

THE BEGIN-SADAT CENTER FOR STRATEGIC STUDIES
BAR-ILAN UNIVERSITY
Mideast Security and Policy Studies No. 52

Arms Control and Non-Proliferation Developments in the Middle East: 2000-1

Gerald M. Steinberg with Aharon Etengoff

© The Begin-Sadat Center for Strategic Studies
Bar-Ilan University, Ramat Gan, 52900, Israel
<http://www.besacenter.org>
ISSN 0793-1042
December 2002

Arms Control and Non-Proliferation Developments in the Middle East: 2000-1

Gerald M. Steinberg with Aharon Etengoff

Table of Contents:

Introduction.....	p. 3
Part 1: WMD and Missile Proliferation Developments	
1. Iraq.....	p. 7
2. Iran.....	p. 15
3. Egypt.....	p. 24
4. Syria.....	p. 27
5. Israel.....	p. 29
6. Terrorism and WMD.....	p. 33
Part 2: The Interaction Between Global Arms-Control Processes And Regional Frameworks In The Middle East	
1. The 2000 Non-Proliferation Treaty Review Conference.....	p. 37
2. The UN General Assembly and First Committee.....	p. 41
3. UN Conference on Disarmament.....	p. 48
4. CTBT Issues.....	p. 49
5. The MTCR and Control of Ballistic Missile Proliferation.....	p. 51
6. The CWC and the OPCW.....	p. 54
7. BTWC.....	p. 56
Conclusion and Prognosis	p. 61
References.....	p. 63

Introduction

The proliferation of non-conventional weapons and the negotiation and implementation of arms control regimes are central factors in determining the nature of regional security and stability in the Middle East. However, when the actions or weapons programs of individual countries are examined in isolation, or the focus is placed exclusively on one type of weapons system, the results can be very deceptive. For example, WMD and missile developments in Iraq are often considered independently of the impact they may have on Iranian programs. Similarly, studies and publications dealing with the application of the Nuclear Non-Proliferation Treaty (NPT) or the Chemical Weapons Convention (CWC) in the Middle East fail to consider the close interaction between these and other international regimes.

This series of reports, surveying the period beginning in 1991,¹ is based on the realization that security issues, particularly in the Middle East, are closely interrelated. In addition to analyzing WMD proliferation trends and developments, this report includes an examination of the interaction between global arms-control processes and regional frameworks in the Middle East.

As the evidence reviewed in this report demonstrates, the rate of proliferation of WMD and ballistic missiles in the Middle East continued to accelerate during 2000 and 2001, but in assessing regional stability and security, these central issues were often obscured by the tendency to focus narrowly on the Israeli-Palestinian conflict. The relative optimism generated by the results of the Gulf War and the Madrid Middle East Peace Conference disappeared entirely, and in September 2000, the Oslo framework collapsed into a campaign of violence and terrorism. The efforts to revive the multilateral working group on Arms Control and Regional Security (ACRS) broke down, and various arms control frameworks degenerated into anti-Israel "talk shops."

Most importantly, the inaction regarding Iraqi efforts to expand its WMD capabilities during this critical period marked the build-up to renewed confrontation. International inspectors continued to be barred from Iraq; efforts to create a new inspection regime (UNMOVIC) were stillborn, and the sanctions regime, designed to block Iraqi access to weapons and technologies, collapsed. Consequently, Iraqi efforts to develop non-conventional weapons and delivery systems continued unhindered, and, with the exception of the US, Israel, and, to a limited degree, the UK, policy makers in other countries remained passive. Instead of serious efforts to prevent the Iraqi regime controlled by Saddam Hussein from restoring WMD and missile capabilities, the debate in the UN focused on various versions of "smart sanctions,"² in the hope of reducing Iraqi access to funds and dual-use technology. As demonstrated in this report, these debates and the

resulting policies allowed Iraq to continue to expand its capabilities, and contributed significantly to regional instability. Detailed information on these activities was widely available from public sources, and the claims from many governments and international organizations that they were unaware of the Iraqi efforts are not credible.

In parallel, the Iranian WMD efforts have grown, and Teheran has also succeeded in becoming a major proliferator in the region. Construction of an ostensibly civilian nuclear infrastructure in Bushehr has continued, providing the foundation for a weapons program, and the long-range Shahab-3 missile has been tested and declared "operational." Other countries in the region, including Syria and Egypt, have also moved to strengthen their WMD and missile capabilities. In addition to the chemical weapons possessed by both states, and ballistic missile arsenals that have slowly increased, there is also evidence of renewed efforts to develop nuclear weapons capabilities.

To counter the ever-increasing proliferation of WMD and long-range missiles, the Israeli government accelerated the deployment of ballistic missile defense (BMD) systems as well as improvements in strategic early warning and deterrence capabilities. In September 2000, the Arrow 2 successfully destroyed an incoming test missile fired from an F-15 off the Israeli coast, marking the first time the Arrow 2 had been tested against a missile on an attack trajectory.

The mega-terrorist attacks against the US that took place on September 11, 2001 marked a major increase in the perceived threat of WMD attacks. As a result, the continued proliferation of non-conventional weapons in the Middle East, and the efforts, as well as the difficulties associated with the developing regional security and stability gained even greater salience. In the wake of these developments, this study includes new sections tracing the efforts by terrorist groups to acquire WMD.

As the data and analysis presented in this report clearly indicate, the various arms limitation mechanisms and regimes have failed to produce any tangible results in the Middle East in the 2000-2001 period. In fact, the evidence suggests that for some countries, such as Iran, the arms control regimes, such as the NPT and CWC are seen as opportunities for obtaining information, facilities, and even material assistance in pursuing the very weapons that are the object of the limitation mechanisms. While playing a very active role in the activities and institutional structures of these frameworks, Iranian officials and policy makers are also active in seeking to undermine control systems governing suppliers and dual-use technology transfer, such as the Australia Group (in the case of chemical and biological weapons) and the Missile Technology Control Regime (MTCR) (in the case of missiles).

Furthermore, in many cases, the non-proliferation regimes and institutions

were exploited in order to exacerbate conflict, rather than the reverse. For example, the 2000 NPT Review Conference and the discussions of the Middle East in the First Committee of the UN General Assembly did nothing to further the cause of cooperative approaches to regional security and arms control. Egypt continued to use such meetings to pursue policies designed to increase Israel's diplomatic isolation by focusing on the policy of nuclear ambiguity and rejection of the universality claims regarding the NPT. The degeneration of arms limitation efforts into diplomatic games to "score political points," while acquisition of WMD technology and weapons continued unabated, proved ultimately destructive and destabilizing.

Part 1

WMD AND MISSILE PROLIFERATION DEVELOPMENTS

1. Iraq

As discussed in the 1998/9 report in this series,³ the inspection and verification regime, under the auspices of the United Nations Special Commission (UNSCOM), was established in 1991 and constituted the central element of the Gulf War cease-fire agreement. Under the terms of UN Security Council 687, UNSCOM was charged with verifying the validity of Iraq's "full, final, and complete" declaration of its WMD, missile capabilities, and facilities. Although the inspection missions oversaw the destruction of 28,000 chemical weapons and 48,000 liters of chemical precursors, many aspects of the Iraqi program remained hidden.

In 1998, continued Iraqi interference and confrontations culminated in the expulsion of UN inspectors and the end of UNSCOM's operations, followed by Operation Desert Fox, a four-day US-led air attack against Iraqi targets.⁴ Subsequent efforts to re-design the inspection and verification regime, creating UNMOVIC (UN Monitoring, Verification and Inspection Commission), were rejected by Iraq, which "announced its firm and permanent stance" in demanding an immediate end to the economic sanctions that were imposed following the invasion of Kuwait in 1990.⁵ In parallel, these sanctions, which were designed to prevent the Iraqi government from purchasing weapons, dual use technology, and related components, continued to unravel,⁶ despite the efforts to institute a system of "smart sanctions."⁷ Taking advantage of this situation, Iraq was able to reconstitute and extend its WMD capabilities considerably during 2000 and 2001.

UNMOVIC

In December 1999, after a long and difficult debate, the UN Security Council (UNSC) approved Resolution 1284, which created UNMOVIC. In January 2000, the UNSC unanimously approved the appointment of Hans Blix of Sweden, a compromise candidate and former Director General of the International Atomic Energy Agency (IAEA), to head the nascent monitoring organization. In response to criticism from the Arab states and Europe regarding the operation of UNSCOM and links of inspectors to the US and other governments, Blix declared that UNMOVIC would be a "UN operation," and emphasized that inspectors "cannot shoot their way to any sites." Blix announced that if Iraq blocked the entrance of

inspectors, “the response will have to come through the United Nations,” rather than through unilateral action by the US.⁸

In April 2000, Blix submitted an organizational and recruitment plan for the UNMOVIC staff, which was subsequently approved by the UNSC. Blix’s proposal also included a commitment to on-site, snap inspections, and assurances that UNMOVIC staff would “neither see nor receive instructions from any Government.” (UNMOVIC personnel are UN employees and, unlike UNSCOM, are not “on loan” from individual UN member states).⁹

Blix also appointed an advisory “college of commissioners,” and in June, they submitted the First Quarterly Report to the UN Security Council. The report repeated UNSCOM’s findings that Iraq was not cooperating with the Commission - and had not notified UNMOVIC of “dual use” technology (useable either for peaceful or military purposes) imports, as required. Blix reiterated that UNMOVIC would neither share information nor conduct surveillance in conjunction with any government, but he invited foreign governments to provide intelligence information.¹⁰

In September 2000, Blix announced that UNMOVIC was ready to “conduct a number of preparatory inspection activities in Iraq... if and when Baghdad granted them permission to enter the country.” However, Iraq adamantly rejected any form of cooperation with UNMOVIC.¹¹

In February 2001, two days of talks were held between UN officials and an Iraqi delegation in an effort to end the impasse between the two, but without results. Another plenary session of UNMOVIC’s College of Commissioners was held in February 2001, followed by the submission of the Fourth quarterly report to the Security Council. The report detailed efforts to identify “unresolved disarmament issues,” and discussed issues such as the potential use of overhead imagery to complement on-site inspections.¹²

The Fifth report was submitted on May 24, and noted that UNMOVIC staff had made significant progress in reviewing UNSCOM material and other data collected since 1998. The report concluded that, “...with the work completed to date, UNMOVIC is ready to take up the full tasks mandated to it by the Council.” The Sixth report, presented in August, noted that UNMOVIC had begun receiving overhead imagery from a commercial provider, arranged for screening of open sources for information, and was seeking additional information from governments. However, the report noted that these activities “cannot serve as substitutes for the on-site inspection and monitoring envisaged by relevant Security Council resolutions.”¹³

The seventh plenary session of UNMOVIC’s College of Commissioners was held in November 2001, followed by the submission of the next report. The report noted that UNMOVIC had completed the first phase of a draft inventory of

unresolved disarmament issues, which consisted of analyzing Iraqi declarations, reviewing inspection reports and other material that the Commission inherited from UNSCOM. Work had begun on the second phase, which included analysis of Iraq's WMD programs, and what verification steps remained. UNMOVIC advanced training activities continued, and a major course was held in the UK on the subject of biological weapons.¹⁴

Missile Developments

Unhampered by the presence of inspectors, the Iraqi regime has been able to expand its WMD and missile capabilities.¹⁵ The residual and revived Iraqi missile programs have been an issue of concern since the approval of UNSCR 687 and the creation of UNSCOM in 1991. Under the terms of UNSCR 687, Iraq is permitted to develop, manufacture, and test ballistic missiles with a range of up to 150 kilometers. This clause created a loophole that enables Iraq to maintain a robust ballistic missile production capability. In June 2000, press reports indicated that Baghdad had carried out eight test flights of the 150-km range Al Samoud liquid fueled ballistic missiles. Numerous reports regarding the development of missiles exceeding the permitted 150-km range were also published. In August, *ABC News* claimed US intelligence sources suspected Iraq might have financed construction of a Scud missile assembly plant in Sudan with the help of North Korea. Additional sources claimed that Germany's intelligence agency had discovered a secret Iraqi solid-fuel missile factory ("Al Mamoun") on the outskirts of Baghdad. According to press reports, Iraq contacted Russian companies asking for assistance with the construction of a factory to assemble key ballistic missile components. (The Russian Foreign Ministry denied the reports.)¹⁶

In August 2000, the CIA released a report detailing Iraq's clandestine missile program, which revealed that production facilities destroyed by US bombing raids in Operation Desert Fox had been rebuilt. The CIA noted that the Al-Samoud missile program could be used in the development of long-range weapons.¹⁷

In January 2001, the US Department of Defense (DOD) published another warning on Iraqi development of liquid and solid-propellant short-range ballistic missiles (SRBM) within the 150-km range limitation, noting that experience gained could be applied to "future longer range missile development effort." The DOD concluded that, "depending on the success of acquisition efforts and degree of foreign support, it is possible that Iraq could develop and test an ICBM capable of reaching the United States by 2015." In addition, the report noted that Iraq maintained a variety of fighter aircraft, unmanned aerial vehicles (UAV),

helicopters, artillery, and rockets, which could potentially be utilized for delivery of WMD.¹⁸

An unclassified CIA document reported that the short-range liquid-propellant Al-Samoud was most likely “maturing” and that a “low-level operational capability could be achieved in the near term.” This assessment was based, in part, on the appearance of four transporter-erector-launchers (TELs) with airframes at the 31 December 2000 “Al Aqsa” parade. The report also notes evidence of the high priority given to solid-propellant missile development and the possibility that “longer range systems may be moving ahead rapidly.” The report concluded that if sanctions were lifted, Iraq “probably would increase its attempts to acquire missile-related items from foreign sources, regardless of any future UN monitoring and continuing restrictions on long-range ballistic missile programs.”¹⁹

In August 2001, CIA Deputy Director John McLaughlin reported evidence of Iraqi concealment of missiles with a range of 650 kilometers, capable of reaching Iran, Israel, Saudi Arabia and Turkey. In December, a new CIA report concluded that the Iraqi program reflected the goal of recovering the status of a dominant regional power, as well as a response to regional threats, noting that in the near future, “Iraq’s ballistic missile initiatives will probably focus on reconstituting its pre-Gulf war capabilities to threaten regional targets and probably will not advance beyond MRBM systems.” However, a German intelligence report concluded that Baghdad might be developing medium range rockets capable of carrying a warhead of 3,000 km by 2005, thereby placing Europe in range of Iraqi missiles.²⁰

*Nuclear Developments*²¹

Despite the expulsion of UNSCOM in 1998, the annual inspections of known Iraqi nuclear facilities and storage sites were conducted by the IAEA in January 2000 and 2001. The inspections included a physical inventory verification of nuclear material at the Tuwaitha site.²² However, the largely pro-forma inspection would not have detected materials, facilities, or activities that had not been declared by the Iraqi government.

Indeed, the available evidence pointed to continued Iraqi efforts to produce nuclear weapons. In March 2000, Paul Leventhal, President of the Nuclear Control Institute, and one of the most experienced experts on Iraqi nuclear efforts, testified before the US Senate Foreign Relations Committee. He stated that “important questions about Iraq’s nuclear-weapons program remain unanswered” and noted that “key nuclear-bomb components and weapons designs that were known to exist were never surrendered by Iraq to UN inspectors.” In addition, Leventhal recalled the over “200 nuclear PhDs,” who were working “on unknown projects, with no

supervision by UN inspectors for more than a year.” The testimony included a reference to Iraq’s “worldwide network to procure foreign technology,” and the disturbing lack of intelligence “about Iraq’s efforts to enrich uranium for bombs using centrifuges.” According to Leventhal, “the possibility remains that a small centrifuge cascade for this purpose is hidden somewhere in Iraq.” However, he emphasized that the greatest danger is the possibility that Iraq “will acquire, or has already acquired, fissile material on the black market... If Iraq obtains fissile material, it would be at most a few months—perhaps as little as weeks or days—away from possessing nuclear bombs.”²³

On December 24, the London *Sunday Times* reported that Saddam Hussein had ordered his scientists to resume development of a nuclear (bomb) program. Salman Yassin Zweir (a defector and design engineer previously employed by the Iraqi Atomic Energy Commission), revealed that Iraq’s nuclear program had been revived in 1998. He also noted that Iraqi security elements had moved technical components to conceal them from bombings and UN inspectors.²⁴

In January 2001, the testimony provided by Iraqi defector Dr. Khidhir Hamza highlighted continuing efforts to acquire nuclear weapons, both from within Iraq and outside.²⁵ US officials rejected Iraqi claims to have destroyed all equipment and facilities related to developing nuclear weapons, noting that personnel and weapons design information has been preserved.²⁶ The CIA noted that Iraq has continued to work on a “low-level theoretical R&D associated with its nuclear program,” and that “a sufficient source of fissile material remains Iraq’s most significant obstacle to being able to produce a nuclear weapon.”²⁷ This claim was also supported by Hamza.²⁸

On 7 November 2001, the Iraqi newspaper, *Babil*, published by Saddam Hussein’s son Udai, reported on a meeting between Saddam and the heads of the Iraqi nuclear program and defense establishment. Hussein reportedly “praised the initiatives of those warriors...and their innovations in the areas of the specializations in line with the other warriors/fighters in the service of the principles of the great Iraq and the glorious Arab nation.” Press reports cited evidence of links between the Iraqi nuclear program and the use of Algerian facilities.²⁹

Chemical and Biological Weapons

During 2000 and 2001, reports from different sources, including US, European, and Israeli intelligence organizations, indicated that Iraq had rebuilt a number of chemical³⁰ and biological production facilities (damaged during Operation Desert Fox) in an industrial complex west of Baghdad.³¹ In 2001, the US released details of the reconstruction of two factories, and the resumption of chlorine production at

a third facility in the complex. One of the facilities is suspected of producing pesticides, and a deadly biological agent known as ricin. Although described as commercial, these factories have all been previously involved in the production of chemical or biological agents, and were monitored by UN inspectors. Former inspector Rod Barton also presented evidence that Iraq's biological weapons program included production of Brucella bacteria.³²

In March, media reports cited a document from a report presented to the UNMOVIC College of Commissioners dealing with the unresolved Iraqi chemical and biological warfare (CBW) issues, including the disposition of 500 to 700 155mm shells filled with mustard gas and the volume of imported phosphorus trichloride. The report indicated that Iraqi documents uncovered by UNSCOM confirmed that: "spray/drop tanks for the dissemination of CW agents had been successfully tested with mustard agent and that the necessary stocks of bulk CW agents had been reserved for their filling." The report also stated that the "production of Agent B (anthrax spores) could be much greater than stated and, had such production taken place, the remaining quantities would still retain significant activity given the stability of this agent."

In September, the media reported that, according to unidentified security officials, Iraqi spies posing as asylum seekers were smuggling CBW weapons into the UK. The article also reported British fears that Iraq was producing large amounts of anthrax bacteria for sale to terrorist organizations. According to some analysts, Iraq is also suspected of a link to the anthrax attacks against the US, perhaps through Mohamed Atta, the leader of the September 11 hijackers, who was reported to have met with an Iraq intelligence agent in Prague several months before the hijackings.³³

The Increasing Iraqi Threat in the Region

The importance of the evidence of the growing Iraqi WMD capability was reinforced by the increasingly threatening tone of Iraqi rhetoric and actions during 2000 and 2001. In September 2000, Saddam Hussein used the opportunity presented by Palestinian-Israeli clashes to raise the level of threats against Israel and the US.³⁴ Reacting to these threats, in September 2000, US officials confirmed that a Patriot missile defense battery crew based in Germany had been put on alert for movement to Israel. National Security Adviser Samuel Berger stated that although he knew of no threat against Israel from Iraq, the alert had been ordered due to the "vituperative statements" Saddam Hussein had recently made. For his part, Israeli Prime Minister Ehud Barak downplayed the Iraqi rhetoric, however.³⁵

In October 2000, as the Palestinian-Israeli confrontation intensified, Iraq moved a number of its divisions westward in close proximity to the borders of

Jordan, Syria and Kuwait.³⁶ Israel understood these troop movements to be mostly symbolic, unlikely to pose a (short-term) military threat to Israel,³⁷ and a short time later, the Iraqi troops were withdrawn from the area.

Deployments on a larger scale were renewed in January 2001, as tension on the Israeli-Lebanon border escalated, as was also the case along the Syrian-Iraqi border and in February, in close proximity to the Jordanian-Iraqi border. Press reports on the deployment of surface to air missiles were not visually confirmed but were believed to be part of the preparations for possible military operations. Iraqi troop movements were only halted after Israeli jets flew towards Syria and US and British warplanes attacked Iraqi targets near Baghdad. Evidence of Iraqi support for terror attacks against Israel also surfaced, and Israeli security services uncovered an Iraqi plot to detonate a car bomb in Israel's international airport.³⁸

Publicly, the Israeli government's response to these threats was low-key. The Prime Minister's Office issued a statement that "Israel is continuing to monitor the developments and keep in close contact with the United States." However, in 2001, as discussion of a potential US attack on Iraq increased, and the potential for Iraqi retaliation against Israel became more visible, the tone changed. As Israeli Deputy Chief of Staff Moshe Ya'alon noted, "A US decision to embark on military activity against Iraq could under certain conditions lead to an Iraqi decision to either launch missiles, or send out aircraft to attack Israel."³⁹

US-Led Policies Regarding Iraqi WMD Activity

The prospects of US military action during the last year of the Clinton Administration (2000) were always very low. Although officials continued to call for Iraqi compliance with UN inspection requirements, Europe and the Arab states continued to press for easing of sanctions. Critics charged that the Clinton Administration allowed the sanctions regime to deteriorate and permitted Saddam Hussein to rebuild his WMD capabilities.

The election of Republican presidential candidate, George W. Bush, in November 2000 led to expectations of a fundamental change in US policy towards Iraq. Bush and the Republican leadership had strongly criticized the Clinton Administration's Iraq policy in the past, and had vowed a tougher approach upon taking office in January 2001.

