.

<sup>36</sup> "Resolution 707."

<sup>37</sup> United Nations, "Resolution 1060," adopted by the Security Council at its 3672nd meeting, on 12 June 1996; United Nations, "Resolution 1115," adopted by the Security Council at its 3792nd meeting, on 21 June 1997; United Nations, "Resolution 1134," adopted by the Security Council at its 3826th meeting, on 23 October 1997.



categories of Iraqi officials responsible for the non-compliance.”<sup>39</sup> Resolution 1134 condemned Iraqi actions endangering the safety of UNSCOM personnel, the removal and destruction of documents of interest, and interference with the freedom of movement of inspection teams.<sup>40</sup> It wasn’t until February 1998, when the UN Secretary General received a memorandum of understanding from the Deputy Prime Minister of Iraq, that the government of Iraq once again committed itself to comply with the obligations of the resolutions.<sup>41</sup>

After over seven years of inspections and monitoring of its NBC programs, Iraq announced, on 5 August 1998, that it was suspending cooperation with UNSCOM and the IAEA.<sup>42</sup> The UN condemned this act with Resolution 1194, but did not take any action against Iraq’s decision. Shortly thereafter, Iraq announced that it was ceasing all cooperation with UNSCOM and the IAEA.<sup>43</sup> The UN responded to this with resolution 1205, but again did not take any action. Once Iraq’s government had ceased cooperating with the UN, all UNSCOM inspectors were directed to leave Iraq. In an attempt to restore inspectors in Iraq, the UN issued UNSCR 1284 in December 1999, which replaced UNSCOM with the UN Monitoring, Verification and Inspection Commission (UNMOVIC).<sup>44</sup> UNMOVIC was tasked with the same inspection responsibilities as UNSCOM; Iraq was tasked with the same requirements to

---

<sup>38</sup> "Resolution 1060," "Resolution 1115," and "Resolution 1134."

<sup>39</sup> "Resolution 1115."

<sup>40</sup> "Resolution 1134."

<sup>41</sup> United Nations, "Resolution 1154," adopted by the Security Council at its 3858th meeting, on 2 March 1998.

<sup>42</sup> United Nations, "Resolution 1194," adopted by the Security Council at its 3924th meeting, on 9 September 1998.

<sup>43</sup> United Nations, "Resolution 1205," adopted by the Security Council at its 3939th meeting, on 5 November 1998.

<sup>44</sup> United Nations, "Resolution 1284," adopted by the Security Council at its 4084th meeting, on 17 December 1999.

allow access to designated sites. To date, UNMOVIC inspectors still have not been allowed into Iraq.

## **EFFECTIVENESS OF SANCTIONS**

The United Nations' intent in imposing sanctions over the past ten years was to "prevent the Iraqi regime [from having] access to resources that it would use to reconstitute weapons of mass destruction."<sup>45</sup> Over the past two years, Iraq has had a clear opportunity to proceed with any WMD program that the UN was trying to eliminate. Without any inspectors in place, any remaining capabilities will become the foundation for expanded development. It took Saddam over 5 years to accept the oil-for-food resolutions; resolutions designed to benefit the people of Iraq. In 2000 alone, more than 20 billion dollars have been available from the oil-for-food resolutions.<sup>46</sup> The next section will describe the ways that Saddam has been able to get around the restrictions and devote money intended for the Iraqi people to develop his military. By using "hide and seek" tactics, intentionally misleading UN inspectors, submitting incomplete and false reports to the UN, and by continuing to suppress external efforts to aid the development of his country, Saddam is to blame for this suffering of the Iraqi people. It is Iraqi obstructions, not the sanctions, which hinder the effectiveness of international attempts to aid Iraq. Saddam's continued resistance has effectively reduced the power of the United Nations. However, the

---

<sup>45</sup> US State Department, "Saddam Hussein's Iraq: Impact of Sanctions," 24 March 2000, n.p.; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

<sup>46</sup> Walter Slocumbe, "Statement of the Under Secretary of Defense for Policy to the Senate Armed Services Committee: Defense Aspects of United States Policy Toward Iraq," 19 September 2000, n.p.; on-line, Internet, 28 September 2000, available from <http://pdq.state.gov/scripts/>.

United Nations says the 10-year-old sanctions will remain until the UN Security Council is satisfied Iraq is not rebuilding weapons banned after the 1991 war.<sup>47</sup> In 1999, a UNICEF report said that in state-controlled areas of Iraq, the mortality rate among children under five had more than doubled in the past decade. UNICEF blamed Iraq's "lack of investment in children's health." In August 2000, during an interview with CNN, Rachel Bronson of the Council of Foreign Relations said, "it's not the sanctions, but the regime."<sup>48</sup>

## **CURRENT STATUS**

Ten years after Saddam Hussein's forces invaded Kuwait, the United Nations' economic sanctions remain in place because Iraq has decided to hide weapons and major components of these programs, secretly destroy older, less-capable weapons and equipment, and give UN inspectors fraudulent declarations to mask weapons and equipment that are still hidden.<sup>49</sup> For the first eight years of sanctions and monitored inspections (1990-1998), Iraq rejected its obligations under the Security Council resolutions and misled inspectors. For the last two years (1998-2000), Iraq has had the opportunity to rebuild its conventional forces and possibly reconstruct its WMD facilities. As a result of Iraq's 1990 invasion of Kuwait and subsequent refusal to cooperate, the United States has pursued a policy that is fully consistent

---

<sup>47</sup> CNN.com, "Number of sanction-defying flights, most humanitarian, to Iraq rises," 5 October 2000, n.p.; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/10/05/iraq.airport/>.

<sup>48</sup> CNN.com, "Iraq blasts 10 years of crippling UN sanctions," 6 August 2000, n.p.; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/08/06/iraq.sanctions/>.

with the relevant UN resolutions. Key elements of the policy include: monitoring Iraq's actions to detect preparations for renewed aggression and reconstitution of Saddam's programs to acquire weapons of mass destruction; efforts to counter smuggling in violation of the sanctions; support for resuming effective UN inspections of potential WMD programs and other steps to bring Iraq into compliance with the resolutions; and support for the humanitarian needs of the Iraqi people.<sup>50</sup>

The next few sections will discuss Iraq's military status at the end of the Gulf War; Iraq's current military status; and its ability to sustain and produce military equipment. In addition it will describe how Iraq has been smuggling oil out of the country to support Saddam's regime.

## **DESERT STORM RESULTS**

At the termination of Operation Desert Storm, coalition forces had destroyed a majority of Iraq's warfighting capability, captured tens of thousands of prisoners of war, reduced the air force to a fraction of its initial size, and annihilated the navy. US Central Command (CENTCOM) correlated and analyzed the final estimate of destroyed or captured Iraqi equipment. As of 18 March 1991, the final numbers were 3847 tanks, 1450 armored

---

<sup>49</sup> US State Department, "Saddam Hussein's Iraq: Evading U.N. Resolutions and Failure to Disarm," 24 March 2000, n.p.; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

<sup>50</sup> Walter Slocumbe, "Statement of the Under Secretary of Defense for Policy to the Senate Armed Services Committee: Defense Aspects of United States Policy Toward Iraq," 19 September 2000.

personnel carriers, and 2917 artillery pieces.<sup>51</sup> The Iraqi Air Force lost 234 aircraft: 90 were destroyed in combat operations (in the air and on the ground); 119 escaped by flying into Iran; coalition ground forces captured 16; and 6 were non-combatant losses.<sup>52</sup>

The air campaign preceded the ground war and targeted the Iraqi centers of gravity: the computer dependent Command, Control and Communications (C3) systems; the networked air defense systems and airfields; and the easily located sources of energy.<sup>53</sup> The initial air strikes prioritized establishing air superiority by degrading the Iraqi integrated air defense system (IADS), making the enemy air forces ineffective, and preventing the use of chemical and biological weapons. The air strikes destroyed numerous command and control facilities, as well as the civil telecommunications systems. These attacks destroyed the military's regular means of communications, which reduced the control from centralized to autonomous and essentially "blinded" the military leaders.

Coalition forces also neutralized the effectiveness of the Iraq's dense IADS. By striking the IADS command centers, the individual air defense sectors were fragmented and forced into autonomous control. The direct attacks on Iraqi airfields caused the air force to disperse around other airfields and civilian neighborhoods, and even flee into Iran.<sup>54</sup> The attacks on Iraqi power facilities collapsed the national power grid. This reduced or eliminated the reliable supply of electricity required to power multiple facilities: NBC weapons production facilities; computer

---

<sup>51</sup> Report to Congress on the Conduct of the Persian Gulf War, "Chapter 8: The Ground Campaign," April 1992, 48; on-line, Internet, 24 October 2000, available from <http://es.rice.edu/projects/Poli378/Gulf/index.html>.

<sup>52</sup> Department of the Navy, Naval Historical Center, "The US Navy in Desert Shield / Desert Storm, Part V: Thunder and Lightning", 15 May 1991, n.p.; on-line, Internet, available from <http://www.history.navy.mil/wars/dstorm/ds5.htm>.

<sup>53</sup> Report to Congress on the Conduct of the Persian Gulf War, "Chapter 6: The Air Campaign," April 1992, 51; on-line, Internet, 24 October 2000, available from <http://es.rice.edu/projects/Poli378/Gulf/index.html>.

systems required to integrate the air defense network; pumping stations producing oil and fuel for trucks, tanks, and aircraft; refrigeration for biotoxins and some chemical warfare agents; reinforced-door operation at aircraft storage and maintenance facilities; and lighting and power for maintenance, planning, repairs and bomb loading.<sup>55</sup>

Coalition forces damaged both research reactors at the Baghdad Nuclear Research Center and destroyed or severely damaged most known primary chemical and biological production, processing, and support buildings.<sup>56</sup> In addition, the Scud production and storage facilities were targeted. Initial analysis indicated that Baghdad's overall potential to build liquid-propellant missiles was reduced as the facilities were heavily damaged or destroyed. Unfortunately, UN inspection teams determined that most production equipment, components, and documents were removed before the beginning of the air campaign: "recent intelligence estimates confirm that actual damage to Scud production and storage facilities is less than previously thought."<sup>57</sup>

In addition to air strikes, naval gunfire effectively destroyed the Iraqi naval forces and port facilities. The navy lost 143 out of its 165 combatant vessels and 11 of 13 missile-capable boats. The primary ports of Umm Qasr and Khawr Az-Zubayr sustained substantial damage to their storage and repair facilities. By 2 February 1991, the remaining naval forces were assessed as incapable of offensive operations.<sup>58</sup>

---

<sup>54</sup> "Chapter 6: The Air Campaign," 53.

