

IRAN, ISRAEL, AND THE UNITED STATES

THE POLITICS OF COUNTER-
PROLIFERATION INTELLIGENCE



OFIRA SELIKTAR AND FARHAD REZAEI

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The Politics of Counter-Proliferation Intelligence

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Abbreviations

ABC	Atieh Bahar Consulting
ACDA	Arms Control and Disarmament Agency
ACH	Analysis of Competing Hypotheses
ADM	Archer Daniels Midland
AEOI	Atomic Energy Organization of Iran
AIC	American Iranian Council
AIPAC	American Israel Public Affairs Committee
AMAD	Sazman-e Tarahi-e Tajhizat-e Vizheh
APA	Acquisition Path Analysis
BOG	Board of Governors
CAP	Center for American Progress
CDI	Coalition for Democracy in Iran
CIA	Central Intelligence Agency
CIC	Counter-Intelligence Center
CNAPI	Campaign for a New American Policy on Iran
CNEA	Commission Nuclear Energy Argentina
CPC	Counter-Proliferation Center
CPD	Committee on Present Danger
CPI	Counter-Proliferation Initiative
CSP	Center for Security Policy
CUFI	Christians United for Israel
DCAP	Deterrence Concept Advisory Panel
DIQ	Design Information Questionnaire
DPPC	Damavand Plasma Physics Center
DPPRC	Damavand Plasma Physics Research Centre
ENACE	Empresa Nuclear Argentina de Centrales Electricas
ERI	Education Research Institute

EXPO	External Relations and Policy Coordination
FBI	Federal Bureau of Investigation
FDD	Foundation for the Defense of Democracies
FEDAT	Field of Expansion of Deployment of Advanced Technology
FEP	Fuel Enrichment Plant
HEU	Highly Enriched Uranium
HUMINT	Human Intelligence
IAEA	International Atomic Energy Agency
IAEC	Israel Atomic Energy Commission
IDC	Interdisciplinary Center
ILSA	Iran Libya Sanctions Act
INR	Intelligence and Research
INSSA	Institute for National Security Studies
INTC	Isfahan Nuclear Technology Center
IPC	Iran Policy Committee
ISI	Inter-Service Intelligence
ISIS	Institute for Science and International Security
ITDB	Incident and Trafficking Database
IVO	International Verification Organizations
JCPA	Jerusalem Center for Public Affairs
JCPOA	Joint Comprehensive Plan of Action
JMCNS	James Martin Center for Non-Proliferation Studies
JPA	Joint Plan of Action
JTGS	Joint Tactical Ground Station
LEU	Low Enriched Uranium
MAD	Mutual Assured Destruction
MAI	Moscow Aviation Institute
MEK	Mujahedeen-E-Khalq
MIT	Massachusetts Institute of Technology
MODAFL	Defense Armed Forces Logistics
MSSP	Member State Support Programs
MTCR	Missile Technology Control Regime
NCPC	National Counterproliferation Center
NCRI	National Council of Resistance of Iran
NCS	National Security Council
NCS	National Clandestine Service
NIA	National Intelligence Agencies
NIAC	National Iranian-American Council
NIE	National Intelligence Estimate
NIPP	National Institute for Public Policy
NNSA	National Assessment Group of the National Nuclear Security Administration

NPEC	Nonproliferation Policy Education Center
NPT	Non-Proliferation Treaty
NRO	National Reconnaissance Office
NSA	National Security Agency
NSG	Nuclear Suppliers Group
OPSS	Organization for Planning of Special Supplies
OSP	Office of Special Plans
PAEC	Pakistani Atomic Energy Commission
PFEP	Pilot Fuel Enrichment Plant
PHRC	Physics Research Center
PLC	Programmable Logic Control
PMD	Possible Military Dimension
PUREX	Plutonium Uranium Redox Extraction
SCADA	Supervisory Control and Data Acquisition
SCT	Supreme Council of Technology
SHIG	Shahid Hemmat Industrial Group
SIGNET	Signal Intelligence
SKWU	Siemens/Kraftwerk Union
SPND	Sazman-e Pazhohesh va Noavarihayeh Defaeh
TAO	Technical Accountability Obligation
TAO	Tailored Access Operations
TIP	The Israel Project
TRR	Tehran Research Reactor
UANI	United Against Nuclear Iran
VCDNP	Vienna Center for Disarmament and Non-proliferation
WINEP	Washington Institute for Near East Policy
WINPAC	Weapons, Intelligence, Nonproliferation, and Arms Controls
WMD	Weapons of Mass Destruction
WTO	World Trade Organization
ZOA	Zionist Organization of America

Chapter 1

The Theory and Practice of Nuclear Intelligence

Since the dawn of the nuclear age, proliferation has represented the defining threat to humanity. An enormous literature on factors that drive proliferation has emerged over the decades. Given this massive volume of studies, it is surprising that academic research on nuclear intelligence, also known as counterproliferation intelligence, is quite limited. Even the failure to find Saddam Hussein's nuclear weapons, the single most notorious case of nuclear intelligence misestimation by the United States, did not generate a concerted drive to turn nuclear intelligence into a scholarly discipline.

One reason for this imbalance derives from a reluctance of mainstream academics to research intelligence. The discipline practically did not exist before 9/11; even a decade and a half later, one observer found a "profound disconnect" between political science professors and intelligence needs. While progress has been made in certain aspects of intelligence research, notably terrorism, academic study of nuclear intelligence is still lagging. Analysts suggest that that access to the extremely secretive subject is a real impediment. As one of them put it, "Nuclear and other unconventional programs tend to inhabit the nooks and crannies of reticent states."¹

The other cause pertains to the extreme complexity and the multidimensionality of nuclear intelligence, a subfield of intelligence that requires considerable specialized knowledge in the realm of enrichment, weaponization, and ballistics. R. V. Jones, the architect of British scientific intelligence during World War II and a theoretician of scientific intelligence, famously predicted that the atomic bomb would turn into an intelligence problem. But the type of multidisciplinary knowledge needed to develop an integrated approach to the academic research of counterproliferation has been in short supply. In the words of one scholar, the "study of scientific intelligence is an undernourished subject." This paucity should not come as a surprise because

of the difficulties involved in analyzing the process of proliferation. One definition holds that “nuclear proliferation is a dynamic process characterized by evolving political motivations, opaque strategic intentions, and ever-changing technical backdrop, typified by often innovative, illicit procurement techniques and elaborate deception on the part of the proliferator to conceal the existence, or progress, of nuclear weapons-related activities.” With an apparent nod to this definition, one author subtitled his essay on counterproliferation intelligence “Exploring the Maze.”²

Complicating matters, scholars stress that because of significant variations in the “nature of the specific proliferation challenges presented by states as well as their underlying motives,” no one analytic approach fits all cases. Computer models which rely on a predetermined framework of analysis are especially vulnerable in this respect. Absent of a common methodology, nuclear intelligence is prone to developing an “irreducible elements of ambiguity” which causes predictive failure.³

Because of the considerable potential for misestimating proliferation and its arguably catastrophic consequence, the intelligence community has turned to scholars specializing in complexity science for help. Unlike traditional methodologies that try to reduce complexity by compartmentalizing the broader system into its constituent parts, a complex system approach allows conceptualizing intelligence as a process with many components and their interaction. Essentially, complexity theory considers two aspects of the system: “the constituent elements that make up the system, and second, the configurations those constituent elements can take.” Even a cursory calculus makes clear that a nuclear program has many constituent elements, which can result in a huge number of configurations.⁴

Listing the various challenges faced by nuclear intelligence is an efficient way to provide an overview of the scale of the problem and the potential for misestimation.

ISSUES IN CAPABILITIES

It is customary for military intelligence to make a distinction between capabilities and intentions. Capabilities are measurable material quantities, but in nuclear intelligence, a distinction among different kinds of capabilities is in order. Philosophy of science suggests that nuclear capabilities can be divided into two dimensions, theoretical and practical. The two categories are not necessarily sequential since a state may have the theoretical knowledge to develop a nuclear program but lack the material means. Conversely, a state may possess the means but lack the critical scientific know-how to tackle the practical side of fabricating nuclear weapons. In the words of one analyst,

“Whether a state wants nuclear weapons is irrelevant ... states may badly desire such weapons but would not be able to acquire them if they lack the technology, resources, and expertise required to build them.” Libya is considered a classic case in this respect. An insightful study of the issue indicated that, after 10 years of failed efforts to produce centrifuges, the Libyan dictator Muammar Gaddafi decided to outsource the project but even then there was little success.⁵

The complex boundaries between the theoretical and the practical dimensions call attention to the meaning of “material” in the phrase “material capabilities.” Would-be proliferators need either an indigenous scientific infrastructure or the means to purchase foreign know-how in the form of scientists, engineers, and technical personnel. Such assistance becomes what some scholars call “tacit” knowledge, defined as “knowledge that is difficult to acquire, transfer and foster.” Such knowledge is spread in a complex diffusion process, which “is gained mostly through experience and experimental training, and—crucially for the team’s work—that is diffused through networks.”⁶

Research suggests that President Dwight Eisenhower’s Atoms for Peace project to dissuade developing countries from obtaining a nuclear arsenal achieved the opposite in cases of would-be proliferators. The small research reactors which Atoms for Peace set up created the so-called latency that is the training steps toward military nuclear capability. With latency built-in, nuclear strivers could then turn to obtaining what one author has called “sensitive nuclear assistance,” a combination of material and know-how, both legal and illicit. Such aid helps potential proliferators “leapfrog technical design stages, benefit from tacit knowledge in more advanced scientific communities, economize on the cost of nuclear-weapons development, and avoid international scrutiny.”⁷

If “sensitive nuclear assistance” has been a blessing for aspiring proliferators, it has been a virtual nightmare for nuclear intelligence agencies which have monitored illicit traffic. The International Atomic Energy Agency (IAEA)’s Incident and Trafficking Database (ITDB) created in 1995, the James Martin Center for Non-Proliferation Studies (CNS) Database, and the EU Non-Proliferation Consortium, have offered information on incidents of illicit trafficking. Important as these resources are, they do not offer a dynamic understanding of how such networks operate. The Vienna Center for Disarmament and Non-proliferation (VCDNP) noted that there is “current lack of proper understanding as to how proliferation networks are organized and run.”⁸

Network analysis, a relatively new tool to study the illicit supply chains, has the advantage of maintaining “an awareness of the multi-locational nature of these illicit networks” and recognizes that nodes and regions are not independent of each other, but rather, are “reactive to changes in one another.”⁹

As one scholar put it, “The network approach is excellent for viewing the flow and interconnection between source, intermediary, and end-user actors.” But even network analysts admit that “constructing a visual representation of illicit networks through the network model approach is not only time consuming, but products created by the approach are often representative of only one of many networks that engage in a certain form of trafficking.” To provide an interactive picture, “extensive detail and information on nodes and interconnectors must be available to researchers to form an accurate network model.” Although intelligence agencies have a large amount of data, nevertheless tracking illicit network is hard, as will be made clear in the subsequent discussion of the web of companies created by the Pakistani nuclear scientist Abdul Qadeer Khan.¹⁰

Even if illicit networks could be better policed, the legitimate trade in dual-use technology is another way in which “sensitive nuclear assistance” has helped would-be proliferators. The non-proliferation treaty (NPT) allows countries to build nuclear reactors and fabricate low enriched uranium (LEU) to fuel them. Countries which are not NPT members are, of course, free to do likewise. Created in 1975, the Nuclear Suppliers Group (NSG), a trade association which sells to countries running nuclear programs, was charged with fighting proliferation. Its original list of banned materials was short and easy to follow. After the discovery of Iraq’s proliferation in 1991, the NSG produced a long and frequently updated list of dual goods. But as one expert put, policing a “virtually endless” list of dual-use items is “tricky,” and the internal SGS debates about what should be included are tedious.¹¹

MEASURING CAPABILITIES

As a rule, nuclear intelligence looks at three distinct stages of acquiring a nuclear arsenal: the enrichment cycle, weaponization, and ballistics. The enrichment cycle is most challenging for nuclear analysts. The Committee for the Improvement of Nuclear Fuel Cycles posited that two important metrics should be used in the equation: the “probability that an adversary would proliferate along a particular pathway and the probability of success along that path.” This calculus is far from trivial: in the view of the Committee, a motivated proliferator “may continuously invent new pathways, including illegal acquisition.” The Acquisition Path Analysis (APA) is “the analysis of all plausible acquisition paths or acquisition strategies for a State to acquire nuclear material usable for the manufacture of a nuclear explosive device.” Acquisition paths are technically plausible “if the State could, from a technical point of view, acquire at least one significant quantity of weapons-usable material within five years.”¹²

But dual technology, as noted above, poses a substantial hindrance to nuclear intelligence analysis. More specifically, a nuclear fuel cycle offers opportunities for diverting material for military use. In this context, a civilian nuclear power complex serves as a public façade for an illicit program. This so-called tactic of “hiding the illicit activities within plain sight” was successfully used by India, Pakistan, Israel, and North Korea. So, effective is this tactic that, in the words of one observer, all these countries “managed to pull the wool over the eyes of the intelligence agencies that were trying to keep tabs on them.”¹³

Both a closed and an open-end cycle can be used to fabricate nuclear weapons. In the former, Plutonium Uranium Redox Extraction (PUREX) method is used to purify spent uranium and plutonium. This so-called back-end approach was historically popular, but things began to change in the early 1970s. Would-be proliferators found it harder to purchase reprocessing technology, and the large reprocessing facilities were more difficult to hide from satellite surveillance. Its replacement, the front-end approach, can use the same enrichment technology to produce highly enriched uranium (HEU). Helping the nuclear aspirants, advances in centrifuge enrichment technology made enrichment more attractive; centrifuges were easier to conceal, and components could be purchased either legally or through the nuclear networks.¹⁴

In principle, Safeguard protocols of the IAEA based on the APA should account for any diversion of front-end produced fuel. A team from the Department of Safeguard at the IAEA noted that the more recent accounting protocols which the IAEA inspectors use make it hard to divert a quantity of LEU large enough to produce weapon-grade material. However, aspiring proliferators have found ways to avoid such mandatory accounting by building a secret processing facility, a route taken by Iraq, North Korea, Syria, and Iran. The advantage of secret enrichment known as the “sneak out” scenario is obvious; detecting secret facilities is much harder than monitoring uranium diversion. Having produced enough of HEU, a proliferator can proceed to fabricate a nuclear weapon.¹⁵

Unlike uranium enrichment, research and development of nuclear weapons are easier to conceal from the IAEA. Still, the experience of nuclear states indicates that fabricating an actual bomb is a surprisingly difficult task, or as Hans Kristensen, the director of the Nuclear Information Project at the Federation of American Scientists put it, “warheads are complicated little machines.”¹⁶

Complications abound because of the critical mass of fissile uranium, that is, the smallest amount needed for a sustained reaction varies greatly depending on several factors. The type of fissile material, density, the degree of enrichment, temperature, and the use of neutron reflectors (reflectors

surround the fissile material to force neutrons into the chain reaction, resulting in increased reactivity) are among them. The least complicated to fabricate is the gun-style device used in Hiroshima; a projectile made of fissile uranium is fired rapidly into a target that contains another subcritical mass of fissile uranium. However, the critical mass of uranium needed is relatively large. Given the assumption of standard density with no reflectors, 52 kg of uranium enriched to 90 percent is required to achieve critical mass—a quantity too large for ballistic delivery.¹⁷

The second type is based on the implosion methods used in the Nagasaki bomb, whereby a sphere filled with either HEU or plutonium is compressed by a converging shock wave resulting from the detonation of a surrounding layer of high explosive. The detonation decreases the material's volume and increases its density by a factor of two to three. For the process to work, the compression must be symmetrical, that is, the inward force must hit the fissile core equally at every point. To create this dynamic, a complex design is required; the high explosives placed around the core resembling a soccer ball must detonate simultaneously at uniformly spaced points around the core. Explosives of different densities must be utilized to focus the resultant shock wave. The implosion method lowers the critical mass needed per event. Assuming standard density, if uranium is used, some 25 kg of weapon-grade uranium is required for a minimal state, or 8 kg of plutonium Pu-239 is required to reach bare criticality.¹⁸

Because of the constraints of the missile delivery systems, miniaturization is the key to the successful fabrication of a warhead. Even in the case of North Korea, there is still an ongoing debate on whether it has mastered the complexity of mounting a nuclear warhead on its missiles. Whatever the degree of success, evidence which indicates efforts of research and development of nuclear warheads is known in the IAEA terminology as Possible Military Dimension (PMD) because the technology has no civilian use. Yet PMD research does not automatically translate into “smoking gun” evidence, a situation which can lead to fierce disputes among nuclear experts and intelligence officials. As this work would demonstrate, nowhere was this debate as fierce as in the case of Iran.¹⁹

Ballistic missiles capable of carrying a nuclear warhead are an integral part of the nuclear arsenal. Such missiles can be equipped with conventional warheads, although it is assumed that for long-range missiles this would not be cost-effective. Medium-range missiles, however, pose a dual-use problem for intelligence analysts to resolve. Since “there is no universally accepted definition of what constitutes a capable nuclear missile,” in the words of one arms control expert, the United Nations Security Council relies on panels of experts for evaluation.

The procedure is straightforward: pursuant to a Security Council resolution regarding a country posing a nuclear threat, a panel of experts is

appointed to study its ballistic missiles tests. Based on the report of the panel of experts, the Security Council declares whether the missiles are nuclear capable. While the panels consider several indicators, the range is a primary consideration.²⁰

INTENTIONS

Unlike capabilities which are derived from metrics, albeit difficult to analyze, intentions are grounded in the more subjective realm of the social sciences. Realism and neorealism, the two-dominant schools in international relations (IR), provide the bulk of explanations as to why states decide to acquire the bomb. Briefly, the IR theories posit that states which operate in a threatening international environment seek to obtain nuclear weapons to deter external aggression. Over time, IR scholars, added an array of reasons, ranging from the pressure of domestic political lobbies to the psychology of leaders. IR scholars who prefer the psychological approach postulate that leaders' perception of the identity of their countries are the motivational drivers of proliferation. The debates, strenuously fought among the proponents of the different approaches, have generated the vast literature on proliferation.²¹

Historically, intelligence services concentrated on capabilities, but the missing Iraqi WMD promoted a revision of this approach. According to one study, "the [Central Intelligence Agency] CIA demonstrated a new willingness to analyze intentions in addition to capabilities." Still, some intelligence practitioners were not persuaded, dismissing intentions as a vague construct which exist only the "in the eye of the beholder," as one observer put it. To operationalize the concept, some analysts suggested to break down the term "intentions" into three categories—strategic intentions, latent intentions, and tactical intentions. The strategic intention is thus defined as a resolve to acquire a nuclear weapon. The latent intention is a resolve to put together the infrastructure and the scientific know-how required to fabricate a bomb, "but without taking a political decision to do so." Tactical intention pertains to end-stage use; it is either a wish to use the bomb or retain it as a last resort capability should conventional military operations fail.²²

While these categories simplify the understanding of intention, they are by no means optimal tools of evaluation. The options are neither consecutive nor mutually exclusive, and, at times overlapping in difficult-to-predict ways. For instance, short of inside information, intelligence on whether a country decided to proliferate is hard to find. History indicates that latent intention seems to be a preferred mode of operation in cases where a formal decision is impractical because of international pressure or internal divisions. Given the murkiness of extreme secrecy of nuclear decision making, analysts are unable to determine whether such a decision was reached. Of course, monitoring

capabilities is a substitute for assessing latent intention. But, as Iran case would demonstrate, that there are serious limits on this method.

DENIAL AND DECEPTION

Adding to the burden of nuclear intelligence for scholars and practitioners alike is the level of secrecy compounded by denial and deception. In the words of a congressional committee investigating the Iraq fiasco, with countries poised to acquire an illicit arsenal, the nuclear project “lies in the heart of the secret state. These are the deepest secrets and unlocking them must be our highest priority.” Admirable as this sentiment is, research indicates that nuclear deceivers would go to extremes to prevent exposure and, for the most part, they seem to succeed.²³

As a military tactic, denial and deception have been both practiced and studied for centuries. Off the battlefield, the terms in their various permutations have become part of the ideological and political warfare. Having recognized their importance during the Cold War, the United States founded a foreign denial and deception analysis center, which was closed only recently. Its director, Lawrence K. Gershwin, co-authored a definitive book detecting deception across time, cultures, and disciplines. Alleged Russian meddling in the 2016 presidential election had reignited interest in the craft.²⁴

In nuclear matters, denial and deception are at the core of an effort at “manipulation of information and signatures aimed at influencing decision makers” of relevant governments and international organizations such as the IAEA. Such manipulation helps the proliferator to act without interference in the various stages of the process. Like in other clandestine actions, nuclear deception spans the entire spectrum of the project and requires good coordination among all the nuclear managers. Because of vigilant and intrusive surveillance of the international community guided by the NPT, simple denial of a program is not enough. By using deception, a proliferator can try to hide the signatures that point to illicit activity.²⁵

Denial and deception are two different facets of the deception process. Denial is the “measures designed to hinder or deny the enemy the knowledge of an object by hiding or disrupting the means of observation.” For instance, it was determined that, after learning what the United States would consider being indicators of a nuclear test, India successfully denied access to these indicators. Deception is “revealing information that supplies wrong conclusions,” that is “those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence to induce him to read in a manner prejudicial to his interests.” For reasons discussed above, the overlap between denial and deception have further contributed to the analytical confusion.

This so-called estimative uncertainty has been long recognized as a key factor in nuclear intelligence failures.²⁶

To reduce the uncertainty level, intelligence practitioners need to distinguish between deception by design and deception by default, also known as unintended deception or self-deception. While the bulk of the scholarly analysis is devoted to the former, the latter received scant attention. Deception by default, whether rooted in the psychology of leaders, complex nuclear bureaucracies, the nature of the political system, or a combination of all three, is quite pervasive. Saddam Hussein's reluctance to acknowledge that he had destroyed his nuclear program in the mid-1990s and his decision to block the IAEA inspectors is a notorious case in point. After capture, Hussein told interrogators from the Federal Bureau of Investigation (FBI) that he did not want to look weak or cause Iraq to lose its nuclear deterrence status by admitting to the fact that the WMD program was terminated in the mid-1990s. From a Western perspective, this counterintuitive logic has contributed to the widespread perception that Iraq possessed weapons of mass destruction, a factor which contributed to the American decision to invade Iraq in 2003. Even Hans Blix, the then director general of the IAEA, admitted to being confused about the dictator's behavior. In his words, "It is like putting up a sign on the door, 'Beware of the dog,' and you do not have a dog."²⁷

An autocratic regime such as Iraq is at the core of yet another factor driving deception by default, namely the need of the nuclear bureaucracy to exaggerate its achievements. Hussein's exceptional brutality, including summary killings of functionaries who displeased him, was well known among the nuclear scientists and managers. According to several accounts published by Iraqi scientists, they feared for their position or even their lives. Some scientists reportedly resorted to exaggerating the result of what was, essentially, a poor performing enrichment process. Attempts to cover corruption and inefficiency can also lead to overestimation of the result. Pleasing a leader is yet another motivation as the discussion of Mahmoud Ahmadinejad will demonstrate. Not incidentally, the Iranian president himself proffered exaggerated information, which contributed to the deception. One of the few studies on unintentional deception concluded that "it reflects a chain of inaccurate reporting" which travels up the "program's management chain."²⁸

In their aptly titled paper "So Many Ways to Lie: The Complexity of Denial and Deception," David Moore et al. suggested that denial and deception are the most difficult problems in nuclear intelligence. Even a simple binary presentation of a piece of evidence as "true" or "deceptive" generates a large number of outcomes for a modest number of evidentiary factors. If a more sophisticated approach which uses multiple evidentiary states—"true," "deception by an adversary," or "self-deceptive"—is considered, it can quickly overcome the cognitive capacity of the analyst. Far from being

theoretic, this condition is known to have frequently occurred in the CIA's Counter-Intelligence Center (CIC), which one observer described as the "seat of the paranoids who examine every major piece of evidence to determine it amounts to strategic deception."²⁹

To address this predicament, Richards J. Heuer, Jr., a veteran CIA analyst, developed the Analysis of Competing Hypotheses (ACH) for analyzing complex evidentiary situations which entail a considerable risk of judgment errors. ACH requires the gathering of all the available information into a set of evidentiary elements, arranging them in a table, along with a set of hypotheses generated by the analyst. "For each evidence/hypothesis combination, the analyst determines whether the evidence is confirmatory, disconfirmatory, or irrelevant to the hypothesis, with disconfirmatory evidence carrying the greatest weight." However, critics have noted that constructing the ACH is time consuming and the analysis of the matrix composed of a considerably evidentiary information can be cognitively challenging as well.³⁰

Looking for patterns of denial and deception in the past practices of proliferators and their cultural underpinnings is an essentially intuitive method. For instance, the former Soviet Union and, to a lesser extent, Russia, has a well-documented history of *maskirovka*, a loose translation of deception. *Maskirovka* played an important role in the Cuban missile crisis in 1962. Iran is known for its well-developed denial and deception protocols. So much so that some exasperated experts concluded that Iran's culture of *takiya* (disimulation) would make it impossible to negotiate a deal. In the words of one scholar, "Iran says the opposite of what it says and those the opposite of what it says." Others went further, implying that the Iranian political culture in conjunction with its negotiated political order made the forming opinion about the nuclear project virtually impossible. A leading American expert on Iran with a background in intelligence noted that the decision making of the regime is "Byzantine, fragmented, and counterintuitive." He called the government a "hodgepodge, sporting numerous entities" and asserted that "Tehran cut off its nose to spite its face." Another observer bemoaned the political system with its "multiple structures of power," where nothing is black and white, and where "the strategic culture is characterized by numerous contradictions and paradoxes."³¹

Complex system theorists, however, warn that past performance may not be a good predictor of future behavior. Since the denial and deception process is highly dynamic and susceptible to corrective changes caused by deterrence—either diplomatic or military—if a deterrent such as economic sanctions is effective, a proliferator may adopt a more truthful posture. Under such circumstances, focus on past conduct would create a false premise: "the fact that something occurred in the past is no guarantee that it will happen in the future." The temporal dimension that is required is, in the words of two complexity scholars, "compounding further what is already complex."³²

Hard as it is to disentangle these different types of deception, the extreme fragmentation of the intelligence gathering, and verification process of proliferation has proved even more of a challenge.

FRAGMENTATION IN INTELLIGENCE GATHERING AND VERIFICATION

Traditionally, national intelligence services, occasionally assisted by allies, oversee the intelligence-gathering process. Nuclear intelligence, however, is radically different in several respects. Two distinctive bodies are charged with evaluating the spread of nuclear weapons—International Verification Organizations (IVO) and the National Intelligence Agencies (NIA). Acting within the NPT mandate, the IAEA is the premier IVO organization. Its scope for intelligence gathering is guided by the Model Comprehensive Safeguard Agreement (INFCIRC/153) which reflected the nuclear technology of the 1970s. Since enrichment facilities were too large to hide at the time, the Safeguards Agreement focused primarily on diversion of nuclear material from declared facilities. After the discovery of an advanced nuclear program in Iraq in 1990, a new and stricter document was drafted.

The Model Additional Protocol (INFCIRC/ 540) gave the IAEA significant powers to search for undeclared facilities and materials, but the ratification of the Additional Protocol is optional. As of October 7, 2016, 127 states in the NPT had signed the new protocol. Equally worrisome, recent strides in nuclear technology left the Additional Protocol in need of an update, a development that is not likely to occur given that countries have strongly resisted tightening the IAEA oversight.³³

Unlike the IVOs, the NIAs have no limits on gathering nuclear intelligence and are driven by a strong national interest in tracking proliferation, either globally or regionally. Because of its global reach and superior technological capacity, the United States has been the leading player in the NIAs sector. Israel, which has historical concerns about its neighbors, has emerged as a leading nuclear intelligence actor in the Middle East. British, French, and Germany intelligence agencies have been moderately involved, along with Russia and China which command their resources.³⁴

The United States and other NIAs use an array of tools to track illicit nuclear activities. They range from human intelligence (HUMINT) to signal intelligence (SIGINT) and the Measurement and Signature Intelligence (MASINT). Both SIGINT and MASINT date to the Scientific Technical Intelligence pioneered by R. V. Jones, which came into its own in the United States during the Cold War. MASINT, which was given a semi-independent

status in the 1990s, developed methods for analyzing material manifestations of nuclear and ballistic tests.³⁵

The progress in the collection and evaluation made nuclear intelligence efficient but introduced more fragmentation since many players share in the effort. The CIA has its own Counter-Proliferation Center (CPC), which exists along the National Counterproliferation Center (NCPC) run by the Office of the Director of National Intelligence (DI). After repeated reconfigurations, the Department of State evolved the Office of Counterproliferation Initiatives (ISN/CPI). The Department of Defense and the National Reconnaissance Office (NRO) play a vital role in tracking and oversight. Much less known but arguably a vital element in this lineup is the Department of Energy. In 1965 the International Assessments Programs, codenamed the Z-Division, was created at the Lawrence Livermore National Laboratory. Comprising of nuclear scientists and engineers, the Z-Division Special Projects Group was tasked with helping the CIA understand the Soviet nuclear tests. In 2000, the National Assessment Group of the National Nuclear Security Administration (NNSA) was formed to pursue military applications of nuclear science. To analyze aspects of dual use, assess weaponization, and carry out simulations, the NNSA has worked closely with the national laboratories, most notably the Los Alamos National Laboratory, and the Sandia National Laboratories. Michael Morell, the former deputy director of the CIA, revealed that nuclear intelligence on the Iraqi WMD was sent to one of the Labs for analysis. In the Iran case, the National Laboratories played an even more crucial role as the subsequent chapters will demonstrate. The array of actors required to evaluate proliferation and the high technical bar for verification have posed unique challenges to the intelligence community, a development well documented in the history of the Directorate of Science and Technology (DS & Technology).³⁶

The Israeli intelligence services have routinely seconded experts from the ultra-secretive Atomic Energy Commission, some who served as part of their military reserve duty. The National Nuclear Laboratory (NNL) in Great Britain has provided similar services to the British MI6.³⁷

Private groups and think tanks have made the field of nuclear intelligence even more diverse. Dissident groups who enjoy an advantage in HUMINT have played an important role in nuclear espionage. As will be discussed in chapter 4, Mujahdeen-e-Khalq (MEK) an Iranian Marxist-Islamist group provided some of the key evidence of the illicit program. The Institute for Science and International Security (ISIS), a Washington-based think tank which uses commercial satellite services, has emerged as a major player in nuclear intelligence. Despite commanding fewer resources, the Bulletin of the Atomic Scientists has been a respectable forum for discourse on the subject, along with Arms Control Association and the popular blog *Arms Control Wonk*.

With so many actors operating in collection, analysis, and interpretation, frictions and disagreements are the rule rather than the exception. John Deutch, a former director of the CIA, had this in mind when writing that “the central role of analysis is to assemble information from all sources and create an assessment that gains credibility from mutually reinforcing facts.” But the fragmentation associated with a multiplicity of sources comes at a cost. Studies on source management suggest that an NIA “should be able to evaluate source characteristics and organize sources into a meaningful collection” while also protecting the identity of the sources. The case of Iran stands out in this respect. As David Albright, the head of ISIS put it, “People are looking at the same information and reaching a different judgment.”³⁸

Transnational liaisons which involve working with multiple NIAs make the interpretation management task difficult. Because of extreme sensitivity, little is known about the CIA’s relations with foreign services. As a rule, the NIAs are known to be highly secretive about their sources and suspicious of information provided by their peers, because of the fear that it might have been deceptive. In one of the rare occasions of openness, Sir Richard Dearlove, the former head of the MI6, revealed that the British spies harbored “significant levels of suspicion” toward their Israeli counterparts and were not always sure about sharing information. For their part, the Israelis apparently suspected the CIA and the MI6 of underestimating the level of nuclear progress in Iran.³⁹

Much as scholars of nuclear intelligence and intelligence consumers would have liked to see a highly objective process of interpretation and evaluation, political contamination is unavoidable.

FROM FRAGMENTATION TO POLITICIZATION

As the official evaluator of compliance with the NPT, the IAEA is an authority of record. In principle, the expectation is that the Agency, through its Safeguard Division, would provide an objective and impeachable assessment on would-be proliferators. The real-life record of the IAEA, however, is far from the high standard of its mandate. As the authors of a book on the subject noted, “The organization’s evaluations are replete with ambiguities, inconclusive results ... and false negatives, which give the [suspect] state a clean bill of health and creates a veneer of legitimacy.”⁴⁰

Historically, the IAEA lacked sophisticated monitoring technology, and the Safeguards Division had only a limited capacity to uncover clandestine programs. Over the years, the Agency had expanded its intelligence collection capacity, but there were reservations about turning the Safeguards Division into a full-fledged intelligence center. Critics argued that in order

preserve its legitimacy, the IAEA needs to adhere to a protocol which guaranteed impartiality, objectivity, and preserved the right of member states to peaceful nuclear production. In practice, this philosophy limited the Agency to account for materials in declared facilities.

IAEA's failure to unearth Saddam Hussein's nuclear weapons program which became known during the 1991 Gulf War changed this mindset. More tools for intelligence collection were added, and some novel technologies to detect work in undeclared sites were employed.

The Agency also streamlined its process of policymaking and adjudication. The annual general conference composed of representatives of all the member states of the IAEA is the highest policymaking body; it elects the thirty-five-member Board of Governors (BOG) which meets five times a year to oversee policy implementation. The Secretariat, the permanent bureaucracy of the Agency, however, plays the lead role in information gathering, evaluation, and writing of the State Evaluation Reports. Assisting the Secretariat is the Standing Advisory Group on Safeguard Implementation (ASGSI), a team of up to twenty nuclear experts picked by the DG and the Member State Support Programs (MSSP), which provides some 300 nuclear-related services to the Agency. Experts from the Safeguards Division are now using a range of sources, including inspections, environmental sampling, unattended monitoring sites, state declarations, and non-inspection data. The latter, known as third-party material, referred to information supplied by the NIAs.⁴¹

But Mohammed ElBaradei, the Egyptian diplomat who helmed the Agency from 1997 to 2009 was skeptical of the broader mandate. He told the *Arms Control Today*, "We don't have an all-encompassing mandate to look for every computer study on weaponization. Our mandate is to make sure that all nuclear materials in a country are declared to us." He justified the narrow focus on material stating: "If a country is denied the nuclear material, they cannot have a weapon."⁴²

In other words, he did not want to tackle the more controversial issues of experiments with weapon design or enrichment in illicit sites. He was also suspicious of the political agenda of NIAs, most notably the United States and Israel, as demonstrated in subsequent chapters.⁴³

The Information Review Subcommittee handles disputes over reports. It is made up of operational directors of the Safeguard Division, representatives of the Office of Legal Affairs, and the Office of External Relations and Policy Coordination (EXPO). Under ElBaradei, the more politically attuned EXPO, had a large say in the final report, but his successor, Yukiya Amano, folded EXPO into the director general's office. In principle, the DG has a dominant role in shaping the State Reports, but Safeguards personnel can fight back by leaking the disagreements to the press. Unwanted publicity was used to

change in the tenor of the State Report on South Africa, and, most dramatically, in the deeply politicized case of Iran, as detailed later.⁴⁴

To complicate matters, the BOG, which is expected to adjudicate political disputes in the Secretariat, has often acted as yet another source of politicization. An incisive analysis of the subject concluded that the "IAEA intelligence apparatus is being stymied by member states," which disagree "over how to respond to cases of non-compliance." The report found a deep divide among BOG members. On the one side were the Western countries which were vigilantly collecting intelligence to prove noncompliance. On the other side were the developing countries which felt the West, the so-called nuclear "haves" spent too much time and resources on hunting for information on illicit programs run by the nuclear "have nots." As a result, "the IAEA efforts to unearth and deal with clandestine nuclear activity are complicated by sensitivities over IAEA monitoring, suspicion of Western security agendas."⁴⁵

Scholars have been preoccupied with tackling the dilemma arising from the need for third-party nuclear intelligence and the suspicion and dissent it has created in the IAEA. As one of them posited, "Background evidence unearthed and interpreted by national intelligence authorities is and will remain major sources of compliance analysis." The IAEA has difficulties sorting out the allegation, especially as some states "chose to turn the process of verification into a melodrama of defiance alternating with wronged innocence." The author urged the international community to adopt the Technical Accountability Obligation (TAO): "a widespread normative international expectation that Governments in whose territories there is a programme raising proliferation concerns should take responsibility for investigation and furnish a plausible technical explanation."⁴⁶

Arguably, the TAO would have been helpful in depoliticizing the verification process. But even if it could be adopted—a big if—the protocol would not address a vital source of politicization which stems from the involvement of domestic audiences in the nuclear intelligence issue.

NUCLEAR INTELLIGENCE AND THE DOMESTIC POLITICAL PROCESS

During the Cold War, domestic audiences in the West became preoccupied with how to avoid a nuclear disaster. Focusing on Moscow's nuclear capabilities developed into the premier mission of the CIA and, to a lesser extent, other Western NIAs. The CIA's annual Soviet National Estimate became a subject of intense debates in Washington and beyond. But Soviet intentions, as indicated above, were more difficult to discern. In due time, the Americans and their allies accepted the theory of Mutual Assured Destruction (MAD)

which postulated that the Soviet Union, or other members of the nuclear club, would not initiate a nuclear attack because of the magnitude of the nuclear devastation. Derived from the rational choice theories popular at the time, MAD deemed the Soviet leaders to be rational enough to temper their intentions to attack the United States.

But a hawkish group of former security officials and hard-line anti-Communist ideologues, who founded the Committee on Present Danger (CPD), challenged the MAD assumptions. CPD members argued that, under certain circumstances, Moscow would be motivated to initiate a nuclear war. In 1976, the CPD forced President Gerald Ford and his CIA director George H. W. Bush to approve the so-called Team B exercise to carry out a competitive review of the Agency's Soviet estimates. Its most eye-catching conclusion, often attributed to the Harvard historian Richard Pipes, held that the Soviet leaders did share the MAD rationality and were confident they could win a nuclear encounter.⁴⁷

Although the collapse of the Soviet Union proved most of the Team B assumptions wrong, it did not put the nuclear anxieties to rest. On the contrary, the emergence of third world proliferators generated a new discourse on the so-called Second Nuclear Age. The National Institute for Public Policy (NIPP) created in 1981 under the influence of the CPD pushed the Second Nuclear Age scholarship. Some NIPP officials like Keith Payne worked for the Reagan administration and Colin S. Gray, was a former head of national security studies at the Hudson Institute, a prominent center of neoconservative foreign policy thinking.

Payne and Gray argued that the new proliferators were erratic and not predictable enough to be trusted with following the MAD logic. The NIPP 2001 document "Rationale and Requirements for U. S. Nuclear Forces" allegedly guided the Deterrence Concept Advisory Panel (DCAP) which President George W. Bush created to oversee the 2002 Nuclear Review Posture (NRP). Chaired by Payne, the NRP panel warned about the "unknown and unpredictable" nuclear threats, an allusion to third-world proliferators. The NRP ordered the Pentagon to prepare contingency plans for using nuclear weapons against Iraq and Iran, among others.⁴⁸

The NIPP's ideas gained wider traction after 9/11 and, in significant ways, influenced the Bush administration's decision to invade Iraq. But it was Iran's nuclear project that gave the NIPP a new mission. Riding the wave of nuclear anxiety, Payne wrote that "no one knows whether the deterrence policies that kept the Soviet Union at bay during the Cold War could function with any reliability against a future, nuclear-armed Iran. The prospects of deterrence functioning predictability that they were during the Cold War." Many in the neoconservative circles that pushed for the war in Iraq had seized upon

the argument that the theocratic regime in Tehran could not be trusted with having even a peaceful nuclear program.⁴⁹

But the Iraqi fiasco created a strong pushback against military intervention which politicized the gathering intelligence and verification of Iran's compliance. With so much riding on the outcome, the process turned into a highly divisive political issue. As one observer put it, "politics played the most central role in how intelligence on Iran and its nuclear program was interpreted." It was not particularly helpful that nuclear estimates were highly complex, built on scientific information that was hard to understand outside the small community of specialists. No less an authority on intelligence than Michael Hayden, a former head of the CIA, made this point by noting that "nuclear issues are especially complicated; they are difficult to summarize." Written for a few hundred select government officials, they are not understood by the public and the press.⁵⁰

Complicating matters, the United States was not the only country where politics intruded on the tracking Iran's nuclear progress. Israel, long a target of the Islamic Republic, has taken an early and, occasionally, a strong interest in the issue. Because of the potentially existential implications of a nuclear Iran, the subject was at the center of a passionate national debate with multi-layered partisan overtones. Before long the Iran discourse in Israel had begun impacting the one in Washington. Understandably, the assessments of the Israeli intelligence services were shared with and dissected by their American counterparts. Less obvious but quite substantial was the Israeli effort to shape Washington's policy toward the Iranian nuclear program. It was this process, which involved a massive lobbying operation launched by a coalition of American Jews, Christian Zionists, and the Republican Party, that made interpreting and verifying Iran's compliance so difficult. The Obama administration's commitment to using sanctions to roll back the program and reach a deal with Iran exacerbated this politicization. Even after the Joint Comprehensive Plan of Action (JCPOA) agreement was signed on July 14, 2015, the discourse was not quelled. In some ways, it was given new importance, when it surfaced as a major issue in the 2016 election.

Iran's nuclear program and its rollback are one of the defining issues of the twenty-first century. The continuing preoccupation with the JCPOA underscores the need for an objective and systematic study on the subject.

THE GOALS AND STRUCTURE OF THE BOOK

In order to achieve a high level of objectivity, this study will offer an investigation of the developments in Iran, a discussion of Israeli analysis of what

transpired in Tehran, and the American assessment of the Iranian program in tandem with a scrutiny of the Iran discourse in Israel. The three-way analysis is contemporaneous; therefore, each chapter is divided into three sections: developments in Iran, in Israel, and the United States. Such a contemporaneous comparison has the unique advantage of determining the degree of fit between the reality in Iran and its perception of Israel and the United States.

Such an empirically exacting approach became possible because a large amount of information on the history of the Iranian project had become available. Fortuitously, the bitter debates between the security and political echelons in Israel have exposed its traditionally ultra-secretive nuclear deliberations. Finally, the American discourse has laid bare virtually every aspect of the Iran estimates and revealed the crucial role played by political considerations in Jerusalem and Washington. Not accidentally, the Iran case has introduced an inordinate level of politicization into the IAEA where the issue played out against the broader tensions between the nuclear “haves” versus “have nots.”

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Chapter 2

Under the Radar

Iran's Nuclear Project Takes Off

Few among the watchers of the Islamist revolution in Iran could have expected the regime of Ayatollah Ruhollah Khomeini to embrace the nuclear project. To the contrary, the Supreme Leader ruled that weapons of mass destruction were incompatible with the Islamic canon of war. In a ruling in 1984 that WMDs would hurt innocent civilians, Khomeini declared a fatwa against their production. Regarding IR theory, Khomeini's stand was unmistakably idealistic, because it privileged an ideological point of view over concerns of power politics. However, a few years later, the new Islamist republic was forced to change course in the face of an existential struggle for its survival.¹

THE ISLAMIC REVOLUTION AND THE BOMB: KORAN MEETS REALISM

Khomeini's foreign policy vision, first mentioned in the 1940s and repeated in his 1975 canonical work *Velayat e-Faqih*, brought the regime into conflict with countries in the region and beyond. The Supreme Leader postulated that, since the Islamic Republic was the only state where the "Government of God" had been established, its holy mission was to create the *Ummah*, the global Islamic community. Tehran's strategy of choice was to promote Islamist revolutions, a "Trotskyite" mandate enshrined in the Constitution of the Islamic Republic which had been promulgated on December 3, 1979.