Indeed, Iraq was a high priority for the Defense Department in the first few months of the Bush Administration, and talk, as well as studies of regime change increased. However, the main focus of diplomatic activity in this period continued to be on "revitalizing the sanctions regime" in order "to tighten the sanctions on weapons of mass destruction, tighten the sanctions on armaments, tighten the sanctions on the sorts of equipment and other materials that put the people of the

region at risk.”⁴⁰ Responding to pressure from Europe and the Arab world, the Bush Administration sought to soften the economic impact of sanctions for the Iraqi civil sector, while strengthening restrictions on dual-use items. US Secretary of State, Colin Powell, conceded that some critics would view the revision as a watering down of sanctions, but noted that: “Everyone I spoke to said you’ve got to go down this track.”⁴¹

In May 2001, the UK announced a joint proposal that would end the prohibition on the transfer of civilian goods, while simultaneously retaining sanctions on military items and a detailed list of dual-use items, and repeated that a complete lifting of the sanctions would only occur upon completion of UNMOVIC’s mission. Iraq rejected the new initiative, and a number of Gulf States, as well as China and Russia, declared their opposition to wide restrictions on “dual-use” equipment.⁴²

On June 1, in the effort to develop a consensus, the UN Security Council unanimously delayed a vote on the “smart sanctions” proposal, and adopted Resolution 1352, extending the “oil-for-food” program by one month, (rather than the usual 180 days). During this period, the list of dual-use items was discussed, and in an attempt to gain the support of the French and Chinese governments, the 23-page Goods Review List had reportedly been reduced to 10 pages. However, the threat of a Russian veto led to indefinite postponement of a decision. In November, the Security Council unanimously adopted Resolution 1382, which extended the “oil-for-food” program and included a preliminary Goods Review List, which was to be adopted by the Council (subject to any further alterations), with implementation beginning on 30 May 2002.⁴³

However, the US government’s willingness to restrict its Iraqi policy to “smart sanctions” shifted again following the September 11 terrorist attacks and the subsequent anthrax dispersals. Discussion and speculation regarding possible Iraqi involvement was widespread. Later, as the war in Afghanistan expanded, the US government officials also spoke about subsequent phases, designed to destroy other sources of terrorism and producers of weapons of mass destruction. On this list, Iraq occupies a prominent position. On September 13, Deputy Defense Secretary Paul Wolfowitz warned that Iraq could be a major target in America’s war on terror, as part of the support system and a major state-sponsor of terrorism.⁴⁴

Colin Powell adopted a softer approach, noting that: “We are after ending terrorism. And if there are states and regimes, nations, that support terrorism, we hope to persuade them that it is in their interests to stop doing that.” National Security Advisor Condoleezza Rice stated that: “We don’t need September 11 to tell us that Saddam Hussein is a very dangerous man,” but declared that the US currently had no plans to attack Iraq.⁴⁵ At the same time, demands for Iraqi

compliance with UN inspection requirements continued, while US and British patrols in the “no fly-zone” launched limited “self-defense” strikes in February 2000 against Iraqi anti-aircraft facilities.

Conclusion

The reactions to Iraqi acquisition of WMD and delivery systems during 2000 and most of 2001 (prior to September 11) were largely rhetorical. During the Clinton Administration, the search for consensus in the UN was a central factor concerning Iraqi policy, and focus shifted to other issues, including scandals and the efforts to resolve the Arab-Israeli conflict. As a result, the political capital that would have been necessary to act forcefully to change Iraqi policy and capabilities was invested elsewhere. The myriad reports from UNMOVIC and the endless UN Security Council debates over sanctions and inspections highlighted the sense of “business as usual,” and the pressure on Saddam Hussein to change his ways was minimal.

After September 11, however, this record of inactivity set the stage for the increasingly confrontational approach led by the US to ensure that Iraqi WMD would not continue to develop without any barriers, and to resume the emphasis on supervised destruction of these weapons as required by UNSC 687 in 1991.

2. Iran

The 1998/9 report on Middle East proliferation and arms control described and analyzed Iranian efforts to acquire strategic weapons (ballistic missiles and nuclear warheads) beginning under the Shah, and continuing with the Islamic government. Although delayed by the Iran-Iraq War, these efforts resumed in the early 1990s. By acquiring extensive technology and assistance from outside sources (primarily Russia, China, and North Korea), Iran made substantial progress on ballistic missiles. In parallel, the development of the Iranian nuclear infrastructure continued, and evidence of the acquisition of biological weapons also increased.⁴⁶

The Iranian emphasis on acquiring WMD and missile capabilities was accompanied by a change in the Iranian political leadership, which tended to deflect attention from the military buildup. In 1997, the election of Mohammad Khatami as President of Iran was seen as an indication of the increased power of “liberals” or “moderates” in the power struggle against “conservatives” and radical Islamists.⁴⁷

However, despite these limited political changes, Iran’s radical Islamic leadership maintains total control of military and security decision-making. This

regime continues to pursue WMD, has increased support for terrorist groups, including Hizbollah and Hamas, and emphasizes the goal of destroying Israel. Significant evidence and reports regarding chemical and biological weapons production and storage have been published, and the Iranian nuclear weapons development program is accelerating, primarily via Russian construction of the Bushehr nuclear power complex. In addition, the testing of the Shahab 3 missile, as well as progress towards longer-range missile systems increased regional concern regarding the Iranian threat. In December 2001, former Iranian president Hashemi Rafsanjani even stated that if Israel were to be attacked with a nuclear bomb, it would be utterly destroyed, whereas the Islamic world would be “only harmed.”⁴⁸ While such threats appear to be primarily motivated by internal Iranian politics (in this case, an effort by Rafsanjani to boost his “radical” credentials and divert attention from a corruption case), they were taken very seriously in Israel and elsewhere.

The combination of these efforts to seek WMD and missile capabilities, as well as Iranian policies opposing the Middle East peace process, and support for Hizbollah terrorist operations, are major factors in the policies of the US towards Iran. In February 2000, the US Congress passed the Iran Nonproliferation Act (H.R. 1883), which legislated sanctions against Russia and other countries providing WMD technology to Iran. In March 2000 (after vetoing a similar bill in 1998), President Clinton signed the Act into law. Predictably, Russia reacted harshly, and its Foreign Ministry declared that this policy “may significantly undermine...Russian-American interaction in the field of non-proliferation and export control.”⁴⁹

However, shortly afterwards, in an abrupt policy reversal designed to provide an incentive to the Khatami-led forces in Iran, the US softened its stand regarding rapprochement towards Iran, and lifted an import ban on Iranian luxury goods. In June, Secretary of State Madeleine Albright declared that Iran would no longer be labeled a “rogue state” but henceforth would be referred to as “a state of concern.”⁵⁰ Nonetheless, Khatami urged the US to be more ambitious in reconciliation efforts, and complained that “no concrete steps” had been taken. In contrast, the Secretary of Iran’s Supreme National Security Council rejected rapprochement efforts between the two states, and labeled the latest US moves as “new interference in Iran’s domestic affairs.”⁵¹

American policy on Iran remained largely unchanged during the first year of the Bush Administration, despite Iran’s continued efforts to acquire WMD and missile capabilities, Teheran’s active efforts to thwart Middle East peace efforts (as clearly demonstrated in the shipment of tons of weapons and explosives to the Palestinian Authority in the *Karine-A* in January 2002), and support for Hizbollah terrorist operations.⁵²

In August 2001, President George W. Bush renewed the Iran-Libya Sanctions Act (ILSA) for five years. Washington based its policies primarily on greater efforts to interdict WMD technologies destined for Iran, and on attempts to support internal change in Iran. Following Khatami's re-election as President of Iran in June 2001, Colin Powell expressed optimism that now there was an opportunity for fundamental changes in policy, but these hopes were soon abandoned.⁵³

The events of September 11 and the US military action in Afghanistan had an important impact on the relations between Washington and Teheran. Large-scale public sympathy for the US immediately following the attacks was coupled with Iranian support for the defeat of the Taliban regime. However, after the US victory, Iranian leaders became concerned about US military domination in a neighboring country, as well as the strong presence in Central Asia and Pakistan. The US also continued efforts to prevent Iranian acquisition of WMD and to warn against continuing support for terrorism through groups such as Hizbollah and Hamas. As a result, hopes for a change in the relationship began to decline again by the end of 2001 (as seen in the inclusion of Iran in the "Axis of Evil" outlined in President Bush's State of the Union Speech in January 2002).

The Israeli response to these Iranian policies was consistent with the direction taken in earlier years, but with greater emphasis and the realization that the time available to halt the Iranian nuclear and missile programs was rapidly running out. Prime Minister Ehud Barak and later Ariel Sharon repeatedly raised Israeli concerns regarding the transfer of nuclear technology to Iran in meetings with Russian officials, including talks with President Putin. The Russians reiterated that they provided information only on conventional weapons, and nothing that could be utilized to develop nuclear warheads.⁵⁴

*The Pursuit of Nuclear Weapons*⁵⁵

Although Iran is a signatory of both the NPT and Comprehensive Nuclear Test Ban Treaty (CTBT), the evidence shows continued efforts to acquire fissile material and technology for weapons development conducted through a hidden network of military and civilian organizations. The emphasis on obtaining nuclear weapons is reflected in the extensive efforts to acquire fissile material through both clandestine means from facilities in the former Soviet Union and via investments towards indigenous production of plutonium or highly enriched uranium.⁵⁶

The IAEA 2000 annual report declared that Iran was fulfilling its obligations under the various nuclear safeguards agreements. Yet, at the same time, evidence increased regarding Iranian efforts to acquire nuclear weapons, in part through the exploitation of arms control agreements. Iran has failed to implement

its pledge to adopt the IAEA enhanced safeguards, and a senior diplomat stated that Iran would not accept the Additional Protocol and enhanced safeguards as long as the US blocked nuclear cooperation with other nations.⁵⁷

The known Iranian efforts to procure materials and facilities for use in nuclear weapons manufacture include attempts to acquire: enriched uranium from Kazakhstan; fuel fabrication and reprocessing capabilities from Argentina; research reactors from Argentina, India, China, and Russia; nuclear power plants from Russia and China; gas centrifuge enrichment technology from Switzerland and Germany, and a gas centrifuge enrichment plant from Russia; a uranium conversion plant from China or Russia; and a laser enrichment plant from Russia.⁵⁸ The completion of the ostensibly civil nuclear power complex in Bushehr would provide the basis for creating a fuel cycle that could be diverted for the production of fissile material for weapons production.⁵⁹

Based on the available evidence, it is reasonable to assume that if Iran were able to obtain diverted fissile material, it could produce a nuclear weapon within one to two years. However, without external sources of fissile material, a significant time period would be required before indigenous fissile production could begin. Israeli intelligence estimates indicate that Iran will achieve “initial operational capability” for its nuclear force by 2005, and perhaps earlier, if sufficient fissile material is obtained on the black market.⁶⁰ A 2001 CIA report stated that most US intelligence agencies concluded that Iran could develop a nuclear weapon by the end of the decade, but could significantly reduce the time-frame by obtaining foreign assistance.⁶¹

In the face of these concerns, Russia has continued to be the major source of technology and materials for the Iranian nuclear program, despite repeated pledges by Moscow to refrain from supplying military technology. In 2000, a letter from US Vice President Al Gore to Russian Prime Minister Viktor Chernomyrdin was published revealing details of a 1995 agreement dealing with aspects of Russia’s nuclear cooperation with Iran. Chernomyrdin provided information regarding nuclear fuel deliveries to Iran, but stated that this information was “not to be conveyed to third parties, including the US Congress. In return, the US acquiesced to the sale of conventional Russian weapons to Iran.”⁶²

In US Senate hearings, Deputy Director of the DCI Nonproliferation Center, Norman Schindler, testified that Iran was “seeking nuclear-related equipment, material, and technical expertise from a variety of foreign sources, especially in Russia.” In the guise of civil projects, Iran is “developing whole facilities—such as a uranium conversion facility—that could be used to support the production of fissile material for a nuclear weapon.” Schindler also noted that “Tehran continues to seek fissile material and technology for weapons development and has established an elaborate system of covert military and

civilian organizations to support its acquisition goals.” He highlighted the construction of the 1,000-megawatt nuclear power reactor at Bushehr, emphasizing that “it affords Iran broad access to Russia’s nuclear industry.”⁶³

In May 2000, as Russian construction and engineering crews continued to work on the Bushehr nuclear power reactor, Iran’s ambassador to Russia, Mehdi Safari, declared the nuclear power station 40 percent complete, and on schedule to become operational in 2002. However, US sanctions raised the costs of necessary materials and reduced the quality of Iran’s acquisitions, slowing the process considerably.⁶⁴

US intelligence reports have also indicated that despite assurances to the contrary, various Russian entities “are engaged in cooperation with Iran that goes beyond this project.” While Bushehr is a civilian nuclear reactor under IAEA safeguards, numerous reports note the evidence that Iran is utilizing the project to gain access to additional Russian technology to use in development of weapons. Discussions of the acquisition of a heavy water moderated natural uranium-fueled nuclear reactor and related facilities would be central to the production of weapons-grade plutonium.⁶⁵

In June 2000, the US reported that Russia was exporting tritium gas (a critical component in the manufacture of advanced nuclear weapons) to a nuclear research center in Tehran.⁶⁶ Iranian efforts to acquire laser enrichment technology from Russia provided additional evidence of a nuclear weapons program. This issue was also reportedly discussed between Clinton and Putin in July, during the G-8 meeting in Okinawa. The Russian government claimed that it was unaware of the contract until early 1999—because the company providing the technology had not sought an export permit (as laser enrichment was not listed as sensitive technology requiring an export permit). In response to Russia’s claim, a senior US official declared that while certain Russian laser-related equipment theoretically could be cleared for export to Iran, the Clinton Administration believed that, “taken as a whole package,” the laser facility clearly “was intended and designed for weapons-grade enrichment.”⁶⁷

In February 2001, a US Congressional panel provided more evidence of continuing Russian sales of dual-use nuclear items to Iran.⁶⁸ In response to US pressure, Russian leaders repeatedly pledged an “energetic” response, but again failed to act. Press reports indicated that the US had suggested that Russia sell conventional weaponry to Iran and construct a nuclear waste facility in Russia as substitutes for nuclear exports to Iran.⁶⁹

In March 2001, Mohammad Khatami went to Russia and signed cooperation agreements designed to bolster a lucrative arms trade, and to complete construction of Bushehr. Khatami and Putin issued a joint communiqué stating that Russia and Iran “will continue their cooperation in the peaceful use of atomic

energy” while they also “confirmed their adherence to the commitments imposed by their participation in the Nuclear Non-Proliferation Treaty.”⁷⁰

Another report, published by the *Washington Post* in June 2001, claimed that Russia had permitted a shipment of high-strength aluminum for the Iranian nuclear program. The aluminum alloy was believed to be for the manufacture of rotor blades utilized in gas centrifuges for uranium enrichment. Condoleezza Rice discussed the issue with her Russian counterpart, Sergei Ivanov, who reportedly claimed that the aluminum was intended for aircraft manufacture.⁷¹

In addition, Iran continues to receive nuclear and related weapons technology from other countries, including China. In 1997, in response to American pressure, China pledged it would not begin any new nuclear cooperation with Iran, and would halt its existing projects. According to a 2001 DOD report, China appears to have kept its 1997 commitments with respect to nuclear technology. Chinese plans to build four nuclear power stations in various Iranian provinces were cancelled, in part due to the cost (\$12 billion over a 10-year period), and in part because the project had become mired in accusations of corruption against a son of former Iranian President Rafsanjani, who handles most of Iran’s trade with China.)⁷²

Iranian Missile Developments

Iranian ballistic missile development is based on technology and expertise obtained from Russia, China, and North Korea.⁷³ North Korean sales of missile technology to Iran was particularly salient in this period, with sales reportedly including at least 12 No-Dong motors for the Shahab-3. DPRK leader, Kim Jong-Il, contradicted Iranian denials when he reportedly admitted that his country has been exporting missiles abroad to Iran and Syria in return for hard currency.⁷⁴

In April 2000, in a largely symbolic response, the US government imposed sanctions against the Changgwang Sinyong Corporation (North Korea) and four Iranian entities (Ministry of Defense and Armed Forces Logistics, or MODAFL; the Aerospace Industries Organization; the Shahid Hemmat Industrial Group; and the SANAM Industrial Group) for engaging “in missile technology proliferation activities.” However, as part of a rapprochement process with North Korea, the US also announced a general easing of sanctions on the “understanding and expectation that North Korea will continue to refrain from testing any long-range missiles for the duration of negotiations...aimed at improving... relations.” Although negotiations between the US and the DPRK continued for some time, they ultimately failed to yield tangible results.⁷⁵

On July 15, 2000, Iran successfully conducted its second test of the Shahab-3 missile, reportedly using one of the North Korean motors purchased in

1999.⁷⁶ US government sources concluded that Iran began serial production of the Shahab-3 in 2001, including subsystems and assembly, at the rate of 20 missiles per year.⁷⁷ As of December 2001, Iran reportedly possessed several hundred Scud Bs and Cs; 200 Chinese-manufactured CSS-8 SRBMs; 300 North Korean produced Shahab-1 missiles; 100 North Korean produced Shahab-2 missiles; and the first locally assembled and produced Shahab-3s. Iran also reportedly began indigenous production of Scuds and continues to work on longer-range missiles that will be capable of striking targets in Europe and, eventually, the US. In addition, Iran began to emerge as a “third tier” supplier state, providing missile technology and assistance to Syria, Libya, and other countries in the region.⁷⁸

At the same time, official Iranian statements on the objectives of the missile development program have differed markedly. Commentators on Iranian State Television declared that the test was part of Iran’s “policy of strengthening its defense capability on the basis of the principle of deterrence, and was not in any way a threat to another country.” Defense Minister Shamkhani, however, claimed that the aim of the technological development program was to launch communications satellites, and not warheads. In sharp contrast, Iranian Revolutionary Guard General, Rahim Safavi, vowed that Iran would employ offensive missiles if Israel or the US endangered Iran’s security. However, Safavi also characterized the Shahab-3 as “defensive.”⁷⁹

Iran also continued to develop longer-range missiles in 2000, including the two-stage Shahab-4 (with a range long enough to reach Western Europe), and the Shahab-5, which is expected to have a range of 10,000 kilometers. In addition, Iran is developing a new missile named “Kosar,” which is based on the Soviet SS-5 missile; it utilizes the same RD-216 liquid fuel rocket motor, and is capable of achieving a range of 4,250 kilometers.⁸⁰

In the first quarter of 2000, press reports indicated that the DPRK also was aiding Iran in upgrading a naval cruise missile (the C-802), originally purchased from China. Reportedly, the missile lacks advanced targeting systems; however, the DPRK is assisting Iran in the development of an “over-the-horizon” designation system. In June 2000, the Arabic media reported that Khatami was in China to seal a “strategic partnership” that included cooperation on a new generation of Silkworm anti-ship cruise missiles.⁸¹ The US believes that Iran is capable of manufacturing the C-802—and this development poses a significant threat to the region. Iran could combine the Silkworm platform with other technology to develop a long-range missile with the capability for a large payload. The range of such a missile could extend up to 800 kilometers.⁸²

In November 2000, following continued US pressure, China announced plans to establish comprehensive missile-related export controls procedures, as well as the expected publication of a missile-related export control list. In

exchange, the US announced that it would waive new sanctions against Chinese “entities” accused of exporting missile-related equipment to Iran and Pakistan. In addition, the US government pledged to resume normal consideration of applications to launch American satellites atop Chinese rockets.⁸³

US Policy on Iranian Proliferation

American government officials reacted sharply to the Iranian missile test in July 2000, reiterating the risks of weapons proliferation in the region, and the threat Iranian missiles posed to Israel and to US troops stationed in Saudi Arabia. A State Department official emphasized that the US “continue[s] to place a high priority on this important missile nonproliferation issue and to work closely with other like-minded countries to stop the flow of sensitive missile items to Iran.”⁸⁴

In June 2000, General Anthony Zinni, the outgoing head of CENTCOM, declared that it was only a matter of time before Iran has a nuclear bomb, and long-range missile capability. Zinni emphasized that, “this will be a major step—because it gives them a missile system that can reach out and touch places like Tel Aviv.” Similarly, a CIA report revealed that Tehran would soon deploy 1,300 km-range Shahab-3 medium-range ballistic missiles, allowing Iran to target Israel and other countries in the region.⁸⁵

However, analysts such as W. Seth Carus note that: “there is little agreement within the intelligence community about the time required for Iran to acquire ICBM capability. Given the high risks of underestimating the threat from Iran, it is probably prudent to assume that Iran will possess a missile capable of striking US cities by 2010.” The primary difficulty is “the development of warheads designed to permit effective delivery of NBC (nuclear, biological, and chemical) weapons.”⁸⁶

Israeli Reactions

In Israel, Iranian progress in developing long-range missiles including the test of the Shahab-3, are seen as particularly destabilizing. Deputy Defense Minister Ephraim Sneh noted in July 2000 that: “The successful test run is a worrying sign. We have to go up one, two or even three levels in our defense abilities. Iran actively and relentlessly undermines the peace process through various terrorist organizations... When such a regime has a long-range capacity combined with a tremendous effort to combine it with nuclear projects, it is of great concern to Israel.”

Prime Minister Barak, participating in the Israeli-Palestinian negotiations at Camp David at the time of the missile launch, declared that: “The strength of the

IDF and the strengthening of Israel by peace agreements are together our answer to this launch.” However, an unnamed official echoed Sneh’s words: “This missile is a signal not only to us but to the region as a whole. It threatens the whole region and goes to show the need to immediately stop financial aid to Iran.”⁸⁷

While Israeli security officials have emphasized that the test launch did not pose an immediate threat, they noted that Iran is improving its strategic capability. According to a senior IDF source, the successful launch “reflects an Iranian ambition to be able to cover Israel and other countries in that range.” The source added that Iran has achieved initial operational ability, but only has a few individual missiles, rather than dozens of organized batteries, at its disposal.⁸⁸

Biological and Chemical Weapons

According to intelligence assessments, although Iran has ratified the Biological Weapons Convention (BWC), the pursuit of offensive biological warfare capabilities continued during 2001. Iranian biotechnology industry is increasingly advanced, with considerable pharmaceutical experience, and an infrastructure necessary to support its biological weapons program. Throughout this period, the efforts to obtain dual-use biotechnical material from Russia, China, and Western Europe continued.⁸⁹ According to a number of detailed analyses, research is taking place on standard agents such as anthrax and botulin toxin, and Iran has shown an interest in obtaining materials that could be utilized to produce a variety of toxins. In addition, the working assumption is that Iran may have deployed biological weapons for delivery through spray tanks mounted on aircraft, ships, missiles, and perhaps with individual terrorists, but success in developing effective dissemination of BW agents remains unclear.