<sup>55</sup> "Chapter 6: The Air Campaign," 52.

<sup>56</sup> "Chapter 6: The Air Campaign," 54.

<sup>57</sup> "Chapter 6: The Air Campaign," 54.

<sup>58</sup> "Chapter 6: The Air Campaign," 55.

Air strikes also targeted the Iraqi national oil refining and distribution system. While the air campaign damaged approximately 80 percent of Iraq's oil refining capacity, the Iraqi's closed the rest of the system to prevent its destruction.<sup>59</sup> This had a direct effect on Iraq's air, land, and sea mobility. As the oil facilities were being attacked, so were the lines of communication: coalition air strikes knocked down 41 major bridges and 31 pontoon bridges.<sup>60</sup> As railroads and bridges connecting Iraqi military forces with logistical support centers were destroyed, "long convoys of military trucks waiting to cross were stranded and attacked."<sup>61</sup>

In attempting to account for the number of Iraqi soldiers killed, wounded, or taken as a prisoner of war, the 30 March 1992 Interim Report of the Committee on Armed Services of the US House of Representatives came upon the following numbers: 17,000 injured and 9000 killed during air war; 63,000 captured and 120,000 killed or escaped during ground war. Based on the Iraqi Table of Organization, a 42-division army would give an assigned strength of 547,000 personnel. However, based on interviews with captured Iraqi officers, it is estimated that the army had an under-strength of 186,000 people. Therefore, the air campaign faced 361,000 Iraqi ground troops, and after 153,000 deserted and 26,000 were injured or killed, the ground campaign faced only 182,000.<sup>62</sup>

## OIL SMUGGLING

---

<sup>59</sup> "Chapter 6: The Air Campaign," 55.

<sup>60</sup> "Chapter 6: The Air Campaign," 56.

<sup>61</sup> "Chapter 6: The Air Campaign," 55.

<sup>62</sup> Les Aspin, Chairman, Committee on Armed Services, "Interim Report of the Committee on Armed Services, House of Representatives", 30 March 1992, 28; on-line, Internet, available from [http://es.rice.edu/projects/Poli378/Gulf/aspin\\_rpt.html](http://es.rice.edu/projects/Poli378/Gulf/aspin_rpt.html).

In August 1990, UNSCR 665 created the Maritime Interdiction Force (MIF) to help enforce the UN sanctions by intercepting smugglers carrying illicit oil, contraband and other illegal exports. This resolution allows the use of force to halt all maritime shipping to inspect cargo and determine destinations to ensure the strict implementation of sanctions.

Under the oil-for-food program, Iraq is only allowed to export oil through the southern facilities of Mina al-Bakr in the Persian Gulf and through the northern facilities through the Kirkuk-Yumurtalik oil pipeline into Turkey from the port of Ceyhan.<sup>63</sup> During Operation Desert Fox in December 1998, coalition air-strikes attacked the Basrah oil refinery. It has been rebuilt, and subsequently produces 140,000 barrels of oil per day.<sup>64</sup> This refinery is outside of the oil-for-food program and has been exporting oil in violation of the UN sanctions. By staying within twelve miles of the Iranian coastline (internationally recognized territorial waters), Iraqi and other foreign vessels have been able to avoid the MIF.<sup>65</sup> It is estimated that Saddam earns in excess of \$500 million annually from vessels smuggling oil.<sup>66</sup>

In northern Iraq, oil is being smuggled into Turkey by truck. In a 25 October, 2000 report in the Washington Times, reporter Betsy Pisik noted that as many as 2000 tanker trucks a day cross into Turkey from Iraq.<sup>67</sup> Pisik writes, “no one knows how much Iraqi oil seeps through the increasingly porous borders with Turkey, Jordan, Iran and Syria. But there is no

---

<sup>63</sup> “Resolution 986.”

<sup>64</sup> US State Department, “Saddam Hussein’s Iraq: Palaces and Oil Smuggling,” 24 March 2000, n.p.; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

<sup>65</sup> William Clinton, “Letter From the President to the Speaker of the House of Representatives and the President Pro Tempore of the Senate,” 5 November 1998; on-line, Internet, 5 October 2000, available from [http://www.state.gov/www/regions/nea/981105\\_whletter\\_iraq.html](http://www.state.gov/www/regions/nea/981105_whletter_iraq.html).

<sup>66</sup> Tommy Franks, CINC USCENTCOM, “Remarks Before Armed Services Committee on Iraq,” 19 September 2000, n.p.; on-line, Internet, 28 September 2000, available from <http://pdq.state.gov/scripts/>.



doubt that the black market is thriving, and revenues are quietly accruing for the Iraqi regime and its supporters.”<sup>68</sup> There is no attempt to disguise the cargo, as even Taha Houmoud, the Iraqi Deputy Oil Minister admits, “everyone knows this, even Washington.” A 02 August 2000 report from the US State Department confirms this as well, stating “Iraq is smuggling 2.8 million barrels of oil per month through the Persian Gulf.”<sup>69</sup>

Although refined petroleum products leaving Iraq comprise the majority of prohibited traffic, the MIF has also intercepted a growing number of ships smuggling prohibited goods into Iraq in violation of the sanctions.<sup>70</sup> One cause for concern deals with the issue of dual-use items. Dual-use items are electronics and other high-tech equipment that may be used for both commercial products and military equipment. Iraq is only allowed to import items that can only be used specifically for commercial goods. One UNMOVIC report stated that it continues to receive notifications from governments and international organizations of exports to Iraq of dual-use items. But despite its obligations under Security Council resolutions, Iraq has not provided UNMOVIC with any information about such items.<sup>71</sup> Under the UN resolutions, Iraq is required to report all requests for dual-use items; the UN will determine which items Iraq may import.

---

<sup>67</sup> Betsy Pisik, “Iraqi Trade Doing Fine Despite Sanctions,” Washington Times, 25 October 2000, n.p.; on-line, Internet, 27 October 2000, available from <http://www.washtimes.com/world/default-20001025221725.htm>.

<sup>68</sup> Pisik, Washington Times, 25 October 2000.

<sup>69</sup> US State Department, “Fact Sheet: Setting the Record Straight About Iraq,” 2 August 2000.

<sup>70</sup> Clinton, 5 November 1998.

<sup>71</sup> CNN.com, “U.N. arms inspector says Iraq still not cooperating,” 2 June 2000, n.p.; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/06/02/iraq.inspectors/>.

Since the Gulf War, Saddam has spent over \$2 billion on presidential palaces, importing foreign items to build them.<sup>72</sup> For building his palaces over the last nine years, Saddam has smuggled golden plumbing, European marble, and crystal chandeliers into the country, despite the embargoes in place to prevent this.<sup>73</sup> In addition, Baghdad has been caught exporting dates, corn, and grain outside of Iraq, all while vehemently claiming that the Iraqi people are starving.<sup>74</sup>

As Iraqi neighbors benefit from the trade of smuggled oil, efforts to maintain the economic sanctions appear to be eroding. Countries are gaining from both sides of this trade: Iraq is making millions of dollars that is not under UN control; and foreign countries are profiting from over ten years of lost trade. In addition, as oil prices increase, any oil that is for sale at a price lower than market value is worth buying. The world knows that Iraq has been smuggling oil for years. Efforts have been made to stop black market trading, but as time goes on, governments will soon forget the damage that was done in August 1990, and will ignore the UN sanctions imposed. The sanctions only work if they are acknowledged and adhered to by all parties, not undermined by self-interest and black market trading.

## **MILITARY IN 2000**

Even though Saddam is able to bring in millions of unmonitored dollars, the existing military has slowly eroded from its once powerful size. Due to the sanctions and economic embargo, there is no exact data on the status of Iraq's military forces. Best-guess information,

---

<sup>72</sup> US State Department, "Saddam Hussein's Iraq: Misuse of Resources by the Regime," 24 March 2000, n.p.; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

such as what the government had been able to manufacture indigenously, produce under foreign licenses, and assemble in-country, gives us an idea of what the military is capable of producing. However, this does not take into account prohibited military and dual-use items that have been smuggled into the country despite the embargo.

Today, Iraq still maintains the largest army in the Persian Gulf. At over one million strong, it is capable threatening neighboring countries and destroying the current balance of power in the region. The army consists of 400,000 regulars supplemented by 650,000 reserves. The regular soldiers are incorporated into 23 standing divisions with over 2000 tanks and 2300 armored personnel carriers (APCs). In addition to the regular army soldiers, Iraq still maintains its Special Republican Guard forces. At 26,000 strong, the Republican Guard comprises 4 armored and mechanized divisions and 2 infantry divisions.<sup>75</sup>

Iraqi defense production facilities have been able to produce most of its army equipment from indigenously developed items. Iraq has the capability of manufacturing small arms and artillery ammunition, various electronic equipment, chemical agents, biological weapons, surface-to-surface missiles (SSMs) under development prior to Desert Storm, and multiple types of land mines.<sup>76</sup> It has the production license to produce anti-tank rocket launchers (ATRLs), artillery, multiple rocket launchers (MRLs), and various tanks.

---

<sup>73</sup> US State Department, "Saddam Hussein's Iraq: Palaces and Oil Smuggling," 24 March 2000.

<sup>74</sup> US State Department, "Fact Sheet: Setting the Record Straight About Iraq," 2 August 2000.

<sup>75</sup> Shlomo Brom and Yiftah Shapir, eds, "The Middle East Military Balance 1999-2000," (Cambridge, MA: Belfer Center for Science and International Affairs, 2000), 203.

<sup>76</sup> Brom, 200.