The newly created Revolutionary Guards and its foreign operation division, the Quds Force, nurtured contacts with the Shiite minorities in the neighboring countries to foment unrest. Iraq, where the dictator Saddam Hussein oppressed the Shiite majority, was high on the regime's agenda. Indeed, Khomeini, whose personal animosity toward Hussein was well known,

called on the Iraqi Shiites to revolt against the secular Ba'ath regime. He urged the population to "wake up and overthrow this corrupt regime in your Islamic country before it's too late. It is Haram for you [army] to stay and follow this blasted [Saddam] man ... you have to rise against him." Verbal provocation aside, the Revolutionary Guards followed up with several attempts to assassinate high ranking Iraqi officials. Among them was Tariq Aziz, the deputy prime minister, who narrowly escaped an ambush on April 1, 1980.²

For his part, Saddam Hussein, whose irredentist policies were well known, considered the growing post-revolutionary chaos in order as propitious for gaining Iranian territory. Assured by his intelligence service that the Arabs of Khuzestan were ready to secede and "return" to Iraq, Baghdad launched a series of escalating steps. On September 20, 1980, the Iraqi army invaded along a broad swath of the border.³

The history of the bloody eight-year war is well known. The second longest military encounter of the twentieth century, it has frequently been compared World War I. The tactics featured trench warfare, human wave attacks, indiscriminate assaults on a civilian population, and, most infamously, the use of chemicals. Though Iraq was a signatory of the 1925 Geneva Protocol outlawing the use of chemical weapons, Baghdad deployed both chemical weapons and munitions against Iranian troops as early as September 1980 and used them against civilians for the first time in May 1982. During the war, there were 3,500 chemical attacks, of which 30 were directed against civilians. The cost of war to the Iranians was enormous, with some 222,085 dead, 320,000 wounded, and 2 million left homeless when Iraqi SCUD missile attacked the cities.⁴

The war left a deep scar on the Iranian collective psyche, imbuing it with a deep sense of insecurity and vulnerability. Both the leaders of the regular Artesh and the Revolutionary Guards, who fought in some of the most ferocious battles of the war, realized that Iran had little regarding conventional equipment to deter Iraq. The embargo on weapon sales to Iran made military purchases difficult. The ballistic capability needed to deter Iraq from attacking the cities was beyond anything that Tehran could muster. The situation became extremely dire when, at the request of Baghdad, the United States launched Operation Staunch to prevent all weapons transfers to Iran in 1983. Washington also provided intelligence on the movement of Iranian troops which was, according to Iran, used in the gas attacks. Lined up behind the United States were France, Great Britain, Germany, Saudi Arabia, Egypt, Kuwait, and Jordan. While not enthusiastic about the Iraqi dictator, they hoped that Iran's Islamic regime would collapse. Some, inspired by an extreme version of realpolitik, hoped that Tehran and Baghdad would engage in a mutual "controlled degradation of power," a polite way of wishing they both bleed to death.⁵

If the weapons embargo was standard realpolitik practice, the reaction of the international community to Iraqi use of chemical weapons was, in the eyes of the Iranian leaders, bordering on the sinister. American and international public opinion took little notice of Baghdad's use of chemical warfare, the first such instance of it since World War I. Washington had little to say about the attacks and did not sever its newly established diplomatic relations with Baghdad. The United Nations Security Council, a forum responsible for monitoring violations of the chemical convention, was also conspicuous in its silence.⁶

The international community had some good reasons for its reluctance to confront Hussein's chemical barrages. By violating diplomatic conventions, ignoring international law, and fomenting revolutionary terror, Tehran engineered its own status as an international pariah. It could expect little international sympathy when forced onto the receiving end of flagrant abuse of intentional norms. But the regime in Tehran claimed that the international order embodied in the Geneva Conventions was perverse. The United Nations limited the ability of its member states to defend themselves through compliance with arms control conventions but did nothing when a member was subjected to attacks using weapons that it had banned. As one analyst put it, "Iraq initiated the use of chemical warfare and the international community did nothing"⁷

While the rulers in Tehran conveniently ignored their role in the misfortune that had befallen Iran, they were keen to emphasize the larger lessons of the Iran-Iraq war. A fully mobilized Iraq could muster 2 million men under arms—some 75 percent of all Iraqi men between ages 18 and 34. Equipped with the latest Soviet and French technology, it was the fourth largest standing army in the world. The Islamic Republic had neither the time nor the economic means to rebuild the crumbling Artesh or turn the Revolutionary Guards into a mass force. Taking a WMD shortcut was a rational low-cost measure to safeguard the existential imperative of the regime. In the words of one analyst, "A hostile Saddam, who waged a merciless eight-year war against Iran in which he deployed chemical weapons against Iranian troops, gave Iran a protracted and brutal lesson in the strategic advantages conferred by weapons of mass destruction (WMD)."⁸

Tehran learned two additional lessons from the bloody and protracted conflict. WMD could not only deter high-risk bullies like Saddam Hussein but were equally important in shielding the regime from the consequences of their adventures in revolutionary export. A nuclear arsenal was thought to be particularly effective in protecting the regime from retribution by the United States acting to protect its clients in the region. The perceived hypocrisy of the international community in handling the breach of the Geneva Protocol on WMD reinforced Iran's leadership's deep mistrust and loathing of the

international system. The Supreme Leader and his lieutenants had denounced the global order as a proxy of Western imperialism. The war experience convinced many Iranians that international guarantees were only useful to actors who were clients of the major powers.⁹

Unwilling to give up its “Trotskyite” pursuits and unable to match Iraq in conventional arms, top regime leaders looked for a way to contravene Khomeini’s edict. Brigadier General S. K. Malik, a member of the Pakistani high command known as the “Islamic Clausewitz,” offered an opening in his book *The Quranic Concept of War*, published in Lahore in 1979. Malik held that the Quranic imperative of jihad—a duty to wage war on non-Muslims—was to be shared by the entire community, not just by formally designated combatants. Malik saw no distinction between enemy combatants and non-combatants either, erasing Khomeini’s distinction between the two.¹⁰

Sultan Bashiruddin Mahmood, a leading nuclear scientist, attached to the Pakistani Atomic Energy Commission (PAEC) and popular for his scientific interpretation of the Koran, made the case in his widely discussed 1980 book, *The Mechanics of Doomsday and Life after Death*. Mahmood, a sometime associate of Abdul Qadeer Khan, the “father of the Pakistani bomb,” argued that a “Muslim bomb,” which he described as a weapon for the *Ummah* would deter Western powers and reconfigure the international system to reflect the renewed greatness of Islam.¹¹

Ayatollah Morteza Motahhari, whose writings served as the foundation of modern Iranian religious thoughts, used the same argument to justify WMD. In a 1972 lecture (later published as a book) titled “Islam Va Muqataziyat-e Zaman” (Islam and Modern Times), Motahhari made a case for using nuclear weapons from a theological perspective. Prefacing his remarks with a Koranic verse, he wrote: “It is essential to use force against the foes as much as possible. In the past, [a] few blacksmiths built their tools by using their time’s empirical knowledge. But nowadays it takes more knowledge. The knowledge of producing a nuclear weapon is necessary. One might ask where the Prophet says, ‘O people go, learn about atoms?’ ... but we have to do this, since it is in the spirit of that rule.”¹²

Motahhari, a top revolutionary leader, was assassinated in May 1979 by the Forkan group, but his ideas were embraced by five close aides of Khomeini—Ayatollah Mohammed Beheshti, Hojatoleslam (later Ayatollah) Ali Akbar Hashemi Rafsanjani, Ali Khamenei, Mir Hussein Mousavi, and Hasan Rouhani. Beheshti and Rafsanjani were particularly ardent advocates of all things nuclear and pushed to restart the abandoned nuclear project of the shah in Bushehr. After the death of Beheshti in a terror attack in 1981, Rafsanjani took over the nuclear portfolio with the help of some his colleagues who created the so-called nuclear sanctum. Reza Amrollahi, appointed to head the Atomic Energy Organization of Iran (AEOI) in 1981, recalled that “during

the first days of the revolution after the death of Ayatollah Beheshti, it was Rafsanjani and Prime Minister Mir Husain Mousavi [Bazargan's replacement] who stood with the program."¹³ Ali Khamenei, who assumed the presidency in October 1981, was a key member of the "nuclear sanctum" and an ardent promoter of reviving the nuclear project.

Even for the most dedicated among the nuclear leaders, the task looked daunting. To begin with, they needed to revive the moribund AEOI and recruit nuclear scientists and engineers who fled in significant numbers after the revolution. Out of the 120 professors in the chemistry and physics departments at Tehran University in 1979, only eight remained. Altogether an estimated 4,500 nuclear scientists and affiliated workers migrated abroad, mostly to the West. Fereydoon Fesharaki, a nuclear expert under the shah, recalled a meeting with Ayatollah Beheshti in May 1979 who urged him to help persuade the expats to return. Beheshti told him that he and the others were needed for the ultra-secret project to build a nuclear bomb, adding that: "It is your duty to build this bomb for the Islamic Republic ... our civilization is in danger and we have to do it." Fesharaki explained that the project would be very costly, only to be told that "the costs are tolerable, and we must start."¹⁴

Subverting Ayatollah Khomeini's fatwa against Weapons of Mass Destruction (WMD) was also high on the agenda. Mohsen Rafighdoost, minister of the Revolutionary Guards, recalled that the Iraqis first employed chemical weapons in 1983, and increased their use dramatically in February and March of 1984, and topped it with an attack on the city of Sardasht in June 1987. Determined to develop his own chemical capability, Rafighdoost appealed to Khomeini who told him that chemical warfare was haram, forbidden.¹⁵

But Rafighdoost's account, given to the journalist and pro-Iranian activist Garret Potter in 2014, was contradicted by several key players. Hassan Rouhani, at the time a member of the Iranian parliament, the Majlis, recalled in a 2008 interview how the regime, desperate to counter the Iraqi offensive, decided to go ahead with the development of chemical weapons and even secured a grudging permission from Khomeini in 1985. Rouhani noted that "in the face of Saddam's air strikes on our cities by chemical weapons, we realized that we should retaliate in kind. Mr. Rafsanjani and I shared it with the Imam [Ayatollah Khomeini], and he eventually allowed similar attacks to be carried out."¹⁶

Prime Minister Mir Hussein Mousavi told the Majlis in late December 1987 that Iran was "producing sophisticated chemical weapons." After a cabinet meeting, he changed his version, stating that the "Islamic Republic is capable of manufacturing chemical weapons and possesses the technology." For those familiar with the politics of Tehran, Mousavi's retraction was cosmetic.¹⁷

It fell to the Revolutionary Guards, under the overall control of Rafsanjani, to take on Khomeini. Unable to break the stalemate with the Iraqi army despite horrendous casualties, the Guards became convinced that Iran needed nuclear weapons. Mohsen Rezaei, the commander of the Guards, spelled the rationale for a nuclear arsenal in a letter addressed to the ayatollah on June 23, 1988. Khomeini responded in a secret missive on July 16, describing as “shocking” Rezaei’s utter despair at the course of the war. Publicized by Rafsanjani in September 2006, Khomeini’s letter quoted the Guards definite conclusions: “If we were to come out of the war with our head held high, we would need many sophisticated weapons, including nuclear ones.” Rezaei stated that “no victory could be expected in the next five years”; an offensive operation could be undertaken in four years, in 1992, if necessary equipment becomes available. Rezaei noted that “with the grace of God, we can embark on offensive operations if after 1371 [1992] the Islamic republic would be able to field 350 infantry brigades, 300 fighter planes, 2,500 tanks and 300 helicopters.” Since Iran could not muster such quantities of conventional weapons, the Guards’ chief urged Iran to produce a large number of laser and nuclear weapons which, in his opinion, were essential for future wars.¹⁸

If there were any doubt about the power of the Guards, the June letter should have dispelled it. The Supreme Leader, who for the longest time adamantly refused to consider suing for a cease-fire, was forced to change his mind. On July 18, Iran accepted UNSC resolution 585 that ended the war with Iraq. Defeated and bitter, Khomeini famously compared the decision to drink from a chalice full of poison.¹⁹

While the nuclear project was still top secret, Khomeini’s retreat changed the tone of the discourse. On October 7, 1988, Rafsanjani told a group of Revolutionary Guards officers that “with regard to chemical, radiological, and bacteriological weapons, it was made very clear that having these weapons are very vital at the time of war.” Rafsanjani added that “it was also made clear that the moral teachings are not very effective at a serious stage of the war and the global powers do not respect their resolutions and close their eyes to the aggression and the violations which are committed on the battlefields.”²⁰

Two weeks later, on October 19, 1988, in a speech to the Majlis, Rafsanjani discussed the defensive and offensive use of chemical, bacteriological, and radiological weapons. He stated, “We must be fully equipped with both in the defensive and offensive use of these weapons. To perform this duty, from now on you must make use of every opportunity.” Significantly, he stressed that Iran could not rely on the world for protection because the “the war with Iraq taught us that international laws are just scraps of paper.”²¹

Gratifying as Khomeini’s lifting of the nuclear Fatwa must have been, Rafsanjani did not wait for the Supreme Leader’s dispensation. Using his

official position as the Majlis Speaker, a post he had assumed in 1980, the crafty politician began looking for ways to buy nuclear weapons. After concluding that Iran would not be able to purchase readymade weapons, Rafsanjani and the nuclear sanctum members decided to assemble the elements needed to fabricate a bomb, including an independent and indigenous nuclear fuel cycle. In the words of one analyst “the nuclear program, especially its secret components, has been the ‘baby’ of a small group of people, among whom Hashemi Rafsanjani is the most prominent.” In his memoir, Rouhani disclosed that more than any other leader, Rafsanjani was convinced that Iran could produce nuclear fuel on its own in the same way that Pakistan and North Korea had done.²²

To turn Iran into a new Pakistan, Rafsanjani envisaged a three-pronged plan. Most crucially, Iran needed to create an indigenous nuclear science community. As the nuclear cheerleader-in-chief, Rafsanjani tirelessly exhorted Iranian scientists to dedicate themselves wholeheartedly to what he described as Iran’s “Manhattan Project.” On September 12, 1982, Rafsanjani told one audience: “I request you to work seriously on the nuclear program as it is our top priority and our country’s necessity.”²³

On another occasion, he ordered all the available scientists to search in publicly accessible technical literature for any information helpful in mastering the complex technology.²⁴

Recruitment of expatriates was stepped up. Indeed, before his assassination, Ayatollah Beheshti appealed to Akbar Etemad, the head of the AEOI under the shah, to return from Paris. Beheshti was equally unlucky with Fereydoon Fesharaki, a high official at the Atomic Energy Organisation of Iran (AEOI), who defected when the government sent him to the West to recruit Iranian scientists. Undaunted by these failures, Rafsanjani appealed to lower-ranking experts. On November 6, 1985, Rafsanjani’s office ran an announcement in the airmail edition of the *Kayhan* newspaper urging Iranian nuclear engineers and scientists living outside of Iran to attend at a full-expenses-paid symposium in March 1986.²⁵

With recruiters acting as hosts, the conference, held under the auspices of the AEOI in Bushehr between March 14 and 19, 1986, proved to be a success. In October 1988, at yet another seminar held to attract Iranian nuclear engineers and scientists in exile, Rafsanjani personally urged them to return home.²⁶

But he was apparently not happy with the slow pace of the recruitment process—a feeling he had conveyed to Amrollahi on two separate occasions. On January 23, 1989, and again on September 8, 1989, he urged AEOI’s chief to do everything possible to increase the number of returning expatriates.²⁷

Training scientific personnel abroad was another promising, albeit long-term, prospect. In mid-1980s the regime had begun offering scholarships to students willing to travel abroad. According to estimates, since the early

1980s, some 15,000 students have taken advantage of the program. With its advanced higher education, the United States was one attractive destination. Under Rafsanjani's 1993 plan for attracting talent, special recruiters were sent to nuclear science conferences and seminars in the United States and Europe to find candidates and lure them back. The combination of a downturn in the economy of the West and the lucrative incentives offered by the regime prompted some 100,000 Iranians to return home, but only a small contingent was suitable for nuclear work. To augment this number, Rafsanjani prevailed upon the government to release some scientists who had been imprisoned since the revolution. In his recollections published in 2011, he acknowledged that the release program had helped to build a team of mostly American educated nuclear scientists.²⁸

Restructuring the nuclear energy bureaucracy was also high on Rafsanjani's agenda. Reflecting the new power realities, the civilian AEOI was supplemented by two new bureaucracies—the Strategic and Nuclear Energy Unit of the Revolutionary Guards and a parallel unit within the Department of Defense under the Guards' brigadier general Dr. Seyed Ali Hosseini-Tash. His appointment was a clear indication that the Guards were intent on keeping control of the project regardless of its location in the organizational charts. According to unidentified intelligence sources reported by *US News and World Report* Iran had divided the weaponization program into five separate units to avoid Western and IAEA surveillance.²⁹

The third part of Rafsanjani's plan involved restoring the extant nuclear facilities. As part of the Atom for Peace program, the shah received a 5 MW research reactor, known as the Tehran Research Reactor (TRR). In 1982 the reactor was re-opened, and the government provided new funds to the research teams operating it. In 1984 the University of Isfahan inaugurated a Nuclear Research Institute where future experiments were to be conducted. A year later, in 1985, the government secretly allocated US\$800 million to create additional centers. One of the recipients was the Department of Physics at Amir Kabir Technical University—renamed Department of Physics and Nuclear Sciences in 1988. The Isfahan center was also the beneficiary of the government's nuclear largess.³⁰

Rebuilding the Bushehr plant, however, was much harder. In the summer of 1982 Rafsanjani and the AEOI initiated confidential negotiations with the original West German builder, Siemens/Kraftwerk Union (KWU) to complete the pressurized water reactor. In February 1984, the KWU engineers visited the facility to assess war-related damage, but one month later the Iraqis bombed the plant again and inflicted heavy damage. Baghdad launched more raids in February and March of 1985 which promoted KWU to postpone all construction until the end of the war. Though the ostensible reason was the unwillingness to deploy German workers in a war zone, behind-the-scene pressure from Washington played a large part in the decision.³¹

Still, the Germans urged an international consortium to take over the task. A Spanish and an Argentinean company that operated KWU-type reactors were part of the new lineup. The former was involved in the construction of the Trillo plant, a 1,157 MW KWU PWR near Madrid. The latter, Empresa Nuclear Argentina de Centrales Electricas (ENACE), was a subsidiary of the Commission Nuclear Energy Argentina (CNEA) that operated a Kraftwerk Union heavy water reactor and was building another one. In November 1985, an Iranian team visited Buenos Aires to discuss Argentina's possible involvement in the construction of the reactors of Bushehr plant along with Spain. A month later the negotiations were broadened to include additional issues.³²

On May 5, 1987, after some 18 months of arduous talks, Argentina's Argentine National Institute for Applied Research, Investigaciones Aplicadas (INVAP) and the AEOI signed a \$5.5 million agreement to supply Iran with a new core for its US-built TRR. INVAP would modify the core to operate with 20 percent enriched uranium instead of the original 93 percent level of the American design. As part of the agreement, CNEA provided Iran the 115.8 kg of uranium from its Pilcanyeu enrichment plant. Also, Argentina agreed to train Iran's nuclear technicians at its Jose Balaseiro Nuclear Institute to assist in the completion of the work on Bushehr reactor. In late 1987 and early 1988, a team from Argentina CNEA visited Tehran to discuss technology for enriching uranium and plutonium reprocessing.³³

Much as Iran pushed ties with the Western consortium, the nuclear sanctum members felt that Iran would be better off working with countries less susceptible to Western pressure. Taking the lead, Rafsanjani opened intensive negotiations with the Soviet president Mikhail Gorbachev. On June 22, 1989, Rafsanjani and Gorbachev signed an agreement on nuclear cooperation with potential implication for Bushehr. The timing was quite auspicious because Ayatollah Khomeini, who died on June 3, 1989, was replaced by Ali Khamenei, a key member of the sanctum. With the blessing of the new Supreme Leader, Rafsanjani was free to redouble his efforts. On June 25, 1989, Rafsanjani and Hassan Rouhani, who acted as his national security advisor, left for Moscow to discuss a US\$1.8 billion bid to complete the Bushehr project. It thus came as no surprise that soon after, on July 3, Finance Minister Mohamad Javad Irvani declared that Germany had no interest in pursuing the project and that the Soviet Union and other countries might be better future partners. In March 1990 Moscow and Tehran signed an official nuclear cooperation agreement under which the Soviet Union agreed to finish, among others, the Bushehr project. On September 23, Reza Amrollahi, the head of AEOA, reiterated that "cooperation with the Soviet Union is the result of the unacceptable attitude of the West Germans on the completion of the Bushehr reactor."³⁴

The collapse of the Soviet Union on December 26, 1991, turned out to be a real bonanza for Tehran. Facing a bleak economic situation, Russia

was turning entrepreneurial and most eager to sell its nuclear wares. On August 25, 1992, Moscow and Tehran initialed a cooperative agreement on the peaceful use of nuclear energy, including the construction of two reactor units in Bushehr. The final agreement of January 8, 1995, signed by Russia's Ministry of Atomic Energy (Minatom) and Iran, stipulated that the main contractor, Atomstroyexport, was to install a V-320 915 MWe VVER-1000 pressurized water reactor into Building 1 of Bushehr.³⁵

Defending its decision, Russia explained that Iran did not violate any of the NPT provisions. Moscow maintained that the Bushehr light water reactor would pose no challenge to proliferation since it was under the IAEA Safeguards. It further contended that the Russian reactor was of the same type of a proliferation proof light water reactor which the United States had agreed to sell to North Korea as part of the October 1994 Agreed Framework. Most importantly, Russia declared that it would supply uranium to the reactor and return the spent fuel to Russia for the duration of the reactor's life. The Russian government assured the West that Iran would not be able to process the plutonium contained in the spent rods, a technique discussed in chapter 1.³⁶

Nuclear scientists faced unemployment when Russia downsized its extensive nuclear research and development holdings. Yevgeni Adamov, then head of the Scientific Research and Design Institute of Energy Technologies (NIKIET) arranged for fourteen of them to be hired for a reputed \$20,000 salary in Iran. After arriving in 1992 and 1993, six went to work in the Karaj nuclear site and the rest were split among Gorgan secret nuclear research facility known as al-Kabir Center or Neka and other nuclear centers. Sergey Ryzhov, Gennady Banyuk, Nikolay Trunov, Andrei Trokinov, and Valery Lyalin worked at the Bushehr nuclear plant. Damavand Plasma Physics Research Centre (DPPRC) recruited Vyacheslav Danilenko who, according to documents handed subsequently to the IAEA, worked there for some years on developing and testing an explosives package for a nuclear warhead. Additional Russian experts, along with a number of South African technicians, were hired in 1996 to do research on laser separation of uranium. This was an area in which Russia and South Africa were known to have collaborated.³⁷

Communist China, another country where American leverage was weak, offered additional opportunities. In 1985 China supplied the Isfahan center with a training reactor. Five years later, in June 1990, the two countries signed an agreement for constructing a micro-nuclear research facility in Isfahan. A more comprehensive deal which included the building of a 27 MW plutonium reactor in Isfahan followed. Chinese officials revealed that these agreements resulted, among other things, in the transfer of a smaller nuclear reactor and an electromagnetic isotope separator (Calutron) for

commercial and peaceful uses. On March 14, 1991, the Isfahan Nuclear Technology Center (INTC) designed to house the Chinese reactor, was officially opened.

Though the Chinese equipment was not capable of producing weapon-grade material, it provided the Iranians with critical know-how in a whole range of skills in enrichment and other technologies like chemical separation, assistance in processing yellowcake, and the design for facilities to convert uranium into uranium hexafluoride. This so-called sensitive material assistance defined in chapter 1 was crucial in jump-starting the Iranian project. Even after China signed the NPT and joined the NSG in 1992, Beijing allegedly supplied Iran with technical data on plutonium separation and sold an unknown quantity of tributyl phosphate, a chemical used for extracting plutonium from depleted uranium. China also sold Iran anhydrous hydrogen fluoride used in the production of uranium hexafluoride, according to several reports.³⁸

At the request of the Artesh and the Revolutionary Guards, China allowed a team of Iranian military personnel and nuclear experts to observe its scheduled nuclear test in 1996. Perhaps as important, starting in the late 1980s, an undermined number of Iranian nuclear engineers and technicians trained in China.³⁹

On September 10, 1992, Rafsanjani visited Beijing to negotiate the purchase of one or two 300–330 MW reactors. Akbar Torkan, the defense minister who accompanied Rafsanjani, announced the deal but things began to unravel soon after that. The AEOI unilaterally tried to relocate the reactor site from Darkhovin to the less seismically stable site in Bushehr and then refused to let the Chinese to survey the site. The United States immediately protested and, consequently, the agreement was canceled, and the trade was postponed.⁴⁰

In addition to China and Russia, the regime nurtured a close relationship with Pakistan which had begun buying Iranian oil in the mid-1980s. While President Zia ul Haq was reticent about sharing nuclear technology with Iran, his deputy chief of staff General Mirza Aslan Beg, a dedicated Islamist, believed in promoting the Muslim bomb. Studying and teaching nuclear proliferation convinced him that the United States and its allies have engaged in “nuclear outsourcing” to friendly regimes acting as regional nuclear proxies. But Beg was unable to overcome his government’s refusal to sell nuclear weapons to Iran. Instead, on his visit to Iran on February 19, 1986, Beg suggested the services of Abdul Qadeer Khan, the architect of the Pakistani atomic bomb.⁴¹

Soon after, a delegation from the AEOI which included its deputy director Mohammed Reza Ayatollahi and Seyed Mohammed Haj Saeed, the chief of AEOI Directorate of Research, met with Abdul Qadeer Khan. Khan started

his career at the Physical Dynamics Research Laboratory (FDO), a subcontractor of Manufacture of Uranium Enrichment (URENCO), a uranium consortium owned by the Netherlands, the UK, and West Germany. Sometime between 1972 and 1975, Khan acquired URENCO's highly secret blueprint for two types of centrifuges, G1 and G2. He then passed the highly classified information to the Pakistani authorities and subsequently used it to build the Kahuta enrichment plant in the 1980s. Khan's exploits made him a national hero, earning him the name of the "father of the Pakistani nuclear bomb." As one observer put it, "Khan ... gave the country a credible deterrence for a paltry sum of money."⁴²

Having created the first Muslim bomb, Khan was eager to spread his knowledge around, not least because of the considerable financial benefits of selling atomic secrets. He created a complex and illicit procurement network that, over time, evolved into a vast consortium of nuclear-black-market activities. The computer seized from Khan's business partners, the Swiss-based Tanner family, indicated a wide range of products offered by the "Khan nuclear bazaar." Clients could buy an entire array of know-how and services for the enrichment cycle, including sample centrifuges, and even a design of a warhead small enough to be fitted on a missile. Thanks to Khan's network with its "one-stop shopping," aspiring proliferators like Iran could shorten their quest for a nuclear arsenal. In the words of one analyst, "Khan was a middleman: a broker for businesses willing to supply and for states wanting to buy; he fused the commercial greed of the former with the strategic interests of the latter."⁴³

Khan's role in Iran's proliferation cannot be overstated. According to Khan's confessional report of 2004, Beg encouraged his cooperation with Iran which Ghulam Ishaq Khan who replaced President Zia ul Haq in 1988 tacitly supported. According to his version, clandestine trade with Iran was explicitly authorized by Beg and encouraged by Prime Minister Benazir Bhutto's military adviser General Imtiaz Ali, who allegedly set up a meeting between Khan and the Iranians in Karachi in November 1989.⁴⁴

In February 1986 A. Q. Khan made a secret visit to Bushehr. In January 1987, at the request of Rafsanjani, Khan was flown on a private plane to meet with Iran's top leadership in a guesthouse run by the Ministry of Intelligence and Security in Parchin, south of Tehran, home of a huge military base. Iran's president Ali Khamenei, who co-sponsored the nuclear project with Rafsanjani, took part in the conference. Khan also met Iran's leading nuclear scientists gathered for a high-level meeting held at Amir Kabir University. It is safe to assume that Mohsen Fakhrizadeh, a nuclear scientist and a commander in the Revolutionary Guards, was in attendance. Fakhrizadeh, one of the few nuclear scientists who stayed in Iran, was teaching at the time at Sharif Technical University, where Ali Akbar Salehi, the future head of the AEOI and a pillar of the nuclear community served as president.⁴⁵

After visiting the Bushehr site, the Pakistani scientist strongly advised his hosts to stay in the NPT to hide the illicit projects in “plain sight.” To this end, AEOI appealed to the IAEA for help with rebuilding the Bushehr reactor. Hans Blix, the IAEA chief, and a strong advocate of peaceful nuclear programs in developing countries visited Bushehr on June 23, 1989. He met with Reza Amrollahi who assured him that Iran would never resort to building nuclear weapons. Blix all but promised his support for funding to rebuild the reactor.⁴⁶

Rafsanjani and his nuclear sanctum were also making good progress with the illegal part of the project. During his visit, Khan offered to sell the Iranians a “starter package” which included several items: a set of technical blueprints for a Pakistani P-1 centrifuge, a starter kit for a gas centrifuge plant, centrifuge component samples, and instructions for enriching uranium to weapons-grade levels. Also, he promised to deliver several Pakistani-made centrifuges, a design for an atomic weapon, and an address book of his suppliers. In March 1987, a committee comprising Reza Amrollahi, Mohsen Rafighdoost, the minister of Revolutionary Guards, and Rafsanjani’s economic adviser and former head of the Central Bank, Mohsen Nourbakhsh, approved the purchase. Prime Minister Mir Hussein Mousavi authorized the payment of approximately US\$3 million.⁴⁷

Khan’s associates Bukhari Sayeed Abu Tahir and his uncle, Shaikh Mohammad Farouq, were involved in the first round of the deal. Using their office in Dubai, they transferred the centrifuges in cleverly disguised shipments. Heinz Mebus, Khan’s German associate, worked directly with Dr. Mohammed Eslami, a senior commander in the Revolutionary Guards. Eslami oversaw the creation of front companies which purchased equipment for the nuclear project. The Pakistani intelligence agency, Inter-Service Intelligence (ISI), claimed that Khan was paid US\$5 million, deposited in a Dubai bank account in the name of Haider Zaman, a name he used in a government-issued passport to hide his overseas travels.⁴⁸

TO PURSUE THE PMD EFFORT, THE SCIENTIFIC COMMITTEE, OF THE DEFENSE

Industries Education Research Institute (ERI) created the Physics Research Center (PHRC) at Lavisan-Shian in 1989. Here Fakhrizadeh would lead the weaponization program code-named Project 111. According to the 2011 IAEA report and a large cache of telexes obtained by David Albright’s ISIS, the PHRC tried to develop a nuclear explosive device and engaged in enrichment to stockpile enough fuel for fabricating a bomb.⁴⁹

While Fakhrizadeh and his colleagues in the PHRC were a step in the right direction, Rafsanjani and colleagues in the nuclear inner sanctum were

aware of the pressing need to augment the still meager indigenous know-how base. Former Soviet scientists looking for new employment opportunities were a promising recruitment ground. Reports indicated that by mid-1990s the regime recruited 16 scientists who were sent to a variety of nuclear facilities. One of them, Vyacheslav Danilenko, who taught at the Damavand Plasma Physics Center (DPPC) and held a research position at PHRC, would later prove contentious. He previously worked at the All-Russian Scientific Research Institute of Technical Physics in Snezhinsk, the premier Soviet facility for developing warheads. The institute also experimented with manufacturing nanodiamonds, a process which shares some similarities with fabricating detonation packages for nuclear warheads. Danilenko experimental work was linked to a detonation chamber, a bus-sized steel container, built in Parchin, a large military base, which would be later listed as a PMD site.⁵⁰

Since the military base was not on the IAEA list of nuclear sites, it was convenient for conducting weaponization experiments. In line with Khan's suggestion, other clandestine experiments were hidden in several existing sites or new ones created to deceive the IAEA. While under IAEA supervision, the TRR had housed an illicit experimental centrifuge program since 1988. Another one was placed in the Technical Research Center at Lavizian-Shian, the site of the giant Defense Industries Complex. The Messiah Company, a front for the Revolutionary Guards, set up the Kalaye Electric Company as electric clocks workshop. In 1995 all experimental work with centrifuges in TRR was transferred from TRR to Kalaye Electric. Seyed Hossein Mousavian, a former nuclear negotiator, subsequently admitted that "limited amounts of hexafluoride gas" were into the Kalaye centrifuges.⁵¹

THE VIEW FROM JERUSALEM

Nothing in its strategic doctrine prepared Israel to deal with a nuclear Iran. Conceived by David Ben Gurion in the 1950s, the doctrine held that Israel needed nuclear weapons for deterrence from its Arab neighbors who, in their own words, were eager to "push the Jews into the sea." Curiously enough, Israel, which did not join the NPT, developed its arsenal secretly and never declared its existence. This so-called policy of ambiguity, also known as nuclear opacity, was highly successful because it offered all the benefits of nuclear deterrence without suffering any of the penalties generally incurred by proliferators. But as Ben Gurion and other strategists made clear, Israel could enjoy this unique advantage if no other country in the region went nuclear.⁵²

Certainly, Israel did not expect any hostility from Iran. To the contrary, the Israeli leaders considered Iran, along with Turkey, to be part of the so-called

“periphery strategy.” Code-named Klil, the strategy counted on an alliance with non-Arab states to offset the strength of the Arab countries which were considered “natural enemies” of the Jewish state. Under Klil the ties with the shah were exceptionally close; in exchange for oil, Jerusalem supplied Tehran with military technology and know-how. Project Flower, an effort to produce missiles based on American and French technology, was one of the many collaborative ties between the two countries.⁵³

The Islamist revolution put an end to the special relation but did not change Israel’s periphery doctrine. Despite the harsh anti-Israeli rhetoric of Ayatollah Khomeini, sporadic contacts between Tehran and Jerusalem had continued, not least because the regime was desperate for military supplies to support its war with Iraq. In 1981 Sadeq Tabatabai, an Iranian official in charge of arms procurement, approached the Israeli Ministry of Defense which agreed to sell spare parts and munitions in an operation code-named Seashell. From an Israeli perspective, Seashell was not only a financial success but also an effort to boost the Artesh, the recipient of the supply, against the Revolutionary Guards.⁵⁴

Though Seashell was terminated in 1983, the Israeli intelligence services, the Mossad and the Military Intelligence known by its Hebrew acronym as Aman (Agaf Modin) determined that the Iranian moderates had a reasonable chance to undermine the clerical regime. Uri Lubrani, the former Israeli representative in Iran, along with David Kimchi, director general of the foreign ministry, and Yaacov Nimrodi, a former Israeli military attaché in Tehran, were the leading exponents of this view. It was partially because of the desire to help the moderates that the then prime minister Shimon Peres asked Amiram Nir, his adviser on counterterrorism, to help President Ronald Reagan’s national security adviser Robert McFarlane and one of his staffers, Oliver North, to set up a clandestine arms channel. Part of the Iran-Contra affair, the effort, which involved Kimchi, Nimrodi, and All Schwimmer, an arms dealer, resulted in the sale of 700 TOW missiles to Iran in 1985. The secret mission turned out to be a failure since no moderate Iranian politicians met with McFarlane, North, and Nir who flew to Tehran to deliver the arms.⁵⁵

While the operation triggered a political firestorm in the United States, the public reaction in Israel was much more muted. Privately though, many in the establishment concluded that “Israel cannot change Iran,” as Nimrodi put it. Lubrani, a leading expert on Iran, and the intelligence community had launched a reassessment of the periphery doctrine as a natural ally. Major General Amnon Lipkin Shahak, the then head of Aman, contended that the periphery doctrine should be discarded because of the changing geopolitical reality in the aftermath of the Egyptian-Israeli peace treaty. In this view, Egypt broke the chain of Arab enmity by becoming a peaceful neighbor, while Iran emerged as the most dangerous enemy of Israel in the region.

Having made opposition to Zionism a hallmark of its foreign policy, the regime “Islamized” the Israeli-Palestinian conflict and all but declared itself as the permanent enemy of Israel.⁵⁶

That this new permanent enemy should pursue a nuclear program was unsettling to the Israeli leaders dedicated to safeguarding Israel’s nuclear hegemony in the region. Indeed, acting upon this policy, the Likud government bombed the Iraqi nuclear reactor in 1981. Tracking the nuclear developments in Iran, however, proved to be a much harder endeavor, not least because of the elaborate deception which A. Q. Khan had suggested. Only a few small leaks surfaced in the 1980s. In April 1984, the respectable *Jane’s Intelligence Defense Weekly* reported that Iran was moving toward nuclear weapons.⁵⁷

In 1985, during the Third International Review Conference of the NPT in Geneva, rumors were alleged of Iran’s effort to procure laser separation technology. In April 1987, the *Washington Post* published an article with the title “Atomic Ayatollahs: Just What the Mideast Needs—an Iranian Bomb,” by the investigative journalist David Segal. Segal, who previously lived in Israel, gave a remarkably close account of Beheshti and Rafsanjani’s efforts to restart the nuclear program. It included the information that Fesharaki provided to the Americans after his defection. Meir Dagan, the future head of the Mossad, revealed that by 1988 the intelligence community became concerned about the possibility that the regime was developing a nuclear weapon “aspiration,” as he put it.⁵⁸

Over the next few years, both the Mossad and Aman found additional confirmation of this hunch. MEK which collaborated with the Israeli intelligence revealed that the regime, despite the economic hardship at the end of the Iran-Iraqi war, was investing heavily in all things nuclear. The Israelis also learned that in 1987 Rafsanjani allegedly commissioned a study on the possibility of Iran acquiring a nuclear weapon and a delivery system. Though MEK was not considered reliable in its earlier days, the demise of the Soviet Union provided the Israelis with a bounty of details on the secret dealings between Moscow and Tehran. The Mossad and Aman were aware of Iran’s efforts to purchase nuclear warheads or highly enriched uranium from Kazakhstan. In November 1991, Israeli officials suggested that, with Pakistan’s help, Iran could produce a bomb by the end of the decade. US officials estimated 10 to 15 years and said Iran was seeking a wide range of nuclear weapons technology.⁵⁹

By 1992 the information was apparently leaked to the press. In January, Guy Bechor, a correspondent for the leading newspaper *Haaretz*, published an article on the “Hiroshima type bomb” allegedly being sought by Iran. In April, the journalist Alon Pinkas went as far as to name his article “Thinking the Unthinkable about Iran.” Both articles were quite remarkable because they

provided some technical details beyond the usual vague references to nuclear weapons. Bechor obviously alluded to the gun-type nuclear device dropped on Hiroshima and Pinkas listed specifications of the Iranian reactors.⁶⁰

Colonel Amos Gilad, then in charge of the Iraq file in Aman, and Yacov Amidror, the head of Research Division of Aman (the equivalent of the Directorate of Intelligence in the CIA) were driving much of the new assessment. Shabtai Shavit, the head of the Mossad was also alerted to the nuclear renaissance in the Islamic Republic. Shavit recalled that the Mossad had become aware of the nuclear scientists released from Iranian prisons between 1988 and 1993. He also mentioned that the Air Force attaché in the Israeli embassy in Washington, Colonel Opher Ben Peretz, had informed him about a large number of Iranian students sent to the United States to pursue nuclear-related studies. To take measure of the situation, in 1992, the Mossad and Aman created a file on the regime's nuclear project. Shavit, however, complained that it was hard to persuade the Likud government to take the prospect of a nuclear Iran seriously.⁶¹

The Labor which took power in June 1992 was not entirely convinced either. Prime Minister Yitzhak Rabin had little patience for official intelligence, preferring to trust his instincts honed during decades of military service. Rabin had also been preoccupied the Israel-Palestinian conflict, which left him no time for Tehran. As an architect of the Israeli nuclear arsenal, Foreign Minister Shimon Peres was more attuned to nuclear intelligence. His background made him receptive to the concerns of Amidror and Gilad, who stayed on to advise the Labor government. Peres was quite alarmed about Iran's plan to buy a Chinese reactor and North Korea's collaboration on the missile project. In an interview with French television in October 1992, Peres warned the international community that Iran would have a nuclear weapon by 1999. A month later a *New York Times* article quoted Yossi Alpher, a former Mossad official turned deputy head of the Jaffe Center for Strategic Studies at Tel Aviv University, to the effect that the intelligence services identified Iran "as Enemy No. 1."⁶²

Russian Jews arriving in Israel in the early 1990s and Mossad agents reported that the regime was seeking to acquire missile technology from North Korea and Russia. Aman was particularly troubled by plans to manufacture the Shahab-3 missile, a modification of the North Korean No Dong 1. With a range of 1280 km, the missile could be equipped with a nuclear warhead, thus position an existential threat to Israel, according to Gilad.⁶³

Nuclear issues aside, Uri Lubrani, by then the coordinator for Southern Lebanon, began to report that Tehran was determined to undermine the Oslo peace accord signed by Rabin and Yasser Arafat, the Palestinian leader in September 1993. Lubrani, who continued to cultivate contacts in Iran,

in addition to his experience in Lebanon, predicted that the regime would use asymmetrical warfare to undermine Arafat and severely hurt the peace process.⁶⁴

Conceptually, the nuclear threat and the terror issue were separate, but Gilad tended to conflate them. As one observer put it, "When assessed in isolation, each component of the threat spectrum facing Israel" could be dealt with separately. However, when packaged together, the threat combined into a single package that left no doubt as to the danger that Israel faced." Still, few in the Labor government or the public were ready to deal with such ominous predictions. Ephraim Sneh, a retired brigadier general in the Israel Defense Force (IDF), and a novice Labor member of Knesset was an exception. An early and vocal advocate of the Iranian nuclear threat, he stressed, "We cannot afford a nuclear bomb in the hands of our enemies, period. They do not have to use it; the fact that they have it is enough." Disliked by many in the intelligence and foreign policy community for what was considered his over-the-top and incessant warnings, Sneh was derisively referred to as "self-appointed town crier." Nevertheless, his single-minded pursuit brought the issue to public attention, a fact in which he took great pride.⁶⁵

By the mid-1990s, the Mossad and Aman decided to focus more closely on Iran. In September 1994, the agencies obtained a "Top Secret" file leaked from Moscow detailing a secret deal between officials from the Ministry of Defense and Nuclear Industry to supply centrifuges to Iran in return for a \$50 million bribe by Tehran. Shortly before that, the German intelligence service *Bundesnachrichtendienst* (BND) stated that "there is scarcely a doubt remaining that Iran is interested in buying nuclear material on the black market." A draft of the 1996 National Assessment to which Gilad contributed reflected the new information. The document claimed that the Palestinians and Iran should be considered equal threats because the regime was not only determined to undermine the peace process but was fundamentally hostile to Israel's existence. Gilad stressed that a nuclear device would make Tehran's declared goal of eliminating the Jewish state that much easier. *Haaretz* reported that the Israeli analysts were worried because Iran was alleged to accelerate attempts to acquire unconventional weapons, which would reduce its time for achieving nuclear capability. In early 1996 there were rumors that the Air Force mapped out several nuclear facilities for a preemptive attack, but no action was ever taken.⁶⁶

Following Likud's victory in 1996, Prime Minister Benjamin Netanyahu took a fresh look at the Iran assessment. Gilad reiterated his position that Iran equipped with missiles and a nuclear bomb should be regarded as the number one threat to Israel. However, Uzi Arad, the national security adviser, urged the government to abandon the Sneh-like public emphasis on the issue. The cabinet decided to tone down the anti-Iranian rhetoric, but the secret threat

assessment was left to stand. In any event, unlike Labor that was genuinely exasperated with the Iran-inspired efforts to torpedo the Oslo agreement, the Likud was in no rush to denounce the regime. For once, the savage Palestinian suicide bombing campaign supported by Tehran played into the hands of the right wing which objected to the peace process. In the words of one observer, "Blaming Iranians for Palestinian terror was counterproductive to his [Netanyahu's] message that terror was coming from the Palestinians."⁶⁷

Netanyahu's political position dovetailed with the new strategic evaluation produced by the Planning Division in the Ministry of Defense in 1997. An official familiar with the process revealed that the military planners were more relaxed than Gilad and his colleagues in Aman. Though the Planning Division found the relations between Iran and Israel somewhat "corrosive," it did not think that a nuclear annihilation of Israel was the regime's top priority. Uri Lubrani, by then serving as a special adviser to the minister of defense, strongly objected; he contended that the "Iranian psyche would never accept Israel." But Lubrani, an ardent advocate of regime change in Iran, was apparently self-serving in his opinion. By insisting that the Islamists were implacably hostile, he hoped to convince the government to support opposition groups which, in his view, could topple the clerics. Gilad, who was subsequently promoted to head the Research Division, was also adamant that Israel should be highly vigilant about Iran's nuclear project. On May 11, 1997, Lieutenant General Amnon Lipkin Shahak, by then serving as the IDF chief of staff, declared that "Iran is quite a few years away from having a [nuclear] bomb. The only way to stop it is by not allowing it to take shortcuts through persons or through technology that can be purchased in the free world."⁶⁸

Whatever the internal consideration, Likud, like its Labor predecessor, worked hard to convince Washington of the seriousness of Iran's proliferation, a strategy that required a robust combination of intelligence and politics.