Similarly, Iran has acceded to the Chemical Weapons Convention (CWC), but US, Israeli and some European intelligence analysts have concluded that Iran retains a considerable chemical warfare capability, and has deployed chemical missile warheads. In addition, Iran has continued to obtain chemical production technology, expertise, and precursor chemicals from Russia and China.⁹⁰ Teheran is also believed to be conducting nerve agent research, and military training indicates planning to operate in a contaminated environment.⁹¹ The government of Iran has denied these allegations. However, at the close of 2001, discussions of possible challenge inspections of Iran by the Organization for the Prohibition of Chemical Weapons (OPCW) were increasing, while critics also noted the limitations of any formal international inspection mechanism.⁹²

Conclusion

The Iranian drive to achieve a significant WMD and missile capability continued unabated during 2000 and 2001, despite attempts for political reform, and visits of diplomats and other officials to Teheran to discuss the implications and dangers of proliferation. Iranian compliance with its undertakings within the international non-proliferation agreements that they signed was far from complete. In retrospect, this period may emerge as the critical time in which the various Iranian WMD and missile programs crossed the threshold between low-level testing and early development, and full-scale production of operational capabilities.

3. Egypt⁹³

Egypt has possessed a chemical weapons capability since the early 1960s, when CW agents were used in the war in Yemen, and is also considered to possess a biological weapons stockpile. In addition, the Egyptian military has steadily improved and extended the range of its ballistic missile arsenal, and although it is a signatory to the NPT, there have been signs of renewed interest in developing nuclear weapons.

Medium and Long Range Missile Activity

There is considerable evidence of Egyptian efforts to expand the range and accuracy of its ballistic missile force, primarily based on technology and components acquired from North Korea, as part of a long-running program of ballistic missile cooperation between these two countries. In January 2001, the *Washington Times* reported that a North Korean company based in China had sold Egypt specialized steel used for missile fabrication.⁹⁴ In April 2001, US officials reported that Egypt had acquired medium-range missiles, based on Scud C (500 km range) from North Korea.⁹⁵ In June, a US intelligence official estimated that there were between 50 to 300 North Korean missile technicians in Egypt. According to the official, the Egyptians will gain "wide exposure" to North Korean technology.

There is also evidence that Egypt has acquired technology from countries other than North Korea, including guidance systems for medium-range ballistic missiles. According to published sources citing European intelligence agencies, the Egyptians bought the components from Germany through front companies, and the components were delivered to Japan, where they subsequently disappeared.

Reports suggest that some components were also sent to North Korea for modification and then shipped to Egypt.⁹⁶

These Egyptian activities led some American legislators to question the wisdom on continued US aid to Egypt, which amounts to \$1.3 billion annually, in May 2001 budget hearings. Congressman Brad Sherman asserted that US military aid to Egypt was utilized for a military buildup that threatens Israel, and questioned whether the level of military spending on Egyptian defense acquisitions should be maintained, in light of Egypt's missile purchases from North Korea.⁹⁷

Egyptian officials, including Egyptian President Hosni Mubarak, consistently deny these charges. Although Egyptian Ambassador to the US Nabil Fahmy confirmed that contacts over missiles between Egypt and North Korea took place five years ago, but it "was a limited program, and that's where it stopped."⁹⁸

Short Range Missile Developments

In November 2001, despite Congressional objections, the Bush Administration announced the sale of Harpoon Block II missiles to Egypt. These missiles (unlike those in the Israeli arsenal) can be launched from ships, jet fighters, and land. The Harpoon has a range of approximately 150-175 kilometers, is guided by a Global Positioning Satellite System (GPS), and is capable of hitting land targets with high precision, i.e., within 10 meters of the selected target. The Harpoon Block II carries a 250-kg warhead.⁹⁹

The \$400 million dollar sale of more than 50 sea-borne Harpoon missiles was justified as providing Egypt with the ability to protect the Suez Canal, which would be of "value to shipping generally and to US warships that use this channel."¹⁰⁰ Israeli defense officials expressed concern over this planned sale and a Knesset study, headed by MK Yuval Steinitz, warned that the Egyptian Navy, armed with Harpoon and Standard missiles, would pose a major threat to Israeli shipping, and could reach targets hundreds of kilometers away. According to the Israeli Defense Ministry, Egypt's military buildup is eroding Israel's qualitative superiority. Major General Yedidia Ya'ari, Commander-In-Chief of the Israeli Navy, stated that the balance of naval power in the Middle East "has changed over the past 20 years, since the Yom Kippur War, and has changed primarily because of the strengthening of the Egyptian navy with American weapons."¹⁰¹

Chemical Weapons

Egypt reportedly maintains a significant chemical warfare capability, and has linked refusal to sign the CWC to Israeli rejection of the NPT. Egyptian officials

have claimed that the acquisition of chemical (and biological) weapons is justified, and even a necessity.¹⁰²

Egypt's primary chemical weapons facility is located in Abu-Za'abal, which is supported by the local insecticide and pharmaceutical plants. Secondary facilities are situated in Abu-Rawash, an aerosol can filling point, and adjacent to the Ben-Suaf air force base. A primary research and development plant is located in the National Research Center in Doki. Egypt has produced significant amounts of mustard; phosgen; psychomimetic incapacitating agents; sarin and VX nerve gas. These agents have been loaded onto landmines, artillery shells, aerial bombs, rockets, and missile warheads.¹⁰³ The evidence indicates that in the 2000-1 period, Egypt continued to develop its chemical weapons capabilities.

Nuclear Developments

Egypt acquired a 22-megawatt research reactor at Inshas, which went online in 1998.¹⁰⁴ In addition, Egypt operates a hot cell complex for plutonium extraction research, and a pilot nuclear fuel factory that is utilized to process indigenous natural uranium. Egyptian officials have stressed the goal of obtaining an independent uranium fuel production capability, as reflected in contracts signed with Australia, Canada and Niger to purchase mining technology—as well as aid in processing uranium ore. Egypt also maintains scientific projects in cooperation with the IAEA, and has a number of bilateral agreements for exchanges on the peaceful use of atomic energy with Germany, the United States, Russia, India, China, and Argentina. In addition, the UK and India provide assistance to Egypt in scientific research training, and atomic projects.¹⁰⁵

Although the evidence indicates that Egypt halted its nuclear weapons efforts in the 1960s, some Egyptians have called for a renewed effort towards this goal. Following the 1998 Indian and Pakistani tests, reports of Egyptian-Syrian and Saudi Arabian cooperation in this area increased. In August of 2001, Egypt and South Korea signed an accord to cooperate in the development of nuclear power. According to Egyptian officials, the accord was limited to civilian applications of nuclear technology.¹⁰⁶

Conclusion

Egypt has consistently sought to avoid “falling behind” any other Arab state in the procurement and deployment of weapons and military technology, and has been willing to expend considerable resources to maintain this position, despite chronic poverty, unemployment and economic crisis. Egypt has a relatively developed scientific and technological infrastructure, and in this sense, is somewhat less

dependent on external expertise once the initial design phase is complete and major manufacturing facilities are acquired. In some areas, such as chemical weapons and missiles, Egypt led the region, and in response to the growth of such activities in Iraq, Iran, Syria and Libya, Cairo has amplified its programs in these areas.

The decision made in the 1980s to abandon a nuclear weapons program for the time being is in the process of extensive re-evaluation, despite Egypt's accession to the NPT. Following the Iranian tests of the Shahab-3 missile and other regional developments in this direction, Egypt redoubled its missile acquisition and development program, primarily in cooperation with North Korea. As a result, the Egyptian efforts in each of these areas will need close monitoring to prevent sudden developments and surprises that could fundamentally alter the strategic balance in the region.

4. Syria¹⁰⁷

Syria is not a signatory to the CWC, and maintains both a chemical and biological weapons program, while continuing to develop and improve its SRBM capabilities, primarily through assistance from North Korea, Russia and China, and in cooperation with Iran. Although a signatory to the NPT, there is increasing evidence of Syrian interest in developing a foundation for future development of nuclear weapons.

Missiles

Syria possesses several hundred Scud B, C, NoDong and SS-21 SRBMs, with the capability of launching chemical and biological warheads. Damascus also received assistance from North Korea, China, and Russia in the production of liquid fuel missiles, and worked in close cooperation with Iran.¹⁰⁸ In July 2001, Syria launched a Scud missile reportedly armed with a chemical warhead. The missile was launched in the Haleb region of northern Syria, and landed 300 kilometers away in southern Syria.¹⁰⁹ According to the US DOD, Syria is also "laying the groundwork for a future option to develop a modern, solid-propellant SRBM," and during 2001 this activity accelerated.¹¹⁰

Chemical Weapons

Syria is not a party to the CWC, and has maintained a chemical warfare capability for numerous years, including mustard gas (obtained from Egypt), Sarin, cyanide, and is attempting to develop the nerve agent, VX. According to the evidence

provided by Dr. Danny Shoham, Syria has received unofficial assistance from Russia in the development of VX and other chemical agents that are produced primarily in Damascus and Homs. However, it should be noted that Syria appears to be dependent on foreign sources for essential elements (including precursor chemicals and production equipment) of its chemical warfare program. Damascus cooperates with Egypt, Iran, and most probably Libya, in the acquisition of chemical and biological agents and materials, as well as other expertise.¹¹¹

Biological Weapons

Syria has signed, but not ratified, the BWC, and there are persistent reports on its efforts to develop biological weapons. Since 1988, Syria has produced botulinum and ricin toxins, as well as anthrax and cholera. According to Shoham, Russian scientists are aiding in the development of anthrax, as well as the subsequent loading of the agent onto warheads, for “Syria apparently intends to attain the capability to biologically arm all types of its long-range surface-to-surface missile warheads.” He also noted, “it is reasonable to assume that this goal can be realized in the course of a few years, if it has not yet been attained.”¹¹² However, a US DOD assessment concludes that Syria has not begun “any major effort to put biological agents into weapons.”¹¹³

Nuclear Developments

Syria has ratified the NPT (but has not signed the CTBT) and does not have an active or advanced nuclear program, but appears to be following the pattern in a number of other states in the Middle East and elsewhere by gradually building a foundation in nuclear technology. This foundation is largely based on civil research and dual-use applications, including a small 30kW research reactor in Damascus, which is operated under IAEA safeguards.¹¹⁴ The fertilizer plant at Homs is owned and operated by the Atomic Commission of Syria, and this plant is being prepared for recovering uranium from phosphates. According to the Federation of American Scientists, in 1979, Syria reportedly initiated a military nuclear program—and has not provided the IAEA with complete information regarding these activities.¹¹⁵

Syria has attempted to expand its infrastructure, via cooperation with China, Russia, Argentina, and other countries.¹¹⁶ In 1999, Syria signed a comprehensive nuclear cooperation agreement with Russia, which included the construction of a small, light-water research reactor, also slated to be under IAEA safeguards. In its 2001 report on WMD, the CIA stated: “Broader access to Russian expertise could provide opportunities for Syria to expand its indigenous

capabilities, should it decide to pursue nuclear weapons. We will continue to monitor Syria's nuclear R&D program for any signs of weapons intent."¹¹⁷

Conclusion

Syria lacks the scientific and industrial infrastructure found in Egypt and, to a lesser degree, Iran, and lacks the oil income of Iraq and Libya. As a result, in the development of WMD and missiles, Damascus generally lags behind, but not by a great deal. Claims on the leadership role in the region, and rivalry with other countries as well as strategic objectives in the confrontation with Israel have propelled Syrian efforts to expand the chemical, biological and missile capabilities. In addition, as resources for Syrian conventional weapons decline, the emphasis on WMD and missiles is likely to grow further.

5. Israel

The contours and central elements of the Israeli strategic doctrine, based on preemption, deterrence and the threat of massive and unacceptable retaliation, have remained essentially unchanged for decades.¹¹⁸ This doctrine is the result of the regional threat environment, including the proliferation of weapons of mass destruction and delivery systems, and the continuing hostility and rejection of Israeli legitimacy. While this environment became less threatening following the 1979 peace treaty with Egypt, the escalating statements of intention and the capabilities of Iraq, Iran, Syria, and other countries are perceived as evidence of continuing existential threats to Israeli national survival. The failure of the Oslo negotiations, the campaign of Palestinian terrorism, and the support from Iraq, Iran and other countries, heightened the instability in the region, and increased Israeli concerns and responses.¹¹⁹

Although Israel's nuclear posture has not changed since 1969, when the secret agreement was worked out with the US government (in which Israel pledged not to test or declare itself a nuclear weapons state), the proliferation of WMD systems in the region has led to re-examination of this posture. In particular, the approaching end to the Israeli nuclear monopoly has resulted in consideration of the need for a survivable second-strike system. In May 2000, *Ha'aretz* published a report claiming the Israeli Navy was developing a "second strike" policy based on the newly delivered Dolphin-class submarines.¹²⁰ In June, the London *Sunday Times* reported that Israel had secretly carried out a test launch of nuclear capable missiles from two Dolphin-class submarines in the Indian Ocean.¹²¹ According to the report, the tests were designed to simulate retaliation to a nuclear strike from

Iran. The report also claimed that each of the three Dolphin-class submarines would be fitted with four cruise missiles, and that two submarines would be deployed at sea (one in the Red Sea and Persian Gulf, the other in the Mediterranean), while a third would remain on standby. These reports were immediately denied by the IDF.¹²² In October, the third Dolphin class submarine arrived in Israel.

In March 2001, *Ha'aretz* reported that Prime Minister Ariel Sharon (who took office following elections in February), like his predecessors, had affirmed the continuity of Israel's policy of nuclear ambiguity. According to *Ha'aretz*, Sharon convened a meeting with Atomic Energy Commission Director General Gideon Frank to discuss the issue, and was expected to renew the US-Israeli "nuclear understanding" in a meeting with President Bush at the end of March.¹²³

In September, former Israeli Prime Minister Benjamin Netanyahu was reported to have argued that since efforts to halt Iran's nuclear weapons development had failed, Israel should end the policy of "nuclear ambiguity," and move towards a second strike capacity. Analysts saw this statement as a hidden critique of Sharon's policy, but the issue quickly disappeared from the public debate.¹²⁴

While public debates on Israel's nuclear deterrent policy are quite rare, in February 2000, this policy was challenged by a group led by Israeli Arab leaders who raised the issue in the Knesset, following publication of parts of the transcript from Mordechai Vannunu's trial in the Israeli press. MK Issam Mahoul charged that: "Israel... created legitimacy for the other countries in this part of the world to arm themselves with nuclear weapons." MK Chaim Ramon, representing the government, defended Israel's policy of ambiguity, and repeated that the NPT "does not provide a fitting solution for our region as proved in the case of Iran and proved in the case of Iraq."¹²⁵

In another break with the past, in November 2001, Israel's commercial Channel Two television broadcast a documentary entitled "The Bomb in the Basement." It was based on interviews with key participants in Israel's nuclear program, including Foreign Minister Shimon Peres. The official policy of nuclear secrecy was also challenged in the cases of Avner Cohen and Yitzhak Yaakov. Cohen, whose book, *Israel and the Bomb*, was first published in the US despite denial of permission by the Israeli censor, was questioned by police upon his arrival in Israel in March 2001. In April 2001, the Israeli press revealed that Yitzhak Yaakov had been arrested to prevent publication of confidential information on Israel's nuclear program. Yaakov had served in the Israeli army between the years 1955-1973, including in the position of Director of Development of Weapons Systems.¹²⁶ (In 2002, Yaakov was convicted and given a light sentence.)

Developments in Israeli-US Strategic Relations

2000 began with the acceleration of activity in the Middle East peace process, in both the Syrian-Israeli track and in the negotiations with the Palestinians, and these developments had important strategic implications. Under the policies promoted by the Barak government, Israel declared a readiness to give up substantial territory and strategic depth in the context of peace agreements. In this context, measures to offset the negative impact on Israeli security were considered, including a formal Israeli-US defense treaty. US and Israeli defense officials also discussed a “strategic upgrade package” including Tomahawk cruise missiles (the transfer of which is restricted under the terms of the Missile Technology Control Regime).¹²⁷

On February 27, 2000, Ephraim Sneh revealed that Israel had requested new intelligence-gathering systems, early warning stations, and means “to forestall long-range threats from Iran and Iraq.”¹²⁸ These discussions continued even after the negotiations with Syria ended, and also after the failed Camp David summit in July.¹²⁹ The draft proposal included upgrading Israel’s status to that of a “strategic ally,” cooperation in countering biological and chemical terrorism, joint development of advanced missile defense systems, and a memorandum of understanding to replace annual aid allocations with a long-term framework.¹³⁰ Later, additional elements were introduced, including Israeli access to information from US space intelligence gathering systems and agreement on the purchase of the F-22 fighter plane. However, US-Israel talks ended without a new defense treaty or formal upgrade in strategic relations.¹³¹

In 2001, the elections of George W. Bush in the U.S. and Ariel Sharon in Israel, and escalating Palestinian terror attacks, changed the framework of the relationship. In the first meeting of the two leaders in Washington, the Iranian missile and WMD threats, as well as missile defense, were central. These issues also dominated the broader bilateral strategic discussions, and after the September 11 terror attacks against the US, strategic cooperation between Israel and the US increased dramatically, particularly with respect to responding to the threat of WMD-based strategic terrorism.¹³²

Missile Defense

While Israel’s primary strategic emphasis on deterrence has been strengthened, the operational development of missile defense systems has accelerated, in parallel. The Israeli government initiated the development of a ballistic missile defense (BMD) project in 1986, and this system now includes the Arrow 2 interceptor, the

“Green Pine” fire-control radar, a command and control system, and other sub-systems.¹³³

On September 14, 2000, the Arrow 2 successfully destroyed an incoming test. On September 23, the Green Pine radar detected a Syrian Scud D test launch. On October 17, after an increase in Saddam Hussein’s bellicose rhetoric, and the deployment of two Iraqi divisions in close proximity to Jordan and Syria, the Arrow 2 was officially declared operational.¹³⁴ In July 2001, the system’s radar tracked the flight path of a Syrian Scud missile from the time of launch until impact (see p. 27 in this report). On August 27, the ninth test of the Arrow 2 was conducted, downing a live rocket after it was launched from an IAF F-15 fighter, and assuming the flight path of an incoming Scud. Officials noted it was the highest altitude and furthest distance the system had ever been tested.¹³⁵ According to media reports the IAF has scheduled the first test firing of an Arrow missile in the US against a real Scud missile for 2003.¹³⁶

Beyond the Arrow 2 system (designed for the interception of warheads at distances of 50 to 90 kilometers from their targets), research and development has begun in Israel on boost-phase intercept to destroy offensive missiles in the first stages of their flight.¹³⁷

Passive Defense

In addition to the emphasis on active defense, Israel has also implemented a broad system of passive defense, including gas masks for every citizen and shelters. A survey commissioned by the IDF’s Home Front Command in October 2001 concluded that Israel and its population were prepared for a biological or chemical attack.¹³⁸

In October, as anxiety increased following the anthrax attacks in the US, the Israeli Finance Ministry authorized the Health Ministry to allot a preliminary amount of five million NIS (\$US 1.2 million) towards medication and equipment for emergencies. In addition, written directives on responding to a possible chemical or biological terrorist attack were prepared. At the same time, additional funds were sought to prepare a stockpile that would provide the materials and medicines for a longer-term period.¹³⁹

In November, as the prospects of Iraqi retaliation against Israel in response to a potential American strike increased, the Israeli General Staff met to discuss the possibility that such an attack would include the use of chemical or biological weapons. The IDF was concerned that suicide bombers could deliver chemical and biological agents, as two bombers were found to be carriers of hepatitis B. However, according to Dr. Meir Oren, director-general of Hillel Yaffe Hospital in Hadera, hepatitis B is endemic in the Middle East, making it unlikely

that the bomber was specifically selected due to his carrier status. Oren also noted that the Hepatitis B carried by the suicide bomber posed no danger to the public.¹⁴⁰

In December, media reports indicated that Israel had completed the development of an anthrax vaccine more effective and safer than the vaccine currently in use in the US.¹⁴¹ In 2001, Israeli civil defense planners also began to consider immunization against smallpox.

Conclusion

While there were no dramatic developments in terms of Israeli strategic capabilities and policies during the period of 2000-1, the existing trends were further entrenched. Despite the closely held nature of the Israeli nuclear strategy, some public discussion and other pieces of evidence pointed to increased preparations for the development of a survivable second-strike option. In terms of strategic defense, development of the Arrow missile system continued, and was declared to have reached an interim operational stage, while other measures were taken to protect the population from a growing threat of WMD attacks. The ongoing Palestinian terror campaign, as well as the impact of September 11 and the increasing preparations by the US for a challenge to Saddam Hussein and other rogue states and organizations in the region added urgency to the Israeli policy and actions.

6. Terrorism and WMD

The release of chemical agents by a Japanese sect known as Aum Shinrikyo in 1995 in the Tokyo subway marked the opening of an era in which the threat of a WMD attack was no longer confined to states, but extended to non-state actors and terrorist groups. The mega-terror attacks by al Qaeda, and, in particular, the destruction of the World Trade Center on September 11, 2001, increased the credibility of these threat scenarios. The use of chemical agents by Palestinian groups in terror attacks against Israelis focused additional attention on the use of such weapons in these contexts.