During the last six years, the quantity of operational tanks and APCs has declined from 5700 to roughly 4000. This is most likely due to old age and a shortage of parts and spare equipment. In contrast, though, the number of artillery, including MRLs has risen dramatically, from 1650 in 1994, to over 2000 today.<sup>77</sup> These items are fairly inexpensive and can be produced internally in Iraq.

Iraq does not have the capability to manufacture present or new aircraft, but can manufacture the conversion of aircraft into unmanned aerial vehicles (UAVs). It can produce indigenous air-to-ground bombs and is licensed to produce air-to-ground bombs procured from foreign markets. For naval craft and ammunition, Iraq can indigenously produce patrol boats and rubber boats. Under license, it can also produce copies of Soviet-designed naval mines.<sup>78</sup>

The Iraqi Air Force (IAF) has consistently declined in size during the last ten years. Its fleet of combat aircraft has been reduced from 400 in 1994 to roughly 330 today. Of these, only about 200 are mission capable. Again, this is mainly due to a lack of spare parts for aging aircraft.<sup>79</sup> During the Gulf War, Iraq flew 119 aircraft into Iran, including its capable Mig-25 Foxbat, Mig-29 Fulcrum, and Mig-23 Flogger fighters and attack aircraft. In addition it flew 20 of its 26 Tu-22 Blinder long-range bombers into Iran to escape destruction. Even though Iraq and Iran are no longer fighting, Iran refuses to return the civil and military aircraft Iraq flew to Iran to escape bombing by the US and its allies during the war.<sup>80</sup>

---

<sup>77</sup> Brom, 201, 202.

<sup>78</sup> Brom, 201.

<sup>79</sup> Brom, 206.

<sup>80</sup> CNN.com, "Iran's foreign minister visits Baghdad hoping to better Iran-Iraq relations," 13 October 2000, n.p.; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/10/13/iraq.iran.ap/index.html>

The Iraqi helicopter force has been consistently strong, maintaining around 450 between 1994 and the present. Surprisingly though, the IAF has been able to sustain very high mission capable rates, with approximately 370 helicopters in service today.<sup>81</sup> Iraq still maintains a small number of fixed-wing transport and air-to-air refueling aircraft.

Iraqi air defense forces have remained consistent over the years, although mainly deployed between the 33rd and 36th parallel due to Operations Southern Watch and Northern Watch. The Iraqis deploy mostly Soviet-built surface-to-air missiles (SAMs) such as the long-range SA-2 Guideline and SA-3 Goa, medium-range SA-6 Gainful and the SA-8 Gecko, and the short-range SA-9 Gaskin and SA-13 Gopher. Iraq has also purchased the French-built short-range Roland as well. Total numbers for air defense SAMs are uncertain due to recent coalition attacks and aging. However, it is estimated that the Iraqi IADS have over 200 long-, medium-, and short-range missile defense systems. They also have approximately 400 shoulder-launched man-portable air defense systems (MANPADs). Complementing the SAM loadout are 2000-3000 anti-aircraft artillery guns.<sup>82</sup> Again, these numbers are inaccurate due to recent coalition attacks.

The Iraqi Navy is assessed as non-operational, although it contains 2 small corvette patrol boats that are capable of launching surface-to-surface missiles (SSMs), as well as one 3000-ton cargo support ship.<sup>83</sup> Therefore, coastal defense is accomplished by 5 batteries of Silkworm missile sites; during recent years these sites have been unlocated, and operational assessment remains uncertain.

---

<sup>81</sup> Brom, 208.

<sup>82</sup> Brom, 210.

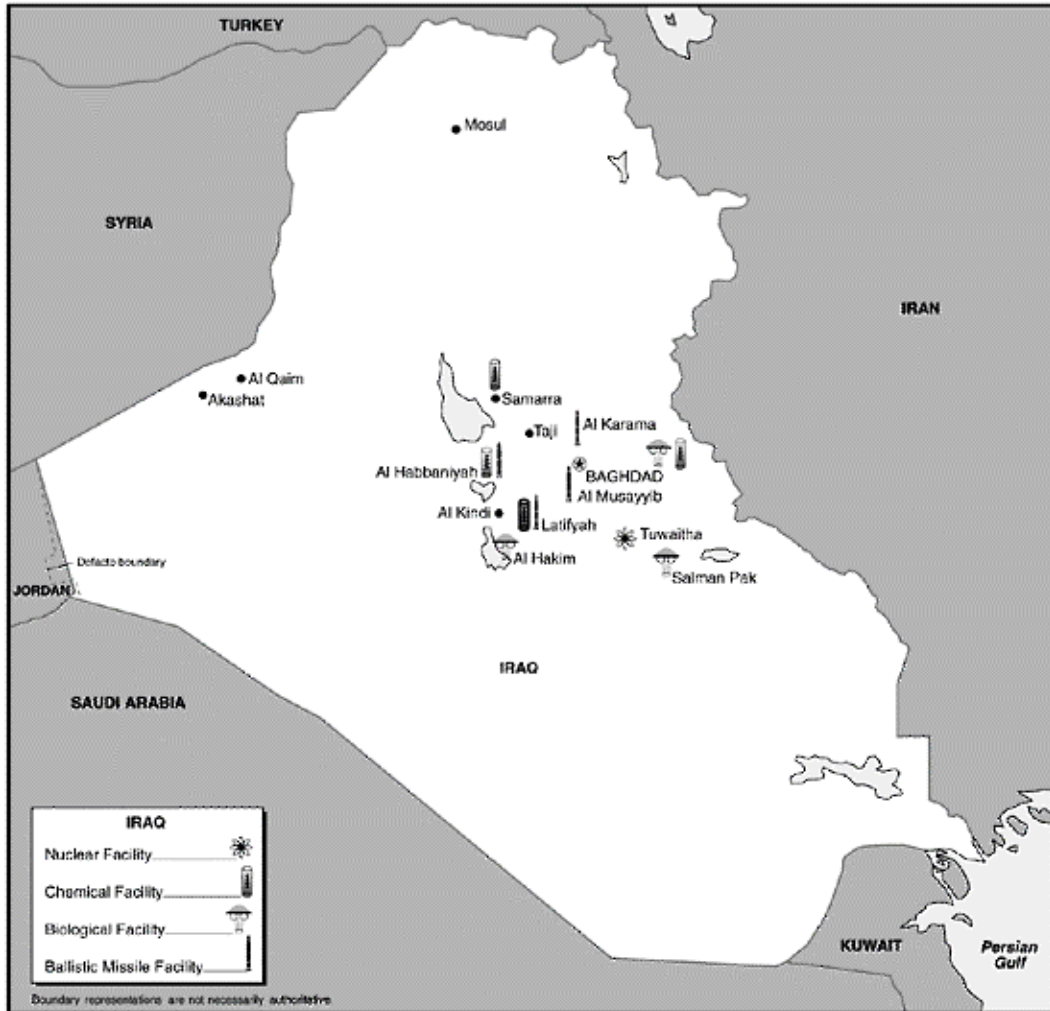
## **WEAPONS OF MASS DESTRUCTION**

The next few sections will deal with Iraq's capabilities to build weapons of mass destruction (WMD). WMD incorporates chemical, biological, and nuclear proliferation (see Figure 2, Iraq Nuclear, Chemical, Biological, and Missile Facilities). As recently as 1988, Saddam's military used chemical weapons on his own people; the military attacked

---

<sup>83</sup> Brom, 211.

**SELECTED NUCLEAR, CHEMICAL, BIOLOGICAL, AND MISSILE FACILITIES**



Despite severe war damage and four years of UN inspections, Iraq retains some infrastructure to resurrect many of its NBC weapons and missile programs.

**Figure 2. Iraq Nuclear, Chemical, Biological, and Missile Facilities**

a number of towns and villages in northern Iraq and killed at least 5000 civilians in the town of Halabjah.<sup>84</sup> The UN sanctions remain in place today because Saddam has a history of using WMD and because he refuses to comply with the Security Council resolutions. UNSCR 1284 specifically allows for the removal of sanctions when Iraq complies with the resolution and fully discloses its WMD programs. Most importantly, the resolution calls for establishing WMD-free

<sup>84</sup> US State Department, "Saddam Hussein's Iraq: Repression of the Iraqi people," 24 March 2000.

zone in the Middle East and all missiles for their delivery; and the objective of a global ban on chemical weapons.<sup>85</sup>

At the end of the Gulf War, the terms of the cease-fire agreement, resolution 687, included the verified destruction of Iraqi weapons of mass destruction, related technologies and facilities, delivery systems, and the creation of a long-term monitoring system to insure that Iraq stayed WMD and missile free. In 1998, after years of “hide-and-seek” tactics, Iraq ended all cooperation with the UN and UNSCOM. The new inspection and monitoring program, UNMOVIC, has never been allowed to enter Iraq. Consequently, Iraq maintains significant biological and chemical weapons capabilities, as well as a number of ballistic missiles and launchers. In addition, Iraq still retains a nuclear weapons infrastructure.<sup>86</sup> In the latest version of Jane’s NBC Defence Systems 1999-2000, the report on Iraq states “the attention drawn to the advantages and disadvantages of [biological weapons] and [chemical weapons] before and since the Gulf War of 1991 has effectively strengthened Iraq’s resolve to continue development by clandestine means.”<sup>87</sup>

In August 1995, Saddam’s son-in-law Hussein Kamel Magid, the architect of Iraq’s weapons of mass destruction programs, defected to Jordan. At the time, Kamel was the Minister of Industry and Minerals and was formerly the Director of Iraq’s Military Industrialization Corporation. In these capacities, he was responsible for all of Iraq’s weapons programs. After Kamel’s defection, the Iraqi government maintained that Kamel had hidden

---

<sup>85</sup> “Resolution 1284.”

<sup>86</sup> Gerald Steinberg, “Report on Arms Control and Non Proliferation Developments in the Middle East: 1998-9,” 13 August 2000, 3; on-line, Internet, available from [http://faculty.ac.il/~steing/conflict/1999\\_Middle\\_East\\_Report.htm](http://faculty.ac.il/~steing/conflict/1999_Middle_East_Report.htm).



important information on the prohibited weapons programs from UNSCOM and the IAEA. Subsequently, Iraq admitted a more extensive weapons programs than previously acknowledged: Iraq had a far more extensive prohibited biological weapons program, including weaponization; Iraq made greater progress in its efforts to indigenously produce long-range missiles; and Iraq further disclosed documentation concerning its production of VX nerve agents and developments of a nuclear weapon.<sup>88</sup> Later that year, Kamel returned to Iraq and was assassinated shortly thereafter.