THE VIEW FROM WASHINGTON

President Ronald Reagan, having benefited from the release of the diplomats held hostage in Tehran on the day of his inauguration on January 20, 1981, hoped to chart a new course in the relations with the regime. But, like his predecessor Jimmy Carter, Regan became quickly overwhelmed by the regime's penchant for terrorism. Desperate to free the Americans kidnapped in Beirut in the early 1980s, the White House agreed to barter them for weapons, a plan which, as noted above, was proposed by Peres and Amiram Nir, who hoped to help the Iranian moderates to fight the hard-line clerics. But some in the

intelligence community questioned the story about the existence of Iranian moderates willing to adopt a more pro-American position. Robert Gates, then deputy director for intelligence recalled that the “CIA Iran experts thought differently.” He added that the CIA provided the analysis to the National Security Council (NCS), but “they chose to believe Israel.”⁶⁹

Overshadowed by the Iran-Contra affair, the Iranian nuclear issue did not receive much attention in the public discourse. Senator Alan Cranston, who ran in the Democratic primaries in 1984, tried to use the nuclear issue in his campaign. He asserted that “Iran was a mere seven years away from being able to build its own nuclear weapons.” But most observers dismissed the reference as a political ploy to use “phantom nukes.”⁷⁰

The CIA, under the lackluster stewardship of William Webster who replaced the colorful Casey, was reluctant to tackle Iran’s nuclear ambition. A potential break occurred in 1988 when agents who had monitored Khan since he had stolen the blueprints from URENCO penetrated his network. Having uncovered only a small section of his “nuclear bazaar,” and being unaware of his ties to Iran, the Agency decided not to reveal its hand. But MEK, which established a political bureau, the National Council of Resistance in Iran (NCRI), together with information from Western intelligence services kept the issue alive. In 1990 Western intelligence services intercepted several messages from Sharif University of Technology and Fakhrizadeh’s PHRC discussing the purchase of components required for weaponization. In June 1991, the NCRI called a press conference to announce that the regime was conducting secret experiments on the Khan centrifuges in Moalem Kalaye and other sites. Massoud Naraghi, a senior official at the AEOI who defected to the United States in 1993, confirmed the group’s revelations. Naraghi told the CIA debriefers that he had met with the Pakistani scientist in Dubai in 1987 and was familiar with the centrifuge program in Iran.⁷¹

The small group of journalists covering nuclear issues questioned Washington’s reluctance to disclose the Khan affair. In May 1991, Mark Hibbs, a journalist specializing in nuclear affairs, reported in *Nucleonics Today* that Iran had launched a secret uranium project with the help of Khan. Hibbs and other journalists alleged that Richard Kennedy, the American representative to the IAEA supplied this information. The journalists speculated that Robert B. Oakley, the then American ambassador to Islamabad knew about Khan and General Beg, but there was “no appetite” in Washington to expose them.⁷²

Political motivations aside, the CIA did not consider Iran a likely candidate for proliferation. Gordon C. Oehler, CIA’s national intelligence officer for science, technology, and proliferation and subsequently the director of the Non-Proliferation Center (NPC), considered Reza Amrollahi corrupt and incompetent, the AEOI hopelessly mismanaged, and the Iranians

too “technologically inferior” to launch a nuclear program. Robert Gates, appointed by President George H. W. Bush in 1991 to head the Agency, agreed with Oehler. A 1991 CIA report stated that “although the Iranian leadership is interested in an atomic weapon, the program is too disorganized to be taken seriously.” Not surprisingly, Amrollahi was all too eager to agree: On August 3, 1991, the AEOP chief stated that “Iran is not capable of making atomic bombs. Our objective in promoting nuclear industries ... is merely its peaceful use especially in the field of atomic energy and its application in agriculture and medicine.”⁷³

With the CIA’s official skepticism on public display, the Israelis changed tactics. Gilad had continued to meet with the CIA officials, and others worked with the House Republican research committee called the Task Force on Terrorism and Unconventional Warfare which was chaired by Representative Jim Saxton from New Jersey. Yossef Bodansky, an Israeli-American who served as the director of the Task Force, was a controversial figure because of his close ties with the Israeli intelligence. In February and July 1991, the Task Force reported that Ayatollah Rafsanjani was studying an alleged Soviet offer to set up a secret nuclear production facility. Additional Task Force reports asserted that Iran bought several nuclear warheads from Kazakhstan. It is more than a passing possibility that, given the complex deception protocols outlined in chapter 1, the Agency opted to treat the reports as less than stellar.⁷⁴

Still, Gilad was not ready to concede defeat. He appealed to the American Israel Public Affairs Committee (AIPAC), the premier Israel lobby group, to publicize the issues of the “atomic ayatollahs” in Washington. The Washington Institute for Near East Policy (WINEP), a think tank founded in 1985 by Martin Indyk, a former AIPAC official, convened several forums on the issue. Indyk was also the intellectual architect of the dual containment policy, a reference to the adding Iran to the containment policy which the United States developed to deal with the Iraqi nuclear program. Indyk formally unveiled his dual containment policy during a WINEP panel in May 1993.⁷⁵

During his confirmation as the chairman of the joint chief of staff in September 1993, General John Shalikashvili told Sam Nunn, the chairman of the Senate’s Armed Services Committee, that the intelligence community suspected Iran of nuclear aspiration since the early 1990s. He predicted that Iran would be able to acquire a nuclear weapon in 8 to 10 years.⁷⁶

Shalikashvili’s revelation, however, made little impact in Washington. President Bill Clinton who took office in 1993, was far from eager to promote the alleged Iranian nuclear threat. In a pushback to the AIPAC-WINPAC initiative, Iran launched its own public relations campaign in the United States. Atieh Bahar Consulting (ABC), a firm founded by members of the influential Namazi family in 1993, recruited Bob Ney, a Republican congressman from

Ohio as a spokesperson. Ney hired two professional lobbyists, Roy Coffee and David DiStefano, as well as Trita Parsi, an Iranian graduate student from Sweden who would go on to establish an official Iran lobby modeled on AIPAC. The Republicans, however, decried the ABC initiative, warning about turning Rafsanjani into a “new Middle East darling.” Unfortunately for the nascent pro-Iran lobby, Ney was later convicted for contravening the American embargo by selling spare parts to the regime.⁷⁷

Even without the Ney fiasco, it would have been hard to soften Clinton’s position on the nuclear issue. Because of American leadership of the nonproliferation efforts, Clinton could not afford to relax his view on possible proliferation in Iran, at least publicly. On September 27, 1993, the president told the United Nations General Assembly that “one of the most urgent priorities must be tackling the proliferation of weapons of mass destruction.” In December, his secretary of state Les Aspin launched the Counter-Proliferation Initiative (CPI) which promised to combine “global diplomacy and regional security efforts with the denial of material and know-how to would-be proliferators.” Ashton Carter, assistant secretary of defense for Nuclear Security and Nonproliferation called for “political and economic deterrence” against would-be proliferators. Though Iran was not mentioned by name, the message was that dual containment, by then officially embraced by AIPAC, was to go forward. On February 24, 1994, Indyk, by then the director of Middle East Affairs on the National Security Council, made the dual containment policy official. The document declared Iran to be a “rogue state” whose interests were inimical to that of the United States. Since military action against the nuclear facilities was not deemed practical, Indyk suggested economic sanctions along the lines applied to Iraq.⁷⁸

Undeterred by such strong language, the Iran lobby tried another maneuver to win over the White House. Pushing against a plan to offer the French Total company a tender to develop the Sirri offshore field, Rafsanjani persuaded Ayatollah Khomeini to offer the deal to the Conoco Corporations. In March 1995 Iran’s Oil Ministry offered the Texas-based Conoco Corporation a \$1.6 billion deal to develop the Sirri offshore field in exchange for a share of production. Conoco planned to use its Dutch affiliate to run the project so as not to run afoul of US sanctions. A consortium of oil and gas companies such as Chevron, Amoco, and Pennzoil-Quaker State were eager to do invest in Iran and therefore supported the arrangement. Iran’s Oil Ministry made the agreement official in March 1995. But AIPAC was determined to prevent the deal and appealed to Congress. After several White House maneuvers to stave off congressional action, on September 8, 1995, Senator Alfonse D’Amato, a Republican from New York, introduced the Iran Oil Sanctions Act. It closed the American loophole and mandated secondary sanctions on foreign firms that invested more than \$40 million in Iran. In other words, Conoco’s

Dutch surrogate was out of the running. On July 16, 1996, Congress passed an updated version of D'Amato's bill which added Libya to the roster. The White House was said "to have hated" the Iran Libya Sanctions Act (ILSA), but Clinton signed it into law on August 5.⁷⁹

Mousavian recalled that Ayatollah Rafsanjani who persuaded the Supreme Leader to approve the Conoco offer had considered the sanctions a "slap in his face." In a subsequent interview on CNN, Rafsanjani denied that Iran had nuclear ambitions and complained that the "Americans situated themselves within the Zionist propaganda."⁸⁰

The outcry from the Iran lobby, oil companies, pro-Iran activists, and some academics was immediate. Gary Sick, an Iran expert on President Carter's National Security Council turned professor, asserted that "Iran is ripe for peaceful overtures [by America]" and the "trend has been toward moderation." The Middle East Council, a pro-Arab think tank led by Charles "Chas" Freeman, a former ambassador to Saudi Arabia, lamented the "relentless pursuit" of Tehran. Richard Haass, a leading sanction expert at the Brookings Institution, lashed out against "single issue constituencies" for creating "sanctions madness," a coded reference to the Israel lobby. Some commentators dispensed with euphemisms altogether. Leading the way was Sick, who popularized the controversial October Surprise, a claim that the Reagan campaign, desperate to defeat Carter, conspired with Israel to delay the release of the American diplomats. Sick accused AIPAC of "leading the drumbeat of attacks on Iran" and besmearing the regime's reputation to make it easier on Congress to impose sanctions.⁸¹

For their part, pro-Iran activists sought to discredit the MEK-NCRI. They suggested that the Israeli government had supplied the group with fallacious information hand-tailored to help AIPAC to push for sanctions. Others pointed out that Clinton announced the sanctions in a meeting of the World Jewish Congress in New York wearing a skullcap and standing next to Shimon Peres: "it gives credence to the criticism of the US foreign policy elites that US policy toward Iran is all stick."⁸²

Taking a back seat to the heated political discourse on ILSA were the empirical facts. For reasons noted in chapter 1, stellar nuclear intelligence is difficult to produce, and deception practices by players have muddied the water. The IAEA's Safeguard Reports, the authority of record, were questioned by those who accused Hans Blix, the general director, of being overly sympathetic to Iran. Blix certified Iran in compliance with the NPT when the inspectors failed to find the illicit facility in Moalem Kalaye. NCRI explained that the Iranian deceived the inspectors by driving them to a different site under a heavy cover of snow, but the debacle hurt the reputation of the group and, by implication, Israel.⁸³

In a search for facts about Moalem Kalaye, President Clinton could hardly rely on the CIA which under his tenure was reeling from a series of scandals

which affected morale and increased politicization. His first director James Woolsey was a hard-liner receptive to the idea that Iran wanted to weaponize its civil nuclear program. In his 1993 confirmation testimony in Senate, Woolsey stated that “although Iran is still eight to ten years away from being able to produce its own nuclear weapon” the United States is concerned that, with foreign assistance, Tehran can become a nuclear power earlier.⁸⁴

But Woolsey was removed in January 1995 after Aldrich Ames was found to be a KGB mole. His replacement, John Deutch, was a Massachusetts Institute of Technology (MIT) scientist with a good understanding of proliferation. But Deutch spent most of his time dealing with the aftermath of a public relations fiasco when it was revealed that the Agency helped the Guatemalan military to fight Marxist guerrillas. George Tenet, appointed on December 15, 1996, was a seasoned insider who understood counterproliferation. Still, the available intelligence was not specific enough to offer a robust prediction. The CIA joined the Department of Defense and the US Arms Control and Disarmament Agency (ACDA) and concluded that Iran would acquire a nuclear weapon in the early 2000s. In 1995, John Holum, ACDA’s director stated that “Iran could have a bomb by 2003.”⁸⁵

In any event, the White House was most reluctant to highlight the forecast so as not to sour the charm offensive of Ayatollah Rafsanjani. Even when the FBI found evidence linking Iran to the bombing of the Khobar Towers in Dhahran, Saudi Arabia, in 1996, the administration blocked the investigation. This resulted in an unseemly public spat between Louis Freeh, the then head of the FBI, and the president. The FBI implied that officers in the CIA’s Iran Task Force suppressed information compromising the regime. Other critics noted that the State Department diplomats worked hard to cover up Iran’s complicity. They were especially critical of Adam Ereli who worked in the Department’s Office of Press and Public Service, for stating that “I think there is a dearth of hard evidence to back this up.”⁸⁶

Despite the reticence of the Clinton administration to deal with potential Iranian transgressions, Amos Gilad had continued to travel to Washington. In 1995 he met Al Gore’s national security adviser Leon Fuerth to brief him about the ties between Iran and Russia which were based on the information from the secret Russian file noted above. In 1996 Gilad shared the information with political and intelligence officials. Fuerth was so impressed with Gilad’s presentation that he and Gore persuaded the president to pressure the Russian president Boris Yeltsin to clamp down on nuclear transfers to Iran. To the intelligence community, beholden to the ACDA opinion that Iran’s “scientific and technical base remains insufficient to support major nuclear programs,” it seemed logical that the regime would purchase readymade elements from Russia. In 1997 Gilad returned with a plan to establish a cooperative intelligence program to monitor nuclear material and ballistic technology

leaking from the former Soviet Union to Iran. The new forum was aptly dubbed the Leakage Committee.⁸⁷

Congress embraced the findings of the Leakage Committee amid a flurry of new hearings on the issue. In April 1997 David Welsh and Robert Einhorn, a top expert in nonproliferation, testified to the Senate Foreign Relations Committee Subcommittee on Near Eastern and South Asian Affairs that “Iran has dedicated civilian and military technologies that are not consistent with a purely peaceful nuclear program.” At the same time, the experts echoed Major General Lipkin Shahak by expressing confidence that cutting off Iran from its international suppliers would hamper the regime. But, like the Israelis, Welsh and Einhorn identified Russia, and to a lesser degree, other state proliferators as the main culprits behind Iran’s progress. Not surprisingly, the Israelis seemed to be satisfied with the Clinton administration stand, as expressed by Welsh and Einhorn, among others. A *Los Angeles Times* article quoted an anonymous senior Israeli official to the effect that “Iran nuclear ambition was delayed until the middle of the next decade because of U.S pressures on Iran’s nuclear suppliers.”⁸⁸

Whatever satisfaction the Israelis and the Clinton administration took from pressuring Moscow, and other Iranian suppliers was short lived. Both countries and their intelligence services would soon face new challenges in deciphering the web of deception put up by the regime.

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Chapter 3

The Great Deception

The Nuclear Project in the Age of the Dialogue of Civilization

THE VIEW FROM TEHRAN

On May 23, 1997, Seyyed Mohammad Khatami, a former member of the Majlis and the minister of culture and Islamic guidance was elected to replace Akbar Hashemi Rafsanjani as Iran's president. Plucked from relative anonymity, Khatami came to power on a platform of liberalization and reform, both domestically and abroad. He stressed such themes as the building of civil society, the rule of law, the protection of civil liberties guaranteed by the Constitution, and a moderate foreign policy.

The new president raised extravagant hopes, mainly among Western analysts. Some observers described the election as "the dawn of a new era," "a new stage in the history of Islamic Republic," and even a "second revolution." The anticipation was that Khatami would protect human rights, support political and cultural openness, strengthen burgeoning democratic efforts, liberalize the economy, integrate Iran into the community of nations, and pursue peaceful relations with the rest of the world. He was described as a president with "one foot in Western civilization" and the Muslim Martin Luther about to usher the long-awaited Islamic Reformation, a reference to the religious liberalization akin to the Protestant Reformation.¹

A newspaper article noted that Khatami is an intellectual "whose worldview differs with that of the ruling system." Ray Takeyh and Ali Ansari, two distinguished Iran scholars, suggested that the "Khatami revolution" was irreversible, making a return to the pre-1997 situation impossible. There was also some more optimism in Iran. Because of Khatami's plan to reform the revolutionary system, some scholars referred to him as "Ayatollah Gorbachev," a reference to Mikhail Gorbachev's efforts to modernize communism and open the Soviet Union to the West in the late 1980s.²

Much of this euphoric commentary drew from Khatami's unique foreign policy vision known as the "Dialogue among Civilizations." Unlike the parochial and insular leaders of the revolution, Khatami was a well-educated man with knowledge of Western history and culture and a keen eye for the discursive practices of the international community. It was not lost on him that after years of revolutionary excesses, sensational terrorist attacks around the globe, and brutal repression at home, the image of Iran was badly tarnished. Nor was he oblivious to the fact that Western misgivings about militant Islam as embodied by the regime became conceptualized as the "Clash of Civilizations." Bernard Lewis, an eminent scholar of the Middle East, first warned about the coming clash between the West and the Islamic world in an article in the *Atlantic* in 1990. Samuel Huntington, a prominent political scientist, elaborated on this theme in an iconic 1993 essay "The Coming Clash of Civilizations" and a subsequent book. By the mid-1990s, the Lewis-Huntington theory penetrated the popular culture, a development which Khatami tried to arrest.³

Much as Khatami viewed the dialogue as a cultural manifesto, it was also intended as a message that Iran was ready to come out of isolation and assume a more active role in global affairs. In practical terms, Khatami hoped that the new discursive paradigm would lead to "a reduction in international tensions" and "a détente with the outside world." As he noted, "Foreign policy does not mean guns and rifles but utilizing all means to convince others." The concept of reduction of tensions (*tashanoj zadaei*) raised hope for a possible reconciliation with the United States. During his Majlis swearing-in ceremony on August 4, 1997, Khatami stated: "We are in favor of a dialogue among civilizations and a détente in our relations with the rest of world." He brought the same message—dignity, wisdom, and prudence in international relations to the 1997 Organization of the Islamic Conference, a gathering attended by countries still rattled by Iran's revolutionary export. The new president assured the participants that Iran desired to usher a new era of economic and political goodwill across the region and the world.⁴

In yet another dramatic move, in an interview with CNN's correspondent Christiane Amanpour on January 7, 1998, Khatami declared Iran's readiness to improve relations with the United States. Using a conciliatory tone, he came close to apologizing for seizing American diplomats in Tehran in 1979 and confessed to regretting the incident: "I do know that the feelings of the great American people have been hurt, and of course I regret it." The president denounced terrorism in all its forms and described it as un-Islamic because the Koran stated that the slaying of one person was tantamount to the killing of all humanity.⁵

Celebrations of the dialogue aside, it was Khatami's stand on the nuclear issue that mattered the most to policymakers and intelligence officials in

Israel and the United States. For his part, Khatami did the most to create the impression that Iran did not need a nuclear bomb, an effort that required creative diplomacy on two fronts. First, the Khatami administration embarked on a campaign for a nuclear-free zone. Despite severely strained relations with Egypt, Tehran reached out to Cairo to revive their one-time collaboration which dated to the 1970s, to turn the Middle East into a nuclear-free zone. Also, Khatami sought to engage Saudi Arabia in the process, telling Saudi officials in May 1999 that Iran was only interested in civilian nuclear energy. For Khatami, the nuclear-free zone campaign was a win-win. On the one hand, Iran could castigate Israel, the only nuclear power in the region; on the other hand, it could assure its Arab neighbors of its peaceful intentions.

Second, the government embraced an aggressive policy of denying any reports about alleged nuclear developments in Iran. Hassan Rouhani, by then the secretary of the Supreme National Security Council, doubled as the chief nuclear negotiator and spokesman. It was Rouhani who was credited with creating a highly effective policy of denial and deception protocol. Laurent Fabius, the French foreign minister described it sarcastically as “eloquent dissimulation, wasting time to avoid being brought up before the Security Council, leading the European along, a policy of *fait accompli*, research, and enrichment proficiency.”⁶ In private, Rouhani himself called the tactic “playing the West slow.” Accordingly, Khatami and numerous regime officials continuously emphasized the peaceful nature of the nuclear program and attacked all allegations to the contrary as a “Zionist” misinformation campaign. For instance, Ali Shamkani, the head of the defense ministry, extolled the virtues of nuclear electricity in a speech on August 22, 1999, and denounced the “Zionist circles” for spreading falsities about nuclear weapons.⁷

For many Iran watchers in the West, Khatami’s successful public relations campaign was positive proof that Tehran was mending its ways. Unfortunately, they overlooked the peculiarity of the negotiated political order which enabled the hard-liners to challenge the president and subvert his plans. Reacting furiously to the Dialogue of Civilizations, the hard-liners insisted the revolution must be protected from the West and particularly from the “humiliating influence” of the Americans. Conservative media asserted that Khatami had no right to open an official dialogue with the United States since it was not within the prerogative of his office. More ominously, Ayatollah Khamenei made it clear during a Friday prayer gathering on January 2, 1998, that reports of rapprochement between Iran and the United States were nothing but worthless propaganda. The Supreme Leader warned that Khatami’s conciliatory approach was a “Trojan Horse that enabled our enemies to strike [against] Islam at home.” In what was one of the many paradoxes of the negotiated political order, a

Shahab-3 missile wrapped in a banner reading “wipe Israel off the map” was displayed in a parade in Tehran in September 1999.⁸

Khatami’s failure to prevent such a blatant display of belligerence was indicative of his rather precarious political position in general and particularly in the nuclear field. By the time Khatami assumed office, his predecessor, Akbar Hashemi Rafsanjani, had laid the foundation for a nuclear infrastructure that would have been difficult to reverse. The degree to which Khatami was aware of both the legal and clandestine part was never fully determined. What was clear, however, was the considerable progress made on the enrichment cycle and ballistics during his first term in office. Indeed, a subsequent study found that by the year 2000, Iran accelerated its efforts in seeking nuclear-related materials from a variety of sources, including Russia. The study noted that Khatami’s reformist government made no difference in the pace and direction of Iran’s nuclear program. While apparently not involved in day-to-day nuclear decisions, Khatami was a loyal supporter of the clandestine project. In other words, while touting the dialogue among civilizations, he was firmly engaged in the deception project.⁹

The Bushehr plant, the public face of Iran’s nuclear endeavor, was eagerly promoted by the Khatami administration. After a series of delays and construction mishaps, the Russian minister of atomic energy Yevgeny Adamov took personal control. At the end of November 1998, Adamov announced that, under a new agreement, Russia would complete the first reactor at the cost of US\$800 million and was looking toward building three additional ones estimated at US\$3–4 billion. He added that Iran was serious about its nuclear energy and stressed that the technology was “strictly peaceful.”¹⁰

But the restructuring of the nuclear bureaucracy had shifted much of the control to the Revolutionary Guards and the Security and Intelligence Office of the IAEO, a unit with tenuous accountability to the state. In 1997, Reza Amrollahi, the AEOI chief, was replaced by Gholam Reza Aghazadeh, an energetic politician with a string of senior positions in the government. The highly motivated Aghazadeh became a cheer leader for the project. A visiting American nuclear scientist noted that the renewed “spirit of mobilization” reminded him of his time working on the Manhattan Project. Aghazadeh told him that the young scientists often slept in their offices to finish the project before the American pressure would bring it to a stop.¹¹

The Supreme Council of Technology (SCT) was created to plan both the civilian and the military parts of the programs. Subsequently released information revealed that the SCT prepared an outline for mastering the entire enrichment cycle: mining uranium ore; milling it to produce uranium oxide concentrate, known as yellowcake; converting the yellowcake into hexafluoride gas (UF₆); and enriching it to weapon-grade strength.¹²

In order to implement the SCT plan, the nuclear establishment decided to construct a much larger plant than the tiny clandestine Kalaye Electric Company where centrifuges based on Khan's P1 blueprints were fabricated. Located in Natanz, in the Isfahan Province, the new facility was designed to house up to 50,000 gas centrifuges in two chambers. According to Rouhani, the secret construction started in March 2000. Built in a 25-foot-deep underground space covered by cement and concrete, the facility contained a 164 x 12 foot pilot-scale facility where nuclear engineers tried to modify the Khan's P1 and P2 centrifuges into the slightly faster running IR1 and IR2 models. Mounds of earth covered the site to avoid detection. Power lines were hidden, the entrance was camouflaged by a dummy building, and the power supply facility masqueraded as a cafeteria. The project, estimated at \$2 billion was off the books, was funded by a secret account at Bank Sepah, the financial linchpin of Iran's missile procurement network and controlled by the Revolutionary Guards. The Guards employed two of their companies to build the facility: the Tose'eh Silo Company, a heavy industry engineering firm responsible for building nearly 65 percent of the Natanz site and the Sazeh Pardaz Company of Iran, responsible for building nearly 33 percent of the site's infrastructure.¹³

Progress was also made on the heavy water production facility and heavy water reactor planned since the late 1980s. In the mid-1990s private Russian entities gave Iran significant design assistance for the reactor and apparently helped with conducting certain tests at the Isfahan nuclear research center. Located in Arak, the IR-40 reactor was expected to produce 40 MWth of power and use natural uranium oxide fuel from the Isfahan conversion and fuel fabrication facilities. To conceal its role, the Guards created a dummy entity, the Mesbah Energy Corporation, to carry out the construction. Once fully operational, Arak was expected to produce 9 kg of plutonium annually, enough material for two bombs. The combined Arak and Natanz facilities would have allowed Iran to fabricate highly enriched uranium for nuclear weapons. Rouhani was quite concerned about the vulnerability of the Natanz complex to aerial attacks. He recalled that the regime had resolved to obtain from Moscow the powerful S-300 surface-to-air missiles.¹⁴

Anticipating the fabrication of a nuclear weapon, in 1999, the Physics Research Center (PHRC) was restricted and renamed the Organization for Planning of Special Supplies (OPSS), known also by its Persian acronym as AMAD (*Sazman-e Tarahi-e Tadjizat-e Vizheh*). Tellingly, the OPSS oversaw three projects: Project 1—Weapons System, Project 2—Uranium Enrichment, and Project 3—Uranium Conversion. As part of Project 1, Mohsen Fakhrizadeh commenced the building of a high explosive cylindrical chamber to conduct high explosive and hydrodynamic experiments in Parchin. The latter are experiments in which fissile and nuclear components may be

replaced with surrogate materials. In 2000, the chamber was completed, and a structure was built around it to prevent detection by satellites. According to the IAEA report, “a large earth berm was subsequently constructed between the building containing the cylinder and a neighboring building, indicating the probable use of high explosives in the chamber.” The report further noted that “the IAEA has been able to confirm the date of construction of the cylinder and some of its design features (such as its dimensions), and that it was designed to contain the detonation of up to 70 kg of high explosives.”¹⁵

Independent sources noted that this cylinder was suitable for performing experiments on the R265 round multipoint initiation system. A finished R265 devise was a hemispherical shell made from aluminum with a 265 mm inside radius and a 10-mm thick wall. Channels cut into the outer surface of the hemispheric shell measuring 1 mm x 1 mm contained explosive material and terminated in a cylindrical hole of 5 mm in diameter. With an outer radius of 275 mm (diameter of 550 mm), the R265 was said to fit inside the payload chamber of a Shehab-3 missile estimated at 600 mm.¹⁶

During the first term of Khatami presidency, the Guards had vastly expanded the ballistic missile project which his predecessor Ayatollah Ali Akbar Rafsanjani had ordered. Under control of the Missile Corps, the Sepah Moshaki created in 1996, the Guards increased the production of long-range missiles. The Guards-owned Shahid Hemmat Industrial Group (SHIG) located in Malard near Tehran became the hub of the missile production effort. SHIG worked very closely with the Iran’s Aerospace Industries Organization (AIO) and its subsidiary the Sanam Industries Group which purchased parts and technology for fabricating the missiles. The Sanam Group, also known as the Parchin Missile Industrial Group, was located on the same Parchin base which housed the cylindrical chamber for testing of the R265 devise.

In the late 1990s, reports had surfaced that Russian missile propulsion technology played a major part in the missile project. Moscow allegedly sold Iran the technology used in the RD-214 rocket engine powering the SS-4 medium-range ballistic missiles. Around the same time, it was revealed that missile guidance components were also sold.¹⁷ The Russian Central Aerodynamic Institute (TsAGI) in Zhukovskoye outside Moscow and Rosvooruzheniye, the Russian state arms export company, constructed a wind tunnel and other testing facilities for the missile program in SHIG.¹⁸

More serious collaborations involved exports of guidance and engine components, high-strength steel and special alloys, and manufacturing and test equipment. Additionally, two Russian defense firms were known to have sent specialists to Iran. The Inor Production Association (Inor NPO) had provided Iran with lasers and mirrors used in missile guidance systems, as well as other components, materials, and manufacturing equipment. In May

1997, the Inor NPO had supplied Iran with maraging steel, a high-strength steel suitable for use in missile fuel tanks or solid-fuel missile casings, as well as gas centrifuges for enriching uranium. Later, reportedly, the Inor NPO had supplied Iran with 620 kg of special metal alloys and shielding foil. On March 26, 1998, Azerbaijani customs officials seized an illicit shipment of 21 MT of maraging steel enroute to Iran shipped by the Russian firms Yevropalas 2000 and the now-defunct MOSO Company. Other potential transactions were aborted because of fear of breaking international sanctions. For example, an Iranian entity approached the Russian firm Samara State Scientific and Production Enterprise-NK Engines (affiliated with NPO Trud) to produce turbopump components. But the Russians rejected the request when they realized that the parts were destined for a rocket engine, most likely the RD-214.¹⁹

All along, Russia was training Iranians in the relevant skills. In 1997, 25 Iranian students from the Sanam Industries Group, were studying missile design at Baltic State Technical University in St. Petersburg and Bauman Moscow State Technical University. In April 1998, Iranians had received training in missile propulsion and guidance technology at the Moscow Aviation Institute.²⁰ On July 13, 1998, the Komintern Plant in Novosibirsk and the Tikhomirov Institute near Moscow had sent missile specialists to work in Iran via Tajikistan, using false travel documents to circumvent travel regulations.²¹

Even though the Dialogue of Civilizations was grabbing international headlines, Israel showed remarkably little faith in Khatami's ability to turn the regime around, especially in the nuclear field.

THE VIEW FROM JERUSALEM

Following the election of Khatami, the intelligence community engaged in a lively debate about the theory and practice of his dialogue. Ephraim Kam, a former official in Aman, a deputy director of the Institute for National Security Studies (INSSA), formerly known as the Jaffe Center, recalled how the community had concluded that Khatami would have little impact on the regime's foreign or nuclear policy. According to Kam, the intelligence community also revised its estimate about the alleged slow pace of Iran's technological progress. The new thinking was that the Iranians had overcome some of their early difficulties and would be able to produce a bomb by the mid-2000s.²²

There was also some evidence that the new assessment was prompting a rethinking of Ben Gurion's nuclear doctrine. In early 1998, Zeev Schiff, the military correspondent for *Haaretz* with extensive ties to the security

establishment, urged to update the “anachronistic [security] doctrine written in the 1950s.” Echoing military concerns, Schiff urged the country develop “early warning systems based on satellite technology to negate threats.”²³ A few months later the *Jerusalem Post* carried a story about Rafi Elul, a former Labor Knesset member, who obtained documents from an exiled Iranian scientist working with an American intermediary. The document alleged that nuclear weapons worth \$25 million were delivered to the Lavizian-Shian facility, but the Iranians could not use them because of their safety mechanisms. Despite its sensational nature, the Elul narrative was, like the dozens of stories about the “nukes from Kazakhstan” which had circulated since the early 1990s, however, largely ignored.²⁴

But new information about Russian basaltic technology in Iran, both legal and illicit, raised more serious concerns. The capacity of the Shahab-3 to reach Israel and the work on the more advanced Shahab-4 and Shahab-5 models which could carry nuclear warheads presented a strategic problem. Through its sources in Moscow, Israeli intelligence officials obtained new information about the secret dealings of several Russian entities. Among them were the N.A. Dollezhal Scientific Research and Design Institute of Energy Technologies (NIKIET), a premier facility for design and fabrication of nuclear systems, and the Mendeleyev University of Chemical Technology,²⁵ and the Moscow Institute of Aviation as a possible culprit in aiding the missile industry in Iran. Mossad allegedly estimated that some 10,000 Russian scientists had worked at one point or other on Iran’s unconventional weapons and missiles.²⁶ These and other reports fueled a new cycle of speculations about Iran’s readiness to fabricate a bomb. Moshe Arens, Benjamin Netanyahu’s defense minister, was cautious in offering predictions. As a former engineering professor, he hedged his bets: “We know that [the Iranian nuclear program] isn’t going smoothly. But with the help of foreigners, the Russians and others, I think in time they can achieve operational capacity.” But a few days later, *Yediot Aharonot* quoted “intelligence sources” to the effect that “Iran has crossed the point of no return in the acquisition of nuclear weapons.” Even so, Netanyahu urged the Congress to delay sanctions on Russia pending the outcome of his negotiations with Moscow.²⁷

Ehud Barak, the head of the Labor Party which won a snap election on May 17, 1999, was more skeptical about Israel’s ability to talk Russia out of its lucrative nuclear and ballistic trade with Iran. On November 2, 1999, Barak expressed his concern to the Russian prime minister Vladimir Putin who replied that his government was trying to stop the “leaks” of technology but could not police the private companies involved. Putin also stated that discussions over the technology leaks to Iran were ongoing with the United States. Putin added that Iran might be receiving technology from non-Russian sources.²⁸

Ephraim Sneh, the newly installed deputy defense minister with a special portfolio on Iran, was behind much of the heightened concern about Iran. Using his new position, Sneh brought together a team of experts, including Uri Lubrani who was made special councilor to the Department of Defense. On November 21, 1999, a senior Israeli military official said Iran would have nuclear capability within five years if the United States did not pressure Russia to stop providing military aid to Iran. Israeli intelligence revealed that Iran was planning to upgrade its Shahab-3 ballistic missile to make it capable of carrying a nuclear warhead and to extend its range to 1,300 miles. Work on Shahab-4 and Shahab-5 was also noted, as well as their potential to carry nuclear warheads, the combination of surface-to-surface missiles and nonconventional weapons in Iran was “a threat to the world.”²⁹ To prod Barak, in January 2000, Sneh presented the prime minister with an updated dossier on the Iran project. According to the document, the Iranians were said to have made serious progress in enrichment, weaponization efforts, and ballistics.³⁰

But the Barak administration was too preoccupied with the Camp David II summit aimed at concluding the Oslo peace process to tackle Iran. The failure of the summit discredited the Labor Party which lost a snap election in 2001.

THE VIEW FROM WASHINGTON

While Israel viewed the election of Khatami as much ado about nothing, Washington went into overdrive to achieve a historical breakthrough with Iran. The Clinton administration embraced Khatami who promised to turn a new page in the relations between the two countries and resolved the nuclear issue.

The business lobby, still smarting from the ILSA defeat, decided to create a permanent network to fight sanctions. In 1997, the National Foreign Trade Council (NFTC), which represented large US corporations, launched a more structured lobbying effort. Its flagship group, USA*Engage vowed to address the “recurring imposition of unilateral economic sanctions as a substitute for the rigors of diplomacy.” The new organization approached several former senior policy officials, both Republicans and Democrats, to make the case against ILSA. Zbigniew Brzezinski, Brent Scowcroft, Dick Cheney, John Sununu, James Baker, and Lloyd Benson were among the prominent names in the group. Brzezinski and Scowcroft were particularly active and chaired a task force of the Council on Foreign Relations on the subject. Without naming the Jewish lobby, Brzezinski, known for his outspoken criticism of Israeli foreign policy, and his panelists implied that including Iran in the policy of containment with Iraq was not in American interest. Published by the Council

on Foreign Relations, the report garnered public attention, not least, because the blunt Scowcroft took to referring to dual containment as a “nutty idea.”³¹

In the same year, the business lobby helped Hooshang Amirahmadi, a veteran Iranian activist and a professor at Rutgers University, to create the American Iranian Council (AIC). But the AIC received financial support from Tehran, making it an official Iran lobby. Still, the AIC attracted the patronage of Cyrus Vance, President Carter’s secretary of state, who became its honorary chair. AIC’s board listed senior US diplomats and senior executives from the oil sector including Halliburton, Chevron, Exxon Mobile, and other corporations. Combining scholarly debates and political advocacy, the AIC ran a series of congressional briefings and conferences with extensive media coverage. Archer Daniels Midland (ADM) supported another lobby group, the Iranian Trade Association, which boasted Lee Hamilton, the highly influential former chairman of the House Foreign Affairs Committee, on its roster. In an address to the Council on Foreign Relations on April 15, 1998, Hamilton stated “that the important changes under Khatami,” should lead to a policy of engagement with Iran that would eliminate the “sledgehammer of ILSA.”³²

However, it was Trita Parsi who elevated Iran lobbying to a new level. In November 1999, Parsi collaborated with Siamak Namazi from Atieh Bahar Consulting on a paper presented at a conference sponsored by the Center for World Dialogue in Cyprus. Titled “Dialogue and Action between the People of America and Iran,” the paper laid out a three-step plan to heal the damaged relations between the two countries and led to the creation in 2001 of the National Iranian-American Council (NIAC). As the president of NIAC, Parsi envisaged competing with AIPAC. In his words: “We realized that the primary thing that separates the Iranian-American community from the Jewish-American community ... is that the American-Iranian community has shunned political participation.” Parsi denied being an official Iran lobby, NIAC was an Iran lobby, but some Iranian journalists and bloggers indicate that NIAC was supported by the Parsa Community Foundation in the United States and the London-based Iran Foundation. The Elm va Danesh Institute (Science and Knowledge), located in Tehran, in turn, contributed to the Iran Foundation. In 2008, Parsi sued one of them, Hassan Dai, for defamation. The law suit turned out to be a considerable miscalculation. In addition to a fine of nearly \$200,000 to cover the legal expenses of Dai, the judge ruled that for all intents and purposes NIAC was an Iran lobby.³³

Whatever the provenance of the lobbying efforts, the Clinton administration was most happy to embrace Khatami’s “new Iran.” The intelligence and the foreign policy community seemed to agree. John C. Gannon, the chairman of the authoritative National Intelligence Council, suggested that “the social factors favoring political change [in Iran] will continue and power

would pass to another generation of leaders.” Puneet Talwar, an official on the policy planning staff in the Department of State, reached a similar conclusion; he acknowledged the power of the conservatives but asserted that the “Khatami revolution would go on” because of the “demographic dynamics.”³⁴ Nelson Strobebridge “Strobe” Talbott III, the deputy secretary of state, shared this views with his boss, Madeleine Albright. Talbott, whose primary portfolio included Russia, hoped that engaging with Khatami would solve the growing tension with Moscow over its help with the nuclear and ballistic project in Iran.³⁵

Both Albright and Clinton were eager to follow Talbott’s advice to make 1998 “the year of opening to Iran.” On January 28, 1998, in a videotaped address on the Eid al-Fitr holiday marking the end of Ramadan, the president accepted Khatami’s invitation to the Dialogue of Civilizations. In April, Clinton acknowledged Iranian grievances against the United States and, in June, Albright asked Tehran to join Washington in drafting a roadmap for normalizing relations. Talks aside, the State Department succumbed to Iranian pressure to declare MEK a terror organization on October 8, 1998.³⁶

Having invested in cultivating the Dialogue of Civilizations, the Clinton administration was naturally reluctant to dwell on the nuclear issue. Israel’s relentless prodding was especially irritating to the State Department as it tried to navigate the complex relations with Russia, China, and the European Union, all targets of potential sanctions for dealing with Iran. The outspoken Secretary Albright made little secret of her annoyance with the Israeli officials who, in her words, “were warning [us for] over a decade” about the Iranian nukes. She noted that the Israeli behavior reminded her of Aesop’s Fables’ “The Boy Who Cried Wolf.”³⁷

Fortunately for the White House, by the end of the 1990s the CIA was still lagging in understanding the headway which the Iranians made with the help of the A. Q. Khan. The Agency made some progress in penetrating the Khan network through the company run by Friedrich Tinner and his sons Urs and Marco. Fredrich, a nuclear engineer, had known Khan for many years and did extensive business with the Pakistani scientist. According to several accounts and legal material from the Swiss courts, in 1999 a CIA agent code-named “Mad Dog” recruited his son Urs who moved to Dubai to work for the Taheri business. Urs sent information on Khan’s dealings with Iran, but the CIA did not want to disrupt the network and did not inform the Israelis. As it had on previous occasions, the Agency claimed that more time was needed to investigate the entire network. In his memoir, George Tenet explained why he did not act earlier. He wrote that “there were many rumors and bits of information that Khan was sharing his expertise beyond borders,” but “it was extremely difficult to know exactly what he was up too.” Some observers, however, felt that political considerations were also involved. In addition to the expected

difficulties with Pakistan, President Clinton hoped for a legacy by making a breakthrough with Iran.³⁸

Iftikhar Khan Chaudhry, who defected to the United States from Pakistan in June 1998, was potentially another promising source. Chaudhry told the FBI agents that, as a nuclear scientist, he had been present during an instructional tour for five Iranian scientists at the Khushab nuclear center. Chaudhry claimed that the Iranians intended to develop a nuclear bomb and use it against Israel. But scientists from the Oak Ridge National Laboratory, in Tennessee, who had debriefed Chaudhry, concluded that he was an imposter seeking to obtain asylum. A team assembled by the Federation of American Scientists had also questioned Chaudhry and determined that he was not credible.³⁹

Yet the Israeli intelligence community apparently concluded that Chaudhry was a bona fide source and wondered why the Americans decided to ignore him. Ronen Bergman, a top investigative Israeli reporter with excellent ties to intelligence officials, and Michael Bar Zohar, another insider who co-authored a book about the Mossad, described “as most amazing” the fact that Chaudhry’s information was dismissed. According to these accounts, the Israelis were convinced that the Clinton administration was careful not to offend Pervez Musharraf, the Pakistani president who was considered to be an asset in America’s fight against terror.⁴⁰

Exercising caution with the Pakistani channels, however, did not mean that the CIA discarded the notion that Iran was trying to get a bomb. To the contrary, Tenet suggested that the Agency vigorously pursued efforts to thwart such a possibility, often pursuing daring operations. One of them, code-named “Operation Merlin,” launched in 1996, provided the Iranians with a deliberately defective blueprint for a nuclear warhead. CIA agents approached a Russian émigré scientist asking him to deliver the blueprint, but the plan backfired when the scientist, who was not privy to the deception, pointed out the faulty design to the Iranians. The incident was even more regrettable because the weapon was based on the Russian TBA-480 Fire Set (High Voltage Automatic Block), an advanced device developed in Arzamas-16, the Soviet equivalent of Los Alamos. Conceivably, after correcting the design, the Iranians could potentially use the blueprint. Jeffrey A. Sterling, a CIA agent with knowledge of the scheme, leaked the affair to James Risen, a *New York Times* correspondent, who publicized it in his book, *State of War: The Secret History of the CIA and the Bush Administration*.⁴¹

Having no knowledge of the Pakistani (Khan) angle, the Israelis pushed the administration to punish the Russians by imposing sanctions, most notably on companies that helped with the Shahab line of missiles. Under an agreement which Vice President Al Gore reached with Prime Minister Victor Chernenomyrdin in 1995, Russia joined the Missile Technology Control Regime

(MTCR), a group which committed itself to nonproliferation of missile technologies. But in January 1997 a delegation of Israeli intelligence officials came to Washington to unveil their dossier on Russian help in developing the Shahab-3 which, with a range of 1280 km, could hit Israel. Tenet, who had only months earlier testified before the Congress that it would take Iran 5 to 10 years to develop such a capability, was upset but not quite ready to accept the Israeli claims. In April 1997, using a spectral analysis of the heat signature of an Iranian rocket booster test, an American spy satellite confirmed the Israeli finding.⁴²

Soon after, in May 1997, the CIA identified Yuri Koptev, the head of the Russian Space Agency (Roscosmos), as directly involved in the Shahab project. Koptev's name sparked concern in the State Department because Roscosmos was part of a joint American-Russian space program that Strobe Talbot had helped to shepherd. Stumped, in early September, the Israelis leaked the details of the Russian involvement to the right-leaning *Washington Times* and sent two intelligence officials to discuss the issue with Talbot. Reported to be incensed by the Israeli meddling, the deputy secretary of state allegedly used a four-letter expletive during the conversation and threatened retribution.⁴³

To get around the reluctant State Department, Israel and its American supporters appealed to Congress. In 1998 the Jewish American Committee published a report, "The Russian Connection: Russia, Iran, and the Proliferation of Weapons of Mass Destruction," which outlined the extent of cooperation between the NIKIET, several other Russian organizations, and Iran. Much of the information in the dossier apparently came from the same Israeli dossier and was designed to help with a new legislative initiative in Congress titled the Iran Nonproliferation Sanctions Act. The proposed bill would have required the imposition of sanctions on Russian entities involved in proliferating to Iran unless they could obtain a presidential waiver certifying that they were essential to American national security.⁴⁴

Keenly aware that the stringent legislation could hurt American firms and even universities, the president vetoed the bill on June 24, 1998. To avoid an almost certain override of a possible veto, the administration offered several concessions to the Israelis. The State Department imposed sanctions on several Russian entities listed in the Israeli dossier, including the Mendeleyev University of Chemical Technology of Russia, Moscow Aviation Institute (MAI), NIKIET, Baltic State Technical University, Europalace 2000, Glavkosmos, State Scientific Research Institute of Graphite (Grafit or NIIGRAFIT), and MOSO Company.⁴⁵ Clinton offered Benjamin Netanyahu a "memorandum of understanding" stating that the United States is "very concerned about the nonconventional threats in the Middle East." Without mentioning Iran, the agreement promised to create a "permanent apparatus" for discussing nonconventional threat in the region.⁴⁶

Much as the administration hoped to assuage Israel's concerns and those of its American supporters, developments on both sides of the Atlantic conspired to undermine Washington's Iran outreach. In April 1999, the Iranians arrested twenty-three Jews from Shiraz and put thirteen of them on trial. The head of the Guardian Council, the archconservative Ayatollah Ahmad Jannati, threatened that, if found guilty, they would be executed. Some experts speculated that Jannati ordered the arrest to torpedo Khatami's detente with Washington. Aware that the high-profile arrests would undermine the Iran outreach, Clinton dispatched his national security adviser, Samuel "Sandy" Berger, along with Bruce Riedel and Martyn Indyk, to Paris for a meeting with the sultan of Oman and his foreign minister, Yusuf bin Alawi bin Abdullah. The Omanis, who acted as mediators between Iran and the United States, were told that the administration was ready to offer a "grand bargain" in exchange for releasing the Jews and collaborating on the Khobar Towers investigation.⁴⁷

Uncharacteristically, Khatami refused to receive the Omani foreign minister and went back on his promise to support the Oslo peace agreement. On September 4, 1999, he strongly denounced the agreement reached in the Israeli-Palestinian talks at Sharm El Sheikh; soon after he traveled to Damascus to meet with Palestinian terror groups to offer them support. The arrest of the Jews and Khatami's seemingly inexplicable behavior triggered a heated debate within the administration as to whether the president was still in charge.

But in February 2000 the administration's optimism rebounded because Khatami's reformists made significant gains in the Majlis elections. Still not aware of how little real power Khatami had, Albright was persuaded by the Iran lobby, backed up by some academic experts, to make a new gesture of goodwill. On the recommendation of the State Department, the administration lifted restrictions on several Iranian imports. More to the point, in a speech before the Iran-American Council on March 17, Albright formally apologized for America's role in the coup against Prime Minister Mohammed Mossadegh in 1953. She was advised that "owning up" to American misdeeds was necessary to empower the Khatami movement in its struggle against the hard-liners.⁴⁸

Contrary to all expectations, the response from Tehran was scathing. On March 27, Ayatollah Ali Khamenei called the United States a "bully," dismissed Albright's apology as "worthless," and her intentions as "mischievous." Foreign Affairs Minister Kamal Kharrazi went much further, he threatened to sue the United States in court using Albright's admission. For those familiar with the negotiating political order, the use of highly abusive language to reject the newest American overture was a clear signal that Khatami had lost control over the political process.

For the architects of the would-be Iranian breakthrough, more bad news was on the way. In early January 2000, the *New York Times* reported that the CIA concluded that “Iran may be capable of producing a nuclear weapon now.” The CIA assessment touched off a new round of public discourse. As expected, senior Clinton officials played down the assessment. Gary Samore, an expert on nonproliferation in the National Security Council, was among those who tried to play the assessment down. Samore considered Iran’s nuclear program to be a “vanity-driven money pit.” Other officials complained that Agency relied too heavily on Israeli information. As if on cue, a senior intelligence official in Israel argued that “Iran was gathering resources to develop nuclear weapons,” making 2000 “the year of decision for the West.” He warned that if the regime was not stopped, Iran would have the bomb in five to seven years.⁴⁹

At a deeper level, the disagreement reflected the difficulty of tracking proliferation. As chapter 1 indicated, an illicit program is composed of many moving parts that need to be evaluated with great precision at any given time. A virtually impossible task, it compelled the CIA to write this uncertainty into its predictive equation. In other words, the Agency estimate was based on an element of the unknown, which could lead to either an underestimation or an overestimation of the time framework for acquiring the nuclear capability. But this lack of precision had resulted in politicization with both sides of the political map castigating the estimate for its alleged biases.

That the Iran nuclear and ballistic program was doomed to perennial politicization became quite evident by early 2000. Unlike Senator Robert Menendez, a Democrat from New Jersey whose previous intervention against Iran tried to maintain a bipartisan façade, the Republicans were most interested in a strong show of support for Israel. Two hard-line Republican senators, Sam Brownback of Kansas and Jon Kyl of Arizona, emerged as leaders of this effort. Kyl co-chaired the US-Israel Parliamentary Commission which warned about the impending threat of the Iranian missiles. Brownback, the chair of the Subcommittee of Near Eastern Affairs of the Senate Foreign Relations Committee, was widely considered the “patron saint” of Israel. Brownback received help from AIPAC-affiliated group in his election bid in 1998, but his devotion to Israel was also described as “intensely spiritual.” Both worked hard to pass the Iran Proliferation Sanctions Act which the Clinton administration was still trying to amend so as not to hinder its outreach to Russia, even after President Clinton signed the bill on March 14, 2000.⁵⁰

It probably did not help the administration that the intelligence community was taking an increasingly hard-line view of Iran’s nuclear project. John A. Lauder, the director of the CPC who testified before Brownback subcommittee, stated that “the intelligence community judges that Iran is actively

pursuing the acquisition of fissile material and the expertise and technology necessary to form that material into nuclear weapons. As part of this process, Iran is attempting to develop the capability to produce both plutonium and highly enriched uranium.” He added that Russia had played an important part in this process. Both H. Norman Schindler, the deputy director of the Nonproliferation Center, and Robert D. Walpole, national intelligence officer for Strategic and Nuclear Programs, held similar views. In September 2000, Walpole told Congress that Iran “will soon deploy the 1,300-kilometer range Shahab-3 medium-range ballistic missile, which will allow it to reach Israel and most of Saudi Arabia and Turkey. Iran also continues its aggressive pursuit of nuclear, biological, and chemical weapons.” Walpole implied that, Khatami notwithstanding, the regime was determined to realize its vision of an atomic state.⁵¹

But Iran supporters, including several former security officials and scholars, accused the Israel lobby and its backers in Congress of spreading misinformation to sabotage the administration’s plans to improve relations with Tehran. Gary Sick maintained that the Jewish lobby did everything in its power to play down the Khatami revolution. As Sick put it, “By 1999 only AIPAC, the Iranian monarchists in exile, and the terrorist MEK thought that ‘nothing has changed in Iran’.” Albright found a more diplomatic way to blame the Jewish lobby. She quoted an Iranian diplomat who allegedly told her that “all this [negotiation] is a trick. The Jews ‘are too strong to permit flexibility’ [in American foreign policy].”⁵²

In any event, as the Clinton era was ending, few in Washington understood that Khatami’s vaunted revolution was on life support. Kenneth Pollack, one of the architects of the Clinton-Iran initiative, would subsequently write: “Initially I felt that we had come very close to making a breakthrough with Iran that if only we had done a few things differently ... over the years, however, I have concluded that I was wrong in this assessment.” According to Pollack, Iran was a country ruled by a regime in which “the lion’s share of power” and important issues were controlled by those who were not interested in improving relations with the United States.⁵³ But other observers at the time argued that Khatami had the upper hand in the regime. For instance, Shaul Bakhash, a prominent historian of Iran, asserted that the Iranian Ministry of Foreign Affairs which answered to Khatami took over the control of the nuclear project. Bakhash had high hope that the nuclear negotiator Hassan Rouhani was the right person for the position to solve the problem.⁵⁴ Although Khatami would win another term in 2001, events in Iran and the United States dashed all prospect of any rapprochement between the two countries.

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Chapter 4

Blowing the Cover of Iran's Nuclear Project

Whose Intelligence Matters?