Following the US attack against the Taliban in Afghanistan, additional information was obtained on the extent of al Qaeda's efforts to obtain fissile materials, as well as chemical and biological weapons. In a speech delivered in November 2001, President Bush noted the evidence that al Qaeda was "seeking chemical, biological and nuclear weapons."¹⁴²

The mail-carried anthrax attacks in the US shortly after September 11 heightened these concerns.¹⁴³ However, some analysts questioned the ability of al

Qaeda to produce anthrax independently. According to subsequent reports, FBI and CIA officials had reached the conclusions that the anthrax attacks were not connected to either al Qaeda or Iraq, but to a domestic US extremist group.¹⁴⁴

Reports were also published regarding al Qaeda's efforts to obtain chemical weapons, including claims of cooperation between Bin Laden and the regimes in Iraq and Sudan. Three sites in Afghanistan were initially identified as possible CW facilities: a possible cyanide gas production factory in Derunta, a fertilizer plant in Mazar-i-Sharif, and an anthrax vaccine facility in Kabul. In November 2001, General Tommy Franks, commander of US forces in Afghanistan, stated that the military was investigating more than three dozen Taliban and al Qaeda sites suspected of having materials used in the construction of nuclear, chemical, or biological weapons. US forces searching for WMD had recovered samples and documents, as well as "chemical compositions," that had been sent to the US for analysis, but noted that no signs of sarin nerve gas had been found. In December, the *Wall Street Journal* reported that two computers containing files related to al Qaeda's pursuit of WMD had been discovered in Kabul with information related to chemical and biological weapons. In addition, evidence was found detailing al-Qaeda's efforts to produce botulinum toxin, ricin, and cyanide.¹⁴⁵

Concerns regarding terrorist WMD capabilities were reinforced after a cache of partially burnt documents containing diagrams of missiles, bombs, and nuclear weapons was found in an abandoned house once occupied by members of al Qaeda. Some analysts determined that the diagrams suggested Bin Laden may be attempting to construct a fission device, similar to the bomb dropped on the Japanese city of Nagasaki during the Second World War.¹⁴⁶ Later, US intelligence agencies concluded that al Qaeda might have been closer than previously thought to obtaining plans or materials to construct a crude radioactive "dirty bomb."¹⁴⁷

Media reports also indicated that al Qaeda and the Taliban had asked ten Pakistani nuclear scientists for assistance in developing a nuclear weapons program in Afghanistan. According to senior US and Pakistani officials, several of the scientists agreed, but conditioned their work on Pakistani Government approval. Two of the detained scientists reportedly claimed they had met Bin Laden at least twice during visits to Afghanistan under the auspices of a development organization.¹⁴⁸

As Palestinian terror attacks against Israeli civilians increased in frequency and scope, so did attempts to develop and disseminate explosives containing chemical agents during 2001. In December 2001, a car bomb packed with pesticides was timed to explode several minutes after two suicide bombers blew themselves up in Jerusalem. That month, a suicide bomber who detonated himself near a Jerusalem hotel was found to be carrying a bomb containing a similar

chemical mixture. In addition, the *London Times* reported that leaders of the military wing of Hamas decided to include chemical weapons in their arsenal.¹⁴⁹ Captured Hamas leaders such as Abass al-Sayed provided additional details of attempts to design a combined chemical-conventional bomb, including cyanide poison. Other Palestinian detainees, belonging to both Fatah and Hamas, acknowledged that combinations of agents such as rat poison and improvised nerve gas were being tested.¹⁵⁰ Israeli security sources also found evidence that these groups were trying to get hold of sarin and other nerve gases. In August 2001, an article in *Al Manar* revealed “serious [Palestinian] thinking” about the acquisition of biological weapons.¹⁵¹

Conclusion

Taken together, this evidence pointed to significant efforts by non-state actors and major terror groups, working independently and in cooperation with each other and some states, such as Iraq and Iran, to develop or acquire different forms of weapons of mass destruction. These activities and the dangers they pose cannot be divorced from the proliferation of WMD among the state actors in the region. As the norms that had prevented the spread of such agents of mass killing break down, and the practice of acquiring and incorporating chemical, biological and radiological weapons in the arsenals of individual states becomes increasingly accepted, there is every reason to expect terror groups and non-state actors, including Hamas, Hizbollah, Islamic Jihad, Fatah (in its various guises), al Qaeda, and others, to follow this path.

Furthermore, in contrast to states in which there is at least “an address” at which to direct deterrence efforts and retaliation threats, in the case of terror organizations, the sources of authority and the values that are subject to threats are very amorphous. Individuals associated with such organizations, carrying WMD materials or involved in developing this threat, are difficult to identify and are able to travel without detection. Extensive intelligence monitoring and sharing of information regarding identified members and potential adherents, as well pre-emptive strikes on facilities and defensive measures provide the first line of response to such attacks.

Part 2

THE INTERACTION BETWEEN GLOBAL ARMS-CONTROL PROCESSES AND REGIONAL FRAMEWORKS IN THE MIDDLE EAST

1. The 2000 Non-Proliferation Treaty Review Conference

The 1998/9 Middle East Arms Control and Proliferation Report presented and analyzed the history of tension between Egypt and Israel on the question of Israel's policy of nuclear ambiguity and non-adherence to the Nuclear Non-Proliferation Treaty (NPT). As noted, Egypt has pursued this effort in many different frameworks, including the UN General Assembly, meetings of the International Atomic Energy, and negotiations at the Conference on Disarmament. Successive Israeli governments have consistently rejected these pressures, which would mean the end to strategic deterrence based on a nuclear weapons option.

During the 2000/1 period, issues relating to the NPT continued to be of central importance. Under the terms of the treaty, a major review conference is held every five years, with lower-level preparatory (prepcom) meetings convened in the interim. The 2000 NPT Review Conference, held in New York between April and May, dealt with most of the issues that had been central in the previous meeting.

The 1995 conference marked a major landmark, as the NPT treaty was extended indefinitely. During the conference, the status of the three non-signatories (India, Pakistan, and Israel) was a central issue, and Egypt spearheaded a major effort designed to isolate Israel and press for a change in Israel's nuclear status.¹⁵² The language of the 1995 final statement, and a special Middle East Resolution (whose legal status was disputed) focused on the objective of universality, and highlighted Israeli exceptionality, but also emphasized the link between the need for Middle East peace and the application of the NPT in the region.

This outcome was reflected in the 1998-99 prepcoms, as well in other frameworks, such as the meetings of the IAEA and the UN General Assembly First Committee.¹⁵³ (See relevant sections in this report). Egypt continued to apply pressure on Israel, and proposed the specific mention of Israel's exceptionality in the final conference statement, as well as the creation of follow-up mechanisms.¹⁵⁴

In the months prior to the 2000 NPT Review conference, the US and Egyptian governments held intensive discussions to prevent the sort of last-minute conflict which characterized the 1995 conference. An agreement was eventually reached in which the US (despite Israeli objections) approved wording that addressed the issue of "non-adherence" and named Israel as the only non-NPT

party in the Middle East. In return, Egypt acquiesced to the explicit mention of Iraqi NPT violations.¹⁵⁵

A week before the conference opened, the head of the US delegation reiterated American policy in this issue, noting that “Israel has stated that it is prepared to surrender its nuclear weapons in the context of a just, stable, and enduring Middle East peace...The United States is making every effort we can to bring about just such a peace, and we believe once that is achieved, that Israel can and should join the NPT as a non-nuclear weapons state.”¹⁵⁶

The conference began with a series of formal presentations by the delegations; US Secretary of State Madeleine Albright declared: “In the Middle East, our 1995 resolution recognized that it is the broader peace process which improves prospects for the zone free of all weapons of mass destruction that each of us would like to see take shape in the region. ...So while the United States does not oppose attention in this year’s conference to universal adherence in the Middle East, we believe it should be fair and balanced within the region and with other serious issues outside the region.”¹⁵⁷

Egypt reiterated the call for the creation of a “mechanism to monitor and follow-up” the implementation of the 1995 Middle East Resolution. Egypt restated its standard position, emphasizing the principle of universality. The Egyptian draft included proposals to appoint a special envoy and to create a committee including delegates from the three “depository states” (US, UK, and Russia) to hold talks with Israel, and report to subsequent review conferences.¹⁵⁸

The proposal was endorsed by Iran, Saudi Arabia and other Arab states. As expected, the remnants of the Non-Aligned Movement (NAM) backed the Egyptian effort, including establishment of a subsidiary body and the special responsibility of the depository states. In addition, the NAM proposals supported a nuclear-weapon free zone (NWFZ) in the Middle East (and South Asia) “on the basis of arrangements freely arrived at among the states of the region.”

The New Agenda Coalition (NAC), created for the 1995 NPT conference and still influential, also supported the Egyptian position in a working paper calling for the “establishment of nuclear weapon free zones...especially in regions of tension, such as the Middle East.” The NAC called on “those states that have not yet done so...to adhere unconditionally and without delay to the Treaty on the Non-Proliferation of Nuclear Weapons,” and singled out the three states that operate unsafeguarded nuclear facilities, urging them “to reverse clearly and urgently the pursuit of all nuclear weapons...”¹⁵⁹

The US maintained a relatively low profile on the Egyptian proposal, despite the significant deviation of the text from the terms that had been agreed upon by both parties. In contrast, the British played a more visible role, rejecting Egypt’s proposal that the depository states assume “special responsibility” in this

regard. However, the UK endorsed the appointment of a special envoy to the Middle East on behalf of the NPT parties “with the task of assisting the states of the region in their endeavors to establish a zone free of all weapons of mass destruction.” France also indicated its displeasure over a proposal that the review conference establish precedents for inter-sessional work.¹⁶⁰

The key event of the conference took place when the five Nuclear Weapons States (as defined in the NPT) - United States, Russia, China, Britain and France - issued a basis statement on global nuclear disarmament. They reaffirmed the importance of indefinite extension, and the commitment to all decisions reached in 1995 - including resolutions on the Middle East.¹⁶¹ However, this statement did not include an explicit mention of Israel - and referred only to the declared non-NPT nuclear powers: India and Pakistan.¹⁶² When the focus shifted back to the Middle East, the Egyptians repeated that the NPT “cannot have any credibility with the states of the region as long as one state is exempt from its provisions.”¹⁶³ However, in sharp contrast to the negotiations that took place in 1995, talks over the 2000 final declaration were conducted with little public rancor.

After a consensus was reached on including explicit mention of Israel in the final documents, the *quid pro quo* demanded by the US regarding Iraq was a major source of disagreement in the closing days of the conference. As is noted in the Iraq section of this report, intense conflict continued on the questions of inspections and sanctions.¹⁶⁴ Numerous Arab states, as well as Russia and China, rejected language that labeled Iraq a violator of the NPT. The Chinese delegate declared that there was “no evidence” of (current) nuclear non-compliance, and the Iraqis reiterated their standard response, claiming to be complying with IAEA safeguards, while accusing the United States of violations.

At this stage, US envoys reportedly agreed to soften the wording on Iraqi non-compliance, but maintained language noting that since the “cessation of IAEA inspections in Iraq on 16 December 1998,” the IAEA “has not been in a position to provide any assurance of Iraq’s compliance under UN Security Council Resolution 687.” This language was reflected in the final document.¹⁶⁵

The US-Egyptian agreement was reflected in the final conference statement (completed on 20 May 2000), recognizing that “all States of the region of the Middle East, with the exception of Israel, are States parties to the Treaty on the Non-Proliferation of Nuclear Weapons.” This was the first time that Israeli exceptionality was explicitly mentioned. The final declaration also reaffirmed “the importance of Israel’s accession to the NPT and the placement of all its nuclear facilities under comprehensive IAEA safeguards...”

While the final declaration can be considered a victory for Egypt, the conference also endorsed significant aspects of the Israeli position. Indeed, the parties reiterated the call for the establishment of a nuclear weapon free zone “on

the basis of arrangements freely arrived at among the States of the region concerned,” and invited all states to “take practical steps towards that objective.”

Egypt’s initial demands for some form of official monitoring and reporting mechanism, designed to increase pressure on Israel, was also significantly diluted in the agreed text. The final text simply requests “all States Parties, particularly the nuclear-weapon States, the States of the Middle East ... to report through the United Nations Secretariat to the President of the 2005 NPT Review Conference, as well as to the Chairperson of the Preparatory Committee meetings ... on the steps that they have taken to promote the achievement of such a zone and the realization of the goals and objectives of the 1995 Resolution on the Middle East.”

Other issues of importance to the Middle East, including the continuing debate on responses to Iraqi violations (see discussion below), and negotiation of the strengthened safeguards agreements (developed in response to the failure to detect Iraqi violations), were also included in the final statement of the Conference. Paragraph 4 notes that “nine States parties in the region have yet to conclude comprehensive safeguards agreements with the IAEA. It also “invites those States to negotiate such agreements and bring them into force as soon as possible.” Iran was among these states, although not explicitly listed by name.¹⁶⁶

The Israeli Response

As a non-signatory, Israel did not formally attend the conference, and its observer group kept a low profile, so as “not to encourage anti-Israeli pronouncements.”¹⁶⁷ On May 12, Israeli Foreign Minister, David Levy referred to the issues under discussion in New York, stating that his country had not signed the NPT because both Iraq and Iran posed too great a threat to be ignored. Levy noted that “It is a fact that the technology purchased by Iran is intended in order to develop weapons of mass destruction and long range missiles...We have not reached a state of tranquility and calmness that we can say the friends of Israel can guarantee the future.”¹⁶⁸

Publicly, Israeli officials expressed dissatisfaction with the US-Egyptian agreement, primarily because it was done without including Israel in the process. In addition, the agreement was perceived as a further erosion of the American position. However, despite Egypt’s ostensible diplomatic victory, the Egyptian and Arab campaign against Israel made little substantive progress. In the final text, the references to Israel in the Middle East Resolution were similar to the 1995 text, including the linkage between the peace process and the framework of a nuclear weapons free zone. And although Israel was mentioned explicitly in the resolution

- the NPT conference moved further towards condemning Iraq for blatant violations of the NPT.¹⁶⁹

Conclusion

Although an agreement was achieved at the close of the 2000 NPT Review Conference, the various Middle Eastern issues that plagued the sessions will not disappear. Egypt can be expected to continue with its campaign to ostracize Israel, regardless of the meager results accrued during the 2000 conference. In response, Israel will continue to seek to prevent the erosion of its position.

The inclusion of ambiguous mechanisms for future discussions, in the text of the final document, is also seen as likely to increase disagreement on this issue. Egypt will be able to utilize the open-ended language of the Middle East Resolution, which states that its importance “remains valid until the goals and objectives are achieved,” in continuing its campaign within various frameworks - including precoms and the 2005 NPT Review Conference.

2. The UN General Assembly and First Committee

The 55th Session – 2000

The annual session of the UN General Assembly and the sessions of the First Committee on Disarmament and International Security serve as important venues for statements of national policy on arms control related issues, and for the introduction or advancement of initiatives. In the 55th Session, opening in September 2000, as expected, the delegations from the Arab states and Iran, encouraged by the perceived erosion of Israel’s political position, sought to augment perceived gains. Egyptian Foreign Minister, Amr Moussa, referred to the importance of the “establishment of a comprehensive regional security system.” Reiterating various aspects of what has become known as the Mubarak Plan (first presented in 1990), Moussa outlined a regional security system that would “ensure the control and quality of armaments in the region,” and repeated the call for a nuclear weapons free zone in the Middle East.¹⁷⁰

Iranian Foreign Minister Kharrazi made similar comments on this topic. Iraqi Foreign Minister Mohammed Said Al-Sahaf joined the chorus, and attacked the Israeli position on the NPT, repeating the charge of “double standards” in allowing “the Zionist entity” to maintain its weapons while strictly enforcing resolutions pertaining to the disarmament of Iraq. Al-Sahaf also demanded an end to UN sanctions and declared that they “amounted to genocide.”¹⁷¹

Israeli representatives responded to the Arab and Iranian demands for a NWFZ by reiterating the position that arms control agreements were best reached in the framework of regional agreements. On September 18, Acting Israeli Foreign Minister, Shlomo Ben-Ami, stated: "Israel attaches great importance to the eventual establishment of a zone free of weapons of mass destruction in the region. In order to reach that goal, direct negotiations between all states of the region must be held." Ben-Ami also explained Israel's concern over "the expanding stockpiles of conventional weapons in the region," and the threats posed by Iraq and Iran.¹⁷²

The First Committee - 2000

In the framework of the UN General Assembly meeting, the sessions of the First Committee provide a widely attended forum in which the details of arms control related issues are discussed in detail. Following the individual national presentations, the debate and voting on specific resolutions indicate changes in policies, and often set the tone for related activities in other frameworks dealing with proliferation, arms limitation and WMD issues.

In 2000, the First Committee focused on the full spectrum of topics, including the future of the Anti-Ballistic Missile (ABM) Treaty and regional arms control issues relevant to the Middle East. After Egypt, Iraq, Syria and Iran repeated their positions, the Israeli representative, Jeremy Issacharoff, presented a broad overview of Israeli arms control policy, covering a wide spectrum of issues. Issacharoff voiced Israeli objections to the concentrated Arab attacks against Israeli policy, and noted that the Agenda item and resolution, entitled "The Risk of Nuclear Proliferation in the Middle East," reflected a "transparent political attempt to single out Israel." According to Issacharoff, the resolution diverted "attention away from real and pressing proliferation issues...and ignore[d] the ongoing problem of Iraq and the continu[ed] effort of Iran in the nuclear and missile arena."¹⁷³

In addition, Issacharoff discussed other arms control issues, stating that Israel "remained an adherent to the Missile Technology Control Regime, and supported [the] efforts of the international community to prevent proliferation through the Nuclear Suppliers Group (NSG), the Australia Group and the Wassenaar Arrangement." Issacharoff reminded the Conference that Israel signed the CWC in 1993, and noted with concern that certain Arab countries have not signed or ratified this Convention. Issacharoff also discussed Israel's participation in the UN Register of Conventional Arms, but pointed out that a "significantly wider participation of our Arab neighbors in the UN Register would serve to enhance mutual confidence and underline the continued importance of focusing attention on the dangers of conventional weaponry."¹⁷⁴

*First Committee - Major Middle East Resolutions - 2000**1) Establishment of a Nuclear Weapon Free Zone in the Middle East*

As it has done for many years, Egypt submitted a draft resolution entitled “Establishment of a Nuclear-Weapon-Free Zone in the Region of the Middle East.” The text was practically the same as that submitted in 1999. The resolution was adopted without a vote, and called for “practical and urgent steps required for the implementation of the proposal to establish a nuclear-weapon-free zone in the region of the Middle East.” All the states in the region were asked to adhere to the NPT, but no time frame was mentioned, enabling Israel to go along with the consensus. In addition, the resolution called upon all countries of the regions that have not done so, to agree to place all their nuclear activities under IAEA safeguards, and noted “the importance of ongoing bilateral Middle East peace negotiations and the activities of the multilateral Working Group on Arms Control and Regional Security.”¹⁷⁵ The reference to the ACRS working group (established in 1991 following the Madrid peace conference) was included, despite the fact that this process has been frozen for many years, reflecting disagreements over Egyptian demands for an end to the Israeli policy of nuclear ambiguity.

2) The Risk of Nuclear Proliferation in the Middle East

For a number of years, the Egyptian delegation has introduced this resolution, with incremental revisions. In contrast to other resolutions that are traditionally approved by consensus, this resolution remains highly controversial and contentious. As in previous years, the 2000 draft was the object of intense negotiations, particularly between the EU and Egypt.

In the initial draft, the Egyptian delegation attempted to build on the 2000 NPT Review Conference, and included explicit references to Israeli nuclear deterrent policy, including a call for Israel, “the only State in the region that is not party to the [NPT] to accede to the Treaty ... without further delay.”¹⁷⁶

The revised resolution included somewhat “softer” language, noting that Israel remained the only state in the Middle East that has not yet become party to the NPT, and added an operative paragraph that “welcomes the conclusions on the Middle East of the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons.”¹⁷⁷ However, the relatively minor semantic adjustments did not alter the negative impact or end the controversy generated by the resolution. The resolution included selected quotes from the 2000 NPT Review

Conference Final Document, which did not reflect the balance of the full document.¹⁷⁸

US Ambassador to the NPT conference, Robert Grey, concurred, stating that “This year’s resolution continues the tradition of a one-sided attack on one country in the region and it presents an inaccurate picture of the nuclear weapons proliferation problem in the region.” Grey listed a number of inaccuracies and omissions, including: no mention of the one country in the region that has been found in non-compliance with the NPT; no mention of the steps being taken by certain countries in the region to develop the capability to acquire nuclear weapons despite being parties to the NPT; no mention of Middle East states that have failed to live up to their NPT obligations by concluding safeguard agreements; and, no call on Middle East states to join the CTBT and to sign the Additional Safeguards Protocol with the IAEA.¹⁷⁹

The final resolution was adopted by 157 in favor, 3 against (Israel, the US and Micronesia), and 8 abstentions.

3) Transparency in Armaments

On November 20, the resolution on Transparency in Armaments (Resolution 55/333U), co-sponsored by Israel, was adopted with 149 in favor, 0 against, and 16 abstentions. The resolution reiterated “that an enhanced level of transparency in armaments contributes greatly to confidence-building and security among States and that the establishment of the United Nations Register of Conventional Arms constitutes an important step forward in the promotion of transparency in military matters.”¹⁸⁰ While Egypt and other Arab states did not oppose the resolution, most have not submitted reports to the UN register. (It should also be noted that Israel co-sponsored additional resolutions dealing with small arms limitations and disarmament.)

4) Controls on Ballistic Missile Proliferation and Testing

While development and testing of ballistic missiles continue, the Iranian government is simultaneously active in arms control forums, particularly in regard to submitting proposals to limit the testing and deployment of missile systems. (A similar pattern is being followed with respect to Iranian chemical weapons development and procurement.)

In 2000, the Iranian government submitted a draft resolution on missile-related arms control, similar to a resolution presented in the 1999 session. The preamble expressed support “for the international efforts against the proliferation and developments of weapons of mass destruction.” The resolution also noted that

Iran was “convinced of the need for a comprehensive approach towards missiles, in a balanced and non-discriminatory manner, as a contribution to peace and security.”