## CHEMICAL<sup>89</sup>

“Iraq’s successful integration of chemical weapons into offensive operations is widely accepted as one of the reasons for its victory over Iran in 1988.”<sup>90</sup> Until 1991 Iraq maintained stockpiles of mustard (sulfur mustard and purified mustard), sarin, tabun, soman, VX/7 (nerve

---

<sup>87</sup> John Eldridge, ed. “Jane’s NBC Defence Systems 1999-2000,” (Surrey, United Kingdom: Jane’s Information Group Limited, 1999), 26-27.

<sup>88</sup> Center for Nonproliferation Studies, “Chronology of UN inspections; Derived From an October 1998 UNSCOM document,” October 1998, 4; on-line, Internet, 01 November 2000, available from [http://cns.miis.edu/research/iraq/uns\\_chro.htm](http://cns.miis.edu/research/iraq/uns_chro.htm).

<sup>89</sup> The Chemical Weapons Convention defines chemical weapons as toxic chemicals, ammunition, and equipment for their dispersal. Toxic chemicals are stated to be “any chemical which, through its chemical effect on living processes, may cause death, temporary loss of performance, or permanent injury to people and animals.” Chemical Weapons Convention, Article 2, paragraph 1.

<sup>90</sup> Defenselink, “Department of Defense Response, Proliferation,” 2000.

agent), and possibly hydrogen cyanide.<sup>91</sup> Iraq's previous use of chemical weapons is shown in Table 1. Iraqi forces delivered chemical agents on Iraqis and Iranians using aerial bombs, aerial spray dispensers, 120-mm rockets, and several types of artillery.<sup>92</sup> By 1994, UNSCOM inspectors supervised the destruction of more than 480,000 liters of chemical weapon agents, including mustard gas and the nerve agents sarin and tabun; over 40,000 specially designed munitions (28,000 filled and

<b>DAT E</b>	<b>LOCATION</b>	<b>TYPE</b>	<b>CASUALTIES</b>	<b>TARGET</b>
Aug 83	Haj Umran	Mustard	Less than 100	Iranians/Kurds
Oct 83	Panjwin	Mustard	3000	Iranians/Kurds
Feb 84	Manjoon Island	Mustard	2500	Iranians
Mar 84	Al Basrah	Tabun	50-100	Iranians
Mar 85	Hawizah Marsh	Mustard/Tabun	3000	Iranians
Feb 86	Al Faw	Mustard/Tabun	8000-10000	Iranians
Dec 86	Umm ar Rasas	Mustard	unk thousands	Iranians
Apr 87	Al Basrah	Mustard/Tabun	5000	Iranians
Oct 87	Sumar / Mehran	Mustard/nerve agents	3000	Iranians
Mar 88	Halabjah	Mustard/nerve agents	unk hundreds	Iranians/Kurds

**Table 1. Iraqi Use of Chemical Weapons<sup>93</sup>**

12,000 empty)<sup>94</sup>, including short-range battlefield rockets and artillery shells; and approximately 1.8 million liters of 45 different precursors for weapons manufacture.<sup>95</sup> In addition, eight different types of delivery systems, including ballistic missile warheads, have been destroyed.<sup>96</sup>

Baghdad has also claimed to have destroyed all of its chemical warfare agents and munitions, as much as 200 metric tons of precursors, 70 Scud warheads, and tens of thousands of smaller unfilled munitions; however, UNSCOM believes that Iraq continues to conceal a

<sup>91</sup> Brom, 201.

<sup>92</sup> US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998, n.p.; on-line, Internet, 28 September 2000, available from [http://www.state.gov/www/regions/nea/iraq\\_white\\_paper.html](http://www.state.gov/www/regions/nea/iraq_white_paper.html).

<sup>93</sup> Source: US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998.

<sup>94</sup> US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998.

small stockpile of CW agents, munitions, and production equipment because Iraq has not supplied the UN with the evidence to support these claims.<sup>97</sup> Although UN inspectors destroyed a large portion of the chemical agents, Iraq still has the knowledge and ability to renew production.

It is not possible to accurately assess Iraq's abilities to produce chemical weapons. However, based on Iraq's concealment process, inaccurate reports, and UNSCOM inspections, it is estimated that Iraq still maintains an adequate ability to research, produce, and stockpile these weapons. It is estimated that Iraq retained up to 2000 aerial bombs, 15,000-25,000 rockets, and 15,000 artillery shells specifically adapted for chemical weapon use. It is believed that Iraq possesses sufficient precursor chemicals to produce hundreds of tons of mustard gas, VX, and other nerve agents.<sup>98</sup> Since the Gulf war, Iraq retained enough technical expertise to revive its chemical warfare programs.

The UN's destruction of tens of thousands of munitions and hundreds of tons of agents and precursors gives us just an example of the size of this program. Iraq's previous use of chemical weapons, its concealment process, and the dimension of its chemical weapons program, clearly shows that Iraq is still a threat today.

## **BIOLOGICAL<sup>99</sup>**

---

<sup>95</sup> Eldridge, 27.

<sup>96</sup> US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998.

<sup>97</sup> US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998.

<sup>98</sup> Center for Nonproliferation Studies, "Weapons of Mass Destruction in the Middle East," n.p.; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/wmdme/iraq.htm>.

<sup>99</sup> Biological warfare agents include both living microorganisms (bacteria, protozoa, viruses, and fungi), and toxins (chemicals) produced by microorganisms, plants, or animals.

During a briefing to the Monterey Institute of International Studies, former UNSCOM Chairman Rolf Ekeus summarized Iraq's biological weapons program, stating that "citing a lack of detail in Iraq's accounts of its biological weapons program, one must also be suspicious about what elements of the biological weapons program might still be available in Iraq."<sup>100</sup> Not much was known about Iraq's biological warfare (BW) program until June 1995. From 1991 to 1995, Iraqi officials categorically denied that Iraq had a BW program. Baghdad undertook serious efforts to hide its BW program, including issuing fraudulent statements, forging documents, misrepresenting the roles of people and facilities, and other "acts of deception."<sup>101</sup> However, UNSCOM inspectors found evidence of a BW program, including large-scale production of anthrax and botulinum toxin.<sup>102</sup> For years, Iraqi officials claimed that researchers had conducted only defensive research.<sup>103</sup>

It wasn't until Hussein Kamel defected that Iraq admitted the existence of an offensive BW capability. Iraqi officials admitted that 8500 liters of anthrax, 19,000 liters of botulinum toxin, and 2200 liters of aflatoxin were produced (see Table 2, Iraqi Biological Warfare Program). They also admitted preparing dozens of Scud missiles, aerial bombs, and aerial dispensers with BW agents during the Gulf War; fortunately, none were used. Also acknowledged was research on using 155mm artillery shells, artillery rockets, Mig-21 and

---

<sup>100</sup> Rolf Ekeus, "UNSCOM and the Iraqi Challenge," The Monterey Institute of International Studies, Center for Nonproliferation Studies briefing, 03 December 1998, n.p.; on-line, Internet, available from <http://miis.edu/research/iraq/ekeus.htm>.

<sup>101</sup> Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of Verification of Iraq's Biological Warfare Program," n.p.; on-line, Internet, 01 November 2000, available from [http://cns.miis.edu/research/iraq/ucreport/dis\\_bio.htm](http://cns.miis.edu/research/iraq/ucreport/dis_bio.htm).

<sup>102</sup> Eldridge, 27.

Mirage F-1 drones, and helicopter-borne aerosol generators to deliver BW agents.<sup>104</sup>

However, as a result of extensive Iraqi concealment, UNSCOM could not verify that all of Iraq's filled missile warheads have been destroyed.<sup>105</sup>

BW AGENT	DECLARED CONCENTRATED AMOUNT	DECLARED TOTAL AMOUNT
Anthrax	8500 liters	85,000 liters
Botulinum toxin	19,400 liters	380,000 liters
Gas Gangrene	340 liters	3400 liters
Aflatoxin	0	2200 liters
Ricin	0	10 liters

**Table 2. Iraqi Biological Warfare Program<sup>106</sup>**

Iraq claims to have destroyed all of its BW agents in 1991, although it has never produced verifiable documents to prove these statements. A major cause for concern deals with dual-use fermentation products such as casein, Thioglycollate broth, yeast extract, and peptone. Also known as bacterial growth media, Iraq has failed to account for thousands of kilograms of these materials, which are capable of producing tens of thousands of liters of BW agents. Iraqi declarations and UN inspections have exposed Iraq's dual-use fermentation

---

<sup>103</sup> US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998.

<sup>104</sup> US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998; and Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of Verification of Iraq's Biological Warfare Program."

<sup>105</sup> Scott Ritter, "Endgame: Solving the Iraq Problem – Once and For All," (New York, NY: Simon and Schuster, 1999), 219-220.

<sup>106</sup> Source: Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of Verification of Iraq's Biological Warfare Program."

capability; however, Iraq maintains that the equipment and procedures related to producing biological agents are legitimate agriculture, biomedical, and biotechnical industrial activities.<sup>107</sup>

## NUCLEAR

Iraq's secret nuclear program began in 1971 when Iraq and France secretly agreed to construct an atomic research facility in Tuwaitha.<sup>108</sup> In a 1996 interview with the London-based Al-Majallah newspaper, Iraqi nuclear scientist Hussein al Shahrstani stated "Saddam Hussein changed the peaceful nature of Iraq's nuclear program when he took power in July 1979 and instructed all scientific facilities to develop nuclear weapons."<sup>109</sup>

Under the control of Iraq's Atomic Energy Commission, Iraq's secret nuclear program, called "Petrochemical 3" (PC3), pursued several different paths simultaneously. The procurement effort "sought to evade export controls by subsidizing orders, using middlemen, falsifying end-use and purchasing large amounts of available equipment even though the Iraqi's were not ready to use the material."<sup>110</sup>

In August 1995, after meeting with Iraqi officials, IAEA Director General Hans Blix reported to the UN Security Council that "shortly after Iraq's invasion of Kuwait, it launched an

---

<sup>107</sup> Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of Verification of Iraq's Biological Warfare Program."