THE VIEW FROM TEHRAN

On its face, Mohammed Khatami's reelection in June 2001 looked like a resounding mandate. Khatami received 77.1 percent of the vote, to the 15.6 percent garnered by his nearest rival. But the popular vote masked the reality of his much-diminished power. By utilizing the negotiated political order, the Supreme Leader and the Revolutionary Guards managed to remove many of executive functions vested in the presidency. Jolted by Khatami's reformist movement, hard-line veterans of the Iran-Iraq war with deep roots in the Revolutionary Guards and the Guards-affiliated Basij, a semi-vigilante group, formed the Isargaran alliance. In 2003, the group expanded to create the Etela'f-e Abadgaran-e Iran-e Islami (Islamic Iran Developers Coalition), or Abadgaran, co-led by Mahmoud Ahmadinejad, the then little-known mayor of Tehran, and Gholam Ali Hadad-Adel. Two archconservative clerics, Ayatollahs Ahmad Jannati and Mohammed Taqi Mesbah Yazdi, the co-founders of the Haqqani School and top ranking Revolutionary Guards commanders, backed the new movement, whose members were known as the Principalists.¹

The Principalists argued that Iran had a sovereign right to develop a nuclear program without the hindrance of the NPT. By identifying themselves with the nuclear "have nots" mentioned in chapter 1, the hard-liners offered a scathing critique of the NPT and its enforcement organ, the IAEA. In the Principalist view, the NPT was nothing more than a "cabal" of imperialist powers bent on denying nuclear power to the developing countries. Ahmadinejad, another Abadgaran leader, vowed to fight the "cabal" to protect Iran's sovereign rights.²

With most of the coercive power of the state in the hands of the parastatal organizations, the hard-liners engaged in massive harassment of the reformist followers of Khatami, including killings of prominent liberal advocates, and closing of Khatami allied media. Still, for the sake of the international audiences, the Supreme Leader and the Guards were careful to maintain the fiction of the Khatami presidency, not least because he provided a respectable façade for the burgeoning nuclear project.

Khatami could be counted upon to reassure the international community that Iran is in full compliance with the NPT. The president also took a highly visible role in the ongoing negotiations with Moscow on the Bushehr reactor. On January 8, 2001, two Russian companies, Atommmash of Volgodonsk, a producer of nuclear plants equipment, and Izhorsk and Podolsk Machine-Building Plants (Izhorskiye Zavody of St. Petersburg), contracted to ship parts for the Bushehr power plant. Three days later, on January 11, 2001, Atommmash shipped the footing for a reactor at Bushehr. At the same time, Russian experts worked on a feasibility study for constructing a second reactor at Bushehr.

Until January 16, 2001, the first reactor was 90 percent complete. On March 22, 2001, four 82-ton water tanks built by Atommmash factory for the reactor's emergency cooling system, were delivered to the Bushehr as a part of \$18 million order. On June 27, 2001, Russian sources reported that 80 percent of the first unit at the Bushehr power plant was completed and one week later, on July 1, 2001, Russia delivered a steam generator to Bushehr. On September 19, 2001, it was also reported that more than 1,000 Russians were working at the Bushehr site. The report also claimed that Russians provide training for 100 Iranian scientists and engineers at the Novovoronezhskaya nuclear power plant in Voronezh Oblast, central Russia. On November 30, 2001, Russia installed a VVER-1000 [1000 MW light water] nuclear reactor in the Bushehr and on April 2, 2002, 5,000 tons of material has been shipped to Bushehr. Eventually on October 14, 2004, Russia announced that the Bushehr power plant has been completed.³

If the regime planned to use Bushehr as a front for its illicit program, a suggestion first made by A. Q. Khan, it did not reckon with the 9/11 attack. President George W. Bush, who won the 2000 election on the strength of domestic issues, was forced to undertake a crash course in international relations. His foreign policy team, a mixture of hard-liners such as Vice President Dick Cheney and Secretary of Defense Donald Rumsfeld and the more liberal secretary of state Collin Powell, was divided on Iran. While the State Department was ready to enlist the help of the regime in Afghanistan, a move that was seemingly supported by Rumsfeld, the CIA found evidence that the Revolutionary Guards sheltered Al-Qaeda fighters, including the son of Osama bin Laden. Among more than 470,000 files seized at Osama bin

Laden's Abbottabad, Pakistan compound, the files contain a 19-page report written by a Bin Laden lieutenant about Al-Qaeda's connections and collaborations with Iranian government over the years. One document recounted how Iran offered training, money, and arms to some of Al-Qaeda's members on condition that they attack US interests in the Gulf.⁴

More ominous for Iran, the growing attention to Saddam Hussein's WMD arsenal soon replaced the focus on Al-Qaeda in the Bush administration. By mid-2002, the discourse on the Second Nuclear Age, detailed in chapter 1, gripped Washington amid rumors of a pending invasion of Iraq. Riding the Second Nuclear Age discourse, the NCRI, the newly created political arm of MEK, arranged a special press conference in Washington on August 14, 2002. Alireza Jafarzadeh, the Washington representative of the NCRI-MEK, disclosed that Iran was covertly producing nuclear materials in two facilities in Natanz and Arak which "have been kept secret until now." He claimed that the Natanz facility included a nuclear fuel enrichment plant and a research laboratory and that Arak boasted a heavy water reactor, two telltale signs of a nuclear weapons program. Jafarzadeh told the journalists that the Committee of Defense and Strategic Studies of the NCRI helped by the Command Headquarters of MEK operating inside Iran compiled the information. Still, many observers suggested that the information came from the Israeli Mossad, which had long-standing links to MEK.⁵

Whatever the origin of the intelligence, the discloser was a disaster for Khatami. As noted in the preceding chapter, the facility was planned for a large number of centrifuges capable of producing significant quantities of uranium enriched to weapon-grade level. Critics were quick to point out that the combined Natanz and Arak facilities would have allowed Iran to manufacture weapon-grade uranium and plutonium. Worse, Natanz was nearly completed by 2003 under an elaborate camouflage that eluded both the American and British intelligence monitoring operations, not to mention the IAEA.⁶

By blowing the cover, the NCRI-MEK destroyed the strategy of hiding the illicit project in plain sight, a development that posed a profound problem for the nuclear sanctum leaders. Staying in the NPT required the disclosure of the clandestine activity formally, thus inviting a round of stringent IAEA inspections. Withdrawing from the treaty would have freed Tehran to pursue the program unhindered but, as the case of North Korea demonstrated, the cost was steep. Sanctions and the international opprobrium would have made Iran a pariah state on par with Pyongyang. The Principalists argued that Iran had a sovereign right to develop a nuclear program and should use the discourse to withdraw from the NPT.⁷

But Ayatollah Khamenei and Khatami considered the price of withdrawal too exorbitant and decided to fine-tune their tactics. Hassan Rouhani described

in his memoir the new plan of operation: to prevent referring Iran's nuclear dossier to UN Security Council and to buy enough time to master the entire enrichment cycle and perhaps even weaponization. As Rouhani put it "we wanted to provide enough time for our nuclear scientists to finish the program in a calm atmosphere." To facilitate its new strategy, the Supreme National Security Council (SNSC) gradually stripped Foreign Minister Kharrazi of his nuclear portfolio. After an internal struggle, in October 2003, Rouhani was named chief nuclear negotiator directly responsible to the Supreme Leader.⁸

With the West mobilizing against the prospect of a nuclear Iran, achieving the requisite calm required some adroit political maneuvering. Attacking the credibility of the MEK and its alleged Israeli patron, the Mossad, was the first line of defense. President Khatami, still the eloquent spokesman for his country, made the point clear. Noting that the group was on the State Department list of terror organizations, he accused it of being a tool for spreading malicious propaganda of the "Zionist enemy." A foreign ministry spokesman explained that "MEK's propaganda" contradicted the IAEA which repeatedly found Iran's program to comply with the NPT.⁹

Making a virtue out of necessity was another useful tactic. Persuaded that it would be impossible to deny reality totally, President Khatami decided to engage in damage control. On February 9, 2003, he revealed the existence of Natanz and Arak on Iran's national television and welcomed the IAEA inspectors. In this so-called "straight talk," Khatami stated that Iran was constructing several nuclear facilities to produce 6,000 MW of electricity. Unsurprisingly, the president did not reveal the real purpose of the Natanz site. In his memoir, Rouhani admitted later that by October 2003, the construction of Natanz was completed and two cascades installed: "When I [was] appointed as a chief nuclear negotiator, Natanz was completed; there was a hall known as S8 and centrifuges were active in this hall ... 164 active centrifuges were operating in another hall." Rouhani referred to hall S8 several times but never disclosed its precise contents.¹⁰

Khatami's promise to open the nuclear program for IAEA inspection turned into what one analyst called "a cat and mouse" game. In line with classic denial practices described in chapter 1, the regime would initially refuse a request from the Agency, only to reverse itself and allow an inspection later. Even when the permit was granted, Safeguard inspectors could not count on free access to the entire facility. Rouhani was quite confident that a rigorous inspection regimen would help him manage the clandestine sites or obliterate their existence when needed.¹¹

The Kalaye Electric complex was a case in point. Since the Iranians did not declare the facility in their Safeguards agreements, the IAEA was not authorized to visit the complex. After the MEK exposure in August 2002, Rouhani expected a visit and ordered the site cleaned. The entire facility was

renovated, and the enrichment experiments were removed from the site and moved to the Natanz facility which was still under construction. Work on the actual centrifuges was relocated to Pars-Trash, a company located a few miles from Kalaye which manufactured the IR-1 centrifuges and parts of the more advanced IR-2 centrifuges.¹²

With the cleanup in progress, the Agency's inspectors were denied access to parts of the complex during a visit in March 2003. The decision was soon reversed and in May and June the entire site became accessible. Still, the inspectors were denied permission to take environmental samples. After additional pressure from the Agency, the authorities relented; during an August visit the inspectors used small squares of cloth to wipe over selected surfaces. The swipes were then analyzed in the United States—one of the IAEA member states which provided analytical services—and were found to have traces of both LEU and HEU. The evidence forced Iran to admit that the Kalaye Electric complex was used for experiments with centrifuges. Naturally it contravened the IAEO's original claim that only "simulation studies" which did not require uranium had been conducted there. More embarrassingly, the inspectors reportedly found the now empty centrifuge factory secreted behind a false wall at the facility. Rouhani would later note that neither the FEDAT nor the IAEO expected traces of uranium to be found even after all of their thorough remedial work.¹³

Iran's denial and deception were not limited to sites where research and development took place. The American invasion of Iraq in March 2003 raised alarm bells in Tehran. Chapter 1 detailed how, from its very inception, the regime was acutely aware of its geopolitical vulnerability and anxious that the United States may try and execute a "regime change," a fear that turned into near panic after Operation Iraqi Freedom. The nuclear arsenal was designed to serve as a protection; the prospect of being prevented from realizing this goal created a huge dilemma for Tehran. Even the Supreme Leader had become convinced that a diplomatic engagement was required, most notably with the Europeans. At the very least, the regime hoped to split the Western allies and prevent referring the Iran dossier to the Security Council. Mohammed Mousavian, one of the negotiators in Vienna, credited Rouhani with the idea of the split, calling it "West minus the US approach."¹⁴

To help with the "West minus the US" plan, Rouhani signaled to the Great Britain, Germany, and France, the EU-3, that Iran was ready for negotiations. An EU-3 delegation traveled to Tehran where, on October 21, 2003, it was announced that Iran was ready to sign the Additional Agreement, a move that would make Safeguard inspections easier. Taking center stage, Rouhani emphasized that his country had "always taken initiatives in signing disarmaments treaties because WMD were weakening the stability in the region and the world."¹⁵

On November 7, EU foreign ministers gathered in Brussel to announce that “EU welcomes Iran’s commitment per its Tehran agreement and is now looking forward to its immediate and full implementation.” On December 7, the foreign ministry announced that Iran was suspending all its enrichment and on December 18, Ali Akbar Salehi, by then Iran’s representative to the IAEA and General Director Mohammed ElBaradei signed the Additional Protocol in a special ceremony in Vienna. Javier Solana, the foreign policy chief of the EU, lavishly praised the agreement, adding that it would prevent referring Iran to the UN Security Council.¹⁶

The goodwill of the European Union could not have come at a more opportune moment for Iran. Just months before, in May 2003, MEK-NCRI revealed the existence of a new secret site in Lavizian-Shian Technical Research Center associated with the Malek-Ashtar University of Technology in North Tehran. Employing their well-honed denial technique, the Iranians rejected the MEK allegation, describing it as another fabrication of the “Zionist regime.” But in August ISIS ordered satellite imagery from Digital Globe which confirmed the existence of a well-developed complex at the site. Faced with another quandary, the authorities stalled by refusing requests from the IAEA Safeguards Division. With a breathing space secured, an extensive cleanup operation was ordered. On March 10, 2004, ISIS provided satellite images which showed that the entire complex, including access roads and walkways, vanished. When the inspectors were finally able to access the facility, they found no traces of nuclear activity. MEK contended that in anticipation of the inspection, the Iranians destroyed the facility, removed 6 in. of top soil, and relocated the equipment to another site, Lavizian 2.¹⁷

The Parchin facility outside Tehran was another sore point. Mohsen Fakhrizadeh, whose organization was restructured again in 2003 as Field of Expansion of Deployment of Advanced Technology (FEDAT), was also given a senior position in the Ministry of Defense’s Center for Readiness and New Advanced Technology known by its Farsi name as Markaz-e Amadegi va Fanavari-e Novin-e Pishrafte-ye Defaee. As noted in the preceding chapter, Fakhrizadeh’s team conducted weaponization experiments in the secret facility on the Parchin base. After the invasion of Iraq, the experiments were terminated, but on March 24, 2004, NCRI revealed the existence of a secret tunnel there. Parchin was already on the CIA’s list because it housed the missile production facility including a modified Shahab-3, but weapons experiments were the “smoking gun” equivalent of nuclear intelligence.¹⁸

Despite the new revelations, Rouhani and his team were determined to press on with the negotiations. Desperate to secure an agreement, their EU-3 interlocutors offered a substantial carrot to the regime. In exchange for dropping enrichments, Iran was invited to join the World Trade Organization (WTO), a step that would have dramatically upgraded its economic position.

On November 14, 2004, Iran signed the Paris Agreement which committed Iran to suspend all enrichment activities, specifically the manufacture of gas centrifuges, or operation of centrifuges as well as separation of plutonium and construction of a plutonium facility for the duration of the negotiations. The document recognized Iran's sovereign right to uranium enrichment under the NPT and called the suspension voluntary. On November 29, Mohammed ElBaradei notified the BOG that Iran had implemented the agreement.¹⁹

Though the Paris deal was considered a triumph of European diplomacy, it was short lived. The bait and switch maneuvers started a few days later when Mousavian clarified that the suspension of enrichment would be brief. It soon became clear that the Abadgaran-dominated Majlis would refuse to ratify the accord. More dauntingly, the nuclear negotiations turned into a chief rallying cry for the Principalists who were positioning their leader, Mahmoud Ahmadi-najad, to run for the 2005 presidential election. Mousavian speculated that Rouhani himself was preparing to contest the election on the strength of his purported diplomatic achievement and the economic benefits it would have generated. Whatever his political intentions, the chief negotiator understood that Iran had to show some goodwill on the enrichment freeze to continue with the Paris Agreement. Ironically, Rouhani later admitted that Iran did not stop producing the centrifuge machines because "we wanted a greater number of centrifuges." It was easy, in his opinion, to use deceptive tactics because the Europeans wanted to give the "moderates," as epitomized by Khatami, some political leverage.²⁰

For his part, President Khatami was eager to make himself relevant. Though Kharrazi lost his nuclear brief, Khatami tried to influence the course of the negotiations in several ways. Mousavian reported that Khatami's allies assured the EU-3 team that passing the Additional Protocol was a real possibility and that suspension was all but assured. Several reformist politicians tried to make good on these promises, by pushing the so-called "triple urgency plan" in Majlis which did not require a deliberation of a relevant committee and could be voted on in one day. Had it passed, it would have forced the government to accept the Additional Protocols and, further down the road, enrichment suspension.²¹

Much as the Reformists were keen to show progress, the negotiated political order gave the hard-liners serious leverage. Mohsen Fakhrizadeh, who controlled the nuclear project through FEDAT, and the Revolutionary Guards opposed both the suspension of the enrichment and weapon experiments, were determined to undermine the negotiations with the EU-3. When in 2004 the IAEA demanded access to Parchin, the request was delayed. Safeguard inspectors got permission to visit the base in January 2005, but because FEDAT limited their access, they were unable to uncover the chamber.²²

While the IAEA was trying to evaluate the Parchin site, the heavy water reactor in Arak came under increased scrutiny as well. The EU-3 hoped that Iran would abandon all enrichment and related activities including the construction of the heavy water reactor in Arak. But on March 1, the IAEA reported that Iran had laid the foundations for the research reactor at Arak, an assertion which was supported by ISIS which released satellite imagery of the site. Taken in February 2004, the first image showed an empty site being prepared for the heavy water reactor and a partially constructed facility for fabricating heavy water. Two images from February 2005 indicated considerable progress; the heavy water plant was completed and the reactor well advanced. In fact, on February 7, Rouhani declared, "We may be able to produce heavy water soon, within the next few weeks."²³

In yet another complication for the Iranians, in 2004, the American intelligence obtained a laptop containing the blueprints of the weapons program. Dubbed in the West the "Laptop of Death," it contained some 1,000 pages of correspondence and drawings documenting different facets of the Iranian project. Several items were of particularly high interest, including the Green Salt Project, a reference to the conversion of uranium into uranium tetrachloride managed by "Department 5.13." While Iran had a civilian conversion facility in Isfahan, the laptop documents indicated the involvement of the Revolutionary Guards. Three drawings among the documents pointed out to potential weaponization plans. One of the drawings depicted what looked like a pit suitable for conducting underground explosions. Another set of drawings showed apparent efforts to fabricate an implosion detonation system for a nuclear weapon. Known as the multipoint initiation system, it featured a hemispheric aluminum device with channels terminating with holes for the explosive pellets as noted in the preceding chapter. It was a notional nuclear device for the nosecone of Shahab 3 that was 0.6 m in diameter with a mass of 200 kg designed to explode 300 m beyond the target, a height ideal for a nuclear device.²⁴

Even with all the revelations, the EU-3 was not ready to give up on the Paris Accord and called for more negotiations. Except for the Principalists, other Iranian leaders were ready to continue. In fact, both the Rouhani circles and President Khatami rushed to take credit for the prolonged negotiations. Mousavian noted that "the Iran-EU-3 agreement took the sails of the American push against Tehran's interests, which could have ended in a repetition of the Iraqi experience." Khatami was equally boastful, stating that under his carefully calibrated diplomacy "not only we had a better and more extensive nuclear technology, but our nuclear portfolio did not to the UN Security Council."²⁵

The Iranians had the right to be proud of delaying their censure by the United Nations, but they had the recon with the increasing pressure from Israel.

THE VIEW FROM JERUSALEM

Ariel Sharon, who took over from Ehud Barak in 2001, was an old Iran hand. As the foreign minister in the Netanyahu government he oversaw the Iran file and allegedly developed a back channel to the Supreme Leader's office. Sharon recognized nuclear weapons as potential existential threat and stressed that Israel "could not afford the introduction of nuclear weapons in the Middle East." He also understood that a nuclear arsenal would embolden the regime and make it impervious to Israeli retaliation for fomenting terror through its proxies, Hezbollah, Hamas, and Palestinian Islamic Jihad.²⁶

The new prime minister was strongly committed to stopping Iran's proliferation but highly frustrated because every year the intelligence agencies predicted that Iran was "3–4 years away" from fabricating the bomb. To improve on such a lackluster performance, in September 2002 Sharon appointed Meir Dagan, a retired major general in the IDF, to head the Mossad. Dagan's mandate was to restore the operational capabilities of the Mossad, a task for which the legendary general was well suited having held a variety of positions in the IDF. In the wake of Dagan's restructuring of the Mossad, some 200 operatives left in protest, but he was unmoved. After almost doubling the budget of the organization, Dagan allocated some of the money to the newly invigorated Iran portfolio.²⁷

In a less public manner, Sharon reached out to Gideon Frank, the director general of the Israel Atomic Energy Commission (IAEC) who was appointed by Yitzhak Rabin in 1993. The Israeli journalist Gideon Levy, who profiled the secretive Frank, noted that he had good relations with Dan Meridor, the head of the Knesset Foreign Defense and Defense Committee who served as a minister without portfolio in the Sharon government. Levy suggested that it was Sharon, more than Barak or other former prime ministers, who understood that the IAEC should become a central part of the counterproliferation effort against Iran.²⁸

Both Sharon and Dagan strongly believed that Israel should stay in the background, letting the international community take the lead in the counterproliferation campaign. As the then Aman chief Aharon Zeevi-Farkash put it, the Sharon government detested Ephraim Sneh and his alarmist cry of "let's bomb Iran yesterday." Having served as a minister in the Begin government during the raid on the Osirak reactor in 1981, Sharon considered Iran to be a very different case. Working on the analysis which apparently led to MEK's exposé, Mossad and Aman realized that the Iranian sites were dispersed and well hidden. Sharon and his intelligence chiefs also considered the regime's likely reaction to be extreme. A scenario by the intelligence services predicted Hezbollah rocket attacks from across the Lebanese border, an intrusion of Hamas and Palestinian Islamic Jihad from the Gaza Strip, a new Intifada in

the West Bank, and attacks against Israeli targets in the world. Zeevi-Farkash summed up the thinking succinctly: “preemptive attacks were very costly,” and not to be undertaken lightly.²⁹

Dagan insisted that before a military strike several steps needed to be explored: diplomatic action to warn Western countries about the regime’s proliferation, direct warning to Iran to stop the program, and covert action inside Iran. If these steps failed to roll back proliferation, he wanted coordination with the United States before a decision to preempt. But the Mossad chief was convinced that Israel needed better intelligence on the developments in Iran, not least because the wide variations in the estimates considered by the Israeli government. On September 13, 2001, in response to a Mossad’s forecast that Iran could produce an atom bomb by 2005, Binyamin Ben-Eliezer, Israel’s defense minister, convened a meeting of security and intelligence officials to evaluate the finding. Ben-Eliezer, who was said to believe that Iran was years away from producing a weapon, rejected the forecast.³⁰

To address the need for better intelligence, Dagan collaborated with Zeevi-Farkash to streamline the process. Previously, the responsibility for the project was divided among several bodies and intelligence agencies coordinated by the National Security Council. The new configuration featured a special team that included personnel from the Aman’s Technology Unit and Israel’s Atomic Energy Commission, among others. The team compiled a list of 25,000 items that Iran would have needed to produce the fissile material, a warhead, and a missile system. Dagan disclosed that 20,000 of these items were dual-use technology, which Iran could have purchased on the world market. The Mossad used this information to expose many of the suppliers in a variety of countries thus disrupting Iran’s production.³¹

The Israelis also concentrated harder on providing credible intelligence on Iran’s project. When a vigilant Mossad collection agent identified the secret facility in Natanz, intelligence officials decided to look more closely at the indigenous Iranian production, the Israelis came to rethink the role of Russia. In 2003, the Research Division of Aman concluded that Moscow would not help Iran acquire the bomb and would keep tight control on the operations in Bushehr. This view was part of a new understanding that the intense preoccupation with Russia was misguided because it prevented the community from comprehending the role of the growing ties between Tehran and Pyongyang. The latter became public knowledge when in October 2002 Schiff, often used as a conduit for secret information, wrote in *Haaretz* that North Koreans were producing enriched uranium in Iran and were testing long-range missiles, an apparent reference to the production line based on Nodong.^{32,33}

After double checking the identity of Natanz, the Sharon government engaged in a heated debate whether to destroy the site or make it public.

Despite his reputation as a security hawk, Sharon was a cautious leader when it came to Iran, as noted above. Those who counseled caution argued the Iranians were probably building more secret facilities, making the raid ineffective. In what became a dress rehearsal for several future debates, Sharon decided to publicize the information, which Alireza Jafarzadeh revealed during the NCRI-MEK press conference.³⁴

Behind the scenes, the Israelis tried to persuade the IAEA to accept their findings. This task was not trivial because, under ElBaradei, the EXPO officials were suspicious of Israeli intelligence. ElBaradei, who resented the privileged treatment of Israel's undeclared nuclear arsenal, was quite keen to refute the various allegations against Iran. On March 23, 2000, David Kyd, the IAEA spokesman, went out of his way to praise the peaceful nature of the project. On July 3, 2001, ElBaradei stated that "he had seen no evidence of Iran's violation of the NPT." Indeed, ElBaradei apparently persuaded the United Nations Secretary General Kofi Anan to issue a similar statement on March 14, 2002, a move that gave Iran the official seal of approval of the international community.³⁵

While careful not to criticize the IAEA chief in public, privately the Israelis considered ElBaradei an obstacle to halting Iran's proliferation. Intelligence officials believed that the ElBaradei prevented the Safeguard personnel from publishing pertinent intelligence and forced them to produce watered-down reports to prove Iran's compliance. The Israelis noted that some twenty Iranians worked for the permanent bureaucracy in Vienna, giving the regime undue access to the Agency. Even the normally discreet Gideon Frank took the unusual step of suggesting that the IAEA was politicized. According to some accounts, the Mossad considered damaging ElBaradei's reputation by exposing his alleged links to Iran, but the plan was never implemented.³⁶

Instead, the Sharon government decided to bypass the IAEA and appeal directly to the EU countries. Zeevi-Farkash and other intelligence officials traveled to Europe to meet with their counterparts and government officials. The Aman chief recalled visiting several capitals, including London, Paris, and Rome where he shared his findings. The number of visits increased in 2004, the year of the Paris Accord. Zeevi-Farkash wrote that the presentations had an impact on their "skeptical" interlocutors, but, as noted above, the Europeans were not to be dissuaded from negotiating with Iran.³⁷

Convinced that the diplomatic process was only a delaying tactic which would give the Iranians the cover to weaponize without undue pressure, the Mossad and Aman organized a high-profile public relations campaign. The head of the Foreign Intelligence Division in the Mossad reported to the Knesset that Iran's nuclear program presented an existential threat to Israel. Shaul Mofaz, who took over from Ben-Eliezer as defense minister, proclaimed that Iran would reach a point of no return within a year. On another occasion, the

Iranian born Mofaz stated in a Farsi-language program that if the need arose to destroy Iran's capability, "the necessary steps will be taken." More to the point, in October 2003, foreign media announced that Israel had prepared a plan to target six nuclear sites in Iran. Tellingly, Moshe Yaalon, the IDF chief of staff, was featured standing next to a submarine said to be nuclear-missiles capable. The article noted that with the acquisition of the submarine fleet, Israel could hit Iranian targets from the air, land, and sea.³⁸

Despite all these efforts, the Israelis were losing hope of influencing the EU-3 whom they had come to regard as willing dupes of the Iranian denial and deception project. Washington was their next best hope.

THE VIEW FROM WASHINGTON

After an election campaign devoted to domestic affair, Iran did not figure high on the agenda of President George W. Bush who took office in January 2001. Chaired by Condoleezza Rice, his National Security Council undertook one rather perfunctory evaluation of Khatami's domestic power. Flynt L. Leverett, a holdover from the Clinton era and the author of the report, wrote that Khatami was very much in control and recommended that the administration mount a new outreach to Iran. Secretary of State Collin Powell, a former protégé of Brent Scowcroft, and even the hard-line Vice President Cheney, were ready to go along with the outreach idea. While serving as the head of Halliburton, Cheney opposed sanctions on oil producing countries and was said to be ready to fight ILSA in Congress.³⁹

But the "outreach lobby" in the administration faced the opposition of the neoconservatives in the Department of Defense under Donald Rumsfeld. Douglas Feith, the Undersecretary for Policy in the Department of Defense who was close to Paul Wolfowitz, the deputy secretary of defense, felt that Leverett had overstated the power of Khatami. Feith asked Michael Rubin, the country director for Iran and Iraq in the Pentagon, to provide another evaluation. Rubin argued that Khatami and the ruling elite outlived their legitimacy and that the country was ripe for regime change. Rubin did not mention the nuclear weapon program, but Rumsfeld expressed concern about the prospects of a bomb, writing: "Iran obtaining a nuclear weapon ... would dramatically change the balance in the region and possibly spark a region wide buildup."⁴⁰ Stephen A. Cambone, whom Rumsfeld appointed to a series of positions in the Department of Defense including undersecretary for intelligence, worked previously for the NIPP. To recall chapter 1, NIPP pioneered the Second Nuclear Age discourse and Cambone testified against Iran in Congress.⁴¹

It was, however, John Bolton, undersecretary of state for arms control and international security who became the most ardent detractor of Iran. Bolton, a hard-liner with extensive Republican credentials, was convinced that the developing countries were committed to defying the NPT and consequently were urgently pursuing their own arsenal. He was equally critical of the IAEA and ElBaradei whom he accused of giving a pass to would-be proliferators in general and most notably to Iran. The new undersecretary had strong connection to Israel which he visited frequently. Faced with a difficult confirmation process, he acknowledged calling upon "AIPAC and other pro-Israel" groups to smooth things over with his Democratic detractors in Senate. After taking office on May 11, 2001, Bolton appointed Paula DeSutter to head the Verification, Compliance, and Implementation at the ACDA. Unlike many of her colleagues, DeSutter was convinced that the Iranian program was well organized and run by the disciplined Revolutionary Guards.⁴²

ILSA, which was due for a five-year congressional review in the summer of 2001, triggered a heated struggle. The White House and the Iran lobby, including US*Engage and NIAC, advocated against the renewal but by June it became clear that there was strong opposition in Congress. Faced with an all but sure defeat, the administration asked for a two-year extension of the legislation, only to be rebuffed. Following a short debate, Congress reauthorized ILSA for another five years on August 5. The vote enraged the constituent groups of the Iran lobby. They pointed out that President Khatami won a resounding victory in the Majlis election, proving that the Khatami revolution was there to stay. Farideh Farhi, a consultant to NIAC claimed that the ballot restored the "regime's path to legitimacy." Brent Scowcroft predicted that moderates could prevail domestically should the United States show some flexibility on sanctions. Scowcroft complained that "sanctions do virtually no good ... [but] forces that want to keep them in place are far more emotional than forces that want to relax them." The reference to the Jewish lobby which worked against the American national interest was well received in the pro-Iran community, but did little to stop Congress. Senator Charles Schumer, a Democrat from New York, rebuked the "administration and some here in Congress" for trying to weaken sanctions; he cited Iran's involvement in the Khobar Towers attack, its support for terrorism, and its "feverish" attempt to acquire nuclear weapons.⁴³

Bolton's hawkish position on Iran deepened after 9/11 despite a tentative collaboration between Washington and Tehran in Afghanistan. Although Powell and Rumsfeld welcomed Iran's help in fighting the Taliban, the relations quickly soured. The CIA worried that Abdul Aziz al-Masri, a bomb expert in Al-Qaeda in Iranian custody, may seek a WMD device; despite repeated requests by the administration to deport the Al-Qaeda contingent, the regime refused.⁴⁴

But in January 2002, the CIA released a report stating that Iran “remains one of the most active countries seeking to acquire (weapons of mass destruction and advanced conventional weapons) technology from abroad In doing so, Tehran is attempting to develop a domestic capability to produce various types of weapons—chemical, biological, nuclear—and their delivery systems.” Iran’s alleged proliferation drive landed Iran, along with Iraq and North Korea, in the “Axis of Evil” speech which President Bush delivered during his first Union Address on January 29, 2002.⁴⁵

Having raised the profile of Iran as a threat to the United States and the world, the Bush administration was quick to back up its claims. On February 6, 2002, George Tenet testifies before the Senate that Iran could be able to make enough fissile material for a bomb by 2010 or much sooner if Iran were to get fissile material elsewhere.⁴⁶ On February 15, Cheney asserted that Iran was developing weapons of mass destruction.⁴⁷ On May 24, Rumsfeld weighed in, stating that Iran was “trying to develop the full spectrum of weapons of mass destruction.” Iran’s goal behind acquiring nuclear technology is clear.⁴⁸

For his part, Bolton worked hard to familiarize Washington with the Israeli experts. He reactivated the moribund Leakage Committee in August 2001 as a bilateral interagency forum which hosted visiting Israeli officials such as Meridor, Dayan, and Frank. In early February 2002, a high-level Israeli delegation arrived in Washington to persuade President Bush and Vice President Cheney that Iran rather than Iraq posed a strategic danger in the Middle East. They shared with the White House some of the intelligence on the clandestine program in Iran and raised the possibility that Iran could develop a weapon by 2005. In mid-July Uri Lubrani met with officials in Washington to press the issue.⁴⁹

But the administration felt frustrated by the IAEA’s reluctance to contemplate an illicit program in Iran. On July 3, 2001, ElBaradei reassured the international community that “he had seen no evidence of Iran’s violation of the NPT.” A few months later, however, on December 14, Ayatollah Ali Akbar Hashemi Rafsanjani told a Friday prayer meeting in Tehran: “If a day comes when the world of Islam is duly equipped with the arms Israel has in its possession, the strategy of colonialism would face a stalemate because application of an atomic bomb would not leave anything in Israel but the same thing would just produce damages in the Muslim world.”⁵⁰

The apocalyptic statement could not have come at a worse time for Iran. It ignited a firestorm in international community, with many Western leaders rebuking the regime. Israel responded by sending a strongly worded letter to Kofi Anan, the secretary general of the United Nation, stating that the speech “clearly contradicts the Iranian claim that its plans to acquire nuclear technologies are designed only for peaceful purposes.”⁵¹ Embarrassed by Rafsanjani,

ElBaradei and Kofi Anan rushed to reassure the world that there was no evidence of Iran's attempt to acquire nuclear weapons. On March 14, 2002, the UN chief declared that Iran is in full compliance with the NPT. Anan's seal of approval was especially remarkable because it was delivered less than two months after the "Axis of Evil" speech. Observers were quick to point out that Anan signaled to the president of the United States that it was the IAEA, a UN agency, which was in charge of all things nuclear.⁵²

Unsurprisingly, the NCRI-MEK revelation in August 2002 changed things around. Although the State Department initially dismissed the group as a "terror group ... a foreign terrorist organization under US law," others within the administration were quite happy with the disclosure. In fact, the disclosure triggered a lively debate in Washington about "who knew what and when." The Israelis took credit for first spotting the facilities and in October 2002, Gideon Frank, Dan Meridor, and Uzi Dayan, the head of the National Security Council, traveled to Washington to discuss the issue with Tenet who alleged dismissed the Israeli evidence as not credible.⁵³

Yet Mark Hibbs, a highly respected nuclear expert, claimed that Americans, using high resolution reconnaissance imagery and procurement information, discovered the sites first. Hibbs disclosed that in mid-2002, some of the information was released to the IAEA where officials examined the facilities using commercial imagery. Tenet would later claim that it was "flat wrong" to assume that the CIA was "taken by surprise." In May 2005, *Newsweek* cited "current and former senior U.S. national-security officials" to the effect that "all the major revelations MEK publicly claims ... were reported in classified form—and from other sources—to U.S. policymakers before MEK made them public." Finally, Jeffrey Lewis, who operated the *Arms Control Wonk* blog, asserted that the CIA knew about Natanz because it penetrated the Tanner family business. Unwilling to compromise the Tanner operation, which allegedly also sold defective parts to Iran, the Agency kept quiet.^{54,55}

Whatever the provenance of the Natanz and Arak information was, the disclosure was particularly vexing for ElBaradei whose past-ringing endorsements of Iran made the IAEA look misinformed at best and protective of the regime at worst. ElBaradei, preoccupied with the crisis in Iraq and North Korea, did little beyond sounding out the IAEA chief Aghazadeh. The latter, sticking to the Rouhani script, denied any illicit activity. ElBaradei hoped to postpone dealing with Iran, but in early December the IAEA was notified that David Albright from ISIS obtained satellite imagery of the sites and was preparing to publish it. ElBaradei tried to dissuade Albright from seeking publicity, but, on December 12, Albright, and his colleague Corey Hinderstein unveiled the material on CNN. Pushed to act, ElBaradei planned to travel to Iran in October, but his visit was rescheduled to December and then postponed again to February 2003.⁵⁶

If Ariel Sharon hoped that the new information would refocus the administration on the threat of Iran, he was bound to be disappointed. Scott Ritter, no friend of Israel, suggested that the Mossad, which had “exceptionally good” relations with some IAEA inspectors, had known since mid-1990s that Iraq was not a danger. Yaacov Amidror, who replaced Amos Gilad as head of the Research Division in Aman, was convinced that invading Iraq was a bad idea because it would tilt the balance of power toward Iran. Zeevi-Farkash disclosed his efforts to sway the administration only to be rebuffed. He told an official in charge of Iran and Iraq on the National Security Council “flat out” that the invasion would not work and that “democratization in the Middle East is very dangerous.” Recalling the meeting that took place at the end of 2002, he wrote: “I did not hide my view that if they want to attack after Afghanistan it should be Iran, not Iraq.”⁵⁷

Much as the Israelis might have wanted the United States to act against the regime, they stood no chance, not least because the Bush administration failed to articulate a consensus on Iran. Early in 2001, the president ordered a National Security Presidential Directive (NSPD) on Iran which immediately ran into disagreements among the relevant departments. Donald Rumsfeld, Wolfowitz, Douglas Feith, and the then deputy national security adviser Steven Hadley allegedly explored plans for regime change in Iran. They authorized several meetings between the defense officials and Iranian opposition groups. Michael Ledeen, a prominent neoconservative author and activist, arranged for Lawrence Franklin who worked for Feith to meet with Manucher Ghorbanifar in Rome in early 2002. Ghorbanifar, an arm dealer and key player in the Iran-Contra scandal, urged the Americans to launch a twenty-five-million-dollar project to support the Iranian opposition. When a “senior intelligence official” informed Tenet about the meeting, he admitted to being “furious.” Tenet threatened to report the consultation as a crime because the CIA had issued a “burn notice” against Ghorbanifar, making it illegal for officials to meet the disgraced arms dealer.⁵⁸

Undeterred, Ledeen, in collaboration with Morris Amitay, a former executive director of AIPAC, founded the Coalition for Democracy in Iran (CDI) in early 2002. The Jewish *Forward* reported that the CDI was part of a lineup of “budding conservative hawks, Jewish organizations and Iranian monarchists” which pressed the White House for regime change in Iran. According to sources contacted by *Forward*, Rubin was working on the regime change project. Rubin, who was previously a researcher in WINEP, was an advocate of regime change in Iraq.⁵⁹

Colin Powell, whose dislike of the neoconservatives had grown over time, strongly opposed such hard-liner techniques. With the NSPD still unfinished, on June 26, 2003, Franklin was caught relating information on the draft copy of the NSPD and other sensitive intelligence to Naor

Gilon, the minister-counselor in the Israeli embassy in Washington, and two AIPAC officials—Steven J. Rosen, and Keith Weisman. The Pentagon analyst, who started passing information in August 2002, explained that he had been frustrated with the administration's lack of resolve over Iran and hoped to stir Bush's National Security Council toward a harder line. Franklin was tried on espionage charges and sentenced to 16 years in prison, which was later commuted to 10 months of house arrest and 100 hours of community service.⁶⁰

Operation Iraqi Freedom in March 2003 rattled the regime. Tim Guldemann, the Swiss ambassador to Tehran and Sadegh Kharrazi, the Iranian ambassador to Paris, drafted a short memorandum suggesting a renewal of relations between Washington and Tehran. Subsequently dubbed the "grand bargain," the document stated that Tehran would address Washington's concerns about enrichment and terrorism in return for a lifting of sanctions, cracking down on MEK, and recognizing Iran's legitimate security interest and sovereign right to peaceful nuclear development. Guldemann hand-delivered the letter to the State Department in early May 2003 and, in a parallel move, Trita Parsi, the head of NIAC, alerted Karl Rove, Bush's top aide. The administration rejected the memorandum because it did not believe it represented the regime. John Bolton went as far as to urge Powell to ask the Swiss government to recall Guldemann for "freelancing." The incident was kept secret and Guldemann retired soon after.⁶¹

With the invasion of Iraq pending, the Israelis concentrated on bolstering the Iran dossier. In February 2003, the NCRI organized another press conference featuring Soona Samsami and Jafarzadeh. The pair discussed several nuclear-related sites: mining in Saghand, heavy water in Arak, and enrichment in Natanz and, of course, the Kalaye Electric Company. In a July 9, 2003, conference, the group revealed the existence of a site in the Kolah-douz complex which was affiliated with the Defense Industry Organization. The NCRI representatives argued that the site housed a uranium enrichment experiment which replicated the work done in Natanz.⁶² The Israelis who had good relations with the deputy general director for Safeguards Pierre Goldschmidt and the chief of operations Division B Olli Heinonen, in charge of Iran, conveyed additional information.

Catching up with the NCRI charges, ElBaradei, accompanied by Goldschmidt and the Heinonen, finally made it to Iran in the same month. IAEA representatives took the visitors to Natanz where they were shown the Pilot Fuel Enrichment Plant (PFEP) fitted out with a 160-centrifuge cascade ready to go on line by June 2003. The Iranians told the delegation that an additional 1,000 centrifuges would become operational by the end of the year. The huge Fuel Enrichment Plant (FEP) was expected to hold 50,000 centrifuges; the Iranians explained that they would start installing

the centrifuges in early 2005, after a careful testing at the PFEP. The IAEA officials were “shocked to see that the centrifuges ... appeared to be of European design ... looking suspiciously like the centrifuges produced by URENCO in the 1970s.” After ElBaradei returned to Vienna to deal with the Iraqi crisis, Goldschmid and Heinonen toured several additional suspected sites. On February 26 Safeguards send a letter to the Iranian seeking clarification on several issues.⁶³

In his memoir published in 2011, ElBaradei expressed dismay about the large-scale deception involved in the Natanz facility. He called the enormous underground hall in Natanz designed for 50,000 centrifuges “stunning” and indicative of the “scale of Iran’s nuclear ambition.” The Agency chief added that the deception was “disturbing” because it had been endorsed and carried out at the highest levels of the Iranian government. At the time, however, the Agency’s chief was slow to condemn the regime and pleaded for more time to fashion a solution. He wanted Iran to sign the Additional Protocol, an expanded regime of inspections that would have made it easier to access suspect sites. ElBaradei felt that the new protocol would spare Iran from sanctions which he strongly opposed. As he told Powell and Richard Armitage, deputy secretary of state, “American policy on Iran—with its heavy reliance on sanctions and boycott to prevent weapon development was not working.”⁶⁴

By forcing ElBaradei to deal with Iran, the NCRI, also hampered his ambitious plan to change the discourse between nuclear “haves” and “have nots,” mentioned in chapter 1. As he saw it, from Hiroshima onward, “the possession of nuclear weapons by a limited few had served as an irritant and an incentive for competition to those who had none.” The IAEA chief was frustrated that the Western “haves” refused to acknowledge this fact. ElBaradei also resented the pressure on Iran and other “have nots” to give up what he considered to be their sovereign rights to a peaceful nuclear program. To even the playing field, ElBaradei adopted a rather expansive view of what constituted peaceful nuclear development. As Iran became a symbol of this struggle, the BOG meetings had increasingly turned into a battleground of between the Americans and the IAEA.⁶⁵

Unsurprisingly, Bolton seized on the NCRI disclosure to focus on Iran’s alleged illicit program and settle scores with ElBaradei. In an interview with CNBS on February 24, 2003, Bolton declared that Iran was seeking technological assistance from North Korea and China to enhance its weapons of mass destruction programs. Others took the same line: On March 10, “diplomatic sources” revealed that the uranium enrichment facility near Natanz was “much further along than previously assumed.” They claim that the plant is “extremely advanced” where “hundreds” of gas centrifuges are assembled and ready to enrich uranium. The plant allegedly also contains

“the parts for a thousand others ready to be assembled.” On April 28, 2003, Assistant Secretary for Non-Proliferation John Wolf accused Iran of cheating on its obligation under the NPT. According to Wolf, Iran had a clandestine program to acquire nuclear know-how and technology as part of an illicit weapons effort. His tone was harsh: “Despite saying it wants nuclear energy only to generate electricity, Iran is going down the same path of denial and deception that handicapped international inspections in North Korea and Iraq.”⁶⁶

The discovery of the URENCO-type centrifuges created something of an international scandal which kept the focus on Iran. For Russia, long suspected of helping Iran to proliferate, the find was a diplomatic boon. The Russians accused URENCO and the Europeans of helping Iran, prompting a stern rebuke from the company. On March 28, 2003, URENCO denied the charges and demanded the allegations “be immediately withdrawn.” The EU was also quick to deny any culpability. But Moscow, which endured the American pressure and international opprobrium for more than a decade, felt vindicated. Echoing the leadership, the Russian media were eager to expose what they desecrated as Western hypocrisy, double standards, and duplicity.⁶⁷

For Pakistan, the Natanz revelation was a public relations disaster. In 1983 a Dutch court sentenced Abdul Qadeer Khan in absentia for stealing the blueprints for the centrifuges. Though Khan denied the charges it was common knowledge that he used the design to build the Pakistani bomb. The Pakistani government denied providing help to Tehran, a claim that State Department had chosen to support. On March 12, the department’s spokesperson, Richard Boucher, stated: “We do believe that Pakistan takes this (nuclear) responsibility seriously.”⁶⁸

Behind the scenes, however, the CIA was closing on the Khan “nuclear bazar.” While offering them substantial financial payoff, the Agency intensified the pressure on the Tinnerns. Between June 16 and 25, 2003, a CIA agent and an expert from Oak Ridge gained access to the computers of Marco Tinner, located in a tiny Swiss village, some 10 miles from Vaduz, the capital of Lichtenstein, and his private residence in the nearby resort of Janine. They downloaded the content of the computers, including a partial design of a sophisticated warhead among others. When the content was examined in Langley, it alarmed the nonproliferation division, renamed Weapons, Intelligence, Nonproliferation, and Arms Controls (WINPAC) in 2002. Subsequent revelations, including a Swiss court ruling, indicated that the Tinnerns helped the CIA in several ways. For instance, the family allegedly sold the Iranians pressure vacuum pumps purchased from the German firm Pfeiffer Vacuum Company and “doctored” in the National Laboratory in New Mexico. The faulty pumps apparently destroyed a centrifuge cascade in Iran.⁶⁹

From the perspective of Washington, there was enough evidence to make the case for Iran's noncompliance with the NPT. The IAEA's inspectors made several additional trips to Iran, concentrating on the PFEP in Natanz and the Kalaye facility. They also probed the Jabr Ibn Hayan Laboratory (JHL) located in the Tehran Nuclear Research Center. The facility was said to store uranium imported from China: 1,000 kg of uranium hexafluoride, 400 kg of uranium tetrafluoride and 400 kg of uranium oxide (yellowcake). The Iranians did not declare the material as required, but denied that it was used in enrichment experiments. However, when the inspectors weighted the canisters, they found that 1.9 kg of uranium hexafluoride was missing from the smaller canister. Though the Iranians explained that the missing material leaked out, Goldschmidt and Heinonen were not convinced. They suspected that the Iranians used the gas to test a centrifuge despite the official declaration of the IAEA that only inert gas was used. The Iranians also explained that most of the tetrachloride shipped from China was used up in 113 experiments that took place between 1995 and 2000 which were not declared.⁷⁰

Coming on top of the well-publicized obfuscation in Kalaye Electric, the new round of inspections persuaded Pierre Goldschmidt and Ollie Heinonen that Iran was noncompliant. Bolton believed there was enough evidence to submit the Iran dossier to the Security Council. Kenneth Brill, the US representative in Vienna, was instructed to pressure the BOG, but a Preparatory Conference for the 2005 Review Conference of the NPT held in Geneva from April 28 to May 9, 2003, made clear that ElBaradei opposed submitting the Iran dossier to the Security Council.