The operative paragraph “requested that the Secretary-General, with assistance of a panel of governmental experts, prepare a report for the consideration of the General Assembly at its fifty-sixth session on the issue of missiles in all its aspects.” This proposal suggested an Iranian effort to supplant the existing MTCR regime, similar to Iranian proposals to disband the Australia Group on chemical weapons precursors. The Iranian resolution was adopted, with 90 voting for, 60 abstaining (including Israel and the US), and no votes against.¹⁸¹

5) The Implementation of the CWC

On October 16, 2000, Canada and Poland submitted a draft resolution that stressed the necessity of universal adherence, full implementation, and compliance with the CWC. The resolution also expressed its appreciation for the work of the Organization for the Prohibition of Chemical Weapons (OPCW) and its role in verifying compliance. The resolution was adopted by consensus. However, the Egyptian representative stated that while Egypt had not demanded a vote, its concurrence with the consensus could only be perceived within the context of sympathy for the goals of the resolution. According to the representative, the total prohibition of all WMD in the Middle East was a necessity.

The Israeli representative noted that when Israel signed the CWC, the expectation had been that others in the region would do so as well - but most of the countries in the region had refused to accept the Convention. In addition, Israel noted that its own security concerns had not diminished, and stressed that a positive change in the security situation would be a major requirement for ratification of the CWC.¹⁸²

6) New Agenda Coalition (NAC) Draft Statement

In recent years, the NAC has been among the most active groups in dealing with nuclear arms control issues, and tends to reflect the particular interests and policies of the Egyptian Government. The NAC presented a draft resolution entitled “Towards a Nuclear-Weapon-Free World: the Need for a New Agenda,” which expressed concern over “the continued retention of the nuclear weapons option by those three states that operate unsafeguarded nuclear facilities and are not NPT signatories.” The draft statement also called upon all states not yet party to the Treaty “...to accede as non nuclear-weapon states.” After negotiations, the revised draft also emphasized the importance of the Final Document of the NPT Review

Conference, noting “the unequivocal undertaking by the nuclear-weapon States ... to accomplish the total elimination of their nuclear arsenals ...” The text also raised the issue of fissile material cut-off negotiations that had begun in the Conference on Disarmament, reflecting an effort to keep this issue alive. 146 delegations voted in favor of the resolution, and 3 (India, Israel and Pakistan) voted against. In addition, there were 8 abstentions (Bhutan, France, Kazakhstan, Kyrgyzstan, Mauritius, Monaco, the Russian Federation and Uzbekistan).¹⁸³

The 56th Session - 2001

The 56th Session of the United Nations General Assembly opened in October 2001, delayed by the events of September 11. Beyond the emphasis on terrorism, the general focus was on the standard arms control themes, including issues relating to small arms and light weapons (SALW) and landmines.

As expected, the Egyptians led the annual Arab attacks on the Israeli nuclear program by calling for “the implementation of the results of the Sixth [NPT] Review Conference,” which “reaffirmed the importance of Israel’s accession to the NPT.” The delegates from other Arab states followed in a similar manner, including calls for international pressure on Israel to place its nuclear facilities under IAEA safeguards.¹⁸⁴ Milad Atieh of Syria stated that his country had always stressed its support for the creation of a NWFZ in the Middle East, and was gravely concerned by Israel’s obstruction of such a zone.¹⁸⁵ The Iraqi representative complained that the Arab region suffered from a great imbalance in armaments, as the “Zionist entity” possessed all the weapon of mass destruction, which it was developing in cooperation with the United States and others. The Iranians agreed, pointing to Israel’s WMD and missile programs.¹⁸⁶

The Israeli representative responded by stating that effective arms control measures could only be achieved and sustained in a region where wars, armed conflicts, terror, political hostility, incitement, and non-recognition were not features of everyday life. As such, the political reality in the region mandated a practical step-by-step approach, culminating in a comprehensive peace and the eventual establishment of a verifiable zone free of ballistic missiles and of chemical, biological, and nuclear weapons. This could be achieved only by free and direct negotiations between all of the states in the region.¹⁸⁷

*First Committee - Major Middle East Resolutions - 2001**1) Establishment of a Nuclear-Weapon-Free Zone in the Middle East*

The Egyptian draft resolution entitled “Establishment of a Nuclear-Weapon-Free Zone in the Region of the Middle East” was the same as that submitted in 2000, with the exception of minor adjustments referring to UN resolutions updated on an annual basis. It was again adopted by consensus, including Israel.¹⁸⁸

2) The Risk of Nuclear Proliferation in the Middle East

This Egyptian resolution was also similar to the one introduced in the 2000 session. Both the US and Israel reiterated their opposition to the “one-sided, contentious and divisive,” text, with “the selective use of one-sided references” from the NPT Review Conference Final Document, which “undermined rather than enhanced” confidence between countries in the region. Israel also referred to the “somber experience of UNSCOM” in Iraq, as well as other efforts under way to acquire WMD, and noted that since the resolution was introduced, the region had experience numerous developments “directly related to the proliferation of nuclear and other weapons of mass destruction.” Thus, according to Israel, its singling out was “counterproductive,” and did not “lend the Committee any credibility,” as the new NPT references introduced the previous year were “unbalanced and selective,” utilizing the Treaty as ammunition for “yet another political assault against Israel.” The resolution was adopted by 153 votes in favor, 3 against (Israel, Micronesia, and the US) and six abstentions.¹⁸⁹

3) Transparency In Armaments

The final resolution on Transparency in Armaments (sponsored by the Netherlands, and co-sponsored by 100 others, including Israel) was adopted by 121 in favor, 0 against, and 22 abstentions. The resolutions recalled previous ones. The majority of the Arab countries abstained. However, Egypt, Kuwait, Lebanon and Syria rejected a separate vote on paragraph 4 (b), which requested the Secretary-General, with the assistance of a governmental experts panel, to prepare a report on the continuing operation of the UN Register. Libya, speaking on behalf of the League of Arab States, stated that the League supported transparency measures such as the UN Register of Conventional Arms, but also sought to expand the list to include information on sophisticated conventional weapons and WMD. In the view of the Arab League, the Middle East was a “special case,” as Israel continued

to possess and to develop sophisticated weaponry, and was the only state in the region not to have joined the NPT.¹⁹⁰

4) Implementation of the CWC

In the debate on this resolution, which was also introduced and adopted in 2000, Egypt stated that it “sympathized” with the intent of the resolution, but stressed the need for a NWFZ in the Middle East. Egypt reiterated that it would not join the CWC as long as Israel did not accede to the NPT, and did not consider itself part of any consensus decision. Israel stated that its decision to sign the Convention reflected its “moral vision and commitment to a world free of chemical weapons,” while others in the region, including those that had utilized chemical weapons in the past, or were believed to be improving those capabilities, had failed to sign the CWC. Israel also stated that these parties had indicated that their position would not change even if Israel became a CWC state party. However, Israel stated that accession would be possible if there was an “overall change” in the security situation.”¹⁹¹

3. UN Conference on Disarmament¹⁹²

Since it was established early in the Cold War era, the Conference on Disarmament (CD), meeting in Geneva, provided an important framework for the negotiation of arms control agreements, including the NPT, CWC and CTBT. These global regimes have had major impacts on the countries of the Middle East, while representatives from Egypt, Israel and Iran have also played an increasingly important role in the CD’s deliberations. However, in the past few years, core disputes between the major participants have blocked the work of the CD, and its future as a viable body is now in doubt.

The 2000 session of the CD opened in January, and adopted an agenda similar to that of the previous session, with the traditional references to the “cessation of the nuclear arms race and nuclear disarmament;” “prevention of an arms race in outer space” (PAROS); security guarantees; “comprehensive programme of disarmament; and “transparency in armaments.” However, the agenda did not explicitly include the issue of Fissile Material Cut-off Treaty (FMCT) - despite the general agreement to examine the subject in 1999.¹⁹³

As has been the case for a number of years, the debate over a work program reached an impasse, reflecting the differences between the major participants. The informal compromise proposal, reportedly based on three ad hoc working groups negotiating nuclear disarmament, PAROS, and FMCT, proposed

by CD President, Harald Kreid (Austria), was not accepted.¹⁹⁴ The proposed negotiating mandate of the FMCT working group was identical to the one first adopted in 1995, and briefly activated in 1998. Further efforts were also unsuccessful, reportedly because Western countries demanded a return to the FMCT June 1999 proposal. Continuing efforts failed to reach a consensus. In conclusion, the 2000 session of the CD, for the second consecutive time, came to an end without establishing subsidiary bodies, a work program, or having begun any negotiations. As a result, confrontations and decisions regarding the difficult questions raised by the FMCT did not take place in the year 2000.¹⁹⁵

This pattern was repeated in 2001. On May 17, the Conference adopted a decision to appoint three special coordinators, who would review the CD's agenda, membership, and working methods. However, no agreement was reached over the CD's work program, particularly on the FMCT, PAROS, and global nuclear disarmament. In addition, in Washington, the new Bush Administration looked on global arms control negotiations with particular skepticism, expressing concerns that these activities were counter-productive in terms of efforts to achieve the goals of non-proliferation.¹⁹⁶ The 2001 session of the CD, for the third consecutive time, ended without establishing a work program, or having begun any negotiations.

Thus, following two very unproductive years, the future of the CD is increasingly uncertain. The formation of a number of ad hoc frameworks to negotiate on specific issues, such as the verification protocol for the 1972 Biological and Toxic Weapons Convention, or the global convention on land mines, demonstrated that for serious discussions, many states prefer to bypass the rigidified procedures of the CD. Instead, the CD, like the UN First Committee and other global frameworks, is often used for propaganda and political attacks, rather than for substantive discussions.

4. CTBT Issues

Negotiation of the Comprehensive Nuclear Test Ban Treaty (CTBT) was completed in September 1996. The treaty was subsequently opened for signature. According to the treaty, Entry into Force (EIF) required ratification by a list of 44 specific countries, including the five nuclear weapons states listed in the NPT, as well as other technologically advanced states, explicitly including India, Pakistan, Israel, Egypt, Syria, Iran, Algeria and other Middle Eastern states (the absence of Iraq reflects this state's pariah status). However, the US, Russia, and China have not ratified the treaty. Thus, the obstacles to implementation of the CTBT are formidable, and not centrally related to the Middle East.

Israel played a major role in the negotiation of the CTBT, which coincided with the Israeli decision to join the CD, first as an observer, and later as a full member in September 1996. The final text reflects many Israeli proposals and positions, particularly with respect to verification. This helped to ensure the Israeli government's decision to sign the CTBT in September 1996. (This was the first nuclear-weapons related treaty that Israel agreed to sign since the 1963 Partial Test Ban Treaty, and the first one with intrusive verification provisions.)¹⁹⁷ However, a final decision on ratification was postponed pending American ratification.

Nevertheless, the political frameworks related to the functioning of the CTBTO (the organization created to oversee preparations for the operations of the Treaty regime after EIF), did not serve to encourage Israeli participation. To some degree, the regional organization of the CTBTO marks an improvement over the IAEA, in which Israel is the only state that is not part of a regional group and thus ineligible for the Board of Governors. (This issue was addressed during the IAEA General Conference in September 2000, and a compromise procedure was adopted which will change Israel's status.) In the CTBT, the regional framework groups Israel with other signatories in the MESA category (Middle East and South Asia), but instead of providing the basis for cooperation and communication, the discussions in this group tend to be very conflictual, including Iranian efforts to expel Israel.¹⁹⁸ However, proposals to move the Israeli delegation to another regional grouping were rejected.

In a broad sense, the US decision against ratification of the CTBT slowed the development of verification systems and other institutional processes. Work on the onsite inspection manual continued, as did the activities of the Independent Commission on the Verifiability of the CTBT. The 14-member commission, including Dr. Mordechai Melamud from the Israeli Atomic Energy Commission, was appointed by the London based NGO, VERTIC (Verification Research and Training Center) in August 2000. (The participation of a representative reflects Israel's continuing involvement in verification activities of the CTBT, both in the context of the CTBTO and in additional frameworks.)

At its meeting in London during October, the Commission adopted a consensus report concluding that the CTBT treaty can be verified with "high probability." The report noted that an intricate and perpetually shifting verification system, in addition to existing verification capabilities, would deter potential violators. In addition, the Commissioners stated that components of the International Monitoring System (IMS) already in operation are capable of detecting a test below 1 kiloton in certain regions, particularly Central Eurasia. The report concluded by recommending that states provide political, financial, and technical support to verification of the CTBT as soon as possible, and suggested

that the international community support the greater exchange of data between the IMS and non-IMS sources.¹⁹⁹

The Second Conference on Facilitating the Entry into Force of the CTBT was held in New York in November 2001. It adopted a final declaration calling on all states that have not signed or ratified the CTBT to do so as soon as possible. The US boycotted the Conference, reflecting the Bush Administration's view of the CTBT. Further opposition to the CTBT was illustrated during the 56th Session of the UN First Committee, when the US called for a vote on a procedural decision to maintain the CTBT on the 2002 UN General Assembly Agenda.

The American position on the CTBT was sharply criticized by Iran, reflecting Teheran's general policy of maximum involvement in international arms limitation frameworks. Most other Middle Eastern countries did not become involved in CTBT issues during 2001, with the exception of Libya, which announced that it would sign the CTBT. (Since the lifting of sanctions following agreement on trial of the Lockerbie bombing suspects, Libya has also pledged to sign the CWC and has become more active in various arms control frameworks. Skeptics argue that this is part of a strategy to use these regimes as a facade for continued weapons development and acquisition.)

At the conference, the Israeli representative noted that the CTBT was part of a "long standing policy of supporting international non-proliferation efforts with due consideration to the specific characteristics of the Middle East and our national security needs." In addition, Israel stressed its contributions to the CTBT verification regime.²⁰⁰

5. The MTCR and Control of Ballistic Missile Proliferation

During the 1990s, the rate of missile proliferation accelerated, adding to the instability in conflict areas, particularly the Middle East.²⁰¹ As noted in Part I of this report, North Korean, Russian, and Chinese missile technology exports to Iran, Syria, Egypt and Libya became prime areas of concern. Iran's Shahab 3 program, reports of more advanced and longer range missiles, as well as concerns regarding Iraqi missile capability, led to efforts to strengthen the norms and agreements on technology exports developed in the context of the Missile Technology Control Regime (MTCR). The MTCR was developed in 1987 by a number of countries (led by the US) to coordinate and exchange information regarding export controls for missiles and missile-related technology (extended to cruise missiles). As of 2001, the regime included 33 members, based on an invitation-only process.

Although Russia is formally a member of the MTCR and China has agreed (under American pressure) to accept earlier versions of the export limitation

regime, implementation in both cases is intermittent and problematic, while North Korean exports are outside this framework. In addition, emerging third-tier suppliers of missile technologies, including Iran, Iraq, and Syria are likely to expand the proliferation process significantly.²⁰²

At the MTCR preparatory meeting in Paris (April 2000), the concepts developed initially in the 1999 MTCR Plenary and related to an International Code of Conduct (ICoC), were further developed. The US, Britain, and France (later joined by Canada) presented drafts that proposed a set of principles, commitments, and confidence-building measures that would be accepted by and extended to non-MTCR states. In this meeting, the participants also called for stepped-up dialogue with non-MTCR parties to limit their roles in missile proliferation (including the emerging third tier suppliers such as Iran); a system of pre-launch notification for missile and space launch vehicle (SLV) launches; as well as the creation of international standards for missiles.²⁰³ Efforts to coordinate policy on dual-use issues, such as space launchers, gained greater attention.

These concepts were developed further in the 15th Plenary, held in Helsinki, in October 2000. In addition to focusing on strengthening controls on exports of ballistic missile technology, the discussions also included the increasing dangers to stability posed by indigenous missile programs. The result was a two-track process, in which one track focused on strengthening the MTCR regime, and the other was based on incorporating non-members in the ICoC framework.²⁰⁴ The draft "Code of Conduct Against Missile Proliferation" included steps to improve transparency and increase confidence building in regional contexts, including pre-notification of launches. In addition, the Code of Conduct called upon parties not to aid the ballistic missile programs of others, called for pre-notification of missile launches, but also took a soft position on dual-use issues by confirming the right of civilian space launch services.²⁰⁵

At this point, the ICoC exercise became formally separate from the MTCR, and took a narrow course between seeking cooperation and avoiding opposition from countries opposed to the regime. The opposition to the ICoC and the tightening of MTCR is primarily led by Russia and Iran, both of whom have developed counterproposals to the regime. The Iranian effort to supplant the MTCR is based on the initiatives introduced in the UN First Committee and General Assembly (see the appropriate section of this report). The Russian government has presented an alternative to the ICoC in the form of a Global Control System (GCS) on missile activities. The first such proposal was presented at the G-8 summit in June 1999, and additional details were provided in March 2000, during an expert-level meeting in Moscow.²⁰⁶

In order to develop these concepts further, representatives from 80 countries met in Warsaw in May 2001. Israel, along with India and Indonesia, were

the only non-MTCR members to participate, and these efforts were opposed by Egypt and Syria. (In a follow-up meeting in Paris in February 2002, additional delegations from Egypt, Iran and Pakistan attended).

In 2001, the 16th plenary meeting, held in September, took place in the shadow of the September 11 terrorist attacks. Deliberations on the ICoC continued, and input from non-member countries was highlighted in the effort to develop a wider (“universal”) approach. The participants agreed that the code should be transparent and inclusive, with negotiations (scheduled to be held in France during February 2002) open to all states. In response, many of the countries of the Middle East agreed to participate, including Israel (the only full adherent to the MTCR, although not a formal member of the regime), Iran, and Egypt. Syria and Iraq, however, refused the invitation (as did North Korea).²⁰⁷

At the same time, many of these issues were also discussed in two other frameworks, which, in some ways, can be viewed as competing with (or perhaps complementing) the MTCR and ICoC negotiations. In March, Russia convened an international conference to promote its GCS proposal.²⁰⁸ In addition, the Iranian-sponsored UN Panel of Government Experts on Missiles began its sessions in August 2001. Representatives from 23 countries are involved including a number of non-MTCR states, including Egypt, Israel, Iran, India and Pakistan. The goal of this exercise was to produce a report on “missiles in all their aspects” to the UN Secretary General.

In the MTCR/ICoC framework, as well as in the UN Expert Panel, the emphasis on transparency remained problematic. On the one hand, transparency regarding missile acquisitions, deployments, and testing is designed to strengthen regional security and stability by reducing the element of uncertainty and surprise. However, as has been noted, “transparency programmes that lack a clear strategic aim and context run a real danger of becoming legitimising devices, by implying that agreeing to exchange of information confers endorsement on behalf of the international community.”²⁰⁹ In addition, in conflict situations and crises, transparency, in the form of pre-notification of missile tests or space launches, could increase the level of tension and lead to pre-emptive attacks. These concerns have been voiced by Israeli representatives both at the ICoC discussions and also in the UN Panel of Government Experts on Missiles.

Another point of dispute focuses on the dual-use issue related to the development of independent SLVs. Since the technology of space launchers is identical to that of ballistic missiles, such programs are seen as a back door to the development of missile capabilities. The Iranian emphasis on the right to develop space launchers, and the official claims that missile tests are part of the civil space program,²¹⁰ have highlighted this concern, particularly from the Israeli perspective. Some analysts have proposed measures including inspections of SLV facilities,

information exchange, and incentives to forgo independent national SLV development.

Reflecting the potential impact of these discussions in the Middle East, the Israeli government, led by the Foreign Ministry, has adopted a position of “constructive engagement” in discussions of the ICoC and in the Experts Committee, while also opposing proposals that would undermine the MTCR. In this spirit, Israel encourages other countries in the region to adopt a similar policy as an important confidence-building measure. The Israeli policy emphasis focuses on discussion of second and third tier proliferation in the region, incorporation of short-range rockets (less than 150 km) into the limitation regime (such as those supplied by Iran to Hizbollah and deployed in Southern Lebanon), and controls on dual-use technology such as SLVs. (As a “space-fairing nation,” with active and successful launch and satellite development and operation capabilities, Israeli interests and perspectives on this issue are similar to those of the US, France, and Russia.) On the issue of transparency, the Israeli position reflects the traditional concern that in the conflict environment of the Middle East, premature transparency could be a source of additional instability.

In summary, agreement on a code-of-conduct for ballistic missile proliferation that will be effective in the Middle East will require resolution of the transparency and dual-use issues, which seems unrealistic under the existing conditions of intense conflict and continuing proliferation.

6. The CWC and the OPCW

As detailed in the 1998/9 Middle East Proliferation and Arms Control report, the proliferation of chemical weapons in the region accelerated following Iraq’s extensive use of chemical agents during the war with Iran. These actions led to intensive efforts to reach an international treaty to prohibit the manufacture, acquisition, stockpiling, retention, transfer and use of chemical weapons, as well as assistance, encouragement, or inducement to anyone engaged in prohibited activities. The Chemical Weapons Convention, which entered into force in 1997, requires all chemical weapons and related production facilities to be eliminated within ten years.²¹¹

By the end of 2001, 145 states had either ratified or acceded to the Convention, while another 29 states had signed but not ratified.²¹² The CWC has received a mixed reception in the Middle East, and the Egyptian government has tried to make Israeli acceptance of the NPT a prerequisite for Arab adherence to the CWC.²¹³ Although Israel signed the treaty in 1993, ratification continues to appear unlikely in the short-term.

The stalemate regarding the policies of the major Middle Eastern countries regarding the CWC remained largely unchanged in 2000 and 2001. Egypt, Syria, and Iraq did not change their positions as non-signatories. During the UN General Assembly meeting in November 2001, Libya announced its intention to accede to the CWC. This was repeated in discussions with the OPCW Director-General, as well as on the opening day of the 5th BWC Review Conference, and to diplomats in the Netherlands. Nevertheless, Libya has yet to follow up on its declaration.²¹⁴

In Israel, the ratification process remained on hold, reflecting questions regarding the ability of the OPCW to verify compliance, particularly by Iran, as well as the growing regional CBW threat.²¹⁵ Although Yemen and the United Arab Emirates ratified the CWC during 2000 (joining Jordan, Morocco, Algeria and Oman), the fundamental obstacles to broad or universal compliance in the Middle East remained and were even reinforced.