<sup>108</sup> Amatzia Baram, "Iraqi Nuclear Development and the Future Threat," Security Affairs, April-May 1994, 4-5; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu94.htm>.

<sup>109</sup> Ghalib Darwish, "Scientist Views Iraq's, Iran's Nuclear Programs," Al-Majallah (London), 23 January-3 February 1996, 22, 24; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu96.htm>.

<sup>110</sup> David Albright and Mark Hibbs, "Iraq's Shop-Till-You-Drop Nuclear Program," The Bulletin of the Atomic Scientists, April 1992, 27-37; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu92.htm>.

intensive program to manufacture a nuclear weapon,” and that “Iraq intended to use safeguarded highly-enriched uranium (HEU) from its two research reactors in Tuwaitha.”<sup>111</sup> Initial IAEA reports verified that when coalition forces went into Iraq, “approximately 14 Kg of fresh Russian-supplied 80% enriched uranium, 11.9 Kg of lightly irradiated 93% uranium, and almost half a kilo of 93% highly-enriched uranium were found.”<sup>112</sup>

Under UNSCR 687, Iraq is required to produce full, final, and complete disclosure (FFCD) of its WMD programs. Immediately after the Gulf War, US State Department spokesperson Margaret Tutwiler stated that Iraq admitted that it only possessed eight calutrons,<sup>113</sup> a “laboratory scale” chemical isotope separation program, and an “incomplete centrifuge program.” Later, after UNSCOM inspectors discovered documents, laboratories, and equipment contradicting these statements, the first FFCD reports from Iraq to the UN described efforts to enrich uranium using three different techniques: gas centrifuge; magnetic isotope separation; and chemical separation.<sup>114</sup>

In September 1991, IAEA inspectors uncovered sensitive nuclear documents at the temporary administration headquarters of Iraq’s Atomic Energy Commission (IAEC) in Baghdad. These documents contained design information for shaped explosive charges, implosion packages, and neutron initiators.<sup>115</sup> Baghdad still maintained the peaceful intentions of its research as IAEC Chairman Homan Abdul Khaliq stated that there was “no program for

---

<sup>111</sup> Rolf Ekeus, Statement to the UN Security Council, 25 August 1995, n.p.; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu95.htm>.

<sup>112</sup> Al J. Venter, “How Saddam Hussein Almost Built His Bomb,” *Jane’s Intelligence Review*, December 1997, 1-13; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu97.htm>.

<sup>113</sup> A calutron is a particle accelerator used to enrich uranium.

<sup>114</sup> Mark Hibbs, “Iraq Replies to UN Pressure, Admits it Enriched Uranium,” *Nucleonics Week*, 11 July 1991, 4-5; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

enrichment of uranium in Iraq.”<sup>116</sup> Maurizio Zifferero, the UNSCOM director for Iraq responded, noting that the seized documents are “certainly evidence that a weaponization program was being carried out,” and that “all the components were in place for [a nuclear weapon program.]”<sup>117</sup> During Hussein Kamel’s defection interviews, Kamel stated that “Iraq’s goal was to produce a nuclear warhead weighing no more than 500 Kg and possibly as little as 300 Kg, so that it could be carried on missiles or airplanes,” and “that ‘the Iraqi head of State’ directly ordered the destruction and concealment of files and documentation concerning Iraq’s weapons program.”<sup>118</sup>

IAEA inspectors have found clear evidence of an Iraqi weapons design program, including designs for building detonators.<sup>119</sup> Iraq was also found to possess advanced technical knowledge on the assembly of actual weapons: it had designs for weapons with shaped conventional explosives and neutron sources.<sup>120</sup> IAEA inspectors indicated that the Iraqi nuclear weapons program was much more extensive than previously thought, and were concerned that “Iraq’s future weapons production capability will not be eliminated by the removal of fissile material and destruction of facilities.”<sup>121</sup>

Evidence has supported that Iraq launched a crash program to divert IAEA safeguarded nuclear reactor fuel for a nuclear weapons program in 1990 after invading Kuwait.

---

<sup>115</sup> George Leopold, “Evidence Reveals Iraqi Nuclear Potential,” *Defense News*, 30 September 1991, 1, 52; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

<sup>116</sup> Hibbs, *Nucleonics Week*, 11 July 1991.

<sup>117</sup> Leopold, *Defense News*, 30 September 1991.

<sup>118</sup> CNN Presents, Transcript #1, “Back to Baghdad, Part 3 – Armed and Dangerous,” 25 February 1996, 2-3; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu96.htm>.

<sup>119</sup> Paul Lewis, “Mastermind of Iraq Nuclear Effort is Sought,” *New York Times*, 01 October 1991, A4; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

<sup>120</sup> Nuclear News, “IAEA Team Emerges With Weapons Research Data,” November 1991, 65; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.



Iraq retained a very large and experienced pool of nuclear scientists and technicians, and since evicting UNSCOM inspectors in 1998, has had a clear opportunity to continue its nuclear WMD research. The Center for Non-Proliferation Studies estimates that “with sufficient black-market uranium or plutonium, [Iraq] could fabricate a nuclear weapon within one year.”<sup>122</sup>

## MISSILE TECHNOLOGY

The mainstay Iraqi surface-to-surface missile is the Scud. The original Iraqi Scuds were imported from the USSR, Libya, and North Korea.<sup>123</sup> After the Gulf War, UNSCR 687 established procedures for destroying, removing, or rendering harmless, all ballistic missiles with a range greater than 150 kilometers, and related major parts, repair, and production facilities.<sup>124</sup>

Through its disarmament and monitoring inspections, UNSCOM again discovered that Iraq was attempting to conceal its ballistic missile program: Iraq retained prohibited production equipment, tooling, missile components, and documentation; researchers worked on prohibited missile components and designs; Iraq imported prohibited missile components and secretly acquired items declarable under the monitoring plan; and Iraq concealed prohibited ballistic missile projects and facilities specifically established for missile-related production.<sup>125</sup>

---

<sup>121</sup> Nuclear News, “IAEA Team Emerges With Weapons Research Data,” November 1991, 65.

<sup>122</sup> Center for Nonproliferation Studies, “Weapons of Mass Destruction in the Middle East.”

<sup>123</sup> Jane’s Defense Weekly, “Iraq’s ‘Scud’ Program – The Tip of the Iceberg,” 02 March 1991, 301-303; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

<sup>124</sup> “Resolution 687.”

<sup>125</sup> Center for Nonproliferation Studies, “UNSCOM’s Comprehensive Review: Status of Material Balances in the Missile Area,” n.p.; on-line, Internet, 01 November 2000, available from [http://cns.miis.edu/research/iraq/ucreport/dis\\_miss.htm](http://cns.miis.edu/research/iraq/ucreport/dis_miss.htm).

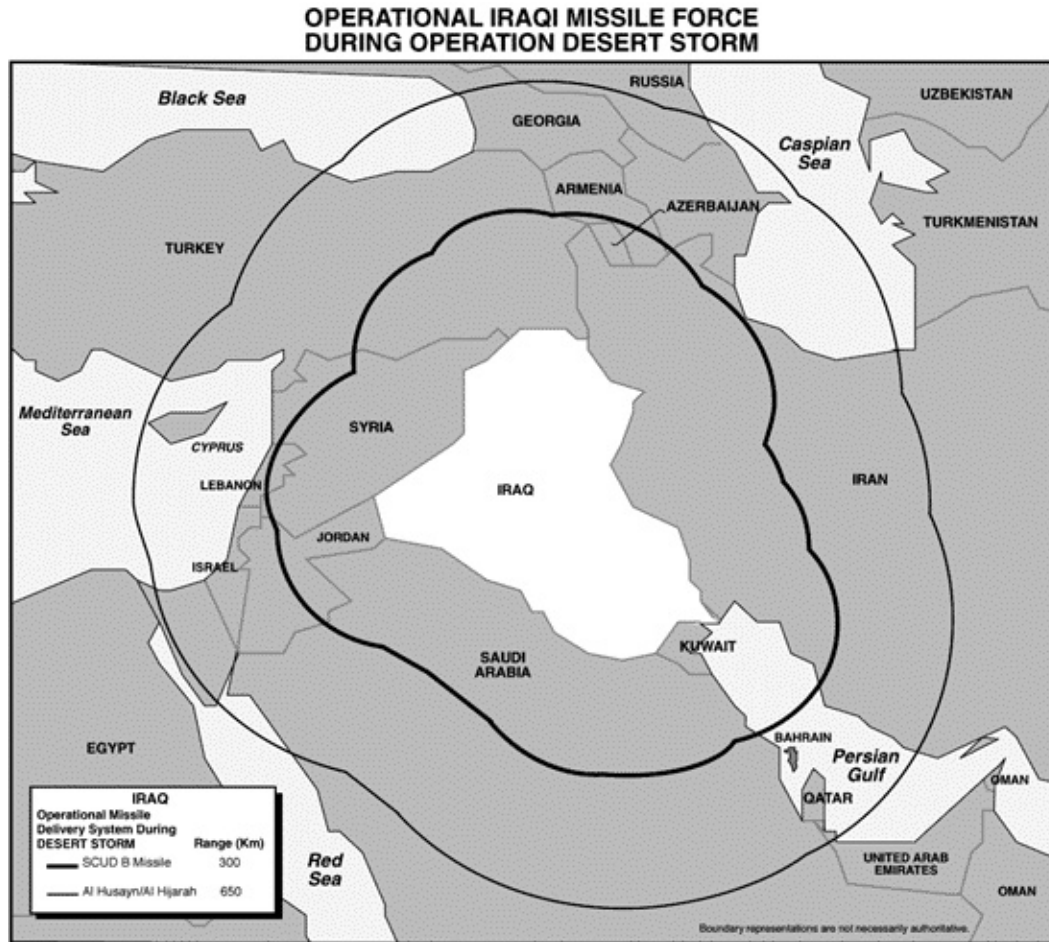
UNSCOM's Comprehensive Review stated that Iraq initially retained "two-thirds of its operational force of proscribed missiles." By the end of 1991, the commission came to the conclusion that "Iraq had not declared all its holdings of such weapons and not disclosed all its proscribed capabilities and programs." In March 1992, Iraq responded to these reports, admitting that a considerable amount of prohibited weapons and components were withheld from the UN; furthermore, Iraq declared that it unilaterally destroyed these weapons in the summer of 1991. The UN has been unable to verify the destruction of these weapons. In 1995 and 1996, Iraq submitted multiple FFCDS, however, the UN did not accept these as either full or complete disclosures.<sup>126</sup>

The original Scud missile has a range of 300 kilometers. Of the 819 Scud missiles imported by Iraq, over half were modified in Iraq to be Al-Hussein missiles, capable of flying 600-650 kilometers. In the 1980's Iraq fired 516 Scud missiles into Iran during the Iran-Iraq war. During the Gulf War Iraq fired 93 missiles into Saudi Arabia, Kuwait, and Israel (see Figure 3, Operational Iraqi Missile Force During Operation Desert Storm). In addition, UNSCOM investigators discovered special warheads containing BW and CW agents, although none were reportedly used during the Gulf War.<sup>127</sup>

---

<sup>126</sup> Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of Material Balances in the Missile Area."