After NCRI disclosed on July 9, 2003, that the Revolutionary Guards operated a nuclear center in the Koleh Douz complex, there was hope in Washington and Vienna that ElBaradei would send the Iranian file to the Security Council. Much to his disappointment, on August 26, 2003, ElBaradei sent another positive report to the BOG, prompting the Americans to characterize it as a "whitewash." Bolton urged to pressure the Europeans to act more forcefully in the BOG meetings, but the White House, desperate to secure the EU's backing for its Provisional Government in Iraq, was hardly in a position to strain its relations with its allies.⁷¹

Bolton's foray into the politics of the IAEA was something of a surprise for the Vienna-based diplomats used to a more genteel style of deliberations. But the hard-charging undersecretary of state was convinced that ElBaradei was colluding with Iran and, worse, had the backing of the Europeans on the board. Interestingly, ElBaradei would subsequently admit to his doubts about the regime's truthfulness, writing that Khatami had once told: "You shouldn't worry at all about our program. We only used inert gas in running our centrifuge cascade. The detail in the statement struck me as odd. President Khatami, a cleric by training, had just referred to a means of cold testing

a centrifuge without using nuclear material.” He found it odd that Khatami would “know about testing with inert gas.” ElBaradei was particularly taken by Rafsanjani, describing him as easily the “savviest politician of the group.” ElBaradei quoted Rafsanjani telling him “passionately: ‘I have seen so many of our people killed with chemical weapons during the Iran-Iraq War. I cannot be the one advocating dialogue among civilizations and at the same time developing nuclear weapons.’” Such post factum musing about Rafsanjani’s deception might have been true, but it was equally possible that the IAEA chief engaged in a bit of deception of his own to cover up his reluctance to refer Iran. It was public knowledge that the ElBaradei believed that the United States was seeking a referral to justify a preemptive bombing of Iran or even a land invasion patterned on Iraq.⁷²

To pressure the nuclear watchdog, the NCRI released more damaging information. In May 2003, the MEK affiliate pointed out a “large undeclared site” near the village of Lashkar Abad. On July 8, 2003, he named the military facility in Kolahe Douz as the site of a highly secret weaponization program. The Israeli intelligence provided the same information to the IAEA, but because of the standoff at Kalaye, the inspection of both sites was postponed until October. As it turned out, Lashkar Abad housed a pilot facility for experimenting with lasers for uranium enrichment. Conducted between October 2002 and May 2003, the tests used 50 kg of natural uranium metal that was enriched to 3 percent. Anticipating problems, the Iranians dissembled, and the material was transferred to a storage facility in Karaj.⁷³

The inspection in Kolahe Douz enraged the regime. On October 7, Hassan Rouhani who coordinated the response to the IAEA, complained about what he described as American “abuse” of the international agency and a perversion of international law. But on the same day, Jafarzadeh held another press conference in Washington to provide very detailed information on the secret centrifuge test facility outside Tehran. He added that all the information had clearly indicated “an extensive and clandestine program pursued by the clerical regime to acquire nuclear weapons.” Jafarzadeh took the opportunity to accuse Iran of using denial, deception, and delaying techniques to confound the IAEA. Coming some three weeks before the October 31 deadline for a BOG report, it spurred another round of inspections. The Isfahan facility and sites around Tehran were tested again, raising other red flags.⁷⁴

On November 10, 2003, ElBaradei released his closely anticipated report to the BOG. He noted that “in the past Iran many aspects of its nuclear activity” and “Iran’s policy of concealment continued until last month, with cooperation being limited and reactive, and information being slow in coming, changing and contradictory.” Still, “to date there is no evidence that the previously undeclared materials and activities ... were related to a nuclear weapons program.”⁷⁵

The report, which fell well short of a referral to the Security Council, was deeply disappointing to the United States. ElBaradei explained that at the core of the dispute with Washington was a different interpretation of achievable evidence. He would later admit to realizing “early on that we are dealing with people who are willing to deceive to achieve their goal and that we should not accept any attestation, without physical verification.” However, without physical verification which was denied to the inspectors, he could not declare Iran as noncompliant. But, to the American “the fact that Iran lied, was proof.”⁷⁶

To Bolton, ElBaradei’s reasoning was a piece of casuistry that defeated the very purpose of the Agency. In his characteristically blunt fashion, Bolton dismissed it out of hand, stating “it was impossible to believe.” As he saw it, the report supported the American position that Iran engaged in a “massive and covert effort” to acquire nuclear weapons. In a tense BOG meeting, Brill read a statement authorized by Bolton: “The institution charged by the international community with scrutinizing nuclear proliferation risks is dismissing important facts that have been disclosed by its own investigation.” It would take time, the statement said, “to overcome the damage caused to the Agency’s credibility.” ElBaradei responded by accusing the United States of misrepresenting the legal meaning of evidence and reminded the audience of the cost of rushing to conclusions in the case of Iraq. The IAEA chief recalled that a “hushed” reaction had followed the exchange. After leaving the conference room in protest, some developing country members congratulated him for standing up to the “American bully.”⁷⁷

Bolton’s anger notwithstanding, Washington could do little to pressure ElBaradei and the EU-3 that backed him. Having found no WMD in Iraq, a huge blow to American international standing, Washington needed the continuous goodwill of its allies while coping with the increasingly chaotic and violent situation in Iraq. The irony of America going to war to prevent alleged proliferation in Iraq only to have its options undercut in Iran did not escape observers. Some, like the former inspector Scott Ritter, were positively gleeful when discussing this turn of events. Peter W. Galbraith, a former diplomat and political adviser, spoke for many when he stated that “Iran is the winner of the war that George W. Bush lost.” In his view, the war was “a strategic gift to Iran” and “that country’s biggest gain in four centuries.”⁷⁸

In the highly dynamic world of nuclear intelligence and espionage, however, dramatic changes could lead to sudden reversals. The CIA, which relocated Urs Tinner to a factory that Khan had established in Malaysia under the supervision of Buhary Seyed Abu Tahir, was able to obtain the shipping manifesto of centrifuges and other components delivered to Colonel Muammar Gaddafi. In October, the ship, according to BBC China, was diverted to

a port in Italy and the items were removed. Soon after, the Libyan strongman announced a voluntary end to his program.⁷⁹

The sensational discovery of the “Khan bazar” recalibrated the balance of power between Washington and ElBaradei. The IAEA had no inkling of Gaddafi’s program, making it clear that the United States, seen by many in Vienna as the “American bully,” was the most effective overseer of nonproliferation. More consequential, the Pakistanis, who had long resisted questions about Khan, were forced to launch an inquiry on Libya and Iran. The authorities apprehend several individuals and, on February 24, 2004, forced Khan to admit to trafficking on national television. In his twenty-four pages “confessional report,” Khan detailed his trade with Iran, among others.⁸⁰

The fallout from the affair was extensive, prompting a renewed pressure on the IAEA to exercise more vigilance in Safeguards inspections. ElBaradei wrote that the exposure of Khan’s network was the third in a series of “profound changes” in the nuclear status quo, a process that started, in his opinion, with the North Korean proliferation in the 1990s and the 9/11 terror. The still reluctant Agency chief was forced to devote urgent attention to Iran. Ollie Heinonen was put in charge of tracking down leads in the supply chain of Khan. The material explained the origins of the P1 and P2 centrifuges and raised the possibility that the Iranians obtained the blueprint of the warhead stored on Marco Tinner computer.⁸¹

Under increasing pressure, ElBaradei was compelled to respond to several issues that he had felt free to ignore before. One was Lavizian-Shian, a site first disclosed by NCRI at a press conference in May 2003. As noted above, there was a biological research facility on the site that operated since 1989, but Jafarzadeh insisted that a wide array of enrichment and weapon experiments were performed there. Intercepts of conversations between Iran and Pakistan obtained by the CIA and the Mossad, though coded and vague, seemed to refer to weaponization experiments carried out in Lavizian-Shian and other sites. Since the facility was not reported as nuclear, the IAEA refused to investigate. By the time the Agency accessed the complex in 2004, however, the facility was gone, and the site received an extensive cleanup including the removal of top soil. The IAEO claimed that the Tehran municipality forced it to return the site on which a public park was built. But ISIS, which provided satellite imagery of the site to ABC World News on June 16, 2004, claimed that the activities there were suspicious.⁸² Iran fiercely rejected the charges that it conducted any weapon trials either in Lavizian-Shian or anywhere else. But on at least one occasion, inspectors found a high-speed camera of the kind used in high explosive tests involved in fabricating nuclear weapons.⁸³

The additional information which Iran was forced to provide in its NPT-mandated disclosure helped to answer a puzzle about the IR-40 heavy water

reactor in Arak scheduled for construction in 2004. ElBaradei noted that the drawings submitted by the IAEA did not include plans for shielded nuclear radiation containment chambers, referred to as hot cells. As a rule, the chambers, equipped with outside manipulators, are used to inspect spent rod fuels and other gamma emitters such as medical isotopes. Hot cells raise proliferation concerns because the chambers can be used to carry out the chemical processes necessary to extract plutonium from spent fuel rods. After inspectors found evidence of Iranian efforts to procure lead windows and manipulators for the chambers, more questions were raised about their real goal of the reactor.⁸⁴

Using their new-founded leverage, the Americans could pressure ElBaradei to exercise more due diligence in preparing a report for a board meeting in June 2004. On April 4, ElBaradei, Goldschmidt, and Heinonen traveled to Tehran to meet with Hassan Rouhani and other top nuclear officials. Their delegation urged the Iranians to settle questions on the Agency's list and provide access to the disputed sites, including military bases. As in the past, however, the Iranians were not fully forthcoming, hoping that partial compliance, a technique which Rouhani had perfected, would spare them from censure by BOG. This proved to be a miscalculation since the Khan affair helped Washington to mobilize the EU-3 in pressing the BOG for a more vigorous investigation.

Parchin turned into a new cause of disagreement between Bolton and ElBaradei. Israeli intelligence informed the IAEA about nuclear test in the facility in June 2004, but the Iranians blocked an inspection. By his own admission, ElBaradei was not inclined to press the regime since Parchin was not a declared nuclear facility and thus, in his view, outside the purview of the Agency. Bolton considered such an argument specious. In an interview to BBC Two in August 2004, Bolton referred to the IAEA as "a wonderful but obscure agency in Vienna" and urged to refer Iran to the Security Council. In private, he was less circumspect, questioning ElBaradei's willingness to crack down on Iran. As he would state in his memoir, ElBaradei "made excuses for Iran the entire time I was in the Bush administration. He was constantly hunting for 'moderates' in Iran's leadership who did not want to pursue nuclear weapons, a nonexistent group." Bolton was especially upset with ElBaradei's alleged habit of fudging the reports of the Safeguard inspectors, writing: "He was more interested in cutting a deal than in faithfully reporting what the IAEA inspectors telling him."⁸⁵

By 2004, the CIA had more evidence to support the contention that Iran had engaged in an illicit project. In addition to the Tinner family's computers and the intercepts of conversations noted above, potentially critical intelligence surfaced on a laptop which an alleged walk-in delivered to the American embassy in Ankara in mid-2004. The laptop, whose origin was

never clearly explained, contained some 1,000 pages of correspondence and drawings documenting research and development of uranium enrichment, weaponizations, and ballistics. A small engineering firm Kimeya Maadon, an apparent front which the Revolutionary Guards established in 2001, provided many of the drawings. One of them featured a set of technical plans for a small uranium conversion facility. The PMD-related drawing of a 400-m tunnel, equipped with remote-controlled sensors to measure pressure and heat. American experts suggested that the shaft was designed for an underground atomic test with a separate drawing envisioning a location for a test control team at a safe 10 km distance from the tunnel.

A set of plans showed an apparent effort to fabricate an implosion detonation system for a nuclear weapon. Known as the multipoint initiation system, the drawing featured a hemispheric aluminum devise with channels terminating with holes for the explosive pellets. Equally telling were 18 modeling studies to retrofit the nose cone of the Shahab-3 missile in ways that could accommodate a nuclear device. A notional nuclear device was 0.6 m in diameter with a mass of 200 kg designed to explode 300 m beyond the target, a height ideal for a nuclear device. Scientists in the Sandia National Laboratory in New Mexico who studied the case concluded that these were indeed attempt to modify the nose cone. But they also determined that none of them would have been successful if mounted on the Shahab-3. Code-named Project 111, it bore the name of Mohsen Fakhrizadeh, known to Israeli and American intelligence as the director of the early Project 110 of the same nature, which was mentioned in the preceding chapter.⁸⁶

With the fresh evidence of Parchin and the unresolved questions over the origin of the HEU and LEU found in Natanz, Bolton was reasonably hopeful that the September BOG meeting would send the Iranian dossier to the Security Council. To help their case, in July, the Americans secretly briefed the IAEA and some BOG members about the content of the laptop. The response in Vienna was mild; Pierre Goldschmidt and Ollie Heinonen from the Safeguards were inclined to accept the evidence, but Mohammed ElBaradei and EXPO personnel were not impressed. In fact, the provenance and the veracity of the laptop information would result into an acromion debate, with some accusing Israel and the United States of fabricating all or most of the content.⁸⁷

Still, the Americans felt that with more evidence, the BOG would eventually move on to censure Iran. Prior to the September meeting, ISIS released satellite photos of the Parchin facility on ABC accompanied by Albright's commentary on possible nuclear-related experiments. The following day, on September 14, 2004, the Associated Press carried an article quoting an unnamed "senior member of the U.S. delegation" who called it a "serious omission" that ElBaradei had not mentioned Parchin in the report to BOG.

ElBaradei registered his outrage about “American manipulation” to accuse him of pro-Iran bias. He added that it “was nonsense ... the Agency had been reviewing data on Parchin for some time and had discussed with Iran our interest in visiting this and other military sites. We knew that Parchin was a military production facility where Iran manufactured and tested chemical explosives. We would continue to probe Iran about the site, but at this stage, we had no evidence whatsoever of nuclear-related activity there.”⁸⁸

ElBaradei’s performance at the September meeting was masterful. He insisted that the Iranians were taking steps to comply with the NPT and it was only a matter of time before a binding agreement, a reference to the Paris Accord, would be approved by the Majlis. After the Iranians lobbied members from developing countries, the BOG delayed referral to the Security Council once more. Still, the board condemned Iran for its “lack of full, timely and proactive cooperation” and urged better cooperation in the future. The resolution added that “Iran’s cooperation has not been as full, timely and proactive as it should have been.” EU board members were particularly concerned about the failure to explain the P2 centrifuges and the delays in taking environmental samples.⁸⁹

The much-relieved ElBaradei allowed “that there was some basis for this criticism,” but he still strongly felt that sending the dossier to the Security Council “would not do any good. Iran could withdraw from the NPT, and we would then have another North Korea on our hands.” Still, he considered the meeting an affirmation of his diplomatic approach, a fact that he took great pride in. Without mentioning names, he wrote that “confrontational rhetoric and ideological games ... might have been their business but was not mine. And I would not stand idly by while extremists planted the seeds for another devastating war in the Middle East.”⁹⁰

Ironically, in his memoir, the IAEA chief acknowledged that Iranians were practically sabotaging his diplomacy. At one point ElBaradei confessed, “I realized early on that we were dealing with people who were willing to deceive to achieve their goal.” But fearing that such tactics would give the Americans an upper hand, he told his Iranian interlocutors that “he was sick and tired of their procrastination and delays.” He warned them that “they were losing support among some Member States” on the board. Likewise, ElBaradei confessed to being puzzled about what he considered to be Iran’s self-defeating behavior. Having spent a few days in Tehran, he came to realize that the leadership “oversold” the nuclear project to the public, turning it into a symbol of national pride and making a compromise difficult. ElBaradei also felt that the regime overplayed its hand about the Americans mired in the war in Iraq. He recalled that Rouhani had told him once that Tehran “would make the American situation in Iraq even more difficult.”⁹¹

Whatever the reason for the Iranian behavior, it certainly did not help the nuclear chief to persuade Washington about the soundness of his approach. It was hard to hide the fact that no matter what the IAEA decided, the Iranians were disputing the definitions, violating the conditions, delaying inspections, and otherwise making a mockery of the process. While ElBaradei lamented this self-destructive posture, Bolton understood that it helped the administration in its fight with the IAEA. As he put it: "Iran came through for us" on many occasions.⁹² But the Bush administration also knew that censuring Iran would need a buy-in from EU-3, Russia, and China aboard. None of them were anxious to support the Americans. To the contrary, mindful of their countries' profitable trade relations with Tehran, the EU-3 ministers resisted American pressure. Russia, which, as noted, had emerged as a major trading partner of Iran, including important nuclear technology, was even more resistant. Though still not fully recognized in Washington, President Putin saw Iran not just as a source of profitable business but a ploy to bolster his increasingly independent foreign policy.⁹³

Engaged in a close race for the White House, the administration was in no position to deal with Iran. Spencer Abraham, the DOE secretary, allegedly ordered the National Laboratories to suspend all work on analyzing the Bushehr facility. An unclassified briefing produced by the Z-Division at the Lawrence Livermore National Laboratory noted that because of Bushehr's mid German and Russian design, extracting and separating its plutonium would not be cost efficient. As one source put it, "the bother to worth ratio" was not promising. With Bushehr and the Russians largely out of the equation, after a narrow victory in November 2004, the White House turned again to Iran's indigenous production sites.⁹⁴

By early spring 2005 hard-liners in the administration were implying that taking out the nuclear sites, either by Israel or the United States, may be inevitable. Vice President Cheney went as far as to imply that the fast pace of the Iranian advances was raising the alarm bells. But other reports seemed to contradict Cheney's conclusions. For instance, in April 2004, Gordon Oehler, the former CIA nonproliferation chief who headed a presidential commission on weapons of mass destruction, found that American intelligence knew "disturbingly little" about Iran, and other nuclear rogues. The CIA did not respond to Oehler, but the ongoing disputes had become politicized to the point of affecting the administration itself.⁹⁵

Cheney's comments provoked some in the military and intelligence circles to go public with their misgivings. In not-so-subtle terms, these mostly retired officials blamed Jewish neoconservatives such as Paul Wolfowitz and Douglas Feith for promoting a war with Iraq in the interest of Israel. Calling them "chicken hawks," a reference to their lack of military background, they warned that these and other neoconservatives would lead America into a new

war and more casualties. Ambassador Joseph Wilson, who found the report that Saddam Hussein bought yellowcake from Niger not credible, was even blunter. He described the Jewish neoconservatives as a “small pack of zealots whose dedication [to pro-Israel policy] has spanned decades.” Wilson added that “never in the history of our democracy has there been such an influential center of power” capable of skewing “decision making practices.”⁹⁶

The failure to find WMD in Iraq served to empower those who prior to the invasion had strongly objected to the notion that Iraq had WMD. One former CIA agent claimed in a subsequent law suit that he had been fired because his reports contradicted the Agency’s stand on the Iraq weapons and the Iranian nuclear program. Several State Department officials like Thomas Fingar, the head of the Bureau of Research and Intelligence, and Vonn R. Van Diepen, who worked directly for Bolton, were part of this group. They implied that Bolton should also be held responsible for the Iraqi debacle. Others alleged that Bolton blocked intelligence destined for Condoleezza Rice and Colin Powell, and otherwise manipulated information.⁹⁷

Albeit more diffusely, the Iraq backlash informed the production of the 2005 NIE on Iran. Overseen by David Gordon, acting chair of the National Intelligence Council, the report titled “Iran’s Nuclear Program: At a Crossroad,” was issued as a “memorandum to holder” of the 2001 NIE. Its author, Robert Walpole, the national intelligence officer for strategic and nuclear programs who incorporated input from the relevant parts of the intelligence community, found that “Iran currently is determined to develop nuclear weapons despite its international obligations and international pressure.” Compared to 2001, the analysis was less deterministic; it used certain subtle qualifiers. The word “pursuing” replaced the word “determined” and Iran was described as “not immovable” on the nuclear issue. On the critical issue of weaponization, the NIE concluded that Iran was about 10 years away from manufacturing enough highly enriched uranium to make a nuclear weapon. Interesting, the document expressed doubt whether Iran would acquire the technology to fabricate the bomb, a possible reference to the opinion of some national lab experts who examined the laptop.⁹⁸

Commentators were quick to notice the change of tone, adding that the “ten years away” doubled the previous estimate of five years, a staple of CIA estimate for more than a decade. Michael V. Hayden, the then deputy director of intelligence, explained that under the new rules, the NIE was drafted with a “higher tolerance for ambiguity,” and less conclusiveness. Unfortunately, reflecting the progressive politicization, few took Hayden’s expiation at face value. Some, like Shahram Chubin, a respected Iran expert, asserted that the figure “was tainted” to give the administration more time for regime change. Others argued that the “ten years” estimate was aimed at Bolton and others “alarmists” in the administration who were advocating an attack on Iran’s

facilities. In this view, expanding the time span was a clever way of preventing hard-liners from ringing the alarm bell.⁹⁹

Ironically, extending the timeline to 10 years vindicated ElBaradei long held position that Iran was anywhere near weaponization. Unsurprisingly, it did not sit well with Bolton who concluded that the IAEA under ElBaradei was not likely to refer Iran to the Security Council. When the nuclear chief signaled his determination to run for a third term in 2015, Bolton lobbied the BOG members to vote against him. The effort backfired when it became known that the administration was bugging ElBaradei's phones and intercepting IAEA traffic. ElBaradei later claimed that "individuals" in the CIA leaked information about the phone monitoring. He also disclosed that "sources" in the State Department "who disliked the high-handed, insidious behavior of a few individuals" send him "copies of memos, briefings, and other information."¹⁰⁰

The identity of those who allegedly passed confidential material was never revealed, but the anti-Bolton forces found a very public venue to voice their grievances. In the spring of 2005, President Bush nominated Bolton to serve as US ambassador to the United Nations. The appointment proved highly controversial, not least because of his harsh attacks of the United Nations. In what was arguably his most memorable line, Bolton noted that "if the U.N. secretary building in New York lost 10 stories, it would not make a bit of difference." Also, the Senate was critical of his stand on Iran because it was at odds with the findings of the State Department. But it was Bolton's alleged bullying behavior toward subordinates, to which Fingar and his colleagues testified, that drew the most attention. Carl W. Ford Jr., a former assistant secretary of state for Intelligence and Research (INR), described him as a "kiss up, kick down sort of guy," a neologism denoting a person who was polite to superiors but abusive to subordinates. Unable to overcome the Democrats' objections, Bush was forced to use a recess appointment to send Bolton as an acting ambassador to the United Nations.¹⁰¹

ElBaradei, meanwhile had his own problems with staff which came into the open during a BOG meeting in March 2005. The nuclear chief delivered an upbeat assessment of the alleged progress that Iran made toward compliance with the NPT. He noted that Agency allowed access to several locals including the hotly contested Parchin site. However, when the director for Safeguards Pierre Goldschmid took the stage, he complained that Iran had failed to provide full information about the P1 and P2 centrifuges and blocked access to sites where alleged weapon experiments had been conducted. Goldschmid noted that the Iranians turned down a repeat request to sample Lavizian-Shian and limited access in Parchin to one section of the huge base.¹⁰²

Even so, ElBaradei was reelected unopposed to another term and soon after, in October 2005 he received the Nobel Prizes for Peace on behalf of

the Agency. He described the prize as a “defining moment for the Agency” and was quick to suggest that this recognition should be translated into funding to make the Agency truly independent. ElBaradei felt that dependence on satellite imagery “selectively” passed on by “two or three member states” was detrimental to the safeguard work. Even worse, a “single laboratory of the US Air Force” performed the most sensitive types of fission track particle analysis. He stopped short of accusing the United States or other countries of falsifying results, but his lack of trust was palpable. Personally, he felt that the prize made him “more immune against accessions of being biased or soft,” a veiled reference to charges from Washington.¹⁰³

Yet not even ElBaradei’s Nobel Prize prestige could withstand the dramatic change in Iranian nuclear policy ushered by Mahmoud Ahmadinejad who took office in August 2005.

NOTES

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Chapter 5

Iran's Nuclear Principalism

Challenging the NPT

THE VIEW FROM TEHRAN

The election of President Mahmoud Ahmadinejad in June 2005 jolted the Western pundits and the Iranian political establishment alike. The 49-year-old Ahmadinejad was a veteran of the Revolutionary Guards and a minor apparatchik who served a one-term appointment as governor of the Ardebil province. Helped by the Abadgaran faction in the Tehran City Council, he became the mayor of Tehran in May 2003. The former professor of engineering was the least experienced, least known, and least personally and professionally attractive of all the other candidates authorized by the hardline Council of Guardians to run in the presidential campaign.

For the few who bothered to follow his campaign, Ahmadinejad was primarily a domestically oriented candidate, a populist extolling the ideals of Islamist equality, seeking social justice, and fighting corruption and oppression. His foreign policy platform was sparse, limited to lofty slogans about national dignity and the need to protect the national interest against foreigners. The Western media expected Ahmadinejad to be concerned with economic problems and thus soften Iran's stand on the nuclear program. But once in office, he unfolded an extremely radical foreign policy program which, in the words of one observer, made him "a throwback to the early, more radical days of the Islamic revolution."¹

Taking a page from the Abadgaran ideology, the new president explained to his countrymen that Principalism stood for a new foreign policy vision. He emphasized that Iran needed to restore the spirit of Islamist revolution of Ayatollah Ruhollah Khomeini. Reviving the glory of ancient Persia, however, was equally important if Iran wanted to regain its importance in the global order. Having declared that the "reform in foreign policy is [his]

government's top priority," the president expressed his wish to help Muslim countries "to break the yoke of Western imperialism, colonialism, and capitalism." In other words, he felt called to lead a "crusade" against the Western hegemons of the international order, most notably the United States and its junior partner Israel.²

Despite all these idealist and even messianic aspirations, Ahmadinejad was enough of a realist to understand that Iran could not challenge the United States without having nuclear weapons. He shared the rancor of the developing countries against the "nuclear club" and the NPT which, in his opinion, acted as the gatekeeper of the nonproliferation order. The president was convinced that to achieve its rightful status in the Middle East, Iran needed to challenge the nonproliferation system. Striking a historical-heroic posture, Ahmadinejad compared himself to Prime Minister Mohammed Mossadegh who fought to nationalize Iran's oil against British and American wishes in the 1950s. In both cases, control over energy resources encapsulated the larger themes of sovereignty, modernity, self-sufficiency, and non-submission to the control of the West. In a metaphor, which most Iranians understood, the president equated giving up enrichment to losing independence.³

Insiders were the first to learn that a radical change in Iran's nuclear posture was afoot. Seyed Hossein Mousavian, one of Hassan Rouhani's negotiators in Vienna, recalled being summoned to meet the new president. Ahmadinejad informed him that he intended to abandon the approach developed by Mohammed Khatami and Rouhani. When Mousavian argued that terminating the negotiations with the EU-3 would result in Iran's referral to the Security Council, the president told him that it "was a bluff." In a separate discussion with Rouhani, Ahmadinejad denied that the IAEA had the right to refer Iran to the Security Council. When told that the Western countries contributed the lion's share of the Agency budget, he allegedly urged Rouhani to call Mohammed ElBaradei and tell him that Iran would pay instead.⁴

In another break with his predecessor, Ahmadinejad opted for a high-profile public relations campaign to acclaim the nuclear project. In April 2006, the president celebrated the enrichment of a small amount of uranium to 3.5 percent with a nuclear holiday and a lavish ceremony transmitted by national television. In an auditorium packed with government officials, Guards commanders, and clergymen, a triumphant Ahmadinejad proclaimed that Iran had joined the "nuclear club," as "exotically clad dancers whirled around them" and "choirs thundered Allah Akbar." The term "nuclear club"—reserved for the five nuclear powers—reflected President Ahmadinejad's efforts to turn nuclear energy into a *de facto* civil religion replete with a National Nuclear Day celebration, stamps, banknotes carrying the nuclear symbol, and even a specially commissioned opera. Ahmadinejad was also eager to divulge details of the alleged progress Iran had already made and promised Iran would strive

to install 50,000 centrifuges so it could sell uranium on the international market.⁵

Still, Ahmadinejad's extremely harsh rhetoric about Israel implied that he had more on his mind than selling uranium on the open market. Ahmadinejad let it be known that Holocaust was a myth created to justify the formation of Israel—described as “a move by the oppressor of the world [the United States] against the Muslim world.” On December 11, 2006, the Institute of International Studies attached to the Ministry of Foreign Affairs rolled out a Holocaust denial conference attended by white supremacists, and several prominent Holocaust deniers, among others. On the opening day, Ahmadinejad proudly declared that the world could look forward to a time when Israel would be erased from the pages of history: “You should know that this slogan, this goal, can certainly be achieved.” Even without mentioning Ayatollah Rafsanjani's infamous comment, it was quite clear that a nuclear weapon would come handy in realizing this goal.⁶

To show that Iran was not cowed by threats of sanctions, Ahmadinejad took to stating that the nuclear program was like a “train without breaks” as in “a while ago, we had thrown away the braking and rear gear of the nuclear train.” The Principalist coalition—the Abadgaran, the Revolutionary Guards, and the Haqqani School clerics—welcomed Ahmadinejad's defiant gesture with enthusiasm. They argued that the European Union, acting on Washington's behest, and the IAEA were “bullies” determined to prevent Iran's program from going forward and therefore undermining the country's chance to achieve the international status it deserved. The hard-line *Kayhan* newspaper wrote: “The Islamic Republic's becoming a nuclear power sends a powerful and wide-ranging message. If our nation wants to achieve glory in the world, it has no choice except laying out a strategy in this direction and prepare the suitable means for this strategy.”⁷

Indeed, the Principalists gave every indication of being ready to leave the NPT to achieve this “glory.” But in a fierce internal debate, the Supreme Leader took the side of Hassan Rouhani, Ayatollah Rafsanjani, and the reformist faction. Even for a hardliner like Khamenei, the penalty which North Korea had paid for withdrawing from the treaty was too much as noted before. But Khamenei was apparently unwilling or unable to restrain Ahmadinejad from furthering the rift with the international community. On January 10, 2006, technicians began removing the IAEA seals in three nuclear production sites while the president proclaimed Iran's freedom from “Western nuclear colonialism.” Adding insult to injury, Ahmadinejad boasted that Iran would never give in to international pressure, a theme which the Supreme Leader emphasized as well. On March 9, 2006, Khamenei proclaimed that the “Islamic Republic will resist and resume the path of progress. If we give up this time, after that the West will come up with new pretexts to deprive us

from scientific achievements,” turning the process a “slippery slope.” Never shying away from provocative statements, Khamenei threatened that “United States must know that it will suffer twice if it dares to impose any damage on Iran’s interests.”⁸

That such defiance exacted a price was made clear when Iran’s dossier was referred to the Security Council. As would be detailed later, during Ahmadinejad’s first term in office, the Council passed five resolutions which imposed progressively more severe sanctions on Iran. But the feisty president minimized their significance, referring to them as “a useless scrap of paper” or even “toilet paper.” Mousavian related that he and other members of the Rouhani team had viewed the “aggressive language” of the presidents and his threats to wipe out Israel as highly detrimental but could do little. When the former envoy complained in public, Ahmadinejad had him arrested on charges of espionage. Although Mousavian was found innocent by three different judges, he was forced to flee Iran. The Principalists’ message to him and others who served in the Khatami government was loud and clear: Nuclear negotiations were tantamount to treason.⁹

While the cost of the progressively stringent sanctions was not immediately clear, Ahmadinejad could bask in the achievement of his predecessors whose projects were coming online. In August 2005, the government revealed that the Isfahan conversion facility had begun producing uranium hexafluoride. The AEOI noted that a new indigenous technology resulted in a hundredfold increase in the efficiency of producing yellowcake, while reducing the associated cost. Later in the year Ahmadinejad declared that “we shall produce nuclear fuel and sell it to other countries with a 30 percent discount.” Natanz, the flagship of the enrichment program, went critical in 2006; the authorities announced that it will hold 48,000 IR-1 centrifuges and produce 2,500 kg LEU monthly. On May 2, 2006, Reza Aghazadeh declared that Iran could enrich uranium to 4.8 percent. On January 19, 2007, a government’s spokesman, Gholam-Hossein Elham, announced that Tehran is moving toward the production of nuclear fuel in some 3,000 centrifuges. The administration suggested that Natanz would be fully equipped before the end of the Persian year on March 20, 2007.¹⁰

By 2008, such “centrifuge bulletins” became de rigueur. On April 8, 2008, the president visited Natanz to unveil a significant expansion of the facility. With the press in attendance, he affirmed that engineers had started installing 6,000 IR-2 centrifuges in addition to the existing 3,000. Three days later, the news agency IRNA reported that three sets of 164-machine cascades from a second series of 3,000 were spinning at Natanz. On July 26, 2008, it was announced that Natanz had 6,000 operating centrifuges, double the number in previous statements. On August 30, 2008, Alireza Sheikh-Attar, the deputy foreign minister, claimed that Iran had increased the number of centrifuges

to 4,000 at its uranium enrichment plant and is about to install 3,000 more centrifuges. During a November 15, 2008, conference, the president declared that Iran's nuclear program was nearing an important milestone: "I am hopeful to have our celebration of Iran's full nuclearization at the current year." An apparent reference to the fact that Iran mastered the enrichment cycle, it was followed by the then formulaic assurance that sanctions would not deter the country from developing its nuclear program.¹¹

While Ahmadinejad was providing upbeat updates, the reality was much more difficult to assess because the authorities, in retaliation for sanctions, were restricting Safeguards inspections and complicating other efforts to establish compliance. For those familiar with the enrichment process, some of Ahmadinejad's numbers, including occasional contradictions, made little sense. As noted in chapter 1, in addition to deception, self-deception presents a series of problems for intelligence. Insiders suggested that, in his haste to claim the mastery of the enrichment cycle as fait accompli, Ahmadinejad could have been tempted to exaggerate the number of working first-generation IR-1 centrifuges. He could have as easily inflated the stock of the advanced IR-2 in Iran's possession. Nuclear bureaucrats eager to please the president might have been also to blame. The author of the study of the Libyan failure mentioned in chapter 1, found that exaggerations and fudging occurred most commonly in authoritarian regimes: "To protect themselves from the eyes of the leadership, scientists may inflate may inflate the number of ongoing projects or may constantly change [their] design."¹²

Whatever the true scope of Iranian nuclear production, Ahmadinejad's high-profile proclamations heightened the alarm in Jerusalem and Washington.

THE VIEW FROM JERUSALEM

Nursing few hopes for possible moderation in Tehran, the Israeli intelligence community was not particularly surprised by the election of Mahmoud Ahmadinejad. Aharon Zeevi Farkash revealed in May 2005 that Aman had judged Ahmadinejad to be "problematic," probably because of his rhetoric. Personality aside, Aman's Research Division preferred to concentrate on the nitty-gritty of the nuclear program, not least because of the additional information which was found in the laptop mentioned in the previous chapter.¹³

To the Israeli intelligence experts, the laptop was proof positive of a comprehensive program of weaponization. Because of the proximity to Iran, the progress made on the Shahab ballistic missiles was especially worrisome. Uzi Rubin, considered a preeminent expert on missiles in the Middle East and the former head of Israel's Missile Defense Organization, told the Knesset

Foreign Affairs and Security Committee in 2005 that Iran made impressive strides on its ballistic program. His colleague, Yair Ramati, another top ballistic expert, added that Iran made impressive strides in all aspects of ballistics; a transition from liquid to solid fuels, navigating systems, and fabrication of long-distance missiles capable of reaching Israel and the American forces in the Middle East. Ramati suggested that the work on Shahab-4 demonstrated the strength of the ballistic industry in Iran. Two years later, Rubin described the Iranian missiles as an “existential threat” to Israel.¹⁴

Much as the laptop clarified some of the assumptions of the intelligence community, it did not produce a consensus on the level of danger, let alone whether Iran posed an “existential danger” to Israel, as Rubin suggested. Ephraim Asculai, who worked for 40 years for the Israel Atomic Energy Commission and represented Israel in Vienna, cautioned that “intelligence assessments of covert unconventional weapons production programs are notoriously problematic.”¹⁵

Amos Yadlin, who replaced Zeevi Farkash as head of Aman in 2006, was eager to develop a more precise way to chart the Iranian progress. Fond of mathematical formulas and algorithms, this former Air Force pilot who participated in the raid on Osirak, reorganized the Research Division so that a small group of specially picked officers could evaluate the increasing amount of data. In a subsequent interview, Yadlin laid out the parameters for a successful assessment. The first one pertained to the so-called breakout condition, that is, the amount of highly enriched uranium needed to fabricate a bomb. Considering that 25 kg of HEU was required, the speed of the breakout depended on the number of centrifuges and their sophistication. Yadlin noted it would take 1 year for 3,000 relatively primitive IR-1 centrifuges (based on the P-1) to produce this quantity. The second parameter related to ability to build the warhead, a condition that was not fully known and, given the secrecy of the 111 projects, not fully determinable. Even the ballistic progress could not be taken for granted since fitting a warhead on a missile was not a trivial pursuit, in his view.¹⁶

Even though many technical variables were left unsolved, politicians were quick to proffer their opinions on the so-called “point of no return,” that is, the conditions at which it would be impossible to stop the Iranians from weaponizing. One frequently bandied definition was the “knowledge factor.” According to Tzipi Livni, the foreign minister in the government of Ehud Olmert who took over from the ailing Ariel Sharon in 2006, Iran’s mastery of the knowledge needed for the entire enrichment cycle would be considered as a point of no return. In an interview with CNN on September 17, 2007, she preferred the term “crucial day,” defined as the “day that Iran masters the enrichment, the knowledge of enrichment.” When pressed to state how long it would take Iran to reach the “crucial day,” her response

was a somewhat confusing “few months,” or “maybe more,” and “they are still working on.”¹⁷

Far from an exercise in semantics, the “point of no return” was a crucial element in the larger debate of how to react to Iran’s progress on its assumed weapon project. The ever-analytical Yadlin broke it down into several questions. The first one was whether Israel could live with a nuclear Iran. As a rule, the answer was negative, but there was a gamut of opinions about the extent to which Iran was an existential threat to Israel. Arguably, Mahmoud Ahmadinejad’s genocidal promise to wipe Israel off the map helped to create the impression of an irrational and out of control entity. Yet most of intelligence officials, however, considered this a very remote possibility. During a 2010 wargame “Iran—the Day after Simulation” conducted in the Interdisciplinary Center (IDC) in Herzliya, Zeevi Farkash insisted that “Iran would regard its bomb as a means of self-defense and strategic balance.” The most likely scenario, according to this view, was accidental nuclear exchange, nuclear terrorism, or a region-wide proliferation to be a more likely scenario. Yadlin added that MAD was not applicable to an Israel-Iran scenario because of the unintended miscalculation, escalation without the mechanism for de-escalation and, above all, the spread of nuclear weapons in the region.¹⁸

With no scientific way to assess the odds, however, many Israelis were inclined to believe that Tehran, motivated by theology, ideology, and blinded by visceral hatred, would launch a first use strike against Israel. Unrestrained by the logic of the evaluative process of the intelligence community, right-wing politicians were quick to portray Iran as a highly irrational actor poised to annihilate Israel at the first opportunity. Ahmadinejad’s Holocaust denial and apocalyptic threats, made it easy on them and others to engage in the so-called Holocaust framing, a comparison of Iran to Nazi Germany and Ahmadinejad to Hitler. By and large, Likud politicians favored the idea that Israel faced an existential, Holocaust-like danger. Interestingly, Benjamin Netanyahu, who had previously tried to tamp down the anti-Iranian rhetoric, emerged as the head of Holocaust framing camp. It is virtually impossible to determine whether Netanyahu was motivated by genuine sense of existential threat or part of political posturing, but at least one observer noted that after winning the election in 2009 Netanyahu scaled back his references to the Holocaust scenario. Ehud Olmert was less prone to Holocaust framing, but not averse to using the Iranian card for politicking. Facing a tough election, Olmert denounced Ahmadinejad as a “psychopath” and compared him to Hitler. While towing the government line in public, behind closed doors, Livni was said to criticize Olmert for using the existential label.¹⁹

The second issue raised by Yadlin focused on preventing Iran from weaponizing its nuclear program. In his view, the choice was more complex than the “bomb” versus the “bombing” dichotomy—that is, either tolerating a

nuclear Iran or bombing its facilities. Like Dagan and Zeevi Farkash, Yadlin believed that covert actions against Iran's nuclear program combined with vigorous diplomatic offensive were preferable to an overt attack. As it turned out, Dagan was successful in persuading Prime Minister Olmert to continue with the plan originally authorized by Sharon. Although Ephraim Sneh, back in the government as deputy minister of defense, was once again raising the alarm over the Iranian threat, there was little buy-in from the top political echelons. Sneh complained that the government did not allocate enough funds for his Iran project. He quit in protest in July 2006, telling a group of military correspondents that his budget "did not treat [Iran] with the seriousness it had deserved," resulting in virtually no progress in some project in his portfolio.²⁰

With his mandate renewed by Olmert, Dagan broadened his already considerable activities. The Committee for the Iranian Nuclear Program chaired by Dagan evolved a diplomatic mission to persuade other countries to cease buying oil from Iran. For instance, in June 2006, Giora Eiland, the head of Israel's National Security Council, and Gideon Frank, the head of IAEC, visited Moscow to press for an Iranian oil boycott. A month earlier, Dagan himself met with the British minister of defense to share evidence of clandestine plans by Iran and urge Britain to lobby for sanctions. He told British officials that "the Iranian scientists were close to perfecting a new breed of centrifuges that would dramatically speed the process of uranium enrichment." Dagan carried the same message on several visits to Washington.²¹

To create a sense of urgency, Dagan as diplomat divulged bits and pieces of information that the Mossad and Aman had received from their agents. He also provided estimates of how close Iran was to weaponize, often implying that the "point of no return" would be reached soon. This was necessary since, as Zeevi Farkash recalled, talking to the Europeans about Iran was an uphill struggle: "The Europeans rejected us ... they told us of being fed up with the warning about the Soviet nuclear threat during the Cold War" and are not going to repeat the pattern with Iran. Even the threat of Iranian missiles that could reach Europe did not change this position, as the former Aman chief recalled. Obviously, Dagan and his colleagues knew that the Europeans and others were eager to trade with Iran and thus ready to swallow the "Iranian lies." The Israelis put even less little faith in Mohammed ElBaradei and the IAEA. In a cable posted on WikiLeaks Frank wrote that the "Europeans speculated" that ElBaradei had deliberately "eschewed resolution language" to avoid sending the dossier to the Security Council.²²

Much as the Israelis tried to push the Europeans and the Russians, it was the clandestine operation under Dagan that spearheaded the campaign to impede the Iranians. Starting in earnest in 2005, the covert operations included a variety of alleged tactics. Israeli intelligence services were behind some of them, but others were carried out in conjunction with the CIA and the

British MI6. A February 2005 explosion in a nuclear facility was followed in the same month by an explosion in a pipeline supplying gas to Bushehr. MEK reported that the Parchin facility was attacked and there was some damage to a weapon lab. In April 2006, during a public ceremony to unveil the working of a new centrifuge cascade in Natanz, an explosion wrecked the demonstration. In January 2007, Dr. Ardashir Hossenipour, who worked at the Isfahan facility, was allegedly killed with radioactive poison. Hossenipour, an authority on electromagnetism, received high awards for his work, including a prize for best military research in 2004. In the same year, Brigadier General Reza Asgari, a former deputy minister of defense, disappeared from a hotel in Istanbul on his way to the United States.²³

Though effective, these measures alone could not significantly delay the program, a message that Dagan and other Israeli leaders repeatedly conveyed to the Bush administration. Under pressure to act, Bush was looking for solutions that would go beyond the binary choice of living with nuclear Iran or bombing the facilities. Dagan was fortunate because in 2006 Major General John Cartwright from the US Strategic Command suggested to use cyberwar to slow down or even destroy the nuclear project. As detailed later in this chapter, Cartwright's suggestion would evolve into the Olympic Games program and produce a computer malware code-named "Stuxnet," which revolutionized the cyberwar against Iran's nuclear project.

While helping with developing the malware, on the diplomatic front the Israeli intelligence worked hard to persuade the Americans of the seriousness of the situation. In August 2007, Dagan met with Undersecretary Nicolas Burns to discuss policy toward Iran. In a cable posted on WikiLeaks, Dagan was quoted as trying to persuade Frances Fragos Townsend, Bush's assistant for Homeland Security and Counterterrorism, that Saudi Arabia, the Gulf States, and Jordan all feared Iran and wanted "someone to do the job for them." The Israelis also pressed hard on the issue of Iranian ballistics.²⁴

Whether convinced of the real threat or to pacify Israel, the Bush administration offered one of the few existing FBX-T Raytheon anti-ballistic radar systems. Stationed in the Netivot base in the Negev and operated by American personnel, the system, known popularly as the x-band, could track the flight of a Shahab-3 missile soon after launch. Linked to the American Joint Tactical Ground Station (JTGS), it could give Israel a 5.5 min. warning, adding almost 60 s to the previous warning system. Lt. General Henry Obering, the director of Pentagon's Missile Defense Agency, stated that "the Iran missile threat from Iran is very real and we must stay ahead of the threat ... that's why we're working so hard with all our allies to put the most optimized, effective, anti-missile capabilities in place."²⁵

Much as the ex-band radar system was appreciated—not just for its tactical value but also as a signal to Iran—the stationing of an American service unit

on Israeli soil created a possible complication in case of a raid on Iran. As one analyst put it, "Israel would have to consider the presence of an American force before considering any military action that might generate a response from the other side."²⁶

Indeed, the probability of a real confrontation with Iran increased when Ehud Barak became the defense minister in the Olmert government in June 2007. Unlike Dagan and Olmert, Barak was skeptical of cyberwar, did not appreciate the potential of the Olympic Games, and felt that Iran would be impervious to sanctions. Barak who went to serve in the government of Netanyahu, who replaced Olmert, hoped to persuade the Bush administration to launch a kinetic attack on the Iranian nuclear facilities. Unfortunately for Barak and Netanyahu, the disastrous campaign in Iraq overshadowed the discourse on Iran.

THE VIEW FROM WASHINGTON

Over the years, Washington became more familiar with the political system in Iran, the election of Mahmoud Ahmadinejad was a surprise compounded by paucity of information about a politician the press dubbed the "virtual unknown." The scramble to figure out who Ahmadinejad was produced some vague comments about a hard-liner taking over. Mainstream media expressed hope that the troubled Iranian economy would compel the new president to act in a rational way and soften Tehran's nuclear stand. The *Washington Post* quoted Ahmadinejad's spokesman to the effect that the president-elect was a "moderate man" likely to seek "a durable relation" with the United States.²⁷

If the Bush administration was hoping for a change of directions in Tehran, it did not broadcast it publicly. Condoleezza Rice, the new secretary of state, delegated the Iran portfolio to R. Nicholas Burns, undersecretary for political affairs. Unlike Bolton, Burns, a professional diplomat, was inclined to continue with the negotiation path chartered by the Europeans, a strategy favored by Rice as well. Robert Joseph, Bolton's successor as the undersecretary of state for arms control and international security, was not considered a hard-liner, and nor was the new American envoy to Vienna Gregory L. Schulte.