One of the central dimensions in the regional aspects concerns the expansion of Iranian involvement in the activities of the OPCW. In 2000, Iran's ambassador, Seyed Shamseddin Khareghani, who was appointed the "coordinator of the cluster of pending and unresolved issues," delivered reports to the OPCW Council on results of verification activities, including inspections. Iran was also one of the co-sponsors (along with Pakistan and Cuba) of a draft resolution on the fostering of international cooperation in developing commercial chemical production technology, which was presented to the third session of the Conference of the States Parties (CSP).²¹⁶ The repeated Iranian emphasis on increasing access to technology through membership in arms limitation regimes has reinforced questions regarding the motives and objectives of the government in Teheran.

The limitations on the transfer of Schedule 1 chemicals (those most directly applicable to chemical weapons, and with the least application to commercial or other non-military products) from state parties to non-state parties went into effect with the entry into force of the Convention, and limitations on the transfer of Schedule 2 chemicals came into force in April 2000.²¹⁷ However, technical differences between states parties (regarding the transfer of the salts of Schedule 1 chemicals) were not resolved during the Fifth Conference of States Parties held in May 2000. In addition, the Fifth CSP accepted the Executive Council's recommendation to reduce the threshold at which the transfer of Schedule 2 chemicals is banned pending further study of the issue.²¹⁸ (The delay in resolution of the issue and in the imposition of some trade limitations may have prevented some economic damage to the states that have not ratified the CWC, including Israel, Egypt, Syria and others.) Although a ban on Schedule 2 transfers to non-states parties came into force in April 2000, the OPCW did not implement a mechanism for enforcing compliance with this ban, and enforcement measures

remained a subject of discussion among the states parties and within the Technical Secretariat.

In February 2001, at the twenty-third session of the Executive Council of the OPCW, Director-General Bustani again emphasized the issue of universal accession to the treaty, particularly in the Middle East, declaring that acceptance of the CWC could play a vital role in countering the ongoing violence and tension. The Director-General proposed the convening of an informal meeting of the Council on universality, with a focus on the Middle East. Although the Council endorsed the initiative, such a meeting was never convened.²¹⁹

The sixth CSP, in May 2001, was attended by 500 participants, including 108 state parties, one signatory state (Israel), two non-signatory states (Andorra and Libya), as well as representatives from international and non-governmental organizations.²²⁰ The focus of the Conference was on the Organization's continuing financial difficulties, as well as the destruction of chemical weapons in the Russian Federation. Issues pertaining to the Middle East received little attention. The Conference did adopt a decision regarding transfers of Schedule 3 chemicals to non-states parties. The possibility of imposing a ban on transfers of Schedule 3 chemicals to non-states parties could have significant economic impact on states such as Egypt and Israel. This subject will likely be addressed and resolved during the Review Conference in April 2003.²²¹

By the end of December 2001, 1,114 inspections were held at 500 sites in 49 state parties. Inspections of chemical weapons and chemical weapons-related facilities had taken place in Bosnia and Herzegovina, China, France, India, Iran, Japan, Russia, the UK, the US, the Federal Republic of Yugoslavia, and an anonymous state party.²²² Although there were numerous reports regarding the possibility of a planned challenge inspection of Iran, there were none, and no requests were received in 2001 or in the history of the Convention.

Thus, the OPCW remains a highly politicized body, whose effectiveness in preventing the proliferation of chemical weapons to both states and non-state actors (terrorist organizations) remains to be demonstrated. In terms of the Middle East, in particular, many key states have not ratified the convention, and the evidence regarding others, such as Iran, points to continued possession of significant chemical weapons capabilities. The organizational, administrative, and economic crises that have marked the OPCW's existence have yet to be resolved.

7. BTWC

The 1972 Biological and Toxic Weapons Convention (BTWC) was negotiated and adopted as a very broad statement, without verification or enforcement provisions.

In the past decade, as the threat of use of such weapons has increased, efforts began to address the verification issue, focusing on the Ad Hoc Group (AHG) of the States Parties to the Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, meeting in Geneva.²²³ The issues are extremely complex, largely reflecting the inherent difficulties of the verification process in the case of BTW, and progress towards a consensus agreement was slow.

The Middle East dimension of the BTWC and the efforts to reach a verification protocol is significant. According to many sources, biological weapons remain a major component of the Iraqi arsenal, and other states, including Iran, Syria, Libya, Sudan, and perhaps Israel.²²⁴ Some of the countries in the region, including Iran (state party), Iraq (state party), the UAE, Syria and Egypt, are signatories (although the three latter states did not ratify) and state parties to the 1972 Convention, while others, including Israel, are not.²²⁵

As in the case of other global arms limitation and prohibition regimes, Iran is particularly active on this issue and in the discussions of the ad-hoc working group. During 2000, Iran submitted working papers on the “Settlement of Disputes on Transfer Denial” (WP.426); and “Technical Justification for Limited Size of the Area of Investigation” (WP.434). The latter paper presents a proposal to limit the area of inspection for biological weapons, claiming that the “ultimate traveling distance of bio-aerosols could not be more than 10 km from the source of release.” (Other sources concluded that biological aerosols under optimum conditions can travel hundreds of kilometers.)

For Israel, the verification issues under discussion in the meetings of the States Parties are of central importance, and as a result, at the early stage of this process, the Israeli government considered signing the convention, but decided against changing its policy on this issue.²²⁶

During earlier meetings, the ad-hoc group made what was termed “substantial progress” in negotiating the rolling text of the verification protocol. However, the conflicts remained, and the ad-hoc group was unable to reach a consensus on provisions governing the transfer of agents and dual-use equipment, the role and mandate of visits, and procedures for launching investigations.²²⁷

In February 2001, at the 22nd session of the AHG, the Chair of the Group, Ambassador Tibor Toth of Hungary, argued for using the concept of a “vision text” (the Chair’s proposal of the contents of the final protocol) to break the deadlock. A number of delegates responded favorably, but Libya, Iran, and Pakistan objected. The Iranian ambassador criticized the notion of a vision text, stating that it “would endanger the friendly and cooperative atmosphere” and ruin negotiations. Nevertheless, on March 30, Toth released “the Chair’s composite

text.” Afterwards, Iran, Libya and other states continued to object to the use of this framework as the basis for further negotiations.²²⁸

In July 2001, at the 24th session, the impact of the election of the Bush Administration was felt for the first time, when the US delegation announced opposition to the current draft Protocol, as well as to future efforts to negotiate an agreement. According to the US representative, “the current approach to a Protocol” was not “capable of strengthening confidence in compliance with the Convention,” would not improve the verifiability of compliance, and would “do little” to deter countries seeking biological weapons, nor could it deter illicit activity.²²⁹

Many of the other participants, including the EU, Russia, and the members of the Non-Aligned Movement voiced “regret” over the US decision. The Iranian delegation declared that the US had “openly questioned the decisions made by consensus years ago, ignoring all rules of the game in international negotiations.” As work on the draft continued (without the US) Iran also circulated a draft proposal, which emphasized the right to the transfer of technology and expertise, as included in Article X of the 1972 Convention (which discusses scientific and technological exchange for peaceful purposes and technical cooperation). The focus on technology transfer to signatories is a standard and strongly emphasized aspect of Iranian policy in many other arms limitation agreements and regimes, including the NPT and CWC, and raises concerns that Iran is using these vehicles in order to obtain dual-use technologies and expertise to use in its own weapons development efforts. Indeed, according to press reports, Western delegations suspected that the primary motivation for the Iranian position was to add a reference that would undermine the Australia Group (a suppliers’ regime controlling chemical and biological exports). This session ended without completing negotiations on a verification protocol, or releasing an agreed report on the Group’s activities.²³⁰

After the September 11 attacks, and subsequent anthrax outbreak, media reports indicated that the Bush Administration sought to redesign the BWC with the participation of several key allies. On November 1, President Bush issued a statement that underlined his Administration’s commitment to “strengthening the Biological Weapons Convention as part of a comprehensive strategy for combating the complex threats of weapons of mass destruction and terrorism.” Bush proposed a series of steps emphasizing “national criminal legislation against prohibited BW activities; the establishment of a UN procedure for investigating suspicious outbreaks or allegations of biological weapons use, and the establishment of procedures for addressing BWC compliance concerns.”²³¹

The Fifth Review Conference of the BWC²³² opened on November 19, 2001. Shortly after the Conference began, John Bolton, US Undersecretary of State

for Arms Control and International Security, cited the evidence that Iraq, Iran, North-Korea, Libya, Sudan and Syria maintained BW capabilities. Bolton stated that the US was also very “concerned about the use of biological weapons by terrorist groups such as al Qaeda,” and reiterated the reason for its opposition to the BWC draft compliance Protocol. Bolton expanded on the proposals outlined in the November 1st Bush statement.²³³ The US proposals called on the Conference to demand “non-compliant BWC state parties to terminate their offensive biological weapons programs and comply full with their obligations.” In addition, the US suggested the Conference request Signatories to halt their pursuit of such programs, and demanded that the Conference (under article V of the Convention) agree that: “any non-compliance...could undermine confidence in the Convention.”

In response, the Iranian delegate continued to insist “on the validity of the [AHG’s] mandate” and announced its “readiness for continuing negotiation in a multilateral framework.” In addition, Iran noted that the BWC does not prohibit the use of BW, and proposed that states parties add the word “use” in the Convention’s title as well as Article 1. Iran also raised again the issue of technology transfer, stating that the preservation of national export controls and “arbitrary” parallel regimes after the entry into force of a Protocol would render “serious damage” to the universality of the Convention.²³⁴ In response to the US proposal, Iran noted its satisfaction with the current state of Article V, and suggested that the Conference ask state parties “to refrain from unilateral and discriminatory action in resolving any concerns with regard to the implementation of the Convention. Iran also responded harshly to previous American allegations over biological weapons activity.²³⁵

Although a first draft of the Final Declaration was circulated on December 6, the Conference was suspended without its adoption on the 9th after the US proposed the termination of the AHG, in exchange for, *inter alia*, the consideration of “new measures or mechanisms for effectively strengthening the BWC,” and the possible establishment of expert groups without negotiating authority. In conclusion, the BWC Fifth Review Conference ended without the adoption of a final statement or the adoption of a Protocol.²³⁶

Conclusion and Prognosis

In general, when the arms control and non-proliferation efforts in the Middle East are examined from a broad perspective, there are few signs of success or even impact. This failure can be attributed to a number of overarching factors. First, the regional and global efforts have been haphazard and inconsistent. Second, the concept of universality in both the NPT and CWC regimes is seriously flawed, for it does not differentiate between stable and unstable regions, or between status quo and revisionist states. Third, the relentless Arab and Iranian-led campaign to isolate Israel has undermined the legitimacy and effectiveness of regional disarmament forums. Fourth, many arms control frameworks appear to have become a tool for politically active states, such as Iran, to feign compliance, and in exchange, obtain access to regulated technology and weapons.

As the evidence presented in this report has made clear, 2000 and 2001 were depressingly unexceptional with respect to Middle East arms control and proliferation, and these issues will continue to plague the region for the foreseeable future. The various frameworks developed to counter the threat of proliferation in the Middle East were shown to be decidedly inadequate. The “dual containment” policy created by the Clinton Administration, as well as the policies of denial adopted by much of Europe, despite the clear and easily obtained evidence, did not present significant impediments to the Iraqi and Iranian WMD and missile acquisition programs. The dangers posed by both countries, as well as the concomitant proliferation efforts by Egypt, Syria, Libya, Algeria and other states - continue to increase, and the need for a fresh approach is evident. Any new initiatives must address the specific nature of the very distinct regimes and strategic position of each of the states in the region, including Iraq and Iran, as well as the explicit threats that each poses to stability. Given this diversity, concept and policies based on a single approach to proliferation are bound to fail.

Iraq remains the most immediate threat, with a formidable arsenal of weapons to terrorize its neighbors. The opportunity may have already been lost for stopping the renewed Iraqi chemical biological weapons programs before they pass the point of no-return, meaning that any serious challenge and effort to force compliance with the obligations under the 1991 agreement and resolution will be viewed as too costly. The evidence indicates that as of the beginning of 2002, the Iraqi nuclear weapons acquisition efforts had not yet succeeded, but time was clearly running out for action in this dimension as well. The international sanctions regime proved ineffective in pressuring the Iraqi regime to forgo the efforts to acquire these weapons, and “the international community” did not show the will to take stronger action. The terror attacks on the US in September 2001 clearly highlighted the dangers of Iraqi acquisition of WMD capabilities (particularly for

those who saw close connections between al Qaeda and the Iraqi regime under Saddam Hussein), but there was no evidence of a major policy change in European capitals with respect to Iraq.

In addition, the evidence demonstrates that during the 2000-2001 period, Iranian efforts to acquire WMD and long-range ballistic missiles accelerated, in part as a reaction to the growing Iraqi capabilities. In addition to the continued development of the Shahab 3 missile, based on North Korean and Russian technology, the nuclear development program funneled through the Bushehr "civil" reactor complex being constructed by Russia indicated the major commitment in Teheran to becoming a nuclear power within five to ten years.

However, in sharp contrast to neighboring Iraq, Iran maintains a functioning civil society, and the debate over internal reform continues. Thus, while the nuclear and missile development efforts are also continuing, the possibility of a change in regime and priorities has not been entirely eliminated. In this context, it is possible that political change in Iran might take place before acquisition of a nuclear weapons capability, allowing for a possible decision by a future government to halt this process before it reaches "the point of no return." A less strident and hostile government, and the end to direct support to terrorist groups such as Hizbollah and Hamas, would lead other countries, including the US, to recognize Iran's legitimate conventional arms requirements in exchange for an Iranian decision to relinquish the nuclear weapons option. Such a major policy change must be considered to be very unlikely, particularly as future governments, regardless of their specific orientation (Islamic, reformist, secular, etc.), would still face the same security situation in the region.

Realistically, the prospects for arms control in the Middle East are lower now than they were a decade ago. Without an end to the factors that promote proliferation, the number of states and regimes with access to the full range of weapons of mass destruction will increase rapidly in the upcoming decade. At this stage, in the place of export controls and non-proliferation, stability will depend on the difficult challenge of mutual deterrence in a multi-polar environment rife with a long history of intense conflicts. The prospects of success in such a demanding situation are not very good.

References

- ¹ Gerald M. Steinberg, "Arms Control and Non-Proliferation Developments in the Middle East: 1998-1999," *Mideast Security and Policy Studies*, 44 (Ramat Gan: BESA Center for Strategic Studies, Bar Ilan University, September 2000).
- ² Michael Eisenstadt, "'Re-Energizing' UN Sanctions on Iraq: Problems and Prospects," *Policywatch*, 537, Washington Institute for Near East Policy, Washington DC, 23 May 2001; and, Anthony H. Cordesman, "The Problem of 'Smart Sanctions' Against Iraq," *Center for Strategic & International Studies*, Washington DC, March 2001, www.csis.org/stratassessment/reports/iraq_smart_sanctions.pdf
- ³ Steinberg, "Arms Control and Non-Proliferation," p. 4.
- ⁴ Scott Ritter, *Endgame: Solving the Iraq Problem – Once and For All* (New York: Simon and Schuster, 1999), pp. 219-220.
- ⁵ Steinberg, "Arms Control and Non-Proliferation," p. 14.
- ⁶ "UN-Iraq Stalemate Remains Intractable," *Disarmament Diplomacy*, 48 (July 2000).
- ⁷ David Albright and Kevin O'Neill, "The Iraqi Maze: Searching For A Way Out," *The Nonproliferation Review*, 8, 3 (Fall-Winter 2001).
- ⁸ "UN Appoints Head of New Iraq Commission; Senior UN Officials Quit Over Impact of Iraqi Sanctions," *Disarmament Diplomacy*, 43 (January/February 2000); Barbara Crossette, *New York Times*, 19 January 2000.
- ⁹ Matthew Rice, "UN Security Council Approves UNMOVIC Plan," *Arms Control Today*, 30, 4 (May 2000); "UNMOVIC Releases Modified Readiness Report," *Arms Control Today*, 30, 7 (September 2000).
- ¹⁰ "Iraq Arms Inspector Won't Share Info," *Associated Press*, 18 September 2000.
- ¹¹ "No Movement Over UNMOVIC," *Disarmament Diplomacy*, 47 (June 2000); "Blix Sees U.N. Weapons Inspectors In Iraq In 2001," *Reuters*, 6 December 2000.
- ¹² "UN-Iraq Talks To Continue, No Breakthrough Reported," *Disarmament Diplomacy*, 55 (March 2001); "News Chronology," *The CBW Conventions Bulletin*, 52 (June 2001), pp. 40-41.
- ¹³ "News Chronology," *op. cit.*, 54 (December 2001), p.32; "News Chronology," *op. cit.*, 53 (September 2001), p. 32.
- ¹⁴ "News Chronology," *op. cit.*, 55 (March 2002), p. 19.
- ¹⁵ See, Anthony H. Cordesman, "Weapons of Mass Destruction in the Middle East, Regional Trends, National Forces, War fighting Capabilities, Delivery Options, and Weapons Effects," *Center for Strategic and International Studies*, January 2002, <http://www.csis.org>; also, Amatzia Baram "An Analysis Of Iraqi WMD Strategy," *The NonProliferation Review*, 8, 2 (Summer 2001).
- ¹⁶ *Programme for Promoting Nuclear Non-Proliferation (PPNN)* Newsbrief, 50 (2000), p. 28; PPNN Newsbrief, 51 (2000), p. 23; "German Intelligence Agency Says it Has Found Secret Iraqi Missile Factory," *Associated Press*, 25 August 2000; Barbara Starr, "N. Korea, Iraq in Scud Pact?" *ABC News*, 10 August 2000.
- ¹⁷ CIA "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 1999," August 2000, <http://www.cia.gov>; Gideon Alon, *Ha'aretz*, 19 July 2000.
- ¹⁸ Office of the Secretary of Defense, *Proliferation: Threat and Response* (Washington DC: US Department of Defense, January 2001).
- ¹⁹ CIA "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 January Through 30 June 2001,"

30 January 2002, <http://www.cia.gov>.

²⁰ “German Intelligence: Iraq May Have Nukes in Three Years,” *Reuters*, 25 February 2001; Office of the CIA, *Foreign Missile Developments and the Ballistic Missile Threat Through 2015* (Washington DC: Central Intelligence Agency, December 2001); Statement by Director of Central Intelligence George J. Tenet before the Senate Select Committee on Intelligence on the “*Worldwide Threat 2001: National Security in a Changing World*” (Washington DC: CIA, December 2001).

²¹ For additional information on Iraqi nuclear activities, see, “Why Saddam Husayn Loves the Bomb and the Trouble Likely Brewing in Iraq,” *Middle East Quarterly*, 7, 1 (March 2000); Michael Eisenstadt, “Can the United States Influence the WMD Policies of Iraq and Iran?” *Nonproliferation Review*, 7, 2 (Summer 2000).

²² “Atomic Energy Inspectors Inspect Iraqi Nuclear Sites,” *Associated Press*, 22 January 2000; *PPNN Newsbrief*, 49 (2000), p. 17; “IAEA Inspects Iraqi Nuclear Materials,” *Arms Control Today*, 31, 2 (March 2001).

²³ Testimony of Paul Leventhal before the Senate Foreign Relations Subcommittee on Near Eastern and South Asian Affairs, 22 March 2000, www.nci.org

²⁴ Marie Colvin, *Sunday Times* (London), 24 December 2000.

²⁵ Douglas Davis, *Jerusalem Post*, 29 January 2001; “Did Iraq Conduct a Nuclear Test?” *Trust and Verify* (March-April 2001), www.vertic.org

²⁶ Office of the Secretary of Defense, *Proliferation*. See also, Albright & O’Neill, “The Iraqi Maze”; Steven Dolley and Paul Leventhal, Overview of Nuclear Inspections in Iraq, 4 June 2001, www.nci.org

²⁷ “Unclassified Report to Congress,” January 2002.

²⁸ “Khidhir Hamza: ‘I Can Forsee Saddam Controlling the Middle East’,” *Middle East Quarterly*, 8, 4 (Fall 2001); Janine Zacharia, *Jerusalem Post*, 21 June 2001; “Understanding the Lessons of Nuclear Inspections and Monitoring in Iraq: A Ten-Year Review,” *ISIS*, 14-15 June 2001.

²⁹ “Saddam Hussein Meets with Heads of the Iraqi Nuclear Program and Defense Establishment,” *MEMRI*, 8 November 2001, citing *Babil* (Baghdad), 7 November 2001; Reuven Pedatzur, *Ha’aretz*, 21 June 2001.

³⁰ Khidhir Hamza, “Each Day We Wait, Saddam Grows More Powerful,” *Wall Street Journal*, 10 December 2001; “News Chronology,” *op. cit.*, 55 (March 2002), p. 26.

³¹ “Iraq Rebuilt Weapons Factories, Officials Say,” *New York Times*, January 22, 2001; *The CBW Convention Bulletin*, 52 (June 2001); “Unclassified Report to Congress,” January 2002.

³² *The CBW Convention Bulletin*, 52 (June 2001), pp. 33, 38; Steven Lee Myers & Eric Schmitt, *New York Times*, 22 January 2001.

³³ Eli Karmon, “The Anthrax Campaign - An Interim Analysis,” 30 October 2001, <http://www.ict.org.il>; “News Chronology,” *op. cit.*, 52 (June 2001), pp. 40-44; “News Chronology,” *op. cit.*, 54 (December 2001), p. 33.

³⁴ “Saddam Hussein calls for popular support of Palestinians,” *Jerusalem Post*, 16 August 2001; “Iraq Specifically Threatens Israel,” *MENL*, 12 April 2001; “Saddam Calls for Jihad Against Israel,” *Reuters*, 24 December 2000; “Iraq Sees Beginning Of End Of Embargo,” *Disarmament Diplomacy*, 52 (November 2000); “An End Must be Put to Zionism,” *Iraq News*, 4 October 2000.

³⁵ Deborah Sontag, *New York Times*, 2 September 2000.

³⁶ “U.S. Says Elite Iraqi Troops Move From Baghdad,” *Reuters*, 12 October 2000; Ze’ev Schiff,

Ha'aretz, 22 October 2000.