<sup>127</sup> Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of Material Balances in the Missile Area."



**Figure 3. Operational Iraqi Missile Force During Operation Desert Storm.**

Over the last nine years, since the implementation of UNSCR 687, Iraq has been developing surface-to-surface missiles that fall under the 150-kilometer restriction. Iraq is developing the Ababil-100, which has a 150 Km range and a 300 Kg payload; Iraq is currently fight-testing the al-Samoud with a 140 Km range and a 300 Kg payload; and Iraq is producing the Ababil-50 with a 50 Km range and a 95 Kg payload.<sup>128</sup> All three of these missiles are acceptable under the 150 Km restriction, but what concerns the UN is that “the technology

<sup>128</sup> Center for Nonproliferation Studies, “Weapons of Mass Destruction in the Middle East.”

used for developing and producing short-range missiles, is ‘equally applicable’ to longer range missiles.”<sup>129</sup>

Under UNSCR 687, all Scud missiles, because of their capable range, are required to be destroyed. However, prior to the Gulf War, Iraq was known to have the capability to manufacture its own Scud missile airframes. And in September 1995, Iraqi officials told UNSCOM Chairman Rolf Ekeus that Iraq had indigenously produced its own Scud missiles through reverse engineering.<sup>130</sup> Additionally, because of Iraq’s concealment process, UNSCOM estimates that between six and sixteen Scud missile still exist in Iraq.<sup>131</sup>

According to the UN, companies from France, Germany, and Eastern Europe continue to supply Iraq with missile guidance systems, advanced machine tools, and specialized furnaces used to manufacture missile components.<sup>132</sup> In late 1995, Jordanian authorities seized over 100 sets of missile gyroscopes and accelerometers bound for Iraq from Russia. The guidance parts were designed for Russian long-range Strategic Launched Ballistic Missiles (SLBMs),<sup>133</sup> additionally, in December 1995, UNSCOM inspectors discovered several new gyroscopes that were dumped in the Tigris River near Baghdad. The inspectors identified that these gyroscopes were “suited for missiles with ranges of 1200 miles, ...of a type normally used in long-range

---

<sup>129</sup> Alan George, “UN Uncovers Secret Iraqi Ballistic Missile Project,” *Flight International*, 03 – 09 January 1996, 17; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.

<sup>130</sup> Alan George, “Iraq Reveals Capability to Manufacture Scud Engine,” *Flight International*, 20 – 26 September 1995, 19; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi95.htm>.

<sup>131</sup> Paige Bowers, “Exile Says Iraqis are Fooling UN on Missile Count,” *Washington Times*, 31 July 1996, A15; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.

<sup>132</sup> James Bruce, “Playing Hide and Seek With Saddam,” *Jane’s Defense Weekly*, 03 January 1996, 15, 18-19; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.

<sup>133</sup> CNN Presents, Transcript #1, “Back to Baghdad, Part 3 – Armed and Dangerous,” 25 February 1996, 2-3.

missiles.”<sup>134</sup> It appeared to UN inspectors that Iraq was secretly trying to acquire materials to build long-range missiles. Former UNSCOM Chairman Rolf Ekeus called these incidents “a very powerful warning signal that Iraq has not ceased in its attempts to produce long-range missiles.”<sup>135</sup>

A 25 August 2000 article in the German newspaper Hamburg Bild reported that the German Federal Intelligence Service (BND) detected the secret missile factory Al Mamoun located 40 Km southwest of Baghdad. The report states the factory is producing the Ababil-100 missile; additionally, up to 250 engineers are working on studies and blueprints for missiles with a range of up to 3,000 km.<sup>136</sup>

## **THREAT TO REGION**

Notwithstanding Iraq’s questionable WMD programs, it still maintains the largest army in the region, counting regular and reserve forces. Perhaps the only thing keeping Saddam’s conventional forces from becoming a credible threat is the lack of parts available for his aging fleet of tanks, fighting vehicles, and combat aircraft. The great “equalizer” that Saddam is looking for is in his WMD programs. Based on Iraq’s military production capabilities,

---

<sup>134</sup> Stewart Stogel, “Missile Plans by Iraq May Aim at Europe,” Washington Times, 16 February 1996, A1, A19; on-line, Internet, 01 November 2000, available from on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.

<sup>135</sup> CNN Presents, “Back to Baghdad, Part 3 – Armed and Dangerous,” 25 February 1996, 2-3.

prohibited smuggling operations, past use of chemical weapons and Scud missile attacks, and consistent efforts to deceive UN inspectors, outside observers must assume that Iraq has maintained a small, but capable, cadre of WMD weapons. For the last two years, Saddam has had a clear, unobstructed opportunity to research, develop, and produce these weapons.

A 07 August 2000 report in the Baghdad newspaper Babil had the following remarks: “The day of the honorable call has been, and will always be in the minds of all the Iraqis, particularly since the unjust embargo forces us to remember and to contemplate. God knows what this will force the Iraqis to do. . . We are telling the failing rulers of Kuwait: If they need an extra lesson, we are the best teachers.”<sup>137</sup>

On 19 September 2000, Assistant Secretary of State for the Near East Edward Walker spoke before the Senate Armed Services Committee, reiterating the elements of containment for Iraq. He stated “we contain Saddam through UN sanctions which severely limit the resources needed to reconstitute weapons of mass destruction and rebuild a conventional arsenal; through maintenance of no-fly zones in the north and south of Iraq; and through a military presence in the region and a readiness to use force as necessary and appropriate.”<sup>138</sup>

---

<sup>136</sup> Einar Koch “Detected by the BND: Saddam Hussein’s Secret Missile Factory” Hamburg Bild, 25 August 2000, 2.

<sup>137</sup> Abd-al-Razzaq Muhammad al-Dulaymi, “After 10 Years, Do They Need an Extra Lesson?,” Baghdad Babil, 07 August 2000, 1.

<sup>138</sup> Edward Walker, “Testimony of NEA Assistant Secretary Edward S. Walker Jr., Committee on Armed Services,” 19 September 2000, n.p.; on-line, Internet, 28 September 2000, available from <http://pdq.state.gov/scripts>.

Even with containment in place, Iraq still enjoys a quantitative advantage in ground forces relative to the members of the Gulf Cooperation Council (GCC).<sup>139</sup> Table 3 shows the relative capabilities of ground forces in selected Middle East countries (1998 data). However, the GCC states have significantly improved their ability to defend themselves against air attacks from Iraq. A build-up of forces in the 1990's by Saudi Arabia and other GCC states have given them the ability to deter or at least seriously confront an invasion by Iraq. Table 4, next page, shows comparison between the Middle East air, air defense, and naval forces (1998 data).

STATE	REGULAR	RESERVE	TANKS	FIGHTING VEHICLES	ARTILLERY	BALLISTIC MISSILE LAUNCHERS
Bahrain	7400	0	187	277	48	0
Iraq	432,500	650,000	2000	2000	1950	34
Iran	518,000	350,000	1520	1235	2640	39
Kuwait	19,500	24,000	318	436	75	0
Oman	34,000	0	131	135	148	0
Qatar	11,800	0	55	222	56	0
Saudi	165,000	20,000	865	5337	404	12
UAE	46,500	0	330	955	411	0

**Table 3. Middle East Ground Forces<sup>140</sup>**

<sup>139</sup> The Gulf Cooperation Council (GCC) consists of Saudi Arabia, Kuwait, Qatar, Oman, Bahrain, and the United Arab Emirates (UAE).

<sup>140</sup> Brom, 414.

STATE	COMBAT AIRCRAFT	TRANSPORT AIRCRAFT	HELOS	SURFACE-TO-AIR MISSILES	SUBS	NAVAL VESSELS
Bahrain	24	2	41	1	0	30
Iraq	180	10	366	60	0	2
Iran	145	91	293	35	6	170
Kuwait	40	5	27	6	0	27
Oman	31	38	37	0	0	32
Qatar	14	8	31	0	0	43
Saudi	346	61	160	22	0	104
UAE	54	31	93	7	0	117

**Table 4. Middle East Air, Air Defense, and Naval Forces<sup>141</sup>**

In a 20 August 2000 statement, Kuwaiti Foreign Minister Sheikh Sabah Al-Ahmed warned that the recent Iraqi campaign against Kuwait and Saudi Arabia “reminds Kuwaitis of the threats the regime issued before its tyrannical aggression in 1990, and it confirms our enduring doubts about the sincerity of the Iraqi regime and its commitment to implement the relevant Security Council decisions.” He suggested that the Iraqi campaign “is not directed against Kuwait and Saudi Arabia only, but it is also directed against the brotherly Gulf states. And at the same time, it also threatens the security and stability of this vital region of the world.” He added that this “confirms the correctness of Kuwait’s policy and the preventive measures, which it took in response to the Iraqi escalation.”<sup>142</sup>

It is not just the GCC states that feel threatened by Iraq. As tensions between Israel and Palestine have increased, Iraq has slowly increased its forces along its western borders.