While the new bureaucratic lineup did not presage a tough position on Iran, the information from the laptop and the Khan network gave the Americans considerable leverage against ElBaradei. Working to Washington's advantage, the new intelligence deepened the fissures between EXPO and the Safeguards Division. As noted in the preceding chapter, the Safeguards chief Pierre Goldschmidt clashed publicly with ElBaradei during a BOG meeting in 2005. In a cable posted by WikiLeaks, an Australian diplomat in

Vienna reported that ElBaradei irritated the technical staff by diluting their reports to protect Iran. Even senior officials such as Goldschmidt and Ollie Heinonen were complaining about their boss's perceived mismanagement of the Agency and his authoritarian ways. One staff member described the morale as "appalling."²⁸

ElBaradei's "diplomatic approach" was at the root of this disagreement. The nuclear chief insisted that EXPO should judge Iran by its perceived intentions rather than evidence, at least as long as Tehran proclaimed its peaceful intentions. But the Safeguards personnel insisted that it was evidence that needed to be evaluated, not least because there was "an 18-year pattern of noncompliance by Iran." Goldschmidt warned that dealing firmly with Iran was essential for the future of the NPT; failure by the BOG to act would weaken the Agency and the nonproliferation regime. Goldschmidt was not the only one to harbor doubts about Agency's verification philosophy. Ephraim Asculai, whose proposal to upgrade the verification protocols was reviewed in chapter 1, however, was skeptical. He noted that "an aggressive approach to verification runs against the corporate culture of the Agency." Asculai was careful not to blame ElBaradei or EXPO, but insiders understood the critique well.²⁹

Ollie Heinonen, who replaced Goldschmidt as deputy director for Safeguards in 2005, was determined to pursue several issues raised by the laptop. Although in public the Iranians claimed that the laptop was a "total Israeli fabrication," during private meeting with Safeguards officials, they admitted that some of the information was true. One of the topics was the Gchine uranium mine near Bandar Abas. Before retiring, Goldschmidt and Western intelligence believed that the Revolutionary Guards minded it originally for the weapons project but later abandoned under pressure.³⁰

Safeguards officials were equally keen to investigate the 15-page documents which the Iranians had forwarded to Vienna along with unrelated paperwork in October 2005. The report contained instructions for "the procedures for the reduction of UF₆ (uranium hexafluoride gas) to metal in small quantities, and the casting of enriched and depleted uranium metal into hemispheres, related to the fabrication of nuclear weapons components." Heinonen concluded that the instructions came from the A. Q. Khan network, but Iran was highly reluctant to provide more details, claiming that the network sent the plan design on its own initiative. Although Heinonen was permitted to visit Iran, his request to meet Mohsen Fakhrizadeh was declined. The authorities explained that Fakhrizadeh was a university professor who shared the same fax number as the PHRC.³¹

A negative report from Heinonen, coupled with Ahmadinejad's antics, prompted the BOG to vote on February 4, 2006, for a referral to the UN Security Council. The language of the decision made it clear that Iran needed

to “come clean” of all its clandestine activities, stop enriching uranium, sign the Additional Protocol, and promise transparency in the future to avoid sanctions. Gary Samore, a former special assistant for proliferation in the Clinton White House, suggested that the Iranians played a large role in the American victory: “The Iranians did us a great favor, they behaved so obnoxiously, and so intransigently, and so blatantly [that] it was much easier to convince the Europeans, and even the Russians and the Chinese.”³²

Sending the dossier to the Security Council was a major triumph for American diplomacy in Vienna, but sanctions were not an assured outcome. Many of its members represented developing countries which identified with the regime, while Russia and China were reluctant to censure a reliable trade partner. But John Bolton, now ensconced in the United Nations, resorted to some behind-the-scenes arm twisting. According to an account, he told the Security Council that “if the Council cannot rally to the cause of punishing a regime that had openly called for the destruction of two UN members [Israel and the United States], then the UN may not be worth preserving.” In a veiled threat, Bolton stated that United States could pursue the case by creating an alternative venue such as Council of Democracies. Still, Resolution 1696 adopted on July 31, 2006, calling on Iran to suspend its uranium enrichment program as a gesture of good faith, and to adopt some confidence-building measures outlined by the BOG disappointed the Americans. Bolton confessed of being “sick” with the Security Council maneuvers and the watered-down provisions.³³

Despite Bolton’s dismay, the resolution triggered unprecedented publicity in the United States and abroad, and intensified the technical scrutiny of Iran’s program. Several articles published in the *New York Times*, *Washington Post*, and the *Wall Street Journal* tried to explain the complexities of the enrichment and weaponization to the public. The small but influential arms control community, including the popular blog *Arms Control Wonk*, fleshed out the technical details. Using unclassified reports from the Pacific Northwest National Laboratory and the Los Alamos National Laboratory, some commentators point out that the heavy water reactor in Arak was superfluous in terms of Iran’s peaceful needs.³⁴

Concerns about experiments with plutonium which the Safeguards Department harbored added to the publicity. According to the IAEA, the experiments took place between 1988 and 1993. But the plutonium samples analyzed in the IAEA laboratory in Vienna were dated to 1995 and 1998 respectively. To those familiar with the inner working of the nuclear project, the discrepancy looked like an internal skirmish between the civilian IAEA and Revolutionary Guards in charge of weaponization. Evidently, the former was more inclined to divulge bits and pieces, whereas the latter were trying to hide as much as possible.³⁵ Emboldened by Heinonen’s leadership,

Safeguards moved on other PMD issues, as indicated in the August 2006 report. Drawing on the information from the laptop and other sources, the document painted a bleak picture of Iran's alleged clandestine experiments. Indeed, the language was harsh enough for Bolton to offer a rare praise for the IAEA. On the other hand, the Iranians described Heinonen as an agent of Israel and the United States.³⁶

ElBaradei's unhappiness with his deputy director for Safeguards was not as visceral, but the relations were rather strained, not least because of the ongoing dispute about the laptop. The nuclear chief apparently harbored doubts about the authenticity of the information, writing that "the problem was, no one knew if any of it was real." He quoted a European diplomat to the effect that "I can fabricate that data, it looks beautiful, but it is open to doubt," a reference to the possibility that it was either Israel or the United States that planted the content. Challenging the bone fide of the laptop also helped protect Tehran from more sanctions. ElBaradei was as adamant as ever that sanctions would only harden the resistance in Tehran. Commenting on Resolution 1696 passed in July 2006, he wrote: "It was hard for me to imagine a less sensible, more divisive action." He warned that "from a cultural perspective" the Iranians would "not negotiate under threat."³⁷

The fact that leaks about the laptop had started appearing in the press was a clear indication of the internal struggles within the Agency, a topic discussed in chapter 1. In February 2007, Julian Borger, a journalist from the left-leaning *Guardian*, reported that "informed sources" in Vienna alleged that the Americans had provided faulty information on the laptop. The same sources claimed that the allegations against Iran were a repeat of the intelligence used by the United States to invade Iraq. In his blog, Jeffrey Lewis reserved judgment, but added "that United States is going to look fantastically stupid if the laptop story turns out to be bogus."³⁸

In the growing uproar over the Iran estimate, the IAEA chief did not escape public scrutiny either. In a scathing editorial, the normally liberal *Washington Post* declared that ElBaradei "made it clear he considers himself above his position as a UN civil servant," free to ignore "the decisions of the Security Council" and "use his agency to thwart their leading members." The editorial went as far as to call ElBaradei "a rogue regulator" who ignored the proclamations of Ahmadinejad. The paper warned that ElBaradei's "freelancing" would allow Iran to install more centrifuges.³⁹

Much as the administration was pleased with the public chastising of ElBaradei, the White House felt pressure to act. Insiders recalled that President Bush was anxious about his legacy; "worried about how history would judge him if he left office with a legacy of invading a country that had no weapons ... and leaving his successor to handle an Iran that was on the verge of a nuclear option, if not a bomb." The president was also looking to expand

his options because, as he told Michael Hayden, the CIA director, “I don’t want to be left with going kinetic or them acquiring a bomb.” Bush would later write that both options were agonizing. On the one hand, “we could not allow Iran to have a nuclear weapon. The theocratic regime would be able to dominate the Middle East.” On the other hand, a military action was difficult to contemplate given all the uncertainties involved.⁴⁰

Hayden recalled that Bush was “visibly agitated” about the limited intelligence on Iran, a message that the Agency could hardly ignore. Stephen R. Kappes, the then deputy director established the Iranian Operation Division (IOD), known as Persia House. Headed by a veteran operative, the Iran task force could “borrow” talent from other agencies; in due course it had grown from several analysts to several hundreds. To enhance nuclear intelligence gathering, the IOD was put in charge of running the drones which had flown over Iran since 2004.⁴¹

Important as these measures were, the novel form of cyberwar offered a radical substitute for a kinetic action, as noted above. General James Cartwright, the head of the US Strategic Command, believed that kinetic action to destroy enemy targets was too outmoded for the Internet age. He created a small cyberwarfare unit which evolved into the US Cyber Command. Concurrently, Michael (Mike) McConnell, who took over from John Negroponte as director of national intelligence in February 2007, worked with Keith Alexander, the head of the National Security Agency (NSA), to beef up its cyberwarfare capacity, notably through the Office of Tailored Access Operations (TAO). Documents leaked by Edwards Snowden indicate that “TAO identifies, monitors, infiltrates and gathers intelligence” on foreign computers.⁴²

This collaboration led to an offensive cyberwar project code-named “Olympic Games.” Its goal was to insert a malicious software into the computers that operated the centrifuges in Natanz. The Israelis were invited to participate to assuage their anxiety and tap the considerable cyber talent of Unit 8200, the equivalent of the NSA. Additionally, the Mossad and MEK had developed good sources in the nuclear community in Iran and amassed information on the various nuclear facilities. Dagan was optimistic for Olympic Games and, according to reports, often participated in the secure conferencing calls between the teams working in Israel and the United States.⁴³

The software, subsequently dubbed “Stuxnet,” affected the Programmable Logic Control (PLC) of the Supervisory Control and Data Acquisition (SCADA) on Siemens’s controller computers used in Natanz. Known as the Process Control System 7 (PCS-7), the complex software, Step 7, has been used to run assemblies of industrial instruments, sensors, and machines. The penetration was even more remarkable because the system program controlling the centrifuges was air-gapped, that is not connected to the Internet and

thus required a USB flash drive. According to several detailed accounts, the highly sophisticated program inserted an initial “beacon” to map the centrifuge operation. Among others, the beacon gave the NSA the precise connections between the centrifuge cascades and the PCS. After determining that the connection was not protected, a complex code was devised to insert the malware. The operation required construction of a simulation facility where replicates of the Khan’s P1 centrifuges seized in ABC China were tested in the Department of Defense National Laboratories around the country. Allegedly, the Israelis set up their own tests in the nuclear reactor in Dimona. Stuxnet was designed to work autonomously by copying and projecting the normal operation signals to the facility operators. At the same time, the malware either accelerated or halted the spinning, causing an unexplained crash of the targeted cascades.⁴⁴

There is little doubt that Stuxnet represented a paradigm change which Hayden compared to the dropping of the atomic bomb in Japan: “This was the first attack of a major nature in which a cyberattack was used to effect physical destruction.” But physical damage was just one goal of the project. Stuxnet was also expected to create psychological havoc by leaving the Iranians puzzled and disoriented. As one participant noted, “the intent was that the failure should make them feel stupid, which is what happened.”⁴⁵

Yet this promising technology was still some years away from becoming operational and so secret that only a select few knew about Olympic Games. Having no clue about the new form of warfare, the Israel lobby increased its pressure on the White House. In addition to veteran Jewish organizations such as AIPAC and the Conference of Presidents of Major Jewish Organizations, several specialized anti-Iran groups joined the public discourse. In 2005, Raymond Tanter, a former security official turned political science professor and adjunct scholar at the WINEP, founded the Washington-based Iran Policy Committee (IPC) which published white papers against Iran’s nuclear project and helped MEK’s public relation in the capital. Claire M. Lopez, a former CIA agent who served as executive director of IPC went on to work at the Center for Security Policy (CSP) whose president Frank Gaffney, a former deputy assistant secretary of defense for nuclear forces and arms control policy under Reagan, emerged as an extreme opponent of Iran. Although the CDI was disbanded in 2005, Michael Ledeen remained highly active in advocating a regime change. In a 2007 book, *The Iranian Time Bomb: The Mullah Zealots’ Quest for Destruction*, Ledeen argued that the regime’s commitment to terror and its quest for nuclear weapons would present a grave danger to the United States and Israel.⁴⁶

But it was the Foundation for the Defense of Democracies (FDD) where Ledeen relocated from the American Enterprise Institute, which mounted a high-profile anti-Iran campaign. Founded after 9/11, by 2006 the FDD

increased its scrutiny of Iran's nuclear endeavor through publications, reports, testimony in Congress, and outreach to policymakers. Some observers attributed the growing prominence of the FDD to the generous support of the right-wing billionaire Sheldon Adelson. In 2007, Adelson inserted himself into Israeli politics by launching a free newspaper *Israel Today* (*Yisrael Hayom*) which became a mouthpiece for the Netanyahu government. To gain influence in Washington, the Jewish billionaire also supported the Zionist Organization of America (ZOA), a strong opponent of Iran. Adelson also contributed to The Israel Project (TIP), an Israel advocacy organization founded by Jennifer Lashlo Mizrahi. TIP used the Martins Focus Groups in Alexandria, Virginia, in November 2007 to test language supporting a strike against Iran's nuclear project.⁴⁷

Augmenting the Jewish groups was the Christian Evangelical lobby which was rapidly expanded its influence in Washington. Closely attuned to Christian millennialism, leaders such as John Hagee, the founder of Christians United for Israel (CUFI), believed that the pivotal battle of Gog and Magog would be waged between a nuclear Iran, helped by Russia, and Israel. In his book 2006 *Jerusalem Countdown: A Warning to the World* and other writings, Hagee urged to protect Israel through a preemptive strike on Iran's nuclear facilities. Joel C. Rosenberg, a Christian Zionist, elaborated on Hagee's theme in a string of popular books such as *The Ezekiel Option* and the *Twelfth Imam*. On a more secular note, Hagee told the 2007 AIPAC conference that it is highly imperative to deny Iran a nuclear arsenal and that all measures should be considered. On another occasion, Hagee suggested that Israel and the United States were "Siamese Twins" making it incumbent on the United States to protect Israel from its enemies.⁴⁸

Hagee's theme resonated well with important congressional leaders, including Dick Armey, the Republican majority leader of the House, and two Republican senators, Dick Durbin from Illinois and Jon Kyl from Arizona. But it was the deeply conservative Sam Brownback, a Republican from Kansas, who, before leaving Senate in 2011, encouraged the Christian Zionists to launch a political lobby. Unsurprisingly, conservative lawmakers in both chambers were most likely to emphasize Iran's "continuing aggressive efforts to obtain weapons of mass destruction."⁴⁹

Not to be outdone, the pro-Iran lobby responded with several high-profile initiatives of its own. Publicizing the Guldemann memorandum incident of 2003 was arguably the most attention-grabbing move of this group. The discovery documents in the Trita Parsi libel suit against the journalist Hassan Daioulsalam (Dai) indicated that Teheran raised the idea with NIAC in 2006. As Parsi told it, the Bush administration ignored the Grand Bargain Guldemann memorandum so that it could pursue regime change in Iran. Flynt Leverett and his wife, Hillary Mann Leverett, former officials in the Clinton and

Bush administrations, supported the NIAC version on television, op-eds, and position papers. Like Parsi, the Leveretts blamed the neoconservatives and hard-liners in the Bush administration for missing the opportunity to engage in negotiations leading to the Grand Bargain. Some in the Jewish community called the Leveretts “agents of influence” for the regime, but the pro-Iran version was picked up by mainstream media. For instance, the *Washington Post*, described the two former officials in the Bush administration as “lamenting” a lost opportunity to reach an agreement with Iran.⁵⁰

The Leveretts and Parsi argued that Washington should compensate for Tehran for previously rejecting the Grand Bargain by accepting its nuclear project. Flynt Leverett pushed this argument in a report published by the Century Foundation and a book. Parsi suggested that that it was in the American interests to settle with Iran, a logical solution that, in his view, was sabotaged by the Jewish lobby and Israel. In his 2007 book, *Treacherous Alliances*, based on a doctoral dissertation from Johns Hopkins University, Parsi expanded on the theory that it was the Israeli government which “manufactured” the crisis with Iran. Interesting enough, Zbigniew Brzezinski, a former academic adviser to Parsi who praised the book as “a penetrating, provocative, and very timely study,” was convinced that a nuclear Iran could be contained.⁵¹

Going even further than the Leveretts and Parsi, John Mearsheimer and Steven Walt, political scientists at Chicago University and Harvard University respectively, provided a devastating critique of the Israel lobby in a book published in the same year. Mearsheimer and Walt stated that the Israel lobby, acting on behalf of Jerusalem, perverted the American national interest not just on Iran, but also on Iraq, Lebanon, and the Palestinian territory. The chapter on Iran drew heavily from Parsi’s book, but also quoted Ledeen, Morton Klein from the ZOA, and other Jewish unconservatives. The two political scientists argued that “after the fall of Baghdad, the neoconservatives wasted no time in making the case for regime change in Iran.” Like Parsi and the Leveretts, the two professors were adamant that sanctions were counterproductive, writing that “few experts believe that these measures [sanctions] will cause Iran to abandon its nuclear program.” Despite extensive criticism and even accusations that Mearsheimer and Walt were anti-Semitic, the book became an academic bestseller.⁵²

While the pro-Iran lobby scored points in the public discourse, it made little impression on Congress where the Republicans were resolved to impose more sanctions on Iran. To prepare the groundwork, on August 23, 2006, the House Permanent Select Committee on Intelligence chaired by Peter Hoekstra released a report on Iran’s nuclear project. Titled “Recognizing Iran as a Strategic Threat: An Intelligence Challenge to the United States,” it concluded that Iran was seeking a nuclear weapon and implicitly criticized American intelligence for underplaying the danger.⁵³

Hoekstra, considered a close ally of AIPAC, became a target of scathing criticism from many quarters. David Albright, who carried out a detailed analysis of the report, described it as “flawed intelligence.” He and his ISIS colleague wrote that extant intelligence did not support the report’s conclusions. Paul Kerr, a nuclear expert in congressional Research Office, argued that there were at least a dozen claims in the document were either demonstrably wrong or impossible to sustain, including the assertion that Iran produced weapon-grade uranium in its Natanz facility. Other critics pointed out that the Hoekstra account was written exclusively by Fredrick Fleitz, a special assistant to Bolton who subsequently joined the Gaffney team in the CSP. There were even allegations that the document was a covert effort of Dick Cheney and Donald Rumsfeld to prod President Bush to attack Iran.⁵⁴

Fanciful as some of these allegations were, they reflected the feverish speculations in Washington about a possible White House decision to bomb Iran’s facilities. But neither Colin Powell nor his successor Condoleezza Rice were eager to embark on another military venture in the Middle East. Bolton confirmed as much in his memoir, accusing Powell of pursuing a George Marshall “legacy project,” that is, trying to position himself as a great general and foreign policy leader. Robert Gates, who replaced Rumsfeld as secretary of defense, was fully determined to prevent another war. Gates wrote that there were those in the Bush administration led by Cheney who talked openly about trying to resolve problems—like ours with Iran—with military force before the end of the administration. “I consistently opposed anything that might draw us into a new conflict.” For his part, Cheney complained that Gates had informed King Abdallah of Saudi Arabia that “the president would be impeached if he took up military action against Iran.”⁵⁵

If, as Cheney suspected, the Pentagon chief used the talk with King Abdallah to sabotage the military option, there were others in the services who opposed a new war. In September 2007, Admiral William Fallon, the head of CENTCOM, told Al Jazeera that “this constant drumbeat of conflict ... is not helpful and not useful. I expect that there would be no war, and that is what we out to be working for. What America needs is a combination of strength and willingness to engage.” Although the White House forced Fallon to retire, his views were apparently shared by a “large number of senior military leaders” and younger officers critical of senior commanders for “not speaking up about the risks of invading Iraq.” Reflecting the air of intrigue surrounding the rifts in the administration, one journalist reminded his readers that it was Gates who appointed Fallon in a quest for a “new strategic view.”⁵⁶

In any event, with Rice in the State Department, Cheney’s chances of launching a preemptive strike had virtually vanished. Rice insisted that Bolton leave the department because of his alleged insubordination. She wrote in her memoir: “I did not want to repeat Colin Powell’s experience with

John Bolton; I could not fully trust John to follow my lead in State.” Rice also had little patience for the Israelis and their Washington lobby. She noted that, while important allies, “the Israeli leaders were sometimes a nightmare to deal with.” She complained that AIPAC “had a direct line into the White House, particularly through the Vice President’s office.” More to the point, through her contacts with European diplomats, Rice realized that “most of the world did not share our antipathy to Iran.” To the contrary, the rest of the world was eager to do business with Tehran.⁵⁷

The intelligence community, already rattled by its role in the Iraq war and overwhelmed by the complexities of the civil war–cum–anti-American insurgency there, was doing its best to prevent a kinetic action. DI McConnell was clearly aware of the stakes involved in the new National Intelligence Estimate (NIE) scheduled for 2007. Thomas Fingar, his pick for deputy director of national intelligence for analysis, was sharply critical of the Hoekstra report, and promised a thorough evaluation of all pertinent intelligence. Fingar disclosed that under the new rules instituted after the Iraqi debacle, analysts were required to disclose information on the “chain of logic” used in their conclusions. Conservative critics like Newt Gingrich interpreted such rules in a very different way. In Gingrich’s words, “the intelligence community is dedicated to predicting least dangerous world possible.”⁵⁸

Intelligence officials explained that the conclusions were based on transcripts of conversation between Mohsen Fakhrizadeh and his colleagues, among others. According to transcripts, the nuclear scientists complained that the regime terminated the weaponization work in 2003. Hayden noted that he and Kappes had “spent two afternoons grilling the analysts” and had taken an “especially sharp look” at the work of the counterintelligence unit in charge of ascertaining whether the communications among the Iranian engineers was a deception. Arguably, having officials discuss the termination of the project would have been a perfect deception. But Hayden felt confident that “these people who were paid to be suspicious” made the right judgment call.⁵⁹

Still, the report created a firestorm in Washington. Critics charged the NIE with political bias. They pointed out that Negroponte deliberately appointed Fingar, Vann Van Diepen, and Kenneth Brill, the former American ambassador to the IAEA who all had clashed with Bolton, to produce the analysis. Frank Gaffney suggested that Fingar and his colleagues like “many other State Department apparatchiks ... shared an unconcealed hostility toward Bush policies and a ‘see-no-evil’ attitude toward proliferators” which should have disqualified them from such appointments. The *Wall Street Journal* described “Fingar, Van Diepen and Brill as “hyper-partisan anti-Bush officials.” Other critics complained that the NIE redefined the nuclear weapons program to exclude uranium conversion and enrichment and described it as the “most blatant manipulation of intelligence.” An aide quoted the vice

president to the effect that the NIE authors “knew how to pull the rug out from under us.” Cheney subsequently admitted to being frustrated by the phrasing of the document. He wrote that “the report was read as providing assurances that we need no longer worry about Iran’s nuclear program.”⁶⁰

Iran advocates, on the other hand, welcomed the report. Flynt Leverett suggested, “We seem to have lucked out and have individuals who resist back-channel politics and tell it how it is.” “That is what the CIA and other agencies are supposed to do.” Joseph Cirincione, a nonproliferation activist, noted that “what is happening is that foreign policy has swung back to the grown-ups. We are watching the collapse of the Bush doctrine in real time. The neoconservatives are howling because they know their influence is waning.”⁶¹

Anxious to avoid the perception of “howling,” AIPAC adopted a measured tone in refuting the estimate. A memo released on December 18, 2007, stated that “top foreign leaders, Democratic and Republican national security experts, and leading editorialists have responded to the recent NIE on Iran with the conclusion that Iran remains a threat that must be thwarted.” David Brog, the executive director of Christians United for Israel (CUFI), called the NIE “too good to be true” and a “setback on Iran.” Both the Christian and the Jewish groups circulated statements from Israel denouncing the analysis and warnings that a nuclear Iran would present an existential threat to Israel.⁶²

Less publicly, the Israel lobby tried to mobilize its supporters in Congress where some Republican senators called to investigate the intelligence and the conclusions of the NIE. John Sessions from Alabama stated that “If [the NIE is] inaccurate, it could result in very serious damage to legitimate American policy.” Sessions added that, as late as July 2007, intelligence officials testified before Congress that they believed Iran was hard at work developing a nuclear weapon. “We need to update our conclusions,” “but this is a substantial change.” John Ensign, a Republican from Nevada wanted to create a “bipartisan” commission to review the NIE because “Iran is one of the greatest threats in the world today. Getting the intelligence right is critical, not only on Iran’s capability but its intent. So now there is a huge question raised, and instead of politicizing that report, let’s have a fresh set of eyes—objective, yes—look at it. ... There are a lot of people out there who do question [the NIE]. There is a huge difference between the 2005 and 2007 estimates.” Although Ensign’s initiative did not pan out, it became an article of faith in neoconservative circles that the estimate represented “the CIA war on Bush.”⁶³

Subscribers to this theory were keen to point out that the DI took the unprecedented step of offering a short version for public consumption. Cheney explained that the White House released the public summary to prevent leaks. But Fingar told the journalist and intelligence expert Mark

Ambinder that the request for a public version came from the president who, in his view, wanted to prevent his deputy from making bellicose statements on Iran.⁶⁴

Whatever the truth, the president might have had a good reason to welcome the NIE as it virtually blocked a preemptive strike in the last year of his term. At the same time, the development complicated Washington's relations with its allies. Neither the Israeli nor the Western intelligence services agreed with the NIE conclusions; behind closed doors they attributed the findings to the political infighting in the administration. Publicly, the EU-3 expressed dismay because the analysis made it harder to prod ElBaradei for more sanctions. Unsurprisingly, the latter was quick to emphasize that the NIE justified his opinions. The nuclear chief, who was so contemptuous of the hard-liners in the Bush administration as to call Vice President Cheney "Dark Vader," hoped that the NIE would complicate efforts to impose further sanctions.⁶⁵

But ElBaradei faced some serious pushback in his own organization. Tensions between EXPO and the Safeguards reached an all-time high because Tariq Rauf, the Pakistan-born head of EXPO, allegedly tried to censure the Safeguards' analysis of Iran. During a BOG meeting in February 22, 2008, ElBaradei read from an EXPO paper which noted that "six minor breaches of its safeguards had been addressed to the IAEA satisfaction." Heinonen responded with a special presentation in front of selected diplomats. Using the laptop data and other intelligence, the Safeguards chief demolished ElBaradei's position. Subsequent leaks from Vienna created the impression of a "nasty internal fight" between the EXPO and Safeguards camps, as one analyst put it.⁶⁶

It was only a matter of time before the so-called EXPO versus Safeguards battle became part of the inflamed public debate. Scott Ritter, who rejected the veracity of the laptop, castigated Heinonen for giving a presentation to the diplomats. In his view, "Ollie Heinonen might as well become a salaried member of the Bush administration, since he is operating in lock step with U. S. government's objective of painting Iran as a threat worthy of military action." Muhammed Sahimi, a professor of petroleum engineering at the University of South California who emerged as an unofficial spokesman of the Iran lobby, accused Goldschmidt of pursuing a "political agenda" against ElBaradei and Heinonen of "leading a crusade against Iran." Sahimi also accused Heinonen of leaking documents to David Albright from ISIS who, in his opinion, became a tool of the Israel lobby.⁶⁷

Sahimi and Ritter were also highly critical of Albright. Calling Albright, the "new Judith Miller, a reference to the *New York Times* correspondent who published extensively on the alleged Iraqi WMD program, Sahimi noted that "Albright and ISIS continually publish analysis in which they insinuate preordained conclusions based on totally uncertain fact." Ritter accused

Albright of inflating his academic credentials and of misrepresenting his professional credentials as a nuclear inspector. Ritter added that Albright had a “record of half backed analysis derived from questionable sources” and was breathing “false legitimacy” into negative reports on Iran. Both Sahimi and Ritter left little doubt that the “questionable sources” originated with Israel and MEK. In their view, the so-called “War Party,” a reference to the Jewish neoconservatives, then spread the intelligence around Washington. Indeed, the Bush administration, with the help of the Israeli government and the pro-Israel Lobby, has succeeded in exploiting the ignorance of the American people about nuclear technology and nuclear weapons. As a result, “if there is an American war with Iran, it is a war that was made in Israel and nowhere else.”⁶⁸

For their part, the Israel lobby had continued to offer creative ways to stop Iran’s proliferation. In November 2006, two senior WINEP analysts urged to “raise the cost of Iran’s nuclear program” through a stringent sanctions regimen. Given the Security Council perceived reluctance to act, they suggested “getting away from the current UN-centered approach.” The authors did not provide specifics on what a “non-UN-centered organization” would look like, but it echoed Bolton’s notion of an alliance of democracies. WINEP’s “Agenda: Iran Series” published position papers on a preemptive military action against Iran and its potential consequences. While the papers called for a “last resort option” should diplomacy fail, several unrelated reports discussed a possible bombing raid on Iran.⁶⁹

Several of WINEP fellows, including Dennis Ross, a former diplomat in the Clinton administration, offered a critique of the NIE. He stated that “weaponization is not the issue, developing fissionable material is the issue.” Ross explained that once fissionable material becomes available, “weaponization is neither particularly difficult nor expensive.” In another post, Ross wrote that Iran had possessed 3,000 operating centrifuges and it planned to add another 6000 IR-2 one, which he described as five times more efficient than the older IR-1 model. He allowed that even if Ahmadinejad exaggerated the numbers, Iran would be soon capable of mastering the enrichment technology and of achieving a breakthrough.⁷⁰

Sahimi, who spoke for the Iran lobby, was quick to point out that Ross was “a long-term instrument of the Israel lobby” and that his numbers did not add up. The engineering professor asserted that Israel and its Washington backers exaggerated Iran’s nuclear progress and engaged in other deceptive practices. In his view, United Against Nuclear Iran (UANI), described as a non-partisan group devoted to preventing Iran from obtaining the bomb, was the posterchild of such deception. Calling the group “rabid,” Sahimi revealed that Mark Wallace, its executive director, worked with John Bolton in the United Nations. He also charged that UANI had offered a video “asserting

that Iran has produced highly enriched uranium,” a claim that was “debunked by the IAEA and others.”⁷¹

While the Iran lobby welcomed the NIE, it could hardly rest on its laurels as UANI and other pro-Israel groups were pushing for more sanctions. NIAC's Trita Parsi responded by encouraging the creation of a new organization, the Campaign for a New American Policy on Iran (CNAPI) in 2007. A somewhat disparate coalition of pro-business conservatives from USA* Engage, liberal nonproliferation activists, and assorted peace groups, CNAPI planned to challenge UANI. The group posited that “sanctions cannot replace diplomacy as a means of resolving differences between nations,” and decried “hostile rhetoric” against Iran.⁷²

Parsi recruited the distinguished diplomat Thomas Pickering, John Limbert, the former American embassy hostage in Iran, and Flynt Leverett, among others, to serve on CNAPI's board. Ambassador Pickering co-authored the CNAPI's “manifesto” titled “A Solution for the US-Iran Nuclear Standoff.” Published in the *New York Review of Books* in March 2008, it welcomed the 2007 NIE and urged the Bush administration to pursue direct talks with Iran. Pickering added that the United States drop its insistence on zero enrichment, a demand that Israel had strongly supported. Instead, the authors suggested a multinational program: “Under this approach, the Iranian government would agree to allow two or more additional governments (for example, France and Germany) to participate in the management and operation of those activities within Iran.” The document reiterated that the regime would likely not cave in to sanction, a position that NIAC strongly pushed.⁷³

Ostensibly directed at the Bush administration, the Pickering report was written in anticipation that Barak Obama, the Democratic nominee for president, would win the election in November 2008. Known for his liberal outlook, the first-term “senator” took an interest in proliferation under the tutelage of Jon Wolfsthal, a noted proliferation expert who went on to work for the Obama administration. During his campaign, Obama promised a new approach to Iran as part of a remake of American policy in the Middle East. Although Obama won the White House, the circumstances surrounding the reelection of Mahmoud Ahmadinejad in 2009 made his task difficult.

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Chapter 6

The Cost of Principalism

Bankrupting Iran

THE VIEW FROM TEHRAN

Facing an election on June 12, 2009, President Mahmoud Ahmadinejad found it increasingly difficult to defend the cost of nuclear Principalism. As the punishing sanctions degraded the Iranian economy, the ballot promised to turn into a referendum on the nuclear program. To influence the public opinion, the government ordered the media to highlight the positive aspects of making Iran into a nuclear nation, including the alleged scientific prowess of the country. The media also carried numerous stories about how Ahmadinejad had managed to create a division between the Europeans, the Russians, and the Chinese on the one hand, and Washington on the other. In the president's view, the split all but assured that the sanctions policy would fail. Conversely, the government banned papers and television from discussing the US military maneuvers in the region, which many viewed as a forerunner of an invasion.¹

The May 2008 Majlis election offered a preview of the presidential ballot. Ahmadinejad and his allies took nothing for granted. As early as January 31, 2008, Major General Ali Jafari, the Revolutionary Guards chief, urged a meeting of Guards and Basij commanders to work to elect Principalists in the forthcoming election. Soon after, Major General Hassan Firoozabadi, Iran's armed forces chief of staff, and Colonel Massoud Jazaeri, an unofficial spokesman, assailed the opposition as "less than loyal citizens who are intimidated by the enemy." The Guardian Council backed up such claims by disqualifying reformist candidates across the board, an act that gave the conservative forces two-third of the seats.²

But the Guards and the Guardian Council could do little to protect Ahmadinejad in the presidential election where his foreign policy came under a withering critique. All three opposition candidates—Mir-Hossein Mousavi,

Mohsen Rezaei, and Mahdi Karroubi—criticized Ahmadinejad’s confrontational foreign policy style, describing it as unnecessary, provocative, and costly. Mousavi, the leading contender ran as an independent, having become close to the reformist camp of Khatami. Mousavi took issue with Ahmadinejad’s provocative rhetoric toward Israel and the Holocaust, asking: “If a crime has taken place, why deny it?”³

Yet it was the cost of the nuclear program to the Iranian citizen that formed the heart of the campaign against Ahmadinejad and his Principalists. His opponents, a collation of former Khatami reformers and other moderates, charged that since the common people were most affected, it was only fair that they should be allowed to vote on the continuation of the program. As Mousavi put it: “Decision must be based on general consent”—a procedure available in the Constitution. Opposition politicians warned that another five years of Ahmadinejad would bring more international isolation and put the regime’s survival at risk. In the words of Mousavi, “It’s clear that the sanctions will negatively impact on the country’s security and put the economy in jeopardy.” More to the point, the moderates urged to negotiate a deal with the EU-3 and normalize relations with the international community, a position which earned them the name “Normalizers.”⁴

Watching the pressure on Ahmadinejad mount and his policies widely ridiculed as messianic and ruinous for the country, the Revolution Guards decided to step in. Ali Jafari made his hard-line position on the nuclear issue known, either personally or through a network of proxies. For the Guards, who oversaw large parts of the nuclear program, the discourse was far from an exercise in political philosophy. Anecdotal evidence offered glimpses of Guards’ controlling position of the program. For instance, leaked information from speeches delivered by Guards commanders showed their key role in the construction of the Fordow and Natanz facilities.⁵

With so much at stake, the Guards pulled no punches. Senior commanders described Mousavi and his reformist colleagues as traitors who abandoned the sacred trust of the revolution. Undoubtedly, it was Mousavi’s promise to hold a referendum on the nuclear issue that had alarmed the Guards most. Convincing Ayatollah Khamenei to back Ahmadinejad was the next step, but one that was made easier because the memory of President Khatami was still fresh in conservative circles. Clearly, in their opinion, despite his erratic performance and an ailing economy, Ahmadinejad was the lesser of two evils. Tellingly, on February 28, 2008, Ayatollah Khamenei praised the role of Ahmadinejad in developing Iran’s nuclear program: “Besides of the people’s resistance in the development of nuclear program, the president’s resistance was really admirable.”⁶

Even so, most Iranians were surprised when, less than three hours after the presidential polls closed on June 12, 2009, the Interior Ministry announced

that the president was reelected by capturing 63.29 percent of the vote with Mousavi, his top challenger, taking just under 34 percent. Following the ministry's announcement, on June 13, Ayatollah Khamenei issued a statement on state television congratulating Ahmadinejad. Despite the Supreme Leader's exhortation to accept the results, Mousavi's followers launched a massive protest, subsequently dubbed the Green Movement. Sensing a threat to the legitimacy of the regime, the Guards and the Basij, and the plain-clothed paramilitary forces, Lebas Shakhshi, put down the riots with exceptional brutality, even though the excessive coercion tarnished the image of the president and the regime.⁷

As if the violent suppression was not enough, a series of increasingly devastating sanctions came close to bankrupting the economy. Things got particularly bad, when the existence of Fordow, a secret enrichment site dug into a mountain near Qom, was revealed during a G-20 summit in Pittsburgh on September 25, 2009. Caught off guard by the announcement, the Ahmadinejad administration scrambled to respond in ways that would inflict the least amount of damage. Uncharacteristically, there was little defiance and bluster coming from the presidential office. The AEOI immediately reported the facility to the IAEA and the government indicated that it was ready to negotiate with the international community. The IAEA responded by proposing a frequently bandied plan to transfer some three-quarters of Iran's LEU to Russia for further enrichment and then to France for processing into fuel rods to power the TRR.⁸

The proposal was a win-win solution: it would have calmed the fears of the international community while the Iranians could still fabricate their medical isotopes in the Teheran facility, the avowed purpose of enrichment. On September 29, 2009, shortly before the meeting of the IAEA in Geneva, Ahmadinejad expressed his approval: "We are prepared to hand over 3.5 percent material, have them enrich it up to 19.75 or 20 percent and deliver it back to us." But in a sign of how hopelessly politicized the nuclear program had become, it was now the turn of the moderates to denounce Ahmadinejad as being soft on the nuclear issue. Majlis Speaker Ali Larijani blasted it as ploy by Western countries to interfere in Iran's affairs. Using dramatic rhetoric, he asked, "Why should Iran get the 20 percent enriched uranium from France and Russia only if it hands over its 4.5 percent enriched uranium?" He went on to insist that "there is no connection between these two, and there is no guarantee that the West honored its commitment."⁹

Even Mousavi was compelled to call the Geneva agreement "astounding." Sounding more like Ahmadinejad than a nuclear pragmatist, he stated that Iran would have to either surrender the hard-earned fruits of its scientists' labors or face additional sanctions. Akbar Etemad, head of the AEOI during the shah's era, opposed the deal in an appearance on the BBC Persian

program. More critically, publications of the Guards, *Basirat* and *Sobh-e Sadeq* and the conservative *Kayhan* linked to the Supreme Leader, voiced reservations about the tentative deal. Caught in a nasty domestic fight, Ahmadinejad was forced to retreat from the agreement.¹⁰

The new UN Resolutions 1803 and 1835 imposed new sanctions. It banned the supply of nuclear-related technology and materials, limited travel of many Iranian officials, and froze the assets of essential entities and individuals notably Bank Saderat and Bank Melli Iran (BMI), Bank Sepah, and a range of front companies linked with the nuclear program or helping to develop ballistic missiles. As it turned out, the protocol for assessing Iran's threshold of pain was quite simple; each resolution was progressively more devastating to the economy. The two resolutions further extended a freeze of the financial assets of individuals and companies associated with the nuclear project, while imposing travel restriction on more individuals involved. In what promised to be another painful step, Resolution 1835 banned the supply of dual-use items (civil and military) to Iran's nuclear program.¹¹

Unilateral American sanctions added to the pressure. Washington introduced further financial restrictions, prohibiting US banks from mediating in any capacity the transit of funds to and from Iran. As a result, several foreign banks—HSBC, Standard Chartered, and Citibank—stopped dealing with Iran and urged their Iranian customers to either withdraw their deposits or convert them to a currency other than the US dollar. The penalties for failing to do so piled up; a further squeeze was imposed on the Islamic Revolutionary Guards Corps (IRGC)-owned businesses, Iran's commercial and financial service sector, and the country's shipping industry. In addition to banning Iran from engaging in any activities related to ballistic missiles, Resolution 1929 which was on June 9, 2010, also imposed travel bans on individuals involved with the nuclear program, tightened the arms embargo, and froze the assets and funds of Iran's shipping lines and the IRGC. Additionally, the resolution targeted Iran's oil supply and punished foreign groups engaged in financing its oil sector.¹²

In July 2010, President Barack Obama signed into law the Comprehensive Iran Sanctions, Accountability, and Divestment Act (CISADA). The law added a broad range of measures further restricting the already limited amount of US trade with Iran and restricting some high-technology trade with countries that allow WMD-useful technology to reach Iran. Acting in conjunction with the UN sanctions, CISADA curtailed Iran's ability to develop its oil and gas fields.¹³ In total, CISADA made it hard to sell refined petroleum, gasoline, and gasoline production-related services or sell advanced equipment that would have enabled Iran to expand its own ability to produce refined petroleum. In addition, as a result of the enactment, sanctionable activities included sales of equipment with which Iran could import gasoline

(such as tankers) and equipment that Iran could use to construct an energy pipeline. In addition, Washington beefed up sanctions against those individuals and entities investing in or supporting the development of Iran's oil sector. Consequently, in December 2011, the assets of financial institutions that traded with the Central Bank of Iran (CBI) in the oil sector were frozen.¹⁴

On January 23, 2012, the EU imposed new sanctions, including a full ban on Iranian oil exports and freezing the assets of BMI and the CBI. Two weeks later, on February 6, 2012, US Executive Order (EO) 13599 imposed a set of sanctions on CBI and other financial institutions, seized the assets of CBI in the United States. Most critically, on March 15, acting on the EU order, Belgium-based Society for Worldwide Interbank Financial Telecommunication (SWIFT) declared it would ban Iranian banks from its network. The involvement of SWIFT, the world's largest electronic payment system, represented a new phase of sanction statecraft—turning smart sanctions into supersmart ones. The SWIFT declaration coincides with reports that major currency exchangers in the United Arab Emirates (UAE) had stopped handling the Iranian Rial, a development that further reduced Tehran's ability to trade and acquire hard currency.¹⁵

Altogether, the financial disruption proved devastating to Iran's economy in many ways. CBI and other major Iranian banks—Bank Mellat, Tejarat Bank, Future Bank, Bank Refah, Post Bank, Persia International Bank, and Europäisch-Iranische Handelsbank—could not conduct international transactions. Virtually overnight Iran became financially isolated as money could not flow in and out of the country through official banking channels.¹⁶ Financial sanctions made receiving payment for oil, a vital component of Iran's economy and a key source of government income and foreign currency, substantially more difficult. They limited Iran's ability to conduct financial transactions and finance trade or, at best, increased dramatically their costs. For instance, according to reports by global financial organizations, many foreign banks and financial institutions were reluctant to process transactions for Iranian citizens and businesses, even when it was not clear that these transactions would trigger sanctions. Unable to arrange financing for trade abroad, company officials were forced to transfer suitcases of cash to shady foreign banks using the services of street-level money changers. With brokers exacting fees every step of the way, this practice was not only costly but also risky, as cash was a tempting target for thieves.¹⁷

More American pressure followed the SWIFT's blow. Washington urged Iran's top oil customers—Japan, South Korea, and India—to cut their imports of Iranian oil. In case of noncompliance, Asian companies involved in oil trade faced an array of penalties—being barred from receiving US Export-Import Bank financing, US export licenses, and loans over \$10 million from the US financial institutions, among others. In other words, Washington

forced these countries to choose between doing business with the United States or Iran. Additional American sanctions tightened Iran's economic noose. A May 1, 2012, EO 13608 targeted persons engaged in misleading practices to withhold or obscure information about Iranian links to financial transactions.¹⁸

Facing economic ruin, Ahmadinejad was compelled to prove that all these sacrifices bore fruit in nuclear terms. If anything, he doubled down on his enthusiastic bulletins, telling audiences and journalists about plans to launch a new generation of more efficient centrifuges. On October 6, 2009, in an interview with the *Kayhan* newspaper, he noted that "in the past two–three months, we have put much effort on research and development of new generation of centrifuges, so that we would be able to manufacture high efficient centrifuges." On December 2, Ahmadinejad announced Iran would produce a higher grade of nuclear fuel. Striking a victorious tone, the president declared that Iran was preparing to produce 20 percent enriched uranium on its own and produce fuel for the TRR.¹⁹

On February 12, 2010, the thirty-first anniversary of the Islamic Revolution, Ahmadinejad declared that Iran had enriched uranium to 20 percent and had the ability to enrich it further should it chose to do so. On April 10, in a speech marking the National Day for Nuclear Technology, the president announced the development of a "third-generation" centrifuge. He claimed that the new centrifuges "spin faster and had a separation power ten times in comparison with the first-generation ones."²⁰

Along with the "centrifuge bulletins," the media, prodded by the Ministry of Culture and Guidance, gave prominent attention to uranium production. On June 24, 2010, the AEOI declared that Iran had produced 17 kg of uranium enriched to 20 percent and that the country could produce 5 kg of the higher-level uranium every month. In July 2010, Ali Akbar Salehi, who replaced Golam Reza Aghazadeh at the helm of the IAEO, announced a stockpile of 20 kg of 20 percent enriched uranium. On October 20, he declared that Iran stockpiled 30 kg of uranium enriched to 20 percent, nearly double the amount in June. The authorities claimed that the stockpile was needed to feed the TRR for fabricating medical isotopes. But on November 23, the IAEA stated that out of the total of 3,183 kg of enriched uranium produced since February 2007, 33 kg were further enriched to 20 percent. In other words, instead of the monthly 5 kg claimed by Salehi, Iran produced only 3 kg.²¹

Critics attributed such discrepancies to Ahmadinejad's eagerness to project Iran's mastery of the fuel cycle, a type of self-deception discussed in chapter 1. During heated exchanges on Farsi-language sites, detractors accused the president of cheating to boost his nuclear credentials. One of them, Saeed Laylaz, an economics professor at the Shahid Beheshti University, argued that the president had achieved less than Khatami and was

compensating by making up unrealistic numbers. Referring to Ahmadinejad he noted that compared to “previous government ... [his administration] not only lagged in the nuclear program but destroyed Iran’s economic power and nuclear achievements. Ahmadinejad only fabricated numbers and reality.”²²

Laylaz’s reference to Khatami’s alleged success was politically ingenious but conveyed some of the severe challenges which the nuclear authorities had to face by the end of the 2000s. The chokehold sanctions on critical materials for fabricating centrifuges made it hard for Iran to update their inventory. Robert Einhorn, a nuclear expert in the Clinton administration, claimed that replacing all the first-generation inventory with IR-4 centrifuges would have brought up the program up to par with industrial standards. But the embargo on maraging steel, fiber carbon, and other components put such a goal out of reach. He noted that using antiqued enrichment technology lengthened considerably the break-out time of the program.²³

Tampering with equipment which Iran bought from abroad was, as noted in the preceding chapter, added to the problems. For instance, from 2008 through 2010 inferior aluminum tubing was sent as part of a covert business deal. In 2014, Asghar Zarean, a senior official at the AEOI, curated an exhibit of equipment that were allegedly tampered by the West. Commenting on the exhibition, Ian J. Stewart, a nuclear expert from King’s College in London, asserted that tampering was an effective way to sabotage the nuclear project. Mysterious accidents also took a toll. In 2009, there were a series of accidents in Natanz which apparently prompted the resignation of the IAEA’s Golam Reza Aghazadeh.