³⁷ Amir Oren, *Ha'aretz*, 1 November 2000; Arie O'Sullivan, Nina Gilbert, and David Rudge, *Jerusalem Post*, 26 October 2000.

³⁸ "Iraq Sponsors Bombers," *Jane's Foreign Report*, 3 August 2001; "Saddam Moves Troops to Jordanian Border Again," *MENL*, 26 February 2001; Ze'ev Schiff, *Ha'aretz*, 24 January 2001.

³⁹ "News Chronology," *op. cit.*, 55 (March 2002), p. 18; Arie O'Sullivan, *Jerusalem Post*, 19 February 2001.

⁴⁰ "UN-Iraq Talks To Continue, No Breakthrough Reported," *Disarmament Diplomacy*, 55 (March 2001); Albright & O'Neill, "The Iraqi Maze: Searching For A Way Out"; Colum Lynch, *Washington Post*, 13 September 2001.

⁴¹ Aluf Benn, *Ha'aretz*, 22 February 2001; Alan Sipress, *Washington Post*, 27 February 2001; Ben Barber, *Washington Times*, 7 March 2001.

⁴² "Uphill Struggle for New UK, US Iraq Sanctions Plan," *Disarmament Diplomacy*, 58 (June 2001).

⁴³ "News Chronology," *op. cit.*, 55 (March 2002), p. 19; "Military Action Against Iraq Retakes Center Stage," *Disarmament Diplomacy*, 59 (July-August 2001).

⁴⁴ Stephen F. Hayes, "Target Iraq? We Will, If Paul Wolfowitz Has His Way," *Weekly Standard*, 1 October 2001.

⁴⁵ Barbara Slavin, "Pentagon Builds Case To Bomb Iraq," *USA Today*, 20 November 2001; "UN-Iraq Relations Remain Stalled as Fears of New War Grow," *Disarmament Diplomacy*, 61 (October-November 2001).

⁴⁶ Steinberg, "Arms Control and Non-Proliferation," p. 16.

⁴⁷ *Op. Cit.*, p. 17.

⁴⁸ "Iran: Rafsanjani warns of high cost of US support for Israel," *BBC Monitoring*, 15 December 2001.

⁴⁹ Matthew Rice, "Clinton Signs 'Iran Non-Proliferation Act,'" *Arms Control Today*, 30, 3 (April 2000); Audrey Hudson, *Washington Times*, 25 February 2000.

⁵⁰ Steven Mufson, *Washington Post*, 20 June 2000.

⁵¹ William Drozdiak, *Washington Post*, 12 July 2000; "Iran's Revolutionary Guards Blast U.S. Gesture," *Associated Press*, 18 March 2000.

⁵² A detailed analysis of Iranian involvement in terrorism is beyond the scope of this study. For information on Iranian arms supplies to Hizbollah, see the section of this report on terror.

⁵³ Carol Giacomo, "Powell Puts Onus On Iran To Build Ties," *Reuters*, 6 July 2001; "Iran-Libya Sanctions Act Renewed," *Arms Control Today*, 31, 7 (September 2001).

⁵⁴ Aluf Benn, "Sharon Finds A Russian Anti-Terror Soulmate," 5 September 2001; Michael Dobbs, *Washington Post*, 15 June 2001; "Israel Tells Russia of Concern About Transfer of Nuclear Know-How to Iran," *Agence France Presse*, 8 June 2000; Aluf Benn, *Ha'aretz*, 19 June 2000.

⁵⁵ For additional information on Iran's WMD abilities, and an analysis of policy, see, Eisenstadt, *The Nonproliferation Review*, 2000.

⁵⁶ Michael Eisenstadt, "The Armed Forces of the Islamic Republic of Iran: An Assessment," *MERIA*, 5, 1, March 2001; Office of the Secretary of Defense, *Proliferation*, p. 46.

⁵⁷ *PPNN* Newsbrief, 50 (2000), p. 7; Kenneth Katzman, "The Persian Gulf: Issues For U.S. Policy, 2000," CRS Report For Congress, 3 November 2000; see also, Geoffrey Kemp, "Iranian Nuclear Weapons and U.S. Policy," *Nixon Center Program Brief*, 2 (January 2000).

⁵⁸ Michael Eisenstadt, *Iranian Military: Capabilities and Intentions* (Washington DC: The

Washington Institute for Near East Policy, 1996), pp. 9-25, 108-109.

⁵⁹ Office of the Secretary of Defense, *Proliferation*, pp. 46-47.

⁶⁰ Aluf Benn, "The Russian Iranian Connection," *Bulletin of the Atomic Scientists*, 57, 1 (January/February 2001), pp. 11-19; Eisenstadt, *MERIA*, 2001.

⁶¹ *Foreign Missile Developments and the Ballistic Missile Threat Through 2015*; Benn, "The Russian Iranian Connection," pp. 11-19; Eisenstadt, *MERIA*, 2001.

⁶² "Gore-Chernomydin Agreements Over Iran In Spotlight," *Disarmament Diplomacy*, 51 (October 2000); Bill Gertz, *Washington Times*, 17 October 2000; John M. Broder, *New York Times*, 23 November 2000; David Hoffman, *Washington Post*, 24 November 2000

⁶³ Statement by Norman Schindler to the International Security, Proliferation and Federal Services Subcommittee of the Senate Governmental Affairs Committee, on "Iran's Weapons of Mass Destruction Programs," 21 September 2000.

⁶⁴ "Iranian Nuclear Reactor 40 Percent Complete Says Ambassador," *Agence France Presse*, 23 May 2000; *PPNN* Newsbrief, 51 (2000), pp. 4-5, 6-7; "Czech Parliament Bans Exports For Nuclear Plant In Iran," *Associated Press*, 5 April 2000.

⁶⁵ "Unclassified Report to Congress," January 2002; Office of the Secretary of Defense, *Proliferation*, pp. 35-36.

⁶⁶ Tritium is a radioactive gas used primarily to enhance the explosive power of nuclear warheads. See also, Bill Gertz, *Washington Times*, 30 June 2000.

⁶⁷ Walter Pincus, *Washington Post*, 20 September 2000; Judith Miller, *New York Times*, 20 September 2000.

⁶⁸ James Risen, *New York Times*, 11 January 2001; Michael Eisenstadt, "Russian Arms and Technology Transfers to Iran: Policy Challenges for the United States," *Bulletin Of The Atomic Scientists*, 31, 2 (March 2001); Susan B. Glasser, *Washington Post*, 13 March 2001; Michael Wines, *New York Times*, 13 March 2001.

⁶⁹ Nathan Guttman, *Ha'aretz*, 14 November 2001

⁷⁰ "Russia, Iran Stress Atomic Cooperation, Non-Proliferation," *AFP*, 16 May 2001.

⁷¹ Michael Dobbs, *Washington Post*, 15 June 2001.

⁷² Douglas Davis, *Jerusalem Post*, 15 June 2000; "Iran Says Nuclear Issues Not Discussed in China," *Reuters*, 26 June 2000; Office of the Secretary of Defense, *Proliferation*, p. 36.

⁷³ "N. Korea Sends New Missile Shipment To Iran," *MENL*, 18 April 2001. "Unclassified Report to Congress," January 2002; "Iran Delegation Visits Russian Missile Factory," *AFP*, 13 March 2001.

⁷⁴ "Iran Denies North Korea Helped With Missiles," *Associated Press*, 1 November 2000; Alex Wagner, "U.S.-N Korean Missile, Terrorism Talks Resume: North Korea Admits to Exporting Rocket Technology," *Arms Control Today*, 30, 7 (September 2000); Kil Byung-ok, "Iranian Diplomats Flatly Deny Missile Deals With N. Korea," *Korea Herald*, 9 November 2000; Bill Gertz, *Washington Times*, 9 February 2000.

⁷⁵ "US-North Korea Discussions Continue," *Disarmament Diplomacy*, 48 (July 2000); "Progress Suggested In Russia-North Korea Missile Discussions," *Disarmament Diplomacy*, 49 (August 2000); "U.S.-D.P.R.K. Talks Make Little Progress," *Arms Control Today*, 30, 10 (December 2000).

⁷⁶ The first test was conducted in July 1998, but the missile did not complete a full trajectory. A third test of the Shahab-3 in September 2000 also failed. Bill Gertz, *Washington Times*, 22 September 2000; "Iran Tests Ballistic Missile," *Reuters*, 15 July 2000; W. Seth Carus, "Iran And Weapons Of Mass Destruction," *The American Jewish Committee*, June 2000, p. 9.

- ⁷⁷ “Iran Launches Serial Production of Shihab-3,” *MENL*, 17 October 2001; Office of the Secretary of Defense, *Proliferation*, pp. 36-38; Eisentadt, *MERIA*, 2001.
- ⁷⁸ Office of the Secretary of Defense, *Proliferation*, pp. 36-38; “Unclassified Report to Congress,” January 2002; *Foreign Missile Developments and the Ballistic Missile Threat Through 2015*.
- ⁷⁹ “Iranian Missile Threatens Israel, US,” *Jerusalem Post*, 23 December 2000; Gertz, *Washington Times*, 22 September 2000; Hearing of the Subcommittee on International Security, Proliferation, And Federal Services Of The Senate Governmental Affairs Committee, 9 February 2000; “Iran Says It Tested First Surface-To-Surface Missile,” *Associated Press*, 31 May 2001.
- ⁸⁰ “Important New Iranian Missile Test Near, U.S. General Says,” *CNN Interactive*, 2 June 2000; Bill Gertz, *Washington Times*, 9 February 2000; Mark Hewish, “Ballistic Missile Threat Evolves,” *Janes International Defense Review*, October 2000, p. 40.
- ⁸¹ Bill Gertz, *Washington Times*, 18 July 2000; Douglas Davis, *Jerusalem Post*, 15 June 2000; Ze’ev Schiff, *Ha’aretz*, 4 June, 2000; “Israel Strengthens Ties With China,” *Jane’s Intelligence Review*, May 2000.
- ⁸² Aaron Karp, “Lessons of Iranian Missile Programs for U.S. Nonproliferation Policy,” *Nonproliferation Review*, 5, 3 (Spring-Summer 1998), p. 20; *PPNN Newsbrief*, 49 (2000), p.16.
- ⁸³ “Breaking News: U.S.–China Missile Export Agreement,” *Carnegie Endowment*, 21 November 2000; Steinberg, “Arms Control and Non-Proliferation,” p. 19.
- ⁸⁴ “U.S.: Iran Tests Raises Concerns,” *Associated Press*, 15 July 2000; Gertz, *Washington Times*, 18 July 2000.
- ⁸⁵ Statement by Robert D. Walpole, National Intelligence Officer for Strategic and Nuclear Programs, to the International Security, Proliferation and Federal Services Subcommittee of the Senate Governmental Affairs Committee, on “The Iranian Ballistic Missile and WMD Threat to the United States Through 2015,” 21 September 2000.
- ⁸⁶ Carus, 2000, p. 11.
- ⁸⁷ Margot Dudkevitch, Danna Harman, and Reuters, *Jerusalem Post*, 16 July 2000; “Iran Tests Ballistic Missile,” *Associated Press*, 15 July 2000.
- ⁸⁸ Amos Harel, *Ha’aretz*, 16 July 2000; Amir Oren, *Ha’aretz*, 26 June 2000; David Rudge, *Jerusalem Post*, 17 July 2000; Dudkevitch, Harman, and Reuters, *Jerusalem Post*, 16 July 2000.
- ⁸⁹ Office of the Secretary of Defense, *Proliferation*, p. 36; “Unclassified Report to Congress,” January 2002.
- ⁹⁰ *The CBW Convention Bulletin*, 53 (September 2001), p. 39; Eisentadt, *MERIA* (March 2001).
- ⁹¹ Eisentadt, *MERIA* (March 2001); Office of the Secretary of Defense, *Proliferation*, p. 36; Testimony of Robert J. Einhorn, Assistant Secretary of State for Nonproliferation, before the Senate Foreign Relations Committee, 5 October 2000.
- ⁹² *The CBW Convention Bulletin*, 53 (June 2001), pp. 44-45 (part II).
- ⁹³ For an extensive overview of Egyptian WMD, see, Anthony H. Cordesman, “Weapons of Mass Destruction.”
- ⁹⁴ Bill Gertz, “Beijing Using Front Companies to Grab US Arms Technology,” *Washington Times*, 26 January 2001.
- ⁹⁵ “Mubarak Denies North Korea Missile Link,” *MENL*, 6 April 2001; Bill Gertz, *Washington Times*, 26 January 2001; Eli J. Lake and Richard Sale, “Egypt Buys Missiles From North Korea,” *UPI*, 18 June 2001; “U.S. Acknowledges Concern Over Egypt’s No-Dong,” *MENL*, 31 July 2001.

- ⁹⁶ Steve Rodan, "Egypt Obtains German Components For Missile Program," *MENL*, May 2001.
- ⁹⁷ Lake and Sale, *Op. Cit.*; "U.S. Acknowledges Concern Over Egypt's No-Dong," *Op. Cit.*
- ⁹⁸ "Mubarak Denies North Korea Missile Link," *Op. Cit.*
- ⁹⁹ "Israel Warns U.S. Of Egyptian Arms Buildup," *MENL*, October 2001; Amnon Barzilai, *Ha'aretz*, 4 December 2001.
- ¹⁰⁰ Nicholas Kravov, *Washington Times*, 30 November 2001; Aluf Benn, *Ha'aretz*, 16 October 2001.
- ¹⁰¹ Amos Harel, *Ha'aretz*, 17 October 2001.
- ¹⁰² Shawn Pine, "The Egyptian Threat and the Prospects for War in the Middle East," Policy Paper, 110 (Ariel Center for Policy Research, 2000), pp. 31-45; Ephraim Dubek, Uvechol Zot Shalom: Hehasei Israel-Mitzraim [Peace Nevertheless: Israeli-Egyptian Relations] (Tel-Aviv: Yediot Ahronot, 1998), pp. 308-309; Dany Shoham, "Chemical And Biological Weapons In Egypt," *The Non-Proliferation Review*, 5, 3 (1998), pp. 48-49.
- ¹⁰³ Dany Shoham, *Chemical And Biological Weapons In The Arab Countries And Iran – An Existential Threat To Israel?* (Shaarei Tikva, Israel: Ariel Center for Policy Research, 2001), p. 38.
- ¹⁰⁴ Shawn Twing, "Egypt Opens Nuclear Power Plant," *Washington Report On Middle East Affairs*, April 1998, p. 38-42, <http://www.washington-report.org>; "Egypt's Budding Nuclear Program," *The Risk Report*, 2, 5 (September-October 1996); "Weapons of Mass Destruction In The Middle East," *Monterey Institute Center For Nonproliferation Studies*.
- ¹⁰⁵ "Weapons of Mass Destruction in the Middle East," *Monterey Institute Center For Nonproliferation Studies*, <http://cns.miis.edu/research/wmdme/egypt.htm>.
- ¹⁰⁶ "Egypt, South Korea, Sign Nuclear Accord," *MENL*, 15 August 2001; Shoham, Ariel Center for Policy Research, 2001, p. 38; "Nuclear Weapons Program – Egypt," *FAS*, <http://www.fas.org/nuke/guide/egypt/nuke/index.html>.
- ¹⁰⁷ For an extensive overview of Syrian WMD, see Cordesman, "Weapons of Mass Destruction."
- ¹⁰⁸ "News Chronology," *op. cit.*, 55 (March 2002), p. 18; Office of the Secretary of Defense, *Proliferation*; "Unclassified Report to Congress," January 2002; Shoham, Ariel Center for Policy Research, 2001, p. 36.
- ¹⁰⁹ David Rudge, *Jerusalem Post*, 3 July 2001; Ze'ev Schiff, *Ha'aretz*, 13 July 2001; Amos Harel and Amnon Barzilai, *Ha'aretz*, 3 July 2001.
- ¹¹⁰ Office of the Secretary of Defense, *Proliferation*; "Unclassified Report to Congress," January 2002; "Syria Developing Long-Range Non-Conventional Missiles," *Jerusalem Post*, 26 November 2001.
- ¹¹¹ Shoham, Ariel Center for Policy Research, 2001, p. 32; Shoham, "Guile, Gas, and Germs: Syria's Ultimate Weapons," *Middle East Quarterly*, 9, 3 (Summer 2002).
- ¹¹² Shoham, Ariel Center for Policy Research, 2001, pp. 35-6.
- ¹¹³ Office of the Secretary of Defense, *Proliferation*.
- ¹¹⁴ "IAEA Annual Report for 1999 (annex)," *IAEA*, 31 October 2000, <http://www.iaea.org>; Michael Eisenstadt, "Syria's Strategic Weapons," *Jane's Intelligence Review*, May 1993, p. 169, cited by Ian O. Lesser and Ashley J. Tellis, *Strategic Exposure Proliferation Around the Mediterranean* (Santa Monica, CA: RAND Corporation, 1996), p. 70.
- ¹¹⁵ "Syria-Special Weapons," *FAS*, <http://www.fas.org/nuke/guide/syria/index.html>; "Weapons of Mass Destruction In The Middle East," *Monterey Institute Center For Nonproliferation*

Studies; "IAEA Annual Report for 1999," *Op. Cit.*; Michael Eisenstadt, *Jane's*, 1993, p. 169, cited by Lesser and Tellis, p. 70.

¹¹⁶ Michael Eisenstadt, *Jane's*, 1993, p. 169, cited by Lesser and Tellis, p. 70; "Russia Interested In Sale Of Nuclear Reactor To Syria," *Israel Line*, 31 December 1997; "Syria-Special Weapons," *FAS*; "Russia, Syria Sign Nuclear Power Agreement," *RFE/RL Newswire*, 20 May 1999.

¹¹⁷ "Unclassified Report to Congress," January 2002.

¹¹⁸ Gerald Steinberg, "Re-Examining Israel's Security Doctrine," *RUSI International Security Review - 1991* (London: RUSI, 2000), pp. 215-224; Yair Evron, *Israel's Nuclear Dilemma*, (London: Routledge, 1994); Gerald Steinberg, "Parameters of Stable Deterrence in a Proliferated Middle East: Lessons from the 1991 Gulf War," *The NonProliferation Review*, 7, 3 (Fall-Winter 2000).

¹¹⁹ Cordesman, "Weapons of Mass Destruction"; *Middle East Strategic Balance – 2002-1* (Tel Aviv: Jaffee Center for Strategic Studies, Tel Aviv University, 2001).

¹²⁰ Ze'ev Schiff, *Ha'aretz*, 31 May 2000; Reuven Pedatzur, *Ha'aretz*, 27 June 2000.

¹²¹ Uzi Mahnaimi and Peter Conradi, *Sunday Times* (London), 18 June 2000. The authors claimed that several 200kg nuclear warheads, each containing 6kg of plutonium could be mounted on cruise missiles.

¹²² Douglas Davis, *Jerusalem Post*, 19 June 2000; Dominic Coldwell, *Al-Ahram Weekly*, no. 497, 31 August-6 September 2000.

¹²³ Aluf Benn, *Ha'aretz*, 13 March 2001

¹²⁴ Aluf Benn, *Ha'aretz*, 9 September 2001.

¹²⁵ "Israeli Nuclear Debate Heats Up Knesset," *CNN Interactive*, 2 February 2000; "Knesset Debate on Nuclear Weapons," *Disarmament Diplomacy*, 43 (January/February 2000).

¹²⁶ Dorit Gabai, *Ma'ariv*, 20 December 2001; Julie Stahl, "Israel Moves Closer to Admitting Nuclear Option," *CNSNews.com*, 5 November 2001.

¹²⁷ Aluf Benn, *Ha'aretz*, 14 March 2000; Janine Zacharia and Danna Harman, *Jerusalem Post*, 6 January 2000; Akiva Eldar, *Ha'aretz*, 14 February 2000; Ze'ev Schiff, *Ha'aretz*, 24 January 2000.

¹²⁸ Janine Zacharia, *Jerusalem Post*, 28 February 2000; Aluf Benn, *Ha'aretz*, March 13, 2000; David Zev Harris, *Jerusalem Post*, 14 February 2000.

¹²⁹ Aluf Benn, *Ha'aretz*, 7 April 2000; Bruce Riedel, "Camp David - The US-Israeli bargain," *bitterlemons.org*, 15 July 2002.

¹³⁰ Aluf Benn, *Ha'aretz*, 31 August 2000; Aluf Benn, *Ha'aretz*, 12 June 2000; Ze'ev Schiff, *Ha'aretz*, 13 August 2000; Rowan Scarborough, *Washington Times*, 25 July 2000; Steven Mufson, *Washington Post*, 11 August 2000.

¹³¹ Aluf Benn, *Ha'aretz*, 7 November 2000; Aluf Benn, *Ha'aretz*, 3 September 2000; Janine Zacharia, *Jerusalem Post*, 3 September 2000; Aluf Benn, *Ha'aretz*, 14 September 2000.

¹³² "Israel, U.S. Resume Strategic Dialogue," *MENL*, 17 October 2001; "Sharon Plans To Make Iran An Issue With Bush," *MENL*, 15 March 2001.

¹³³ The Green Pine radar early warning and fire control system is capable of detecting and tracking incoming missiles from a distance of 500 kilometers, and the battle management system is able to process 14 intercepts simultaneously. Arieh O'Sullivan, *Jerusalem Post*, 14 March 2001; Arieh O'Sullivan, *Jerusalem Post*, 15 March 2000; "Boeing Chosen to Build Arrow Missile With IAI," *Ha'aretz*, 28 November 2000.

¹³⁴ Arieh O'Sullivan, *Jerusalem Post*, 17 October 2000; Arieh O'Sullivan, *Jerusalem Post*, 26

September 2000; Arieh O'Sullivan, *Jerusalem Post*, 15 September 2000; Steve Rodan, "Arrow Missile Intercepts Incoming Target," *Jane's Defence Weekly*, 20 September 2000.

¹³⁵ See n. 111 above; Arieh O'Sullivan, *Jerusalem Post*, 27 August 2001.

¹³⁶ Arieh O'Sullivan, *Jerusalem Post*, 30 April 2001.