---

<sup>141</sup> Brom, 415.

<sup>142</sup> Hamad al-Jasir, “Sabah al-Ahmed: Iraq’s Threats directed against all of the Gulf States,” *Al-Hayat* (London) August 20, 2000, 1.



Israel has been concerned that Iraq might attack, and this has prompted the United States to place a Patriot missile battery on alert for possible deployment to Israel.<sup>143</sup>

## CONCLUSION

The United Nations sanctions have been imposed on Iraq for over ten years. When Iraq invaded Kuwait on 2 August 1990, sanctions were imposed in an attempt to politically force Saddam's force out of Kuwait. Instead, coalition forces physically removed Iraq's military and returned Kuwait to its people. After the Gulf War, more UN resolutions were issued to eliminate Iraq's weapons of mass destruction programs and to provide economic relief to the suffering population. These resolutions were put in place to make the region stable and free from WMD products. However, Iraq holds a different opinion: Rolf Ekeus, former UNSCOM Chairman stated, "from Baghdad's point of view, UNSCOM inspections violate its sovereign rights as a state and prevent Iraq from acquiring the weapons needed to fulfill its regional responsibility to continue to deter Iran."<sup>144</sup>

Saddam was reluctant to accept the UN's oil-for-food programs designed to provide needed food and medical supplies to Iraq's population. Five years after the program was introduced, Saddam finally accepted trading oil for much needed supplies. Iraq has clearly been smuggling oil out of the country, both by sea and land, in violation of the UN sanctions. One

---

<sup>143</sup> CNN.com "Patriot missile battery on alert over perceived Iraqi threat," 2 September 2000, n.p.; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/09/01/patriot.alert.03/>.

<sup>144</sup> Center for Nonproliferation Studies, "UNSCOM and the Iraqi Challenge," 17 December 1998, 1; on-line, Internet, 01 November 2000, available from on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.

can only guess where this money is going. It is possibly going to the illegal importation of high-technology goods designed for WMD programs.

Since 1998, UNSCOM inspectors have not been allowed into Iraq. Unmonitored during this time, Saddam has had a clear opportunity to develop his WMD programs. His short-range missile program is up and running, indigenously producing surface-to-surface missiles. Iraq's previous use of chemical weapons and stockpiling of weapons loaded with both chemical and biological agents during the Gulf War shows Iraq's intent to use them in the future.

In August 1998, UNSCOM inspector William Ritter resigned from the team. In his resignation letter, he stated "the sad truth is that Iraq today is not disarmed to anywhere near the level required by Security Council resolutions," and that "the Commission has uncovered indisputable proof of a systematic concealment mechanism, run by the Presidency of Iraq and protected by the Presidential security forces."<sup>145</sup>

The United Nations has lost credibility, power, and effectiveness in its resolution implementation. Iraq's decision to cease cooperation with the UN and the UN's decision to not directly challenge this with other means proves that the UN is either not willing or not capable of implementing its own laws. The illusion of arms control is more dangerous than no arms control at all. The UN is giving the world a false sense of security regarding Iraq's WMD status. Bottom line, Iraq's chemical, biological, and nuclear status is unknown.

In this writer's opinion, there are three possible ways to end this stalemate. First,

---

<sup>145</sup> William Ritter, "Resignation Letter of William S. Ritter, Jr.," United Nations, 26 August 1998, n.p.; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/Friday.htm>.

the world can continue its present course of not enforcing the sanctions and inspections. Through inaction the world will have to wait and see what Saddam produces with his efforts.

Second, the UN can drop the sanctions altogether and trust Saddam to turn his nation into a peaceful country. This outcome does not seem likely. Jane's NBC Defence Systems summarizes Iraq's character, stating "[Iraq] is a rival to Iran for regional domination and pursues a policy which cleverly combines the establishment of friendly relationships with neighboring Arab states with the hidden threat of an effective NBC capability. The leadership is autocratic and unpredictable, posing the greatest threat to regional stability in Western eyes."<sup>146</sup>

Or third, the world can once again enforce the sanctions by implementing more extreme resolutions that include swift military intervention if not completely followed by Iraq's government. Keeping the resolutions in place accomplishes many things: reduces Saddam's ability to build weapons of mass destruction (embargo and inspections); maintains a positive flow of food and medical supplies to the population (oil-for-food programs); and helps maintain the regional balance of power by reducing Iraq's threat to other nations. This writer believes the sanctions should remain in effect until Iraq complies with full, final, and complete disclosure of its WMD programs. If Iraq does not completely disclose, or attempts to conceal its programs, then immediate military action could be appropriate. Striking immediately would show the UN's resolve to bring the Iraq problem to a close. Option three is the best way to deal with the Iraq problem,

---

<sup>146</sup> Eldridge, 27.

because “with reconstructed conventional forces and NBC weapons and missile capabilities, Iraq could again threaten states in the region, oil fields and facilities, US forces, and key logistics facilities.”<sup>147</sup>

Saddam remains a threat to the world as long as he possesses the ability to produce chemical, biological, or nuclear weapons. Currently, the world does not know the extent of Iraq’s WMD programs; the extent of the programs were not known before the Gulf War, and they certainly were not revealed through inspections in Iraq. Diplomatic efforts have not worked in the past, and it is doubtful that they will work in the future. It is only a matter of time before support for the sanctions erodes, and the UN, unable to enforce them, will be compelled to eliminate the sanctions. When this happens, the world will finally find out what Saddam has been doing for the last ten years.

---

<sup>147</sup> Defenselink, "Department of Defense Response, Proliferation," 2000.

## BIBLIOGRAPHY

- Albright, David and Mark Hibbs, "Iraq's Shop-Till-You-Drop Nuclear Program," The Bulletin of the Atomic Scientists, April 1992; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu92.htm>.
- Albright, Madeleine, "Op-Ed For Tenth Anniversary of Iraq's Invasion of Kuwait," August 2000; on-line, Internet, 11 August 2000, available from <http://usinfo.state.gov/regional/nea/iraq/albright807.htm>.
- al-Jasir, Hamad, "Sabah al-Ahmed: Iraq's Threats directed against all of the Gulf States," Al-Hayat (London) August 20, 2000.
- Ambrose, Stephen, "Rise to Globalism," (New York, NY.: Penguin Press, 1997).
- Aspin, Les, Chairman, Committee on Armed Services, "Interim Report of the Committee on Armed Services, House of Representatives", 30 March 1992; on-line, Internet, available from [http://es.rice.edu/projects/Poli378/Gulf/aspin\\_rpt.html](http://es.rice.edu/projects/Poli378/Gulf/aspin_rpt.html).
- Atkinson, Rick, "Crusade: The Untold Story Of The Persian Gulf War" (Houghton Mifflin. 1994), <http://www.pbs.org/wgbh/pages/frontline/gulf/cron/>.
- Baram, Amatzia, "Iraqi Nuclear Development and the Future Threat," Security Affairs, April-May 1994; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu94.htm>.
- Berger, Samuel, "Saddam is the Root of all Iraq's Problems," Financial Times, 4 May, 2000; on-line, Internet, 5 Oct 2000, available from [http://www.state.gov/www/regions/nea/000504\\_berger\\_iraq.html](http://www.state.gov/www/regions/nea/000504_berger_iraq.html).
- Bowers, Paige, "Exile Says Iraqis are Fooling UN on Missile Count," Washington Times, 31 July 1996; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.
- BBC News "The Rise of Saddam Hussein;" on-line 9 October 2000, available from [http://news6.thdo.bbc.co.uk/hi/english/events/crisis\\_in\\_the\\_gulf/road\\_to\\_the\\_brink/news\\_id\\_29000/29099.stm](http://news6.thdo.bbc.co.uk/hi/english/events/crisis_in_the_gulf/road_to_the_brink/news_id_29000/29099.stm).
- Brom, Shlomo and Yiftah Shapir, eds. "The Middle East Military Balance 1999-2000," (Cambridge, MA.: Belfer Center for Science and International Affairs, 2000).

- Bruce, James, "Playing Hide and Seek With Saddam," *Jane's Defense Weekly*, 03 January 1996; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.
- Bush, George, "Message to Allied Nations on the Persian Gulf Crisis," January 8, 1991, U.S. Information Agency WORLDNET satellite network; on-line, Internet, 9 October 2000, available from <http://www.csdl.tamu.edu/bush/>.
- CNN.com, "Iran's foreign minister visits Baghdad hoping to better Iran-Iraq relations," 13 October 2000; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/10/13/iraq.iran.ap/index.html>.
- CNN.com, "Iraq blasts 10 years of crippling UN sanctions," 6 August 2000, n.p.; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/08/06/iraq.sanctions/>.
- CNN.com, "Number of sanction-defying flights, most humanitarian, to Iraq rises," 5 October 2000; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/10/05/iraq.airport/>.
- CNN.com "Patriot missile battery on alert over perceived Iraqi threat," 2 September 2000; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/09/01/patriot.alert.03/>.
- CNN.com, "U.N. arms inspector says Iraq still not cooperating," 2 June 2000; on-line, Internet, 14 October 2000, available from <http://www.cnn.com/2000/WORLD/meast/06/02/iraq.inspectors/>.
- CNN Presents, Transcript #1, "Back to Baghdad, Part 3 – Armed and Dangerous," 25 February 1996; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu96.htm>.
- Center for Nonproliferation Studies, "Chronology of UN inspections; Derived From an October 1998 UNSCOM document," October 1998; on-line, Internet, 01 November 2000, available from [http://cns.miis.edu/research/iraq/uns\\_chro.htm](http://cns.miis.edu/research/iraq/uns_chro.htm).
- Center for Nonproliferation Studies, "UNSCOM and the Iraqi Challenge," 17 December 1998, 1; on-line, Internet, 01 November 2000, available from on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.
- Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of

Verification of Iraq's Biological Warfare Program;" on-line, Internet, 01 November 2000, available from [http://cns.miis.edu/research/iraq/ucreport/dis\\_bio.htm](http://cns.miis.edu/research/iraq/ucreport/dis_bio.htm).