In November 2011, an explosion in a missile development site killed 17 people, including Brigadier General Hassan Tehrani-Muqaddam, the architect of Iran’s ballistic program. Targeted killings of nuclear scientists were another way to degrade the program. In addition to Ardeshir Hosseinpour, who, as noted, was killed on January 15, 2007, several additional nuclear scientists were assassinated: Masood Alimohammadi on January 12, 2010, Majid Shahriari on November 29, 2010, Darioush Rezaei-Nejad on July 23, 2011, Mostafa Ahmadi Roshan on January 11, 2012. Fereydoon Abbasi-Davani was seriously injured but survived.²⁴

But Olympic Games, the malware described in the preceding chapter, overshadowed the kinetic actions. In addition to Stuxnet, two other forms of malware were used. Duqu infiltrated networks to steal corporate and government data and other assets from entities, such as industrial control system manufacturers, that could be used in a future attack against another third party. Flame described as “the most sophisticated cyberattack” was directed toward Natanz. It sniffed network traffic, had the ability to take screenshots of instant message exchanges, record conversations by microphones plugged or embedded in the PC, and keylog input data. Because the malware could

steal a lot of data in several different ways, it allowed a complete overview in “eyes and ears” of the vicinity of the infected machine. According to information leaked by Edward Snowden, the Tailored Access Operations in the NSA possessed the type of capabilities to create the supersmart malware.²⁵

Sergey Ulasen from the Minsk-based Virus BlocAda company was the first to identify the malware after he met a customer in Iran in June of 2010. Ulasen, who later moved to the Kaspersky’s Lab, a prominent cybersecurity firm, recalled that the Iranians stonewalled him and the Iranian computer expert who had put in the original request. When Ulasen later met high-ranking Iranian IT officials in Minsk, they pretended to have no knowledge of Stuxnet. However, after the story spread on the cybersecurity community websites, including the popular wilderssecurity.com, Ahmadinejad was forced to address the problem. In a tight-lipped message in November 2010, the president acknowledged a “minor problem” with the centrifuges which, he added, the engineers had fixed.²⁶

According to Kaspersky Lab’s reconstruction of the events, the first iteration of the malware attacked the Foolad Technic Engineering Co, a producer of heavy equipment in June 2009, moving on to other targets such as the Kalaye Electric Co, a major producer of centrifuges. Subsequent accounts indicated that Stuxnet created the desired effect. David Albright from ISIS estimated that the malware destroyed up to 1,000 centrifuges. But the damage was also psychological: “anxious and distrustful, they overreacted by closing entire cascade assemblies, got rid of unaffected centrifuges and, eventually banned the German operators of the Semmens software.”²⁷

Although the covert actions put a dent in the program, they did not curb the president. Seyed Hossein Mousavian noted that, if anything, the setbacks made him even more defined. On February 13, 2011, after making Salehi the foreign minister, Ahmadinejad appointed Abbasi-Davani to head AEOI. Abbasi-Davani was a prominent nuclear scientist, a ranking commander in the Revolutionary Guards, and chair of the physics department at Tehran’s Imam Hossein University. He was associated with Sazman-e Pazhohesh va Noavarihayeh Defaeh (SPND), the Organization of Defensive Innovation and Research, a research institute under the Ministry of Defense Armed Forces Logistics (MODAFL), which Mohsen Fakhrizadeh-Mahabadi founded in February 2011. Known as a hard-liner even within the tight community of nuclear scientists, he became even more radical after surviving the assassination attack. The new IAEO chief adopted the president’s high-profile approach to all things nuclear. He admitted that Iran had deceived the IAEA about its program to protect the national interest. According to sources, Abbasi-Davani supported Ahmadinejad’s plan to go public with the weapons program, a move which the Supreme Leader strongly opposed.²⁸

In one of his first acts, Abbasi-Davani announced that Iran will enter the export markets in nuclear services and materials, a view that reflected Ahmadinejad's wish to become a global nuclear player. He was also set to triple the production of LEU to expedite the production of weapon-grade materials. In May 2012, the IAEA reported that the Natanz plant contained some 9,000 centrifuges installed and 4,000 operating—indicating a virtual plateau from the previous year. Even the much-touted Fordow plant was only a partial answer to modernization. In June 2011, Iran announced that the production of 20 percent enriched uranium will be moved to Fordow and its production capacity will be tripled. In May 2012, 1,064 centrifuges were reported to have been installed in Fordow, a number that was doubled to 2,140 by August, although the number of operating centrifuges did not increase. The IAEA confirmed that Fordow began enriching uranium up to 20 percent but noted that the facility had not utilized its full capacity of 3,000 to 4,000 centrifuges.²⁹

To outsiders this progress might have looked impressive, but by 2012, the Supreme Leader, normally a booster of all things nuclear, had come to realize that the economy was running on borrowed time. Utilizing his prerogative under the negotiated political order, Ayatollah Khamenei ordered a secret outreach to the Americans mediated by Sultan Qaboos bin Said from Oman. Khamenei offered to roll back the nuclear program for sanction relief and set four conditions for the talk. Foreign Minister Ali Akbar Salehi apparently circumvented Ahmadinejad and sent Ali Asghar Khaji, the deputy foreign minister, to a highly secret meeting led by two State Department officials, William Burns, and Jake Sullivan. Operating under extreme secrecy, the two delegations met between March and July 2012 in Muscat. In a December 2015 interview, Salehi noted that the two sides made some progress, but Saeed Jalili, the secretary of the SNSC ordered him to terminate the contacts in July. Information on the negotiations had begun circulating in the Iranian media in the run up to the 2013 presidential election, but no reason was given to explain why the Supreme Leader reversed course.³⁰

THE VIEW FROM JERUSALEM

Watching the election campaign of Barak Obama, the Israelis had no illusions that should he win, the United States would try to negotiate with Iran. Unlike other presidential hopefuls, Obama offered only the most perfunctory promises to abide by the “special relations” between the two countries and threatened lightly on moving the American embassy to Jerusalem, a ritualistic pledge of presidential hopefuls for more than two decades. During a visit to Israel in 2008, he promised to deal with the regime's nuclear

project as part of his broader non-proliferation policy, a phrasing which did not sit well with his interlocutors. When the administration signaled a new outreach to Iran, a policy that was strongly opposed by the Likud government, it added to the suspicion that Washington would ignore Israel's vital security interest.³¹

How to respond to the Iran challenge in the era of Obama triggered a bitter debate within the establishment. Meir Dagan was optimistic about Israel's capacity to significantly degrade Tehran's nuclear endeavor. A special unit of the Mossad code-named "Caesarea" was allegedly in charge of the series of traditional clandestine operations, including the targeting of the nuclear scientists. As Dagan later explained, continuity rather than sheer lethality was the key to success because it would inflict both physical and psychological damage on the enemy. The Iranian intelligence claimed that members of MEK, the Kurdistan Free Life Party (PJAC), and the People's Resistance Movement of Baluchistan, known as Jundalla, had trained in Tel Aviv to carry out these attacks, an allegation to which Israel has never responded. The Mossad chief was especially hopeful that, once deployed, Stuxnet would set the project back.³²

But, as already noted, Ehud Barak was skeptical that sabotage alone would significantly delay Iran's progress. Indeed, the defense minister warned that Tehran was entering the "immunity zone" where military action would become impossible. Barak explained that the concept was based on a complex formula which signaled a point in time "where Iran accumulated enough know-how, raw material, experience, and equipment—as well as the distribution of material among its underground facilities." Benjamin Netanyahu, who won the election on February 10, 2009, sided with Barak who stayed on in the Ministry of Defense. In an interview with Jeffrey Goldberg in March 2009, Netanyahu posited, "You don't want a messianic apocalyptic cult controlling atomic bombs." According to Dagan, Netanyahu was not persuaded that Olympic Games or any of Mossad's kinetic actions could make a difference—a position that strained their relations from the very beginning.³³

Amos Yadlin, the head of Aman, had a more nuanced view. Although he supported Dagan, Yadlin took note of the findings of his Research Division head, Brigadier General Yossi Baidatz. In September 2008 Baidatz suggested that the Iranians had improved the functioning of their 4,000-strong centrifuge assembly and produced somewhere between one-third to one-half of LEU needed for a bomb. Baidatz told a Knesset committee that "the time when they will have crossed the nuclear point-of-no-return is fast approaching." In early 2009, Yadlin stated that Iran had "crossed the technological threshold." He explained that Iran would continue to stockpile LEU that could be easily converted into weapon-grade uranium to effect a fast break out.³⁴

Much as Netanyahu was distrustful of his intelligence chiefs, he was even more deeply suspicious of President Obama's plan to negotiate with the Iranians. Having witnessed the regime's two-decade long policy of obfuscation and delays, the prime minister was convinced that Tehran would use the talks to continue with the nuclear project. To prevent foot-dragging, the Netanyahu government set forth several demands. One request was for tight deadlines, an idea that was first publicized by Howard Berman, a California Democrat who chaired the House Committee on Foreign Relations. A prominent member of the Israel lobby, Berman told an Israeli security conference in December 2008 that negotiations with Iran should not exceed a few months. Netanyahu also demanded the so-called zero-enrichment option which meant the dismantling of all enrichment facilities. Critically, the prime minister wanted the White House to emphasize that a military option was "on the table" should talks fail.³⁵

After the brutal suppression of the 2009 riots, the Israelis hoped that the Obama administration would terminate all contact with the regime. Michael Oren, the Israeli ambassador in Washington wrote, "We did not think that Iran should be rewarded with direct talks." Yet expectations that that the regime's behavior toward its own population would put off the White House were short lived. Anticipating new contacts between Washington and Iran, both the Mossad and Aman worked hard to provide more information on Iran's nuclear project. In mid-2009, the Israelis sent the IAEA a document purporting to show that the Iranians were working on weaponization well past 2003 and probably until 2007. The regime's ballistic prowess helped their case as well. In February 2009, the Iranians sent their first satellite into space, a launch that attracted a lot of attention. Uzi Rubin, the ballistic expert, explained that the Iranians made impressive progress, having gone from liquid to solid propellants and from unguided to guided missiles. The ability to build a rocket satellite was, in his opinion, a very important stage in acquiring sophisticated ballistic knowledge.³⁶

But reaching a consensus on how advanced Iran's nuclear weapon capability was had proved elusive. Baidatz hinted that the time was short, leading the media to claim that the Aman report was a "paradigm change." Speaking to the Knesset, however, Dagan insisted that the Iranians could not produce a weapon before the year 2015. Dagan had some bragging rights because of the successful sabotage and assassination actions, not to mention Olympic Games. However, the exposure of Stuxnet provided Dagan's opponents with some arguments of their own. Netanyahu and Barak insisted that the Iranians dealt with the problem quite expeditiously and, more consequentially, that the damage was not significant enough to degrade the project. Barak was also highly pessimistic about Obama. He told a private meeting in March 2009 that, though the Americans came close to accepting the Israeli estimate, they did not know how to stop Iran.³⁷

By 2010, the discourse on nuclear Iran had become something of a national pastime. In May 2010, the IDC in Herzliya hosted a war game based on the assumption that Iran had a bomb. The simulation, which boasted high-level Israeli officials and the American ambassador to Israel playing President Obama, concluded that an atomic weapon would embolden the Tehran regime, and leave Israel constrained in its responses. But participants were firm that the Iranians would not use the bomb in an offensive way. As the former head of Aman, Aharon Zeevi-Farkash, noted that the Iranians would regard their bomb as “a means of self-defense and strategic balance.”³⁸

Critics, however, pointed out that the war game was premised on the regime being rational, an assumption that was impossible to prove. Since there was no scientific way to ascertain the rationality of a regime, the discourse was affected by the so-called “eye of the beholder” problem mentioned in chapter 1. A scholar who analyzed a large volume of assessment of Iran rationality, found that, as a rule, liberal experts and pundits vouched for Iran’s rationality. Their right-leaning counterparts were inclined to view the regime as an irrational messianic zealot, who could potentially be ruled by “messianic ayatollahs with a bomb.” Netanyahu was a chief proponent of this view, telling Jeffrey Goldberg from the *Atlantic*, “You don’t want a messianic apocalyptic cult controlling atomic bombs.”³⁹

For those who harbored doubts about Iran’s nuclear rationality, Israel’s future looked entirely bleak. Netanyahu, a master of Holocaust framing, led the way. In January 2010, the prime minister visited the Holocaust Museum in Jerusalem where he warned about the impending danger from Iran. Some observers claimed that the specter of an Iranian bomb would negatively affect the morale of the population and trigger large-scale emigration. Dating to the 2007, opinion polls had indicated that were Israel to lose its status as the sole nuclear power in the Middle East, a third of Jews would immigrate to other countries, preferably the United States and Europe. As Richard Jones, the American ambassador to Israel, put it: “That concern is most intensively reflected in open talk by those who say they do not want their children and grandchildren growing up in an Israel threatened by a nuclear-armed Iran.”⁴⁰

Having posited that an irrational, nuclearized Iran was an intolerable danger to Israel, many high-level officials fueled speculations that Israel was poised to strike Iran sooner rather than later. After a round of interviews with some 40 officials, Jeffrey Goldberg wrote that “Israel reached a point of no return”; he estimated the chance of an attack at more than 50 percent by July 2010. Michael Oren, the future ambassador to Washington, was equally convinced that a nuclear Tehran was so threatening that “military men suddenly sound like theologians when explaining the Iranian threat.” Observers with a security background produced a substantial number of papers analyzing a

potential strike replete with “possible routs of the air force, the number and identity of targets and even use of tactical nuclear weapons.”⁴¹

Although the public discourse gave the preemptive action a certain air of inevitability, the reality was very different. In fact, Netanyahu and Barak who pushed for a strike encountered unprecedented resistance from the security chiefs, which some would later describe as an unofficial military coup. Based on a series of disclosures by Dagan, Barak, Ehud Olmert, and other officials, the struggle began in early 2010, when Netanyahu and Barak ordered the IDF to adopt the high-level P-Plus preparedness code for a possible encounter with Iran. Were it to be approved, the raid would have had to be carried out between July and September, the pick favorable weather season. But the then chief of staff Major General Gabi Ashkenazi refused to carry out the order because, in his view, the maneuvers would have created “facts on the ground” and possibly led to a war with Iran. Dagan, taking a sharper tone, argued that because P-Plus could potentially lead to war, the entire cabinet was required to approve the action. While the status of P-Plus was not entirely clear, accusation of potential illegality against the prime minister carried a special punch. Faced with the combined opposition of Ashkenazi and the three intelligence chiefs, Dagan, Yadlin, and Yuval Diskin, the head of internal intelligence, Shin Bet, Netanyahu, and Barak retreated.⁴²

After Netanyahu refused to renew his tenure for an additional year, Dagan retired in early January 2011. On the last day in office, he took the unusual step of inviting a group of journalists to present his case, a prelude to a high-profile public campaign against the plans to attack Iran. Dagan described a preemptive attack as a “highly foolish thing,” especially when launched before all diplomatic and clandestine options were exhausted. Dagan believed that overtime sanctions would work because “a link [was] created in the mind of the Iranians between economic difficulties and the [nuclear] project.” He warned that Iran would retaliate by mobilizing Hezbollah and Hamas triggering a confrontation resulting in heavy casualties and prolonged disruption to life in Israel. Dagan’s stark forecast was a response to Barak’s rosy prediction that a possible bombing raid would result in some 500 fatalities. As for targeting, Dagan asserted that it was impossible to hit enough of the dozens of nuclear sites to seriously disrupt the project. The former Mossad chief emphasized that Netanyahu was the only prime minister in Israeli history who faced opposition from the entire security establishment.

Journalists who covered the story noted that “Dagan believed with all his heart that it was his duty to stop Netanyahu and Barak.” It was because of this sense of mission that he met with Yaacov Orr, the head of the security division in the State Comptroller Office, to explore the legality of an Iran strike. Diagnosed with cancer soon after, he spent the rest of his life fighting

Netanyahu preemption action. In an interview recorded shortly before his death in May 2016, Dagan admitted that in 2010 he had secretly contacted Leon Panetta, then the CIA director, to warn him about Netanyahu's plan. Panetta substantiated Dagan's claim in a separate interview.⁴³

Exquisitely attuned to the public discourse, Dagan was keen to dispel the notion that the regime was irrational and messianic, a staple of the prime minister's speeches. Dagan described the Iranians as rational, cautious, and adept at calculating the cost and benefits of their nuclear actions. Indeed, he described them as "cunning" and skilled at stalling through what he called "bazaar culture" style of diplomacy. This behavior was, in Dagan's view, antithetical to irrationality and offered hope that Iranians would respond rationally to sanctions—a policy that he had advocated along with clandestine activities. Diskin, who was forced out with Dagan, was even more outspoken. He accused the prime minister of making decisions that could not be supported by facts. Speaking at a meeting in Kfar Saba, the former Shin Bet chief stated: "I don't believe in a leadership that makes decisions based on messianic feelings." Shaul Mofaz, the former chief of staff and the leader of an opposition party, accused Netanyahu of scare tactics: "We are scared, scared by your lack of judgment ... scared that you are executing a dangerous and irresponsible policy."⁴⁴

Much as Dagan faulted the kinetic mission, he was also highly critical of Netanyahu's and Barak's leadership. The former Mossad head asserted that both Netanyahu and Barak acted out of selfish political reasons rather than the national interest. He added that Netanyahu was a poor manager who was slow to make decisions and who was prone to changing his mind whenever he got cold feet. Dagan accused the defense minister of lying to the security cabinet when he had told them that officials in Washington approved a preemptive action. He mocked Netanyahu and Barak, stating that they think "they are the great geniuses." But in his view, "the fact that someone was elected doesn't mean that they are smart." Ehud Olmert, the former prime minister, agreed with Dagan's assessment. Olmert criticized Netanyahu for spending more than \$3 billion in preparing a possible military action against Iran and described Barak as being hasty in his decisions. Olmert noted that Netanyahu "wasted money on adventurous delusions that were not carried out and would not be carried out." The discord between Netanyahu and the retired intelligence chiefs reached a new low when it was reported that the government ordered an investigation of leaks about a possible strike in Iran. Dagan and Diskin, according to some accounts, were the two primary suspects.⁴⁵

Public discussions about Iran came at a very awkward time for the government. As would be shown later, the Obama administration had pressured Israel to refrain from a strike without consulting the White House. In October 2011, Leon Panetta, by then secretary of defense, traveled to Israel to obtain

a private guarantee to this effect, but was rebuffed. It was also made known that the Americans were monitoring Israel to glean information about possible preparations for a strike.⁴⁶

Even with Dagan out of the Mossad, two more efforts of Netanyahu to solicit a decision from his security cabinet had also fallen flat. According to Barak, in 2011, in addition to security chiefs, Moshe Yaalon, the minister of strategic affairs, and Finance Minister Yuval Steinitz refused to act. In the forum of eight ministers charged with making security decisions, this action gave a majority vote to the naysayers.⁴⁷

Netanyahu and Barak tried once again in early 2012, but there was a complication. Barak determined that a possible attack would coincide with Juniper Cobra, a biannual exercise to strengthen American-Israeli cooperation against threats from Iran and others. Although the Americans agreed to reschedule the exercise, the government abandoned the idea of a preemptive strike. As late as the end of 2012, Netanyahu was still hinting that a military action was possible. However, preparations, including the distribution of gas masks to the civilian population, had been scaled down, implying that the kinetic option was dead.⁴⁸

All along, opponents used the public arena to speak out against the preemptive strike. Shimon Peres, the then president of Israel who had opposed the raid on Osirak in 1981, warned that acting without the United States would be “catastrophic.” Peres told the two senior journalists from *Jerusalem Post* that his greatest life achievement was “stopping an Israeli strike on Iran.” Like in the case of Dagan, the interview was published after his death in 2016.⁴⁹ Other figures joined the Peres campaign. The highly respected former head of Aman General Uri Sagi questioned “first time publicly, whether Israel can rely on the judgment and mental stability of its current leaders to guide it in time of war.” Aharon Zeevi-Farkash stated that an attack “would be premature.” Uzi Even, a former nuclear expert who was involved with evaluating the Iraqi and Syrian nuclear projects for Aman, stated that Iran may have the required uranium, but cannot produce a bomb because of the complex technology involved. Uzi Elam, the former head of the IAEC, asserted that Iran may be some 10 years away from acquiring all the necessary parts of weaponization—weapon grade uranium, a warhead, and a delivery system. He warned that a strike would be “a historic mistake” and counseled “to take a deep breath and wait.” Benny Gantz, the chief of staff, accused Netanyahu of “creating hysteria around the Iran issue.” Quoting Peres, Sagi, and others, one keen observer proclaimed in August 2012 that the “Israeli debate on attacking Iran is over.”⁵⁰

The details of the internal struggle became known only in 2015, when Ilan Kfir and Danny Dor, the authors of the biography *Ehud Barak: The Wars of My Life* leaked details of the book. The authors explained that it was a

personal disagreement with Barak which promoted them to disclose the details. But the ensuing public firestorm reflected a variety of reactions. Many commentators believed that Netanyahu and Barak genuinely wanted to bomb Iran. These observers faulted Dagan and other security officials for squandering a historic opportunity to stop the regime from weaponizing. Right-wing activists went further, urging the government to try Dagan posthumously for treason.⁵¹

Ben Caspit, a veteran journalist with extensive ties to the security establishment, however, provided another interpretation. In his opinion, the leaked information, and the book itself reflected Barak's efforts to "rewrite history," that is to cover-up for the fact that he had changed his mind due to heavy pressure from the Obama administration. In the book, Barak admitted that Washington advised him about the "categorical objection of NATO to an attack." Barak also revealed that before one of the internal debates on the attack, Netanyahu made a highly secret trip to Moscow to obtain the blessing of the Russian leader Vladimir Putin. But neither the prime minister nor Avigdor Lieberman, the Russian-speaking minister of foreign affairs, managed to dissuade the Russian leader from his categorical objection to the plan. But, according to Caspit, it was Barak's alleged "cave-in" which enraged Netanyahu the most, causing him to lose all hope for a preemptive action.⁵²

Several influential commentators, however, suggested that Netanyahu and his defense minister had no intention to launch a kinetic action. To the contrary, in their view, all that talk about bombing Iran was part of a sophisticated scheme to prompt the United States and the Europeans to pressure Iran. Indeed, the \$3 billion spent on training the Air Force, an expense which Olmert harshly decried, was a way to demonstrate to the Obama administration that Israel was both desperate enough and serious enough to carry out an attack. As discussed later, if this indeed was the goal, it had a considerable impact on the Obama White House which considered Israel to be "a wilde card."⁵³

While the clash between Netanyahu and the security chiefs stemmed from personality, ideology, and different political agendas, it also reflected the difficulties inherent in nuclear intelligence, as detailed in chapter 1. Even the relatively straightforward evaluation of enrichment capacity ran into uncertainty. An alleged Mossad report dated October 22, 2012, sent to the South African intelligence service and leaked to Al Jazeera illustrated the problems. The document stated that Iran had 5,500 kg of uranium enriched to 5 percent (after 1,500 were converted to 20 percent) and about 100 kg enriched to 20 percent (after 75–100 kg were converted into nuclear fuel for the TRR). The Israelis considered this to be an improvement in Iran's enrichment capacity but could not provide the number of advanced centrifuges operating in Natanz and Fordow.⁵⁴

Whatever the actual level of Iran's progress, by all accounts, in 2013 Netanyahu concluded that it would be impossible to torpedo Washington's quest for a diplomatic solution. But having developed a negative opinion of President Obama, the prime minister was determined to control the process.

THE VIEW FROM WASHINGTON

For liberals who despaired of the wars in Iraq and Afghanistan, the election of Barak Obama promised a new page in American foreign policy. His position on the Iranian nuclear program, however, was less known. During his relatively short Senate tenure Obama indicated a certain amount of skepticism about America's ability to control nonproliferation. He was especially doubtful about a kinetic action, telling the *Chicago Tribune* in 2004 that the United States is not in a good position to strike Iran, a view which his mentor Jon Wolfsthal held. He admitted that "having a radical Muslim theocracy in possession of nuclear weapons is worse," but urged a diplomatic solution, a theme to which he devoted a part of his pivotal Prague speech in 2009. In a memorandum to the president elect, John Brennan, his future CIA director, stressed "Iran's importance to U.S. strategic interests and to overall stability in the region" and recommended "the establishment of a direct and senior-level dialogue between Washington and Tehran."⁵⁵

Before setting the agenda for a dialogue, however, the new administration had to tackle the enrichment issue. President Bush adopted the Israeli position that Iran should not be allowed to enrich its own uranium. But Ambassador James Pickering, who represented the Iran lobby, considered such a demand unrealistic and contrary to the NPT, as noted in the previous chapter. Further to the left were the supporters of the so-called "managed acquiescence" who argued that it was preferable to accept Iran's peaceful program in toto than risk Tehran's departure from the NPT. The Leveretts, who pioneered the "managed acquiescence" option in their writings and in a subsequent book, *Going to Tehran: Why the United States Must Come to Terms with the Islamic Republic*, explained that Washington needed to reach out to Iran the way that Richard Nixon reached out to China. The NIAC which supported this idea was most keen to eliminate the threat of sanctions. As Parsi repeatedly stressed, sanctions would only harden the regime's positions: "They would never give up [the program] because they are Iranians."⁵⁶

For the Israel lobby, however, an outreach to Iran, let alone abandoning the zero-enrichment dogma, was an anathema. During the 2008 election campaign, the Republican Jewish Coalition, run commercials trying to link Obama to Mahmoud Ahmadinejad and emphasized that his middle name was Hussein. The Clarion Project, which had ties to *Aish Hatorah*, a Jewish

heritage advocacy associated with Jewish settlers in the West Bank, produced some 20 million DVD copies of a documentary “Obsession: Radical Islam’s War against the West.” Critics charged that the documentary was distributed in swing states to help John McCain defeat Obama.⁵⁷

Spurred by Mike Evan, a prominent Christian Zionist author whose books featured on the *New York Times* bestselling list, the Christian Zionists went further in their opposition to the White House. Evans accused Iran of embracing a “radical messianic mission to destroy Israel and cripple the United States.” He compared Obama to Jimmy Carter who, in his view, unleashed the Islamist revolution on the world and weekend Israel. When Benjamin Netanyahu visited the United States in 2009, prominent Christian Zionists leaders urged both the Jews and the Christians to convey to Congress Israel’s strong insistence on zero enrichment.⁵⁸

Faced with conflicting pressures, the White House decided on a thorough review of the previous Iran policy. As a rule, Obama’s foreign policy team headed by Secretary of State Hillary Clinton leaned toward the liberal spectrum of the Democratic Party. In the words of one observer, “It is stuffed by the sort of utopian liberal internationalists who attended conflict resolution seminars at Ivy League colleges.” But the group leading the Iran review was anything but utopian liberal. Dennis Ross, appointed as a special adviser for the Persian Gulf and Southeast Asia to Clinton, chaired the panel. In September 2008, Ross co-authored a paper for the Center for a New American Security that recommended the so-called hybrid option which would “tighten sanctions while engaging Iran without preconditions.” Ross felt that the negotiations should be conducted in total secrecy, but Brennan, by then director for counterterrorism in the White House, urged to appoint a special envoy to legitimize the outreach.⁵⁹

While the debate on the zero-enrichment option was waged with considerable vigor, the continuation of the Olympic Games was hanging in the balance. Robert Gates, who stayed on as secretary of defense, moved the program from the military to intelligence, which required the president to authorize the so-called findings of his predecessor. Thomas Donilon, deputy national security adviser, was put in charge of the review process and General James Cartwright was called back to explain the working of the malware. After assurances that there would be no damage to the civilian systems, Obama approved the highly secretive project. In fact, the president allegedly struck a rapport with Cartwright, leading the press to dub him “the president’s favorite general.” Also, the White House approved covert kinetic actions in the guise of “industrial accidents.”⁶⁰

Belying its undercover effort, the administration followed several outreach initiatives, some in the realm of public diplomacy. The White House discouraged references to Iran as a “rogue state,” or as an “axis of evil,” a decision

which Gates described as “political correctness.” The president sent a public greeting on the Persian New Year, *Novruz*, followed by a private letter to the Supreme Leader. Though this exercise in diplomacy brought more diatribes from Iran, Gates considered the failure to be a “positive” because “we would be in a much stronger position to get approval for stronger sanction from the Security Council.”⁶¹

Obama’s secret diplomatic contacts fared no better. Trita Parsi, in conjunction with Saideh Loftian, an Iranian academic who was active in the Pugwash non-proliferation organization, had facilitated several contracts between Iranians and officials in Washington. William Perry, the former secretary of defense, who served as an adviser to Obama, and Puneet Talwar, who previously worked for Senator Joseph Biden, represented the American side. Ali Asghar Soltanieh, the representative to the IAEA, Mohammad Javad Zarif, Tehran’s ambassador to the United Nations, and Mojtaba Hashemi Samare, a close aide to Ahmadinejad, acted for the regime. There was little new in the meeting since the Iranians rehashed the position expressed during occasional contacts with Americans on the margins of the IAEA gatherings in Vienna.⁶²

With the diplomatic outreach in shambles, the State Department redoubled its efforts to craft a new series of sanction. Clinton noted that “we wanted to change Tehran’s leaders’ calculus ... our goal was to put so much financial pressure on Tehran, including the military [Revolutionary Guards] ... that they would have no choice but to come back to the negotiations table.” She credited David S. Cohen, named assistant secretary of terrorist financing on May 1, 2009, with finding “the most creative way to enforce sanctions.” Clinton also deputized her coordinator for energy, Carlos Pascual, to persuade Iran’s customers to cut down on their oil purchases. In 2011 the newly created Bureau of Energy Resources formalized Pascual’s role; the Bureau sent teams to Iran’s customers “offering up alternatives and pointing out to significant economic consequences” should they persist. Clinton expressed hope that these tactics would turn Iran into a “pariah.”⁶³

Unsurprisingly, Netanyahu and the Israel lobby had a poor opinion of these steps. During his visit to the White House in the spring of 2009, the prime minister, already flustered by Obama’s criticism of Israel’s policy in the West Bank, wanted the United States to adopt a tough negotiation posture. Warning that the regime was nearing a nuclear weapon capacity, Netanyahu urged zero enrichment, crippling sanctions, and threats to use the military option should Iran refuse to back down. Robert Gates recalled that Netanyahu was convinced that the regime “was very fragile and that a strike would rally the people against the regime.” As Gates remembered it, Netanyahu anticipated a mild reaction to the strikes, because the Iranians “were realistic” enough not to provoke a regional conflagration. But Admiral Dennis Blair, the new Director of National Intelligence (DNI), maintained that Iran had not decided

to manufacture weapon-grade uranium and, crucially, had no ability to fabricate a nuclear warhead for a missile. He and other intelligence officials explained that “Israelis are much more concerned and take more of a worse-case approach,” a view that squared with the rather unfaltering opinion that “Israel takes the most alarmist view of Iranian nuclear program.”⁶⁴

Netanyahu’s insistence on zero enrichment and Obama’s refusal to accept such an option triggered a new round of public discourse. Predictably, the Israel lobby pushed hard through its various platforms, AIPAC, WINEP, the FDD, and the newly formed UANI. The Iran lobby lead by NIAC pushed back as hard. NIAC could count on several highly regarded experts to argue its case. For instance, Mathew Bunn, the head of “Managing the Atom” at the Belfer Center, Harvard University, stated that “Iran was extremely unlikely to agree to zero enrichment.” Because no one in Iran was likely to give up the right to enrich, zero enrichment “should not be the bases of policy.”⁶⁵

Naturally, the revelations about the Fordow facility came at a particularly bad time for opponents of zero enrichment. Although the American intelligence knew about the secret facility since 2006, the dramatic revelation in Pittsburg where President Obama, flanked by the British prime minister Gordon Brown, and the French president Nikolas Sarkozy, denounced Iran for “breaking rules that all nations must follow [and] threatening the stability and security of the region and the world” caught the public imagination.⁶⁶

For the Republicans in Congress, Fordow was yet another indication that Iran could not be trusted. But even the Democrats had to adopt a more hard-line position. Howard Berman noted that Iran had been “lying to the international community for years about its allegedly peaceful nuclear intentions.” He revealed that Fordow prompted his committee to consider additional sanctions. Coincidentally, just days before the disclosure, some 300 leaders representing a broad spectrum of Jewish organizations—AIPAC, Anti-Defamation League, Conference of Major American Jewish Organizations, among others—visited Capitol Hill to lobby for stringent sanctions.⁶⁷

To avert the prospect of harsher sanctions, the administration hoped that the swap agreement negotiated between the P5+1 would be accepted by the regime. But, as described above, the internal rivalries in Tehran nixed the prospect, a failure which promoted Robert Einhorn, Clinton’s adviser on non-proliferation, to comment that “it became clear to us ... the domestic political problems that any Iranian regime would face in negotiating with us.” Einhorn added that this was a “confidence-eroding measure,” a development which also dismayed the Iran lobby. Even the normally sympathetic Trita Parsi commented that the deal ran into “swampland of internal Iranian politics.” Mohammed ElBaradei, desperate to achieve a diplomatic breakthrough during the last months of his tenure, was equally upset. He subsequently allowed

that “what stood out [in Tehran] was a bewildering display of Iran’s factions and power centers.”⁶⁸

New questions about the PMD created additional problems for the nuclear chief. After years of dismissing information damaging to the regime, ElBaradei agreed that the Agency’s 2009 dossier “Possible Military Dimensions of Iran’s Nuclear Program” was legitimate enough to warrant Iran’s explanation. ElBaradei stressed that the file “appears to have been derived from multiple sources over different periods of time, appears to be generally consistent, and is sufficiently comprehensive and detailed that it needs to be addressed by Iran.” Experts familiar with the dossier, which was compiled by the Safeguards Division from accounts of several intelligence services, revealed that Iran had tested a two-point implosion device. Some experts described the experiment as “breathtaking” because the device was a better fit for a Shahab-3 missile than previous attempts.⁶⁹

Three additional developments exacerbated the impression that Iran had continued with efforts to militarize its nuclear project. One factor stemmed from the September 2009 trial of the German-Iranian businessman Mohsen Vanaki. The German authorities charged Vanaki with selling dual-use equipment to a Tehran-based Revolutionary Guards front company Kimya Pakhsh Sharg. Vanaki brokered the sale of two high-speed cameras designed for filming high-speed events. According to experts, in a nuclear test “these cameras would be used to film tests of high explosive lenses and high-speed phenomena associated with metals driven by explosions that are key to developing implosion-type fission nuclear weapons.” Vanaki tried but failed to buy a 100 alpha, beta, and gamma detectors modified for the measurement of high levels of radiation, such as in nuclear tests.⁷⁰

The second development pertained to a document obtained by the *London Times* in December 2009 which was forwarded to David Albright for assessment. The ISIS report described the document as a “plan to further develop and test a critical component of a nuclear weapon. The specific component referred to a neutron initiator made out of uranium deuteride (UD3), which as a rule, is positioned at the center of a fission bomb made from weapon-grade uranium. This type of initiator works by the high explosives compressing the nuclear core and the initiator, producing a spurt of neutrons as a result of fusion in D-D reactions.” The ISIS team noted that, if manufactured, the device could be used in a “cold test” to measure the performance of the nuclear weapon. Most intriguingly, the analysis found that the Iranian device resembled a model that A. Q. Khan had discussed in his book.⁷¹

Iran’s burgeoning missile program added to the unease about the PMD efforts. The May 2009 NIE concluded that Iran was not likely to develop a long-range missile until 2015–2020. But officials familiar with the document stated that the timetable could be revised downward should the regime

receive help from the outside. Indeed, American experts pointed out that Tehran's missiles, including the Safir, Safir 2, and the Kavoshgar, could be further developed to carry warheads. One expert noted that "Iran is clearly mustering its industrial and intellectual infrastructure to produce long range missiles and, more importantly, to assimilate the know-how to design and produce more advanced missiles in the future."⁷²

The heightened scrutiny of the regime's nuclear project spurred efforts to estimate Iran's enrichment potential. As indicated in chapter 1, SWU rather than the number of centrifuges has been used to assess the potential of a program. But the IAEA, national intelligence services, and lay experts were stymied because Iran's opaqueness made assessing the SWU of IR-1 centrifuges difficult. In 2003, Mark Hibbs, who used open sources, estimated the output to be 7–15 SWU, a number that was continuously revised downward. Using information that Gholam Reza Aghazadeh disclosed in a 2006 interview, the nuclear physicist Paul Bernstein calculated that the average centrifuge produced about 1 SWU per annum. In 2009, the Wisconsin Project, drawing from the IAEA data, calculated it to be 0.5 SWU. David Albright and co-authors used multiple sources to come up with an estimate of 0.5 to 1.0. After comparing a variety of estimates, Joshua Pollack, commented that the "SWU wars" gave way to a "truce" and an "emerging consensus" around a SWU of somewhere below 1.0.⁷³

If the SWU dispute was illustrative of the genuine difficulty in analyzing the output of the IR-1 centrifuges, the further politicization of the discourse took a toll on other topics. The Institute for Policy Studies (IPS), a left-wing think tank which offered a radical critique of American foreign policy, mounted an attack on David Albright, the ISIS director, and other experts who analyzed the Iran data. Gareth Porter, a top researcher and journalist at the IPS, called Albright, the "leading alarmist on Iran," and accused him of exaggerating the regime's mastery of enrichment and weaponization. IPS subsequently added Albright to its Right Web list, a project described as "tracking militarists' effort to influence American foreign policy." Porter went on to write a popular book, *Manufactured Crisis: The Untold of the Iran Nuclear Scare*, which accused Israel of casting the debate on Iran in alarmist tones. The IPS and Porter made no secret of the fact that they had considered Albright an agent of Israel in Washington.⁷⁴

Albright defended his record in what he acknowledged to be a "highly charged debate about identifying the best way to prevent Iran from building nuclear weapons." Without naming Porter or other critics, he described as "misperceptions" claims that the content of the laptop was fabricated or that Iran's violations of the NPT were minor. Albright also implied that Porter was behind a separate campaign to discredit Olli Heinonen because the latter vouched for the veracity of the laptop information. Albright maintained that

"Heinonen was instrumental in making a collection of intelligence documents showing a purported Iranian nuclear weapons research program [to be] the central focus of the IAEA's work on Iran." He lauded Heinonen for contributing to a shift "of opinion among Western publics to the view that Iran had been pursuing a covert nuclear weapons program." Heinonen, who retired from the IAEA in 2010, was contractually prevented from divulging information, but would subsequently defend his laptop judgment. In an interview with an Israeli journalist, he accused Iran of "making a systematic attempt to undermine the IAEA status," and obfuscating the truth in every possible way.⁷⁵

Porter's efforts notwithstanding, Iran advocates in the United States suffered a setback when the Japanese diplomat Yukiya Amano replaced ElBaradei on December 1, 2009. The Iranians, who preferred the former South African anti-apartheid activist and diplomat Abdul Samad Minty, complained that Amano, strongly supported by the Obama administration, was in "the American pocket." Mohammed Sahimi, the unofficial Iran lobby spokesman, charged Amano with politicizing the Agency and issuing reports that "are a rehash of [information provided by] Olli Heinonen, a man who has a reputation inconstant with impartiality and objectivity."⁷⁶

Amano's first report to the BOG in February 2010 was more forceful than ElBaradei's carefully worded analyses. The dossier raised suspicions about "current activities related to the development of a nuclear payload for a missile." Amano charged that "Iran has also initiated work on pyroprocessing research and development of study of the electrochemical production of uranium metal." A high temperature method of extracting material from reactor waste, pyroprocessing could extract uranium-235 from spent-fuel reactors. The experiments were discovered by inspectors who visited the Jabr Ibn Hayan Multipurpose Research Laboratory in Tehran. The Agency also complained that the Iranians did not respond to questions about past PMD activities. Amano's more assertive style made a difference in the recommendations of the BOG and the subsequent Security Council resolutions, which, as discussed earlier, increased the economic burden on Iran's economy. For the White House, who backed Amano, pushing for sanctions had become easier than under ElBaradei.⁷⁷

However, the covert plan to set back Iran's nuclear program was less successful because the Iranians became aware of it, as noted above. An analysis found that an aggressive version of the malware escaped into the Internet. The Americans initially blamed the Israelis for creating this aggressive version, but subsequent research concluded that the release was inadvertent. Top advisers briefed President Obama the problem in August, but he decided to continue with the operation because it was still effective in destroying the centrifuges.⁷⁸

The Stuxnet fiasco came at a bad time for the White House. As noted above, Netanyahu and Barak used it against Dagan and the security chiefs to demonstrate that there was no substitute for a kinetic action. Highly apprehensive that Netanyahu would prevail, the White House worked hard to prevent it from happening. Panetta recalled that his predecessor, Michael Hayden, had urged him to “to stay close to the Israelis on Iran” and “keep up the pressure,” an advice he took to heart. In 2009, the CIA chief traveled to Israel to discuss the issue with Meir Dagan and Amos Yadlin. During an “intense meeting,” he was shown chart depicting the regime’s alleged progress and told about Barak’s immunity zone argument.⁷⁹

Secretary of Defense Gates was even more worried about a possible Israeli bombing raid because of its potentially extreme implications for the United States. On January 4, 2010, Gates sent a memo to James L. Jones, the national security adviser, urging a meeting of senior officials to discuss the subject. The meeting took place in May, but Gates was displeased because the issue was not discussed “as thoroughly as I would have liked it.” Previously, Gates rejected an Israeli request for bunker busting ordinance and a request for IDF overfly in Iraq. He pointed out that an Israeli action would have had 150,000 American troops stationed in Iraq in harm’s way. General Michael “Mike” Mullen, the then chairman of the joint chief of staff, did his own part to dissuade Israel from preemption. During a visit to Israel in February 2010 he warned publicly that a strike on Iran would be “a big, big, big problem for all of us, and I worry a great deal about the unintended consequences.”⁸⁰

With so much at stake for the United States, the CIA director Leon Panetta decided to upgrade the Agency’s nuclear intelligence capability by announcing the creation of the CPC in August 2010. Incorporating the Counterproliferation Division of the National Clandestine Service (NCS), formerly the Directorate of Operations, and the Weapons Intelligence, Nonproliferation & Arms Control Center (WINPAC), it was designed to integrate the analytical and undercover dimensions of the endeavor. The reorganization was a somewhat belated recognition of the unique challenges of nuclear intelligence. Still, the restructuring did not diminish the need of outside experts and reviewers, a protocol which created a public relation problem for the Agency.

The 2011 NIE released in February was only marginally different from the much-maligned 2007 document. Veteran journalist Seymour M. Hersh, known for his inside sources, explained that despite internal infighting, the report expressed a consensus on two issues. The intelligence community could not find proof that Iran restarted its weaponization program suspended in 2003 and there was no evidence that the leadership made the decision to fabricate a bomb. James Clapper, who replaced Blair as the DNI in 2010, insisted that Iran had the capability to weaponize in the future, but it could

not be determined whether the regime took the decision to do so. In a subsequent testimony to Congress, Clapper asserted that a cost-benefit analysis guided the Iranians when it came to the critical decision to weaponize: “a comprehensive deal [with Iran] dramatically increases the cost of pursuing nuclear weapons and decreases the benefits.” Michael Morrell, the deputy chief of the CIA, explained that the rather timid NIE was driven by the blunder of the Iraq estimate which, in his view, was still weighing heavily on the intelligence officials. For his part, Morell took the unusual step of offering a public apology to Colin Powell when the latter had complained about having been misled by the intelligence services.⁸¹

As in 2007, critics found plenty of errors in the analysis. Fred Fleitz, the former aide of John Bolton, accused the intelligence community of “denial on Iran” and faulted the “document’s poorly structured arguments and cavalier manipulation of intelligence.” He maintained that the analysis was “skewed” because the outside reviewers were either liberal professors or former CIA officials employed by liberal think tanks in Washington. Fleitz’s charges were not new, as right-wing think tanks around Washington had long accused the intelligence community of adopting the type of “political correctness” which prevailed in the academy.⁸²

This time around, however, the IAEA offered some backing to the critics of the NIE. The Agency’s May 24, 2011, report catalogued seven PMD items which Iran had refused to explain. The list including experiments in explosive compression of uranium deuteride to produce a short burst of neutrons, “manufacturing and testing of explosive components suitable for the initiation of high explosives in a converging spherical geometry, exploding bridgewire (EBW) detonator studies, multipoint explosive initiation and hemispherical detonation studies involving highly instrumented experiments, high voltage firing equipment and instrumentation for explosives testing over long distances and possibly underground, and missile reentry.” Equally important, the document stated that some of these activities took part after 2004, the presumed cutoff for all weaponization efforts. An editorial in the *New York Times* described the report as “chilling.”⁸³

As with other highly technical issues involved in weaponization, the IAEA list and the more detailed November 2011 report became the subject of arcane discussions in the intelligence agencies and the arms control community. But even the nuclear experts were not sure to what extent the items amounted to a “smoking gun” revelation. For example, in 2007, the *Times of London* obtained a document detailing an experiment with uranium deuteride (UD3), but experts considered it an oddity compared to the more standard polonium-beryllium trigger. One outside expert traced this design to A. Q. Khan and the Chinese, which, in his opinion, did not amount to a serious effort at weaponizing.⁸⁴

Unfettered by the burden of technical details, the public discourse simply ramped up a notch. The Israel lobby stalwarts—the WINEP, the FDD, the Israel Project, the Jewish National Security Affairs (JINSA), CSP, and UANI, among others—produced a considerable number of reports, policy papers, articles, and op-eds, and their representatives regularly testified before Congress. Several former officials in the Bush administration, some with ties to John Bolton and former vice president Dick Cheney, helped with the drafting of the papers. Some, like JINSA’s Gemunder Center-Iran Task Force, were highly active in promoting zero-enrichment policy and called on negotiators to “make clear the alternatives to an acceptable deal are enhanced sanctions that could collapse Iran’s economy and/or a U.S. military strike.” The Clarion Project produced a documentary “Iranium: The Islamic Republic Race to Obtain Nuclear Weapons.” Critics pointed out that the one-hour presentation was not credible because it featured experts from the FDD and similar think tanks; some of them compared President Obama to Jimmy Carter or urged a military strike on the nuclear facilities.⁸⁵

Acting in tandem, the Christian Zionists had increased their focus on Iran. During the 2011 Summit in Washington, the premier gathering organized by CUFI, a great many speakers and panels discussed ways to roll back the regime’s nuclear project. Senator Joseph Lieberman, a board member of CUFI and a speaker at the gala event, received an enthusiastic reception because he suggested that the military option should not have been taken off the table by President Obama. Several speakers went so far as to call for a military strike on Iran. The 2012 Summit featured a special panel on Iran’s alleged capability to destroy Israel and the Western world. Malcom Hoenlein, the executive vice chairman of the Conference of the Presidents of the Major Jewish Organization, Senator Lieberman, and other high ranking Jewish officials also participated. Fellows from the FDD, WINEP, and the CSP, among others, were invited to speak. Irving Roth, a Holocaust survivor and educator, appeared in the plenary session as a symbol of the danger looming over Israel. The CUFI’s website highlighted the connection between Iran and the Holocaust: “There is a new Hitler in the Middle East—President Ahmadinejad of Iran—who has threatened to wipe out Israel and America and is rapidly acquiring the nuclear technology to make good on his threat. If we learned anything from the Holocaust, it is that when a madman threatens genocide we must take him seriously.”⁸⁶

Hints that Obama was about to expose the Israeli Jews to a second Holocaust were not limited to either the Jewish or the Christian camps of the Israel lobby. In their efforts to cast doubts on the president’s foreign policy record, Republicans in Congress increasingly used the Iran-Holocaust theme as well. Senator Lindsay Graham, a Republican from South Carolina, and a leading opponent of negotiations with Iran, stated in March 2010 that

“sometimes it is better to go to war than to allow the Holocaust to develop a second time.” Graham would subsequently describe Obama as a “modern day Chamberlain.”⁸⁷

Opponents, however, accused the Israel lobby of “an alarmist and martial tone” while at the same time they lamented that the “saber rattling” was indicative of the climate in Washington which made it impossible to “have a reasoned discussion.” The Ploughshare Foundation, a leading arms control group based in San Francisco, tried, according to its director Joseph Cirincione, to provide a “rational” alternative to this discourse. A grant-lending institution, between 2010 and 2011 Ploughshare offered several grants, some \$125,000 to \$150,000, to promote a nuclear deal with Iran. National Public Radio and the Center for American Progress (CAP) were among the grant recipients. Ploughshares also gave \$25,000 to J-Street “to support congressional advocacy and education” against military options and \$125,000 to NIAC “to shape the debate among policymakers and in the media on credible, non-military approaches to resolving the impasse over Iran’s nuclear program.” The Nixon Center, a think tank headed by Geoffrey Kemp, reported a 2010 small grant from Ploughshare to “host a number of meetings” to debate alternative solutions. The edited volume based on the talks warned about the significant consequences of a war with Iran. The Stimson Center, an arms control think tank, and the U.S. Institute of Peace co-produced a 2010 study called *Engagement, Coercion, and Iran’s Nuclear Challenge*, that recommended a deal with the regime. The Alawi Foundation which, according to some accounts, has been a front for the Revolutionary Guards, was said to have contributed to think tanks willing to advocate a negotiated outcome to the nuclear impasse with Iran.⁸⁸

The so-called “war of the lobbies” attracted considerable public attention because both sides accused each other of spending extravagant sums of money to influence the discourse. Eli Lake, a journalist associated with the conservative *Washington Times*, was the first to expose the role of Ploughshares in engaging in what he called “impact philanthropy” to stop “military action against Iran.” Iran’s opponents, who took especial offense to Ploughshares’ donation to public media, frequently quoted Lake’s report. But the focus on money made it easy for the opposing camp to emphasize that Jewish philanthropists such as Sheldon Adelson, Paul Singer, Seth Klarman, and others were funding the anti-Iran campaign to the tune of millions of dollars. Some pointed out that the Clarion Project alone spent several millions to produce and distribute *Iranium*. In fact, the documentary, attracted fresh attention to the secretive funders of Clarion, notably the Barbara and Barre Seid Foundation and the Donors Capital Fund. The subtext of the critique—that Jewish money was trying to undermine President Obama—was quite evident to Washington insiders and the elite media.⁸⁹

As the November 2012 election approached, the heated public discourse had grown positively feverish because the Republicans had bet heavily on the Iran issue to regain power. Naturally, the administration could not divulge details of the talks in Oman, which, as noted above, Ayatollah Khamenei approved out of economic desperation. However, when William Burns and Jake Sullivan came up short, the White House could not back up their instance that economic statecraft was a winning strategy.⁹⁰

But the administration benefited from other secret revelations in its fight with the Israel lobby. Arguably, most helpful to the Obama team was a leaked report of a two-week war game named Internal Look conducted by CENTCOM in early March 2012. The then CENTCOM commander, General James N. Mattis, concluded that an Israeli attack on Iran would lead to a wider regional war, draw in the United States “and leave hundreds of Americans dead.” The two journalists who publicized Internal Look described Mattis as particularly troubled because of the “unpredictable and uncontrollable” consequences of such a conflagration.⁹¹

To prevent this scenario, the White House had sent a constant stream of messages to Jerusalem. In January 2012, President Obama called Netanyahu to urge “for time and space for sanctions to work.” American emissaries who traveled to Jerusalem conveyed the same plea and Israelis visiting Washington were appraised of the gravity of a preemptive action. When Tamer Pardo, who took over from Meir Dagan, arrived in Washington in early 2012, he was quickly made aware of the hostility toward a bombing raid. As the secretary of defense, Panetta, became a key player in the efforts to dissuade the Israelis’ preemptive attack. Panetta developed a good rapport with Ehud Barak, who became the target of much American pressure as indicated above. The clandestine contacts with Dagan were also helpful because they gave the Americans an insight into the Israeli policymaking. When the Mossad chief took the unprecedented step of appearing on *60 Minutes* on September 12, 2012, to state that “he was compelled to go public to prevent an attack on Iran,” the Obama White House could make an argument that the Israeli intelligence supported its position. Observers who monitored the increasing number of Israeli security officials who questioned Netanyahu’s judgment if not his sanity were convinced that the preemptive action was dead.⁹²

But the White House could not totally rule out the so-called “October Surprise,” a reference to the alleged collusion between Israel and the Reagan campaign to persuade Iran to delay the release of American diplomats. Gary Sick, a security official in the Carter administration who originated this theory, blamed the affair for thwarting Carter’s reelection in 1980. John Hannah, an aide to Vice President Dick Cheney turned senior expert in the WINEP and the FDD, suggested as much in his widely noticed August 2012 *Foreign Policy* article. After a trip to Israel, Hannah related that the “Israeli

officials lost almost all faith in the current American strategy of negotiations combined with escalating economic pressure can succeed in compelling Iran to back down.” He added that the “Israelis take the concept of a zone of immunity” very seriously and warned that the “moment of truth for Israel” in the form of a military strike is getting “close, much closer,” perhaps even before the election.⁹³

Although Hannah’s warnings most likely reflected his association with the FDD and WINEP, other players expressed concern. Panetta visited at the end of July 2012 for further talks amid rumors that Netanyahu decided to go ahead with his attack even though virtually the entire security establishment opposed it. The struggle at the top echelons in Jerusalem was highly confusing to the White House because, in the words of one observer, “the Israelis were sending mixed messages,” and “the White House was never certain whom to believe.” Anxiety over a possible Israeli action shared across the Atlantic. David Cameron sent his chief spy, Sir John Sawyer, on a secret mission to Israel at the end of August 2012. The head of MI6 allegedly told the Israelis that Britain strongly opposed an attack. Information about the visit was promptly leaked to the press which also noted that the Israelis “may strike before the elections.”⁹⁴

Even Congress showed concern, promoting it to order the Congressional Research Service to produce an updated study on a possible Israeli military strike on Iran. Having mentioned the nuclear debate in Israel and its assessment in Washington, the report emphasized the core problem of nuclear intelligence: “Ongoing disagreements among analysts as to how far away Iran is from achieving a nuclear capability or nuclear weapons if it is committed to doing so only exacerbate this ambiguity and uncertainty regarding Iran’s nuclear-related efforts. This ambiguity and uncertainty is a major feature of the environment in which international actors decide their policies and actions vis-à-vis Iran.”⁹⁵

There was little doubt that the opponents of Obama’s Iran policy would have preferred a victory of the Republican candidate Mitt Romney who took a hard line on the subject. He threatened “to check the evil regime of the ayatollahs” and told *Face the Nation* “that if elected president he wouldn’t have to get congressional permission for a military strike on Iran.” Not coincidentally, Romney’s political adviser, Matthew Kroenig, a professor of international relations at Georgetown University, advocated an American attack on Iran’s nuclear facilities should a diplomatic effort fail. His article “A Time to Attack” and a subsequent book by the same name created a stir in the academic community but had little effect on preventing Romney failure.⁹⁶ Predictably, Obama used his reelection to launch a new diplomatic intuitive. In doing so he was greatly helped when Hassan Rouhani, a champion of Iran’s normalization and economic well-being, was elected to office in May 2013.

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Chapter 7

The Power of Sanctions and the Road to the Joint Comprehensive Plan of Action

THE VIEW FROM TEHRAN

Much as President Mahmoud Ahmadinejad tried to put a heroic spin on the suffering caused by sanctions, by the early 2013, the statistics looked grim. Collectively, the smart and supersmart sanctions dramatically affected Iran's economy. Oil sales, which accounted for 60 percent of the government's revenue, were cut in half. By late 2013, sanctions reduced Iran's oil exports to about 1 million bbl/d—far below the 2.5 million bbl/d Iran had exported in 2011. The decline in revenue from oil sales was accordingly very substantial, plummeting from \$100 billion in 2011 to about \$35 billion in 2013. Given that oil receipts funded nearly 60 percent of the government's expenditures, the shortfall was traumatic.¹

The range and severity of the sanctions caught the regime by surprise. The highly secretive SWIFT maneuver became known in Tehran only three days before the official announcement. Though Ahmadinejad tried to apply his usual positive spin, his numbers did not add up. He claimed, for example, that Iran had \$100 billion in foreign exchange reserves—a sum that, in his view, provided a healthy margin of safety for the country. But he failed to mention that most of the money was in foreign accounts that could not be repatriated because, as of February 2013, Iran was effectively barred from repatriating assets accumulated from oil exports which were held in overseas accounts.²

Iranian shoppers could see the consequences of the sanctions in the nearest store. Shelves were stocked with low-quality Chinese products, most of it bought for a premium price debited to accounts trapped in Chinese banks. While basic needs were met, advanced Western medicine was scarce, a shortage that added to the general misery. The plight of cancer patients who were

dying because of lack of proper medication was well documented. One American journalist commented that killing Iranians with air strikes would be more humane: “limited airstrikes on Iran may actually be the more morally sound course of actions because a couple of thousand deaths might be worth it to avoid the livelihoods of 75 million people destroyed.”³

As a rentier state dependent on oil income, Iran was particularly vulnerable to the disruption of oil exports which was bound to cascade throughout the economy. A drop in the value of the currency was indicative of things to come. In October 2012, the Rial fell to a new record low against the US dollar, having lost about 80 percent of its value since 2011. The unofficial value of the US dollar went up from 10,352 Rial in January 2011 to 40,000 Rial in October 2012. In the same month, the government tried to manage the currency market by introducing a new rate via a currency exchange mechanism, which was initially successful but failed to provide a sustainable flow to the various economic sectors that needed hard currency for transactions.⁴

Between 2012 and 2013, the loss of revenues from oil, coupled with reverberation from SWIFT, raised the rate of inflation to over 50 percent. Iran’s economy shrank by about 5 percent in 2013 as many Iranian firms reduced operations and defaulting on loans became endemic. In the poorly regulated and highly undercapitalized banking industry, nonperforming loans rose to 14.4 percent of total loans, causing severe cash flow problems in the corporate sector.⁵

Data from the Statistical Center of Iran (SCI) indicated that the country’s Gross Domestic Product (GDP) had contracted by a cumulative 8.6 percent during the FY2012/13 and FY2013/14. The GDP annual growth rate from 6.62 percent in 2010 fell to -9 percent in 2012 considering the sharp depreciation of exchange rates in both the official and black market, GDP declined from a peak of \$514 billion in FY2011/12 to \$342 billion in FY2013/14. The foregone annual economic output of \$57 billion amounted to some \$730 a year for every Iranian. Inflation rose from about 12 percent in late 2010 to around 37.39 percent in 2012 and over 50 percent in early 2013; unemployment inched close to 20 percent.⁶ The drop in the Rial value accelerated the inflation. The International Monetary Fund (IMF)’s global inflation index had Iran at the top with a rate of 42.3 percent during the first three months of 2013. According to CBI, the inflation rate reached 45 percent in July 2013 and increased to 56 percent during the last three months of 2013. Many economists, however, asserted that the actual inflation rate was closer to 71 percent.⁷

Because Iran’s manufacturing sector relied on imported parts, the currency decline and financing restrictions made operations difficult. Many Iranian manufacturers failed to obtain credit and had to pre-pay, often using circuitous and time-consuming mechanisms, to obtain parts from abroad.

The resulting unemployment was particularly demoralizing; at the end of the calendar year in March 2013, 12 million people were out of work, roughly 12 percent of the workforce. Some observers, however, suggested that the number was 17 percent. What is more, Iran's ambitious plan to develop an export industry was caught in the downturn. After debating for more than a decade the need to lessen its dependency on oil, the regime was taking its first steps in building a strong manufacturing sector just before the sanctions hit.⁸

Psychologically, the effect was significant because it generated fear and uncertainty. Like during the last years of the shah, rumors circulated that merchants in the bazaars of Tehran and provincial cities were hoarding, prompting the price of basic foodstuffs to rocket. Stories about an allegedly imminent American strike on nuclear and military targets and speculations about an Iraqi-style invasion fed domestic anxiety. Many felt that the country was sliding back into a pariah state, a situation that President Khatami had worked hard to reverse.⁹

Having failed to produce domestic relief, the Ahmadinejad administration tried to intimidate the international community. Several officials openly threatened to close the Strait of Hormuz, a vital trade route for transporting about one-fifth of the global oil market used by 40 percent of the world's oil tankers. As early as December 28, 2011, Iran's first vice president Mohammad Reza Rahimi delivered a sharp warning, promising that Iran would retaliate for the sanctions by blocking all oil shipments through the Strait of Hormuz.¹⁰ Admiral Habibollah Sayyari, the chief of the Iranian navy, told the state-run Press TV on 31 December 31, 2011, that "closing the Strait of Hormuz for Iran's armed forces will be easier than drinking a glass of water." To ratchet up this intimidation another notch, the hard-line *Kayhan* newspaper, a mouthpiece for Ayatollah Khamenei, threatened dire consequences, but the regime did not take any actions. Even the ordinary belligerent Ahmadinejad was keenly aware of Operation Praying Mantis in April 1988, when the United States shelled Iran's oil offshore facilities to punish the regime for obstructing the international traffic by mining the Straits of Hormuz.¹¹

With virtually no options left, the Ahmadinejad government faced a bleak economic reality. At the collective level the distress suffered by the population manifested itself in the misery index, calculated from the rates of unemployment, inflation, and bank lending rates minus the percentage change in real GDP per capita. The Iranian misery index escalated from 38 percent in 2010 to 76.21 in 2013, reached to the top of the global misery index after Venezuela in 2013. At 79.4 percent, Venezuela was the world's most miserable country. Used by economists to analyze the impact of sanction and other malfunctions of the economy, however, the misery index was an aggregate construct which did not indicate the depth of the legitimacy crisis which had befallen the regime.¹²

The political scientist Samuel Huntington famously noted that “legitimacy is a mushy concept,” but indispensable for analyzing the radical political change of the sort which brings regimes down. What made the concept “mushy,” was the fact that aggregate economic data was not sensitive enough to indicate when economic hardship would erode the legitimacy of the regime. Deciphering delegitimizing undercurrents is especially hard in authoritarian regimes which work tirelessly to create an edifice of legitimacy through constant and lavish public displays of support and denial of dissent. Timur Kuran, a leading rational choice theorist, explained that the opaque-ness of the Soviet political system made it hard for outside analysts and even insiders to understand the depth of the legitimacy deficit that had plagued Moscow and convinced Mikhail Gorbachev to launch a series of reforms.¹³

Sociologists and anthropologists specializing in the study of political change have offered an insight into how a crisis of legitimacy may develop. The psychological construct of *eudaimonia*, a Greek term commonly translated as a state of well-being, is at the core of the process. Three different estimates drive a sense of well-being; an individual’s evaluation of his or her economic standing, a comparison to the economic standing of a reference group or groups, and being aware of the economic entitlements embedded in the distributive justice perimeters of political system. The noted nineteenth century sociologist Emil Durkheim postulated that after experiencing a negative sense of well-being, individuals develop anomie, defined as behavior at odds with the normative parameters of the collective belief system. Durkheim used suicide rates to prove his theory, but other out-of-norm behaviors such as murder, theft, drug use, alcoholism, divorce, and domestic violence have been subsequently adopted.¹⁴

By all accounts, the level of anomie rose sharply during the Ahmadinejad’s years as reflected in key statistics such as homicide, suicide, and divorce rates. The rate of HIV and AIDS infection, once a closely guarded secret, have gone up from the base number of 9,000 to 80,000, ninefold since 2002, an 80 percent annual increase. Drug addiction, another early taboo, had expanded from 2 percent prior to 2012 to 8 percent in 2014. With several surreptitiously filmed accounts making the rounds on the Internet, the squalid lifestyle of drug addicts attracted public attention at home and abroad.¹⁵

Incidents of sexually transmitted diseases (STDs), a less publicized statistics, had a significant impact on fertility rates. Studies found a very high level of STDs, notably chlamydia, fueled by an upsurge of casual sex. Experts blamed it on the institution of *sigha*, a form of temporary marriage which parties could contract for as little as few hours. Both the frequency of *sigha* as well as the number of prostitutes have increased dramatically, causing the chlamydia epidemic. Experts noted that chlamydia was among the factors behind the dramatic decline in birth rates—from seven children per woman

in 1979 to just 1.6 in 2012. As one commentator put it, “never before in recorded history has the birth rate of a big country dropped so far and so fast.” Ahmadinejad, in one of his dramatic flourishes, accuse women who declined to bear children of being guilty of “genocide against the country.”¹⁶

Media coverage reinforced the sense of growing social gloom. Dr. Saeed Mo’ayedfar, head of Iran’s Sociological Association, argued that “due to the worsening economic situation, our society facing anomie to the extent that nowadays having 10,000 Toman (\$3) in the pocket cause the risk of extortion. This should raise an alarm and we should be ready for social crisis and more crimes.” In an interview with the *Arman* newspaper, Mustafa Eqlima, president of Iran’s Social Workers Association, noted that “predicting [the rate] of anomie and social crisis which may happen in the new year is not a difficult task. We will be faced with increasing of anomie like high number of divorce, decreasing of marriage rate, growing rate of addiction, robbery and other social abnormalities and crises. The source of all these crises is the country’s worsening economic situation.” Social workers were particularly alarmed at the anomic behavior of the younger cohorts (15 to 35 years) whose unemployment level stood at some 30 percent. Bereft of prospects, young people were also more likely to find themselves in the ranks of drug addicts and criminals.¹⁷

For a regime that reveled in lambasting the “decadent culture” of the West, these statistics were particularly distressing. Even more alarming to the elites was the sense that anomic behavior caused by sanctions was a real threat to the survival of the regime. Ahmadinejad’s Ministry of Culture and Islamic Guidance was careful to censure any linkage of anomie to a crisis of legitimacy. But his critics were eager to discuss the issue, turning the socio-economic consequences of the nuclear program into the defining issue of the 2013 presidential elections.

Ahmadinejad’s preferred candidate Esfandiar Rahim-Mashaie was disqualified from running, but Saeed Jalili, an ardent Principalist and a favorite of the Supreme Leader, emerged as the nuclear torchbearer. Turning necessity into virtue, he asserted that the “giant strides” of Iranian technology and industry could not have been made without the sanctions. Jalili echoed Ahmadinejad’s hard-line foreign policy stand of “no to negotiations, no to compromise and no to imperialist’s subjugation.” The Revolutionary Guards backed Jalili and several of its commanders threatened anew to interfere with traffic in the Strait of Hormuz.¹⁸

Their opponents, led by Ayatollah Ali Akbar Hashemi Rafsanjani and Hassan Rouhani, found much fault with Ahmadinejad’s fixation on the nuclear issue and the economic punishment. Rouhani lamented that the sanctions brought a calamity upon the Iranian people. Referring to the president, Rouhani noted that “bragging in front of enemy is not a solution,

we should act wisely.”¹⁹ A wise policy would have prevented, in this view, the social pathologies that came to threaten the Islamic identity project of Ayatollah Khomeini, the founder of the Islamic Republic. Attributing the moral decay to the sanctions was a political masterstroke for Jalili’s opponents. Indeed, they could claim that the aggressive pursuit of the nuclear issue was undermining not just the economy but also the cherished goals of the revolution. More to the point, Rouhani and his followers asserted that the only remedy for this conundrum was normalization, a coded reference to rolling back the nuclear project to rejoin the community of nations. Directing his remarks to the Principalists, Rouhani pointed out that “those who were saying that the Security Council cannot do anything ... those who were celebrating everyday while saying that the nuclear issue has been resolved, they should know that they were not able to anticipate international issues correctly.” According to Rouhani, it was good to keep the centrifuges operating, but only if people could make a living and factories could remain open. Recalling his experience as a top nuclear diplomat, Rouhani stated: “I believe we are in a very sensitive situation at the moment and only those who have experience can solve the nuclear issue through negotiation and logic.”²⁰

But the Principalists saw normalization as treason, as noted in the preceding chapter. Jalili called Rouhani and his followers “traitors” and, more ominously, Major General Ali Jafari, speaking on behalf of the Guards, hinted darkly that such nuclear treason would not be tolerated by the true defenders of the revolution. The normalizers responded by portraying themselves as the true heirs of Ayatollah Khomeini who, in their view, worked hard to carry his vision of creating a better life for the Iranian people. With both sides proclaiming fealty to the revolutionary ideal and accusing each other of treason, the nuclear debate turned into something of a “purity war.” As one website put it, the “nuclear issue provokes strong reaction in the presidential debate.”²¹

Barred by the Council of the Custodians of the Constitution from running, Ayatollah Rafsanjani used his considerable political skills to help the normalizers. As a consummate insider, he understood that the Supreme Leader was facing an unprecedented power struggle among the factions. While Ayatollah Khamenei, one of the original architects of the nuclear program, was close to the Principalists, he was also worried about the legitimacy crisis. Insiders revealed that Khamenei was particularly alarmed by the low birth rate, a point which he discussed in public. Internal polls showed Jalili’s support to be in the low double digits, making his “unaided” election extremely unlikely. Even the Guards commanders and their Basij enforcers realized that another contested ballot will create a massive public upheaval likely to spell the end to the regime.²²

With Jalili out of the running, the Supreme Leader reluctantly settled on Rouhani whose skillful performance as the nuclear negotiator under Khatami gave him a clear edge over the other contenders. When the ballots were counted on June 14, 2013, the 11 percent received by Jalili, compared to the more than 50 percent by Rouhani, indicated a resounding defeat of nuclear Principalism. In an amazing change of fortune brought by the sanctions, Rouhani, once reviled by Ahmadinejad as a traitor, was now considered as a savior of the fast sinking economic ship of the state.²³

Despite his victory, the negotiated political order under which the Guards, with the help of their counterparts in the AEOL, commanded the nuclear project complicated Rouhani's task. In fact, as a former chief negotiator, the new president had a much better understanding of the Guards' nuclear machinations than Mohammed Khatami. His former aid, Sayed Hossein Mousavian described how the Guards' nuclear division engaged in obfuscation, delays, and outright misinformation. As a result, deprived of credible information, the Vienna team was often embarrassed in front of their Western counterparts, creating mistrust among the Western negotiators. Recalling one such incident, Mousavian wrote that "none of the members of the team were informed about these technical problems by the relevant officials of the Atomic Energy Organization of Iran (AEOL) before the meeting." He added that "it was a surprise to us" and caused "increased suspicion among the P5+1."²⁴

Such complications notwithstanding, President Rouhani had to respond to his first the August 28, 2013, Safeguards Report of the IAEA. Some of the content was straightforward. The Agency noted that 9,494 IR-1 centrifuges enriched uranium to 3.5 percent and up to 20 percent in the FFEP and the Pilot Fuel Enrichment Plant (PFEP) in Natanz. In the Fordow FFEP 696 IR-1 centrifuges produced uranium enriched to 20 percent. In total, the Agency counted 10,190 IR-1 active centrifuges as of August 10, 2013. In addition, there were 6,250 installed but not operating centrifuges in Natanz and 2,710 in Fordow (2014 not operating), for a total of 18, 454 IR-1 centrifuges in some 110 cascades. Iran also reported installing 1,008 IR-2m centrifuges, with an additional 2,088 planned to install. The total installed capacity exceeded 19,000, but fell short of the 50,000 number of centrifuges which President Ahmadinejad had previously touted.²⁵

Quantity aside, the Safeguards Report found only a modest progress in developing advanced models. The previous report of May 2013 listed a handful of models: 19 IR-4 centrifuges, 14 IR-6 centrifuges, 3 IR-6s centrifuges and a single IR-5 centrifuge—installed in several cascades. The Safeguards personnel noted that Iran was "intermittently feeding" UF6 into the IR-4 and IR-6 centrifuges—sometimes as single machines and sometimes in cascades—but that the single IR-5 centrifuge "has yet to be fed UF6." The August brief commented on the failure of the R&D in

Natanz to fabricate more advanced models which were critical to the success of its program. As noted in the preceding chapters, the IR-1 machines had a low performance rate measured by product to feed ratio. According to its self-proclaimed goal under Ahmadinejad, Iran planned to achieve a ratio of approximately one kilogram of 3.5 percent LEU for every 10 kilograms of natural uranium hexafluoride that was fed into the cascades. In practice, however, the ratio did not exceed one to nine. Based on data collected by the IAEA, during 2011 the product of FFEP to feed ratio has decreased to about one kilogram of 3.5 percent low enriched uranium to 13 kg of natural uranium hexafluoride. Put differently, Iran needed to feed three kilograms more of natural uranium to produce one kilogram of 3.5 percent LEU. The total output reflected the subpar performance of the program. As of August 2013, Iran had a net stockpile of 6,774 kilograms of 5 percent of LEU and 372.5 kilograms of near 20 percent enriched HEU.²⁶

While the activities in Natanz and Fordow were deemed compatible with peaceful use under the NPT, the Arak complex had military implications, according to the Report. The Nuclear Research Reactor IR-40, a 40 megawatt heavy water reactor, was under the Agency's Safeguards. Iran claimed that the reactor would replace the antiquated TRR dating to the 1960s which produced medical and industrial isotopes. But the Heavy Water Production Plant (HWPP) designed to produce 16 tons of heavy water of weapon-grade plutonium annually was outside the Agency's monitoring and raised proliferation concerns.²⁷

Iran refused access to the HWPP in Arak and denied the Agency request to sample the heavy water stored in the Uranium Conversion Facility in Esfahan. A request to obtain a Design Information Questionnaire (DIQ) of the HWPP had repeatedly been rejected, a step that prompted some observers to describe the plant as a "plutonium bomb" factory. The Agency noted that, when fully operational, it will be able to produce between 9 and 10 kilograms of plutonium a year, enough material for two bombs.²⁸

Rouhani understood that responding to these and the PMD charges contained in the November 2011 Safeguards Report was critical to the success of the negotiations with the P5+1. He fired the hard-line chief of the IAEO Fereydoon Abbasi-Davani and brought back Ali Akbar Salehi, the America-educated nuclear physicist, who was by all accounts a better fit for the new negotiating team. Rouhani tapped the West-oriented Mohammed Javad Zarif to serve as the foreign minister and overseer of the nuclear negotiations.

Rouhani's maneuvering paid off when it was announced in September 2013 that Iran and the P5+1 would meet in Geneva to reach a nuclear agreement. The first breakthrough occurred when the P5+1 and Iran signed the Joint

Plan of Action (JPA)—also known as the Interim Agreement on November 24, 2013. The deal addressed some of the concerns raised in the Safeguards Reports, including the stipulation that all uranium enriched beyond the 5 percent level will be either diluted or converted to uranium oxide. Additionally, it was agreed that 50 percent of the centrifuges at the Natanz facility and 75 percent of the centrifuges in the Fordow plant would be left inoperable, that no new centrifuges were to be installed, and that no new uranium enrichment or reprocessing facilities were to be built. The IAEA inspectors were to be allowed unfettered access to all the nuclear sites. As for the PMD, Iran was asked to provide data on the Parchin and other sites where weaponization experiments had been conducted. The JPA allowed a six-month period to reach a permanent agreement.²⁹

Unsurprisingly, even this relatively modest compromise upset the Principalists who increased their public campaign against the Rouhani team. Borrowing a page from Ahmadinejad, Major General Jafari accused Zarif of betraying the Islamic Republic and of being “infected by Western doctrine.” Privately, the anti-rollback camp exerted intense pressure on the Supreme Leader, either directly or through emissaries. Though little of the secretive discourse became public, it clearly failed to persuade Ayatollah Khamenei who, as noted above, was worried about the decline in fertility rates and other forms of anomic behavior. So much so that the Khamenei called to double the population and the regime drastically restricted access to contraceptives and banned all voluntary forms of sterilization such as vasectomies. Commentators noted that such a drastic reversal of Iran’s decades-long progressive family planning practices was an indication of the panic that gripped the Supreme Leader and senior clerics.³⁰

But even Khamenei understood that legal dictates were not enough to heal the various manifestations of anomic behavior and that an economic restoration was sorely needed. Despite Jafari’s opposition, the Supreme Leader blessed the extension of the talks, telling a group of Basij officials: “We are not opposed to the extension of the talks, for the same reason that we weren’t opposed to the talks in the first place. Of course, we will accept any fair and reasonable agreement ... if these nuclear talks do not achieve any results, Iran will not lose anything.” He added that the nuclear negotiators were “hard-working and serious ... they justly and honestly stood against words of force and bullying of the other side.”³¹

Khamenei’s support for Rouhani, however, was not open-ended since the Principalists demanded a deal that would have preserved a substantial part of the program. Tellingly, the Supreme Leader, not known for his knowledge of the nuclear process, denounced the “centrifuge counting” approach of the P5+1 negotiators and urged a switch to the SWU, an apparent bid to secure Iran’s right to fabricate the more advanced models. Acting on Khamenei

orders, the Rouhani negotiators also demanded to retain 9,000 centrifuges, a two-year period to complete total sanctions relief, and a five-year sunset clause for terminating the IAEA monitoring of its nuclear program.³²

In holding out for a better deal, the regime planned to capitalize on what it considered to be an improved geopolitical situation following the 2014 attack of ISIS on Syria and Iraq. Iran, which dispatched units of Quds Force to fight ISIS, hoped for a quid pro quo from the Americans. At an event hosted by the New America Foundation in New York in the fall of 2014, President Rouhani all but spelled out that, in exchange for playing a more “active role” in the Middle East, Iran expected to get a break in the ongoing nuclear talks. He stressed: “If Iran could reach a comprehensive deal on its nuclear program and leave sanctions behind, it would be able to assume a more active position on interregional dialogue in the Islamic world.”³³

But the Iranian calculations were more than offset by the surprisingly swift collapse of the oil market. Driven by a complex mixture of factors, the price of a barrel of oil plunged from \$115 per barrel in August 2013 to less than \$50 per barrel in December 2014. All the while, Saudi Arabia had resisted the request of other OPEC members to cut production, a traditional remedy to stabilize the price of oil. Some observers suggested that Riyadh crushed the oil market to undermine Iran, an opinion that was readily shared by the conspiracy-thinking-prone Iranians.³⁴

Whatever the truth, the combination of sanctions and the plunge in oil prices hit the Iranian economy extremely hard. A 30 percent increase in the cost of bread, a heavily subsidized staple, generated unrest in some major cities. Failure to pay salaries triggered a wave of worker strikes in some of Iran’s major companies. Iran Khodro Diesel Company, the country’s leading manufacturer of commercial vehicles, the Haft-Tappe sugar factory, Bandar Imam Petrochemicals, Gilana tile factory, and the Assaluyeh natural gas company were among the affected. President Rouhani was forced to admit that the shortfall created a substantial deficit in the budget. Ironically, the economic reversal benefited the normalizers in their ongoing power struggle with the Principalists. The latter toned down their opposition to a deal, which gave the team in Vienna more flexibility. After numerous rounds of extremely arduous negotiations, which were extended several times, the Joint Comprehensive Plan of Action (JCPOA) was signed on July 14, 2015.³⁵

Under the terms of the agreement, the Iranians agreed to cut the number of centrifuges to 6,014 out of which 5,060 IR-1 models were allowed to operate for the next 10 years. The IR-2m and other advanced models were to be decommissioned and stored in Natanz under the IAEA Safeguards. The Fordow facility was ordered to cease uranium enrichment and research into uranium enrichment for 15 years. Converted into a nuclear, physics, and technology center, Fordow could contain no more than 1,044 IR-1 centrifuges in

six cascades in one of its wing. Two of the cascades were to be modified to produce radioscopies for medical, agricultural, industrial, and scientific use. The other four cascades were to remain idle for a 15-year period. The JCPOA allowed Iran to keep 300 kg uranium enriched to 3.67 percent per year; the rest of the 10,000 of LEU was to be either blended down or sold abroad.³⁶

A “Working Group” of P5+1 and possibly other countries was tasked with helping to convert the Arak heavy water research reactor to support peaceful nuclear research and production needs. The redesigned reactor was limited to 20 MW or less and could not produce weapon-grade plutonium. Some of the heavy water from HWPP was to be used in reconfirming the reactor and the rest was to be exported abroad. Iran was encouraged to follow current technology that favors light water reactors. These restrictions were set to expire after 15 years.³⁷

The JCPOA provisions were especially designed to lengthen Iran’s breakout capacity, a reference to the time it would take to produce highly enriched uranium for one weapon should the regime decide to leave the NPT. Western nuclear experts who worked on the deal calculated that limiting the number and quality of the centrifuges and the uranium stockpile would lengthen the breakout period from two months in 2013 to one year for the next ten years. Uranium production, however, as noted in chapter 1, was only one of the parts in the process of weaponization. The forecast did not include the other parts of weaponization: producing a warhead by fabricating the metallic core of the weapon from the powdered uranium hexaboride, building the trigger mechanism, and, finally, integrating the weapon package into a delivery system and testing it. Known as “effective breakout time,” the time to produce a working weapon and a delivery vehicle was estimated at least at one year.³⁸

To prevent Iran from cheating—a justifiable suspicion given its record—the JCPOA proposed a strict Safeguards protocol. The stringent oversight was also designed to prevent the so-called sneak out contingency, a term denoting the clandestine effort to produce a weapon in a parallel, undeclared facility. Observers noted that a sneak out was a more likely scenario than a breakout and required extreme vigilance on the part of the IAEA.³⁹

To this end, the agreement granted the IAEA a multilayered oversight over Iran’s entire nuclear supply chain, from uranium mills to its procurement of nuclear-related technologies. A “round-the-clock access” through continuous monitoring via surveillance equipment was obtained in Fordow and Natanz. A new generation of monitoring technology—such as fiber-optic seals on equipment which electronically transmitted information to the IAEA, infrared satellite imagery to detect covert sites, “environmental sensors that can detect minute signs of nuclear particles,” tamper-resistant, radiation-resistant cameras, computerized accounting programs for information gathering and

anomalies detection, and big data to monitor Iran's dual-use imports—were particularly promising. To intensify human monitoring, the number of IAEA inspectors was to be tripled from 50 to 150.⁴⁰

The JCPOA broadened the scope of the inspections, which under the old protocol described in chapter 1, was limited to declared sites. IAEA concerns that Iran was developing nuclear capabilities in a non-declared site would be addressed by a request for access to verify the absence of undeclared nuclear materials and activities or activities inconsistent with the agreement. Were Iran to refuse such a request or otherwise fails to satisfy the IAEA's concerns, Iran and the Agency had up to 14 days to resolve the disagreement. Were they to fail, the Joint Commission, a body composed of the United States, Great Britain, France, Germany, Russia, China, EU, and Iran would have one week in which to consider the intelligence that triggered the IAEA request. A majority of the Commission members (at least five of the eight) could then decide to require Iran to act. The majority rule provision ensured the United States and its European allies could not be vetoed by Iran, Russia, and China. Iran had three days to comply with the decision; failure to do so would trigger the so-called "snapback provision," that is, an automatic reimposition of sanctions.⁴¹

The JCPOA mandated two additional steps. Iran signed a separate agreement with the IAEA to investigate past PMD efforts, a demand that the Agency had insisted on for a good part of two decades. Iran was also required to sign the Additional Protocol agreement to assure that the strict monitoring and verification provisions would continue as long as Iran remained a party to the NPT.⁴²

In return, Iran was promised relief from sanctions. The agreement guaranteed the lifting of all previous nuclear-related sanctions by the UN, EU, and the United States following Iran's implementation of the measures noted above. The IAEA was to certify Iran's compliance on the so-called Implementation Day. The agreement also promised to lift sanctions on sales of conventional weapons in five years and the sales of ballistic missile technologies in eight years. However, American sanctions against Iran imposed because of human rights abuses, missiles, and support for terrorism were to remain in place.⁴³

By any measure, the JCPOA wiped out most of the achievements of the decades—the long and hugely costly nuclear program. After staking out all sorts of "red lines" during the protracted negotiations, the Principalists were presented with a deal that saw virtually all of them breached. Nothing was more humiliating for the hard-liners than being mandated to use the first-generation IR-1 centrifuges which, as noted, Western analysts described as "primitive." Equally significant, the JCPOA terms have been much more onerous than the Paris Agreement of 2004 and the 2007 deal which proposed

shipping of the enriched uranium to Russia and France. It was this point that the moderates stressed when contending that the defiant posture of the Principlists was not only costly for the economy but forced Iran to negotiate from a position of weakness.⁴⁴

THE VIEW FROM JERUSALEM

Having lost the preemption debate in 2012, Benjamin Netanyahu was forced to confront the normalizers and their promise to reconfigure Iran's foreign policy. The Likud government had little faith in Rouhani's ability to change course, a theme which pervaded much of the right-wing discourse. Dore Gold, the head of the Jerusalem Center for Public Affairs (JCPA), who had previously called the 2011 IAEA Report "a wakeup call" vindicating Israel's worst case scenario, was particularly active. In the run-up to the nuclear deal, Gold, who was personally close to Netanyahu, and other JCPA contributors published several articles asserting that despite the deal "Iran will not abandon its nuclear ambitions."⁴⁵

For the most part, objection to the pending accord did not use statistical data to support the thesis that Iran did not give up on its nuclear ambition. Chapter 1 indicated that, absent access to top decision makers, intentions were exceedingly difficult to prove. At the same time, the terminology of intentions was vague enough to lend itself to a variety of speculations, a fact which helped the politicization of the public debate and Holocaust framing. Speaking at a Holocaust memorial in April 2014, the prime minister issued a stern warning to the world "to learn the lessons of the past and prevent another Holocaust" at the hands of the genocidal Iranian regime.⁴⁶

Opposition politicians, however, chastised the prime minister for spreading panic among the public. But it was Meir Dagan, nearing the end of his life, who offered the harshest critique of Netanyahu. He stressed that Netanyahu's "saber rattling" pushed President Obama to initiate the negotiations prematurely. As a result, in his opinion, because the sanctions did not run their full course, Tehran had enough wiggle room to squeeze some concessions. The former Mossad head also emphasized that the prime minister's confrontation with the Obama administration had caused "strategic damage" to Israel which, among other retaliatory measures, had been cut off from sharing information. Dagan added that Netanyahu's reference to the pending agreement as a "new Munich" was counterproductive. It stiffened the resolve of President Obama to conclude the deal, lest he would be perceived as "caving in" to Israel.⁴⁷

Several high-placed nuclear experts backed up Dagan. Uzi Eilam, the former head of the IAEC and a fellow at the liberal INSS, was particularly

active, according to the preceding chapter. He stated that the “Iranian nuclear program would only be operational in another ten years,” but it was not even clear whether the Iranians decided to weaponize. Eilam added that “Netanyahu is using the Iranian threat to achieve a variety of political objective.” He added that “these declarations are unnecessarily scaring Israel’s citizens, given Israel is not party to the negotiations to determine whether Iran will or will not dismantle its nuclear program.”⁴⁸

On the other side of the political divide, Brigadier General Yaakov Amidror, Netanyahu’s former national security adviser, warned of the Iranian resolve to produce a bomb. Indeed, Amidror revived the idea of a pre-emptive strike. He argued that the Israeli Air Force has the capacity to hit Iran’s nuclear facilities and that Prime Minister Netanyahu was ready to take the decision. He also expressed confidence that such an attack which would halt the program “for a very long time.” Amidror, by then a fellow in the right-leaning Begin-Sadat Center for Strategic Studies (BESA) decried the P5+1 negotiations with the Rouhani government and harshly attacked the emerging outline of the agreement. He claimed that “none of the assumptions beyond the accord are sound” and asserted that the international community would not be able to monitor Iran. In his view, “an agreement that accepted a full nuclear cycle would be far worse than no agreement and could force Israel to respond independently.” The head of BESA, Professor Efraim Inbar, implied that a preemptive strike on Iran was preferable to an agreement.⁴⁹

With the negotiations between Iran and P5+1 inching toward a successful conclusion, Israeli critics had doubled their efforts. Amidror blamed the United States for a “strategic folly” and Brigadier General (res.) Yossi Kuperwasser, a former head of the Research Division in Aman, who joined the Jerusalem Center for Public Affairs (JCPA), wrote that Iran was as determined as ever to acquire the bomb and that the proposed agreement would leave enough loopholes to make it happen. Michael Oren, Israel’s ambassador to Washington argued that “all Iranian nuclear activities” have only one purpose—“to obliterate the Jewish state.” Yuval Steinitz, who had allegedly voted against the preemption action, stated in public that “all options were on the table” and that “if we have no choice, we will attack Iran.”⁵⁰

Resentment against a possible nuclear deal with Iran was running especially high among the radical right and the settlers. Arie Itzhaki, a historian and self-styled nuclear expert who lived in the West Bank, claimed that Iran became a full-fledged nuclear state in 2011, but that the Israeli and American intelligence services, helped by the IAEA, covered it up. Popular in the right-wing media, the “cover up” theory had fueled demands to try Dagan for treason, as noted in the preceding chapter. Behind the scenes, right-wing activists exerted considerable pressure on Netanyahu, but the prime minister,

anxious to avoid a confrontation with the highly popular Dagan, brushed off these demands.⁵¹

Details of the JCPOA released after the signing ceremony in Vienna, had sharpened the divide in Israel. Several former intelligence chiefs, including Amos Yadlin and Efraim Halevy, declared their support and were joined by 47 retired generals. Major General (res.) Isaac Ben Israel, who served as the head of Israel Space Agency, described the deal “as good for Israel.” Uzi Even, a professor at Tel Aviv University and a former senior scientist at the Dimona reactor involved in assessing the Osirak reactor, was also among the JCPOA supporters. He explained that the deal “blocks every path that I know to the bomb.”⁵²

Most consequentially, serving intelligence officials apparently welcomed the agreement, albeit in a less public way. According to one report, Tamir Pardo, Dagan’s successor in the Mossad, argued that Palestinians pose a greater threat than Iran. This claim allegedly infuriated Netanyahu who attended the closed intelligence briefing. Before that, Brigadier General Itai Brun, the head of the Research Division in Aman, insisted that Rouhani’s election made Iran “serious about a deal” and pointed out that the interim agreement froze “most of the components of the nuclear program.” Aman was also involved in preparing the official Iran estimate for the prime minister which stated that, while there were some risks involved, the JCPOA had some positive implications for Israel, including a decrease in Iranian terror activities. In an address at the National Institute for Security Studies, General Gadi Eizenkot, offered a thinly veiled criticism of Netanyahu. He noted that “the highest ranks in Israel, and in particular the Prime Minister’s Office, are addressing only the risks bound up in the agreement.”⁵³

Crucially, an advisory panel of IAEC was said to have endorsed the nuclear deal. The panel held “that any Iranian violation of the pact would be detected easily due to the outside surveillance and analysis methods being used on the Iranian nuclear project.” Its members, including past high-level functionaries of the IAEC, described the 5,000 centrifuges as “not ideal,” but considered the danger to Israel limited. In their opinion, even if Iran could fabricate enough highly enriched uranium, a uranium bomb would be dauntingly difficult to “mount one on a ballistic missile that could reach Israel.” The experts welcomed changes to the heavy water reactor in Arak to eliminate fabrication of plutonium.⁵⁴

The media was quick to point out the contradictions between the views espoused by the Netanyahu government and the intelligence and nuclear experts. Some reporters argued that Netanyahu tried to silence “his intelligence chiefs who find the Iran deal acceptable.” Daniel Levy, a former Israeli diplomat, noted that “the Israeli debate on Iran reveals more about the state of Israeli politics” than the Iranian project. Levy explained that Netanyahu

needed to dominate the narrative because his original assumption that “Iran would never offer a pragmatic compromise” had failed. The former diplomat also noted that Netanyahu was preparing to fight the deal in Congress and needed an appropriately negative narrative to influence the American public opinion.⁵⁵

THE VIEW FROM WASHINGTON

Having been rebuffed by Iran’s hard-line leaders during his first term in office, President Obama hoped that the election of Hassan Rouhani would provide a new opportunity. In a sign that supported this assumption, the tenor and pace of the discussion mediated by Oman has changed dramatically. Mohammed Javad Zarif sent Majid Takht-Ravanchi instead of Ali Asghar Khaji, Ahmadinejad’s negotiator, and Deputy Foreign Minister for Legal and International Affairs Abbas Araghchi became involved as well. John Kerry, who replaced Hillary Clinton in the State Department in February 2013, developed his own back channels to Iran while chairing the Senate’s Foreign Relations Committee. By the fall of 2013, progress in Oman was deemed good enough to merge the bilateral channel with the official American team negotiating in Geneva under Wendy Sherman. In late 2013, the Associated Press exposed the existence of the secret bilateral channel, but the JPA negotiated in November made the discloser something of a footnote in the historic breakthrough.⁵⁶

That the Obama administration could make such rapid strides after years of nuclear stalemate came as an unpleasant surprise to the Israel lobby in Washington. The progress was particularly unsettling for those who had argued that Rouhani’s election made no difference. For instance, Mitchell Bard, the head of the American-Israeli Cooperative Enterprise who created the Iran Intelligence.com website in January 2013, wrote that the “Iranian regime has apparently succeeded in bamboozling the Western media by portraying newly elected Iranian President, Hassan Rouhani, as a moderate who could end the Islamic Republic’s showdown with the international community over its nuclear program.” Without mentioning Obama, Bard complained that “Rouhani’s election gives comfort to Iran’s apologists who now argue he should be given an opportunity to play his hand in negotiations.”⁵⁷

Still, the media-savvy White House was determined to challenge such views by creating a different “narrative,” in the words of Ben Rhodes, the director of digital communication. Rhodes disclosed that the administration pushed the view that “there is a new reality in Iran,” but also admitted that the president had to fight against “conventional thinking” represented by AIPAC and the Israeli government.⁵⁸

If the White House hoped that its communication strategy would be enough to persuade the Jewish lobby, it was bound to be disappointed. Starting in early spring 2015, there was a surge of personal and highly negative attacks on President Obama. Rabbi Shmuley Boteach, the head of the World Value Network and a close associate of Sheldon Adelson, compared the president to Neville Chamberlain in a full-page ad in the *New York Times*. The image of Chamberlain waving the infamous Munich agreement was superimposed on the face of Obama. On a prior occasion Boteach moderated a panel at Yeshiva University where the outspoken Adelson suggested the United States drop an atomic bomb on Iran. Pushing the linkage between Obama and the Holocaust, Boteach organized a panel “The Meaning of Never Again: Guarding against a Nuclear Iran” at the Dirksen Office Senate Building on March 2015. To make the Holocaust analogy more compelling, Boteach invited Eli Wiesel, the universally recognized symbol of the Jewish catastrophe.⁵⁹

Questioning the president’s motives was another part of this strategy. In fact, suspicion of Obama