¹³⁷ Amnon Barzilai, *Ha'aretz*, 12 March 2000; Arieh O'Sullivan, *Jerusalem Post*, 14 March 2000; Amnon Barzilai, *Ha'aretz*, 12 March 2000; Steve Rodan, "Israel Plans Upgrade for Arrow-2 Missile System," *Jane's Defence Weekly*, 5 January 2000; Amnon Barzilai, *Ha'aretz*, 17 December 2001.

¹³⁸ David Rudge, *Jerusalem Post*, 11 October 2001.

¹³⁹ Haim Shadmi and Gideon Alon, *Ha'aretz*, 16 October 2001.

¹⁴⁰ Abraham Rabinovich, *Washington Times*, 28 November 2001; Judy Siegel, *Jerusalem Post*, 8 June 2001.

¹⁴¹ According to *Yediot Aharonot*, the two major advantages of the Israeli vaccine are that it can be administered in one shot, and does not produce side effects. Ellis Shuman, "Israel Develops Anthrax Vaccine," *IsraelInsider.com*, 20 December 2001, citing *Yediot Aharonot*.

¹⁴² Anthony Loyd, "Bin Laden's Nuclear Secrets Found," 15 November 2001; "Bush: Terrorists Seeking Weapons Of Mass Destruction," *CNN Interactive*, 6 November 2001.

¹⁴³ For additional information on anthrax, see Eric Croddy, "Anthrax: Background Report," *Monterey Institute of International Studies*, 9 October 2001.

¹⁴⁴ Ely Karmon, "The Anthrax Campaign - An Interim Analysis," 30 October 2001, <http://www.ict.org.il>; David Rose and Ed Vulliamy, "Iraq Behind US Anthrax Outbreaks," *The Observer*, 14 October 2001; Alexander G. Higgins, "U.S. Sees Saddam As A Priority, Cites Biological Weapons," *Associated Press*, 20 November 2001; "News Chronology," *op. cit.*, 55 (March 2002), p. 18.

¹⁴⁵ "News Chronology," *op. cit.*, 55 (March 2002), pp. 14, 18, 21, 25, 26; Chris Griffith, "Unholy Trinity In Chemical Weapons Pact," *The Courier Mail*, 24 September 2001.

¹⁴⁶ Anthony Loyd, "Bin Laden's Nuclear Secrets Found," 15 November 2001; Bob Woodward, Robert G. Kaiser and David B. Ottaway, *Washington Post*, 4 December 2001; "Unclassified Report to Congress," January 2002.

¹⁴⁷ Barbie Dutter and Ben Fenton, "Uranium And Cyanide Found In Drums At Bin Laden Base," *The Telegraph*, 24 December 2001; Woodward, Kaiser and Ottaway, *Washington Post*, 4 December 2001; Bill Gertz, *Washington Times*, 28 November 2001.

¹⁴⁸ "Pakistan: Scientists Had Contact With Bin Laden," *Global Security Newswire*, 12 November 2001

¹⁴⁹ Daniel Mcgryory, *London Times*, 2 January 2002; "News Chronology," *op. cit.*, 55 (March 2002), p. 21.

¹⁵⁰ In addition, an IDF sweep of Ramallah found a supply of bromine, a volatile liquid that dissolves human tissue. The bromine was discovered in Arafat's compound during Operation Defensive Shield in 2002. Yoav Yitzchak, "IDF Finds 12 Liters Of Poisonous Bromine Hidden In Arafat's Ramallah Compound," *Ma'ariv*, 19 April 2002. English translation found in *IMRA*, same date; Ehud Yaari, "Dispatch From Israel: Cyanide Bombs," *Simon Wisenthal Center Press Information*, 21 May 2002.

¹⁵¹ Ely Karmon, "Are The Palestinians Considering Biological Weapons," 14 August 2001, <http://www.ict.org.il>; Taufiq Abu-Khosa, "Will We Reach the Option of Biological Deterrence?" *Al-Manar*, 13 August 2001, translated by MEMRI (The Middle East Media Research Institute); Mcgryory, *London Times*, 2 January 2002.

¹⁵² For an overview of Egyptian policy, see, Gerald Steinberg, “The 1995 NPT Extension and Review Conference and the Arab-Israeli Peace Process”, *NonProliferation Review*, 4, 1 (Fall 1996); and Rebecca Stevens and Amin Tarzi, “Egypt and the Middle East Resolution at the NPT 2000 Review Conference,” *Monterey Institute Center For Nonproliferation Studies*.

¹⁵³ Steinberg, “Arms Control and Non-Proliferation,” pp. 42-46.

¹⁵⁴ Shlomo Shamir, *Ha’aretz*, 25 April 2000; Marilyn Henry, *Jerusalem Post*, 25 April 2000.

¹⁵⁵ Ambassador Norman A. Wulf, “Observations from the 2000 NPT Review Conference,” *Arms Control Today*, 30, 9 (November 2000).

¹⁵⁶ Marilyn Henry, *Jerusalem Post*, 23 April 2000. For more information and analysis, see Rebecca Johnson, “Disaster Averted,” *Bulletin of the Atomic Scientists*, 56, 4 (July/August 2000), pp. 52-57; see also, Jayantha Dhanapala, “The NPT at a Crossroads,” *The Nonproliferation Review*, 7, 1 (Spring 2000); Wulf, “Observations from the 2000 NPT Review Conference.”

¹⁵⁷ Marilyn Henry and News Agencies, *Jerusalem Post*, 27 April 2000.

¹⁵⁸ Rebecca Johnson and Jenni Rissanen, “The Review Conference Opens: Dominant Issues & Contested Claims,” *Disarmament Diplomacy*, 45 (April 2000); Marilyn Henry and News Agencies, “Arab States Demand Nuclear Transparency for Israel,” 27 April 2000.

¹⁵⁹ “Neighbors Blast Israel’s Nuclear Weapons Policy,” *Reuters*, 26 April 2000; Rebecca Johnson and Jenni Rissanen, “The Review Conference Opens: Dominant Issues & Contested Claims,” *Disarmament Diplomacy*, 45 (April 2000).

¹⁶⁰ Rebecca Johnson, “The 2000 NPT Review Conference: A Delicate, Hard-Won Compromise,” *Disarmament Diplomacy*, 46 (May 2000); Colum Lynch, *Washington Post*, 30 April 2000.

¹⁶¹ *Ibid.*

¹⁶² Nitzan Horowitz and Shlomo Shamir, *Ha’aretz*, 3 May 2000.

¹⁶³ Marilyn Henry, *Jerusalem Post*, 11 May 2000.

¹⁶⁴ For more on UNSCR 1284, see, Steinberg, “Arms Control and Non-Proliferation,” pp. 4-15.

¹⁶⁵ Colum Lynch, *Washington Post*, 21 May 2000; Aluf Benn, *Ha’aretz*, 22 May 2000; Rebecca Johnson, “The 2000 NPT Review Conference,” *Disarmament Diplomacy*.

¹⁶⁶ The text of the 2000 Conference is located at <http://www.reachingcriticalwill.org>

¹⁶⁷ Shlomo Shamir, *Ha’aretz*, 25 April 2000.

¹⁶⁸ “Israel Justifies Nuclear Decision,” *Associated Press*, 12 May 2000.

¹⁶⁹ Gerald Steinberg, *Jerusalem Post*, 24 May 2000.

¹⁷⁰ “UNGA General Debate 2000: Statements on Arms Control & Disarmament,” *Acronym Institute*, <http://www.acronym.org.uk>.

¹⁷¹ *Ibid.*

¹⁷² *Ibid.*

¹⁷³ Statement by Jeremy Issacharoff, “The Challenge of Peace, and the Threat of War,” 13 October 2000, *Reaching Critical Will*.

¹⁷⁴ *Ibid.*

¹⁷⁵ Fifty-Fifth Session, First Committee, Draft Resolution, “Establishment of a Nuclear-Weapon-Free Zone in the Region of the Middle East,” A/C.1/55/L.16, 13 October 2000, <http://www.un.org>. “Establishment of a nuclear-weapon-free zone in the Middle East,” 20 November 2000.

¹⁷⁶ Fifty-Fifth Session, First Committee, Draft Resolution, “The Risk of Nuclear Proliferation in the Middle East,” A/C.1/55/L.29, 13 October 2000.

¹⁷⁷ *Ibid*; Fifty-Fifth Session, First Committee, “The risk of nuclear proliferation in the Middle East,” A/55/PV.69, 20 November 2000.

¹⁷⁸ Jenni Rissanen, “Low-Key Discussions as Drafts Introduced,” *Disarmament Diplomacy*, 51 (October 2000), citing Meir Itzhaki, First Committee, October 23, 2000.

¹⁷⁹ Ambassador Robert Grey, EOJ on L.29/REV.I Before the Vote, Risk of Nuclear Proliferation in the Middle East (UN First Committee, US Delegation).

¹⁸⁰ Resolutions Adopted by The General Assembly [on the report of the First Committee (A/55/559)] 55/33, General and Complete Disarmament, 20 November 2000.

¹⁸¹ “Resolutions: General Assembly,” Fifty-Fourth Session, First Committee, A/RES/54/11; *UN Press Release*, 29 September 2000, GA/DIS/3168; Draft Resolution “Missiles,” Fifty-Fifth Session, First Committee, A/C.1/55/L.1, 4 October 2000.

¹⁸² “Appendix: Summary of Resolutions,” *Disarmament Diplomacy*, 52 (November 2000).

¹⁸³ Fifty-Fifth Session, First Committee, New Agenda Coalition Revised Draft Resolution, “Towards a Nuclear-Weapon-Free World: The Need for a New Agenda,” A/RES/55/33C, 20 November 2000; “The UN First Committee: New Agenda Draft UNGA Resolution,” *Acronym Institute*.

¹⁸⁴ Jenni Rissanen, “General Debate Of The UN First Committee: Nuclear Weapons, Missile Defense, And Outer Space,” *Acronym Institute*, 8-17 October, 2001; *UN Press Release*, GA/DIS/3200, 10 October 2001.

¹⁸⁵ *UN Press Release*, 15 October 2001, GA/DIS/3204.

¹⁸⁶ *UN Press Release*, 16 October 2001, GA/DIS/3205.

¹⁸⁷ *Ibid*.

¹⁸⁸ “Establishment Of A Nuclear-Weapon-Free Zone In The Region Of the Middle East,” 17 October, A/C.1/56/L.5 as found on “Draft Resolutions of The 2001 UNGA 1st Committee; “UN First Committee Report: Summary Of Resolutions,” *Disarmament Diplomacy*, 61 (October-November 2001).

¹⁸⁹ Rissanen, “UN First Committee Report,” *Disarmament Diplomacy*; “The Risk of Nuclear Proliferation in the Middle East,” 18 October, 2001, A/C.1/56/L.25 as found on “Draft Resolutions Of The 2001 UNGA 1st Committee.”

¹⁹⁰ Rissanen, “UN First Committee Report,” *Disarmament Diplomacy*; “Transparency In Armaments,” 18 October 2001, A/C.1/56/L.40 as found on “Draft Resolutions of the 2001 UNGA 1st Committee”

¹⁹¹ *Ibid*.

¹⁹² For additional information on the 2000 UN Conference on Disarmament, see, Jozef Goldblat, “The Conference on Disarmament at the Crossroads: To Revitalize or Dissolve?” *The Nonproliferation Review*, 7, 2 (Summer 2000); Wade Boese, “2000 CD Session Begins Without Beginning Talks,” *Arms Control Today*, 30, 8 (October 2000); “Deadlocked and Waiting at the UN Conference on Disarmament, An Interview With Ambassador Robert T. Grey, Jr.,” *Arms Control Today*, 30, 10 (December 2000).

¹⁹³ Jenni Rissanen, “CD Split Over Priorities,” *Disarmament Diplomacy*, 43 (January-February 2000).

¹⁹⁴ Steinberg, “Arms Control and Non-Proliferation,” pp. 49-50.

¹⁹⁵ *Ibid*; see also, Gerald Steinberg, “Israel and the Changing Global Non-Proliferation Regime: The NPT Extension, CTBT, and Fissile Cut-Off,” *Contemporary Security Policy*, 16, 1 (Spring 1995).

¹⁹⁶ John Bolton, US Statement & Press Conference at CD, 24 January 2001, as found on the

Acronym Institute website.

¹⁹⁷ Steinberg, "Arms Control and Non-Proliferation," pp. 46-48.

¹⁹⁸ *Ibid.*

¹⁹⁹ Trevor Findlay, "Verifiability of the CTBT: The Report of the Independent Commission," *Disarmament Diplomacy*, 51 (October 2000).

²⁰⁰ Rebecca Johnson, "Boycotts And Blandishments: Making The CTBT Visible," *Disarmament Diplomacy*, 61 (October-November 2001).

²⁰¹ Aaron Karp, "The Spread of Ballistic Missiles and the Transformation of Global Security," *Nonproliferation Review*, 7, 3 (Fall-Winter 2000).

²⁰² Gerald Steinberg, "The Failure of the MTCR in the Middle East," in Arie Stav (ed.), *Ballistic Missiles: The Threat and the Response* (London: Brassey's, 1999), pp. 149-170; Yuri Nazarkin, "Implementation of Multilateral Arms Control Agreements: Questions of Compliance - The Case of the Missile Technology Control Regime," Geneva Centre for Security Policy Paper 1999-2000, p. 6; Mark Smith, "The MTCR and the Future of Ballistic Missile Non-Proliferation" *Disarmament Diplomacy*, 54 (February 2001).

²⁰³ Matthew Rice, "Russia Proposes Global Regime on Missile Proliferation," *Arms Control Today*, 30, 4 (May 2000); "Press Release," Plenary Meeting of the Missile Technology Control Regime, Nordwijk, October 11-15, 1999; Aaron Karp, "You Can't Go Back Again: Missile Defense and the MTCR," presented at the *Geneva Forum* on "Missiles: An Unanswered Challenge to Multilateral Arms Control and Disarmament," 8 June 2001; Smith, "The MTCR and the Future of Ballistic Missile Non-Proliferation," *Disarmament Diplomacy*.

²⁰⁴ "Plenary Meeting of the Missile Technology Control Regime," MTCR Press Release, October 10-13; Mark Smith, "Verifiable Control of Ballistic Missile Production," *Trust and Verify*, 19 February 2001.

²⁰⁵ Karp, "You Can't Go Back Again," *Geneva Forum*; Mark Smith, "Verifiable Control of Ballistic Missile Production," *Trust and Verify*; "Plenary Meeting of the Missile Technology Control Regime," MTCR Press Release.

²⁰⁶ Representatives from 46 countries (and the United Nations), attended, including Iran, China, India, and Egypt. The US sent an observer but did not participate. Rice, "Russia Proposes Global Regime on Missile Proliferation," *Arms Control Today*, 2000; Mark Smith, "Verifiable Control of Ballistic Missile Production," *Trust and Verify*, 19 February 2001; Karp, "You Can't Go Back Again: Missile Defense and the MTCR," 2001

²⁰⁷ David Grahame, "A Multilateral Approach to Ballistic Missiles?" *BASIC* (Note), 2 April 2002; "Press Release," Plenary Meeting of the Missile Technology Control Regime, 28 September 2001.

²⁰⁸ Richard Speier, "How Effective is the MTCR?" *Carnegie Proliferation Brief*, 4, 7, 12 April 2001.

²⁰⁹ Mark Smith, "The MTCR and the Future of Ballistic Missile Non-Proliferation," *Disarmament Diplomacy*, 54 (February 2001).

²¹⁰ Associated Press, "Iran Says Missile for Satellite Launching," 8 February 1999.

²¹¹ Steinberg, "Arms Control and Non-Proliferation," p. 36.

²¹² Jean Pascal Zanders et. al, "Chemical and Biological Weapon Developments and Arms Control," *SIPRI Yearbook 2001: Armaments, Disarmament, and International Security* (New York: Oxford University Press, 2001), p. 2, <http://projects.sipri.se>; Alexander Kelle, "The CWC at Three: On the Way Towards a Level Playing Field," *Disarmament Diplomacy*, 46 (May 2000).

²¹³ Dany Shoham, "Chemical And Biological Weapons In Egypt," *The Non-Proliferation Review*, 5, 3 (Spring-Summer 1998); Dany Shoham, *Chemical Weapons In Egypt And Syria (Hebrew)*, *Mideast Security and Policy Studies*, 21 (Ramat Gan: BESA Center For Strategic Studies, Bar Ilan University, 1995); Anthony H. Cordesman, "*The Military Balance In The Middle East: An Executive Summary*," Policy Paper, 49 (University of California: Institute On Global Conflict And Cooperation, 1999).

²¹⁴ Pamela G. Mills, Disarmament Diplomacy (July-August 2002), citing UN document, A/56/PV.49; "News Chronology," *op. cit.*, 55, March 2002, pp. 17, 25.

²¹⁵ Gerald Steinberg, "Israeli Policy on the CWC," *OPCW Synthesis* (November 2000), pp. 29-31.

²¹⁶ "Developments in the Organisation for the Prohibition of Chemical Weapons," *The CBW Convention Bulletin*, 47 (March 2000), p. 6.

²¹⁷ The text of the Chemical Weapons Treaty specifies certain materials that are to be subject to restricted export regulations to non-signatories. These chemicals are divided into various lists, or schedules, whose activation depends on the decisions of the OPCW and of the meetings of the State Parties.

²¹⁸ Zanders et al., *SIPRI Yearbook 2001*, pp. 2-3, 515; and *The CBW Convention Bulletin*, 48 (June 2000), p. 26; *OPCW Secretariat Brief*, 23, 16 October 2000; and *OPCW Secretariat Brief*, 24, 21 December 2000.

²¹⁹ Pamela Mills, "Developments in the Organization for the Prohibition of Chemical Weapons," *The CBW Convention Bulletin*, 51 (March 2001), p. 16.

²²⁰ *Ibid.*, p. 8.

²²¹ Pamela Mills, "Developments in the Organization for the Prohibition of Chemical Weapons," *The CBW Conventions Bulletin*, 54 (December 2001), p. 8; Pamela Mills, "Development in the Organization for the Prohibition of Chemical Weapons," *The CBW Conventions Bulletin*, 52 (June 2001), p. 5.

²²² *Ibid.*, p. 9.

²²³ For additional information on the BWC and related subjects, see, "Disease By Design: De-Mystifying The Biological Weapons Debate," *BASIC Publications*, November 2001.

²²⁴ Summary of statement by John Bolton, US Undersecretary of State for Arms Control and International Security, at the Fifth Review Conference of the BTWC, November 2001; Jenni Rissanen, "Acrimonious Opening for BWC Review Conference," *Acronym Institute BWC Review Conference Bulletin*, 19 November 2001; Avner Cohen, "Israel and Chemical/Biological Weapons: History, Deterrence, and Arms Control," *The NonProliferation Review*, 8, 3 (Fall-Winter 2001); Milton Leitenberg, "Biological Weapons, International Sanctions and Proliferation," *Asian Perspective* (Winter 1997), p. 11.

²²⁵ <http://www.bradford.ac.uk/acad/sbtwc/btwc/convention/btwcsp.html>.

²²⁶ Text for the cited working papers can be found at *The Biological and Toxin Weapons Convention* Website. See also, Shoham, "Chemical and Biological Weapons in the Arab Countries and Iran - An Existential Threat to Israel?"; Cohen, "Israel and Chemical/Biological Weapons," *The Non-Proliferation Review*.

²²⁷ Seth Brugger, "BWC Ad Hoc Group Meets; Chairman's Talks Continue," *Arms Control Today*, 31, 1 (January/February 2001).

²²⁸ Jenni Rissanen, "'Middle-Mass' Grows as AHG Continues to Examine the Text," *Acronym Institute BWC Protocol Bulletin*, 7 May 2001; Jenni Rissanen, "BWC AHG Faced With a Major Challenge," *Acronym Institute BWC Protocol Bulletin*, 12 February 2001; Seth Brugger, "BWC

Ad-Hoc Group Meets With 'Mixed' Results," *Arms Control Today*, 31, 3 (April 2001); Jenni Rissanen, "Chair's 'Composite Text' for BWC Protocol Out," *Acronym Institute BWC Protocol Bulletin*, 2 April 2001

²²⁹ Jenni Rissanen, "United States Rejects Protocol," *Acronym Institute BWC Protocol Bulletin*, 25 July 2001; Rebecca Whitehair and Seth Brugger, "BWC Talks In Geneva Collapse Following U.S. Rejection," *Acronym Institute*, 31, 7 (September 2001).

²³⁰ Jenni Rissanen, "AHG Stumbles On Its Report – More Struggles Predicted," *Acronym Institute BWC Protocol Bulletin*, 20 August 2001; Jenni Rissanen, "Deep Disappointment But Restrained Reactions To US Decision," *Acronym Institute BWC Protocol Bulletin*, 3 August 2001; Jenni Rissanen, "Uncertain Future as AHG Drafts Report," *Acronym Institute BWC Protocol Bulletin*, 10 August 2001.

²³¹ "President Bush Proposes Steps to Strengthen Biological Weapons Pact," Embassy of the US, Bratislava, Slovakia, 1 November 2001, <http://www.usis.sk/cis/cisen014.html>.

²³² For information on NGO proposals at the BWC, see Jenni Rissanen, "NGO's Share Their Hopes, Fears, And Proposals With Conference," *Acronym Institute BWC Review Conference Bulletin*, 23 November 2001.

²³³ Jenni Rissanen, "Acrimonious Opening for BWC Review Conference," *Acronym Institute BWC Review Conference Bulletin*, 19 November 2001; Jenni Rissanen, "Calm After The Storm: General Debate Concludes As The Hard Work Begins," *Acronym Institute BWC Review Conference Bulletin*, 26 November 2001.

²³⁴ *Ibid.*

²³⁵ See n. 231.

²³⁶ Jenni Rissanen, "Anger After The Ambush: Review Conference Suspended After US Asks For AHG's Termination," *Acronym Institute BWC Review Conference Bulletin*, 9 December 2001; Jenni Rissanen, "Differences And Difficulties As Delegates Consider Wide Range Of Proposals," *BWC Review Conference Bulletin*, 30 November 2001.