Center for Nonproliferation Studies, "UNSCOM's Comprehensive Review: Status of Material Balances in the Missile Area;" on-line, Internet, 01 November 2000, available from [http://cns.miis.edu/research/iraq/ucreport/dis\\_miss.htm](http://cns.miis.edu/research/iraq/ucreport/dis_miss.htm).

Center for Nonproliferation Studies, "Weapons of Mass Destruction in the Middle East;" on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/wmdme/iraq.htm>.

Clinton, William, "Letter From the President to the Speaker of the House of Representatives and the President Pro Tempore of the Senate," 5 November 1998; on-line, Internet, 5 October 2000, available from [http://www.state.gov/wwwww/regions/nea/981105\\_whletter\\_iraq.html](http://www.state.gov/wwwww/regions/nea/981105_whletter_iraq.html).

Darwish, Ghalib, "Scientist Views Iraq's, Iran's Nuclear Programs," Al-Majallah (London) 23 January-3 February 1996; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu96.htm>.

Defenselink, "Department of Defense Response, Proliferation," 2000; on-line, Internet, 28 September, 2000, available from [http://www.defenselink.mil/pubs/prolif/me\\_na.html](http://www.defenselink.mil/pubs/prolif/me_na.html).

Department Of The Navy, Naval Historical Center, "The US Navy in Desert Shield / Desert Storm, Part V: Thunder and Lightning", 15 May 1991; on-line, Internet, available from <http://www.history.navy.mil/wars/dstorm/ds5.htm>.

Ekeus, Rolf, Statement to the UN Security Council, 25 August 1995; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu95.htm>.

Ekeus, Rolf, "UNSCOM and the Iraqi Challenge," The Monterey Institute of International Studies, Center for Nonproliferation Studies briefing, 03 December 1998; on-line, Internet, available from <http://miis.edu/research/iraq/ekeus.htm>.

Eldridge, John, ed. "Jane's NBC Defence Systems 1999-2000," (Surrey, United Kingdom: Jane's Information Group Limited, 1999).

Franks, Tommy, CINC USCENCOM, "Remarks Before Armed Services Committee on Iraq," 19 September 2000; on-line, Internet, 28 September 2000, available from <http://pdq.state.gov/scripts/>.

George, Alan, "Iraq Reveals Capability to Manufacture Scud Engine," Flight

International, 20 – 26 September 1995; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi95.htm>.

George, Ian, “UN Uncovers Secret Iraqi Ballistic Missile Project,” *Flight International*, 03 – 09 January 1996; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.

Hibbs, Mark, “Iraq Replies to UN Pressure, Admits it Enriched Uranium,” *Nucleonics Week*, 11 July 1991; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

Jane’s Defense Weekly, “Iraq’s ‘Scud’ Program – The Tip of the Iceberg,” 02 March 1991; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

Koch, Einar, “Detected by the BND: Saddam Hussein’s Secret Missile Factory” *Hamburg Bild*, 25 August 2000.

Lewis, Paul, “Mastermind of Iraq Nuclear Effort is Sought,” *New York Times*, 01 October 1991; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

Leopold, George, “Evidence Reveals Iraqi Nuclear Potential,” *Defense News*, 30 September 1991; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

Muhammad al-Dulaymi, Abd-al-Razzaq, “After 10 Years, Do They Need an Extra Lesson?,” *Baghdad Babil*, 07 August 2000.

Nuclear News, “IAEA Team Emerges With Weapons Research Data,” November 1991; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu91.htm>.

Pike, John, “Confrontation with Iraq,” February 5, 1999; on-line, Internet, 10 October 2000, available from [http://www.fas.org/man/dod-101/ops/iraq\\_back.htm](http://www.fas.org/man/dod-101/ops/iraq_back.htm).

Pisik, Betsy, “Iraqi Trade Doing Fine Despite Sanctions,” *Washington Times*, 25 October 2000; on-line, Internet, 27 October 2000, available from <http://www.washtimes.com/world/default-20001025221725.htm>.

Report to Congress on the Conduct of the Persian Gulf War, “Chapter 6: The Air



Campaign,” April 1992; on-line, Internet, 24 October 2000, available from <http://es.rice.edu/projects/Poli378/Gulf/index.html>.

Report to Congress on the Conduct of the Persian Gulf War, “Chapter 8: The Ground Campaign,” April 1992; on-line, Internet, 24 October 2000, available from <http://es.rice.edu/projects/Poli378/Gulf/index.html>.

Ritter, Scott, “Endgame: Solving the Iraq Problem – Once and For All,” (New York, NY: Simon and Schuster, 1999).

Ritter, William, “Resignation Letter of William S. Ritter, Jr.,” United Nations, 26 August 1998; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/Friday.htm>.

Signatories And Parties To The Treaty On The Non-Proliferation Of Nuclear Weapons, Signed at Washington, London, and Moscow July 1, 1968, available from <http://sun00781.dn.net/nuke/control/npt/text/index.html>.

Slocumbe, Walter, “Statement of the Under Secretary of Defense for Policy to the Senate Armed Services Committee: Defense Aspects of United States Policy Toward Iraq,” 19 September 2000; on-line, Internet, 28 September 2000, available from <http://pdq.state.gov/scripts/>.

Steinberg, Gerald, “Report on Arms Control and Non Proliferation Developments in the Middle East: 1998-9,” 13 August 2000; on-line, Internet, available from [http://faculty.ac.il/~steing/conflict/1999\\_Middle\\_East\\_Report.htm](http://faculty.ac.il/~steing/conflict/1999_Middle_East_Report.htm).

Stogel, Stewart, “Missile Plans by Iraq May Aim at Europe,” Washington Times, 16 February 1996; on-line, Internet, 01 November 2000, available from on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqmi96.htm>.

Summers, Harry G., “Persian Gulf War Almanac,” (New York, NY.:Facts on File Press, 1995).

Thatcher, Margaret, “Gulf War Interview,” PBS; on-line, Internet, 9 October 2000, available from <http://www.pbs.org/wgbh/pages/frontline/gulf/oral/thatcher/2.html>.

United Nations, "Resolution 660," adopted by the Security Council at its 2932nd meeting, on 2 August, 1990.

United Nations, "Resolution 661," adopted by the Security Council at its 2933rd meeting, on 6 August, 1990.

United Nations, "Resolution 662," adopted by the Security Council at its 2934th meeting, on 9 August 1990.

United Nations, "Resolution 664," adopted by the Security Council at its 2937th meeting, 18 August 1990.

United Nations, "Resolution 665," adopted by the Security Council at its 2938th meeting, on 25 August 1990.

United Nations, "Resolution 666," adopted by the Security Council at its 2939th meeting, on 13 September 1990.

United Nations, "Resolution 670," adopted by the Security Council at its 2943rd meeting, on 25 September 1990.

United Nations, "Resolution 687," adopted by the Security Council at its 2981st meeting, on 3 April, 1991.

United Nations, "Resolution 688," adopted by the Security Council at its 2982nd meeting, on 5 April 1991.

United Nations, "Resolution 689," adopted by the Security Council at its 2982nd meeting, on 9 April 1991.

United Nations, "Resolution 706," adopted by the Security Council at its 3004th meeting, on 15 August 1991.

United Nations, "Resolution 778," adopted by the Security Council at its 3117th meeting, on 2 October 1992.

United Nations, "Resolution 986," adopted by the Security Council at its 3519th meeting, on 14 April 1995.

United Nations, "Resolution 707," adopted by the Security Council at its 3004th meeting, on 15 August 1991.

United Nations, "Resolution 1060," adopted by the Security Council at its 3672nd meeting, on 12 June 1996

United Nations, "Resolution 1115," adopted by the Security Council at its 3792nd meeting, on 21 June 1997

United Nations, "Resolution 1134," adopted by the Security Council at its 3826th

meeting, on 23 October 1997.

United Nations, "Resolution 1154," adopted by the Security Council at its 3858th meeting, on 2 March 1998.

United Nations, "Resolution 1194," adopted by the Security Council at its 3924th meeting, on 9 September 1998.

United Nations, "Resolution 1205," adopted by the Security Council at its 3939th meeting, on 5 November 1998.

United Nations, "Resolution 1284," adopted by the Security Council at its 4084th meeting, on 17 December 1999.

US Government White Paper, "Iraq Weapons of Mass Destruction," 13 February 1998; on-line, Internet, 28 September 2000, available from [http://www.state.gov/www/regions/nea/iraq\\_white\\_paper.html](http://www.state.gov/www/regions/nea/iraq_white_paper.html).

US State Department, "Fact Sheet: Setting the Record Straight About Iraq," 2 August 2000; on-line, Internet, 11 October 2000, available from <http://pdq.state.gov/scripts>.

U.S. State Department, "Saddam Hussein's Iraq: Evading U.N. Resolutions and Failure to Disarm," 24 March 2000; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

US State Department, "Saddam Hussein's Iraq: Impact of Sanctions," 24 March 2000; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

US State Department, "Saddam Hussein's Iraq: Misuse of Resources by the Regime," 24 March 2000; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

US State Department, "Saddam Hussein's Iraq: Palaces and Oil Smuggling," 24 March 2000; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

US State Department, "Saddam Hussein's Iraq: Repression of the Iraqi people," 24 March 2000; on-line, Internet, 10 October 2000, available from <http://usinfo.state.gov/regional/nea/iraq/iraq99.htm>.

Venter, Al, "How Saddam Hussein Almost Built His Bomb," *Jane's Intelligence Review*,

December 1997; on-line, Internet, 01 November 2000, available from <http://cns.miis.edu/research/iraq/iraqnu97.htm>.

Wakefield, Grant, "Iraq Chronology"; on-line, Internet 9 October 2000, available from <http://www.wakefieldcam.freemove.co.uk/iraqchronology.htm>.

Walker, Edward, "Testimony of NEA Assistant Secretary Edward S. Walker Jr., Committee on Armed Services," 19 September 2000; on-line, Internet, 28 September 2000, available from <http://pdq.state.gov/scripts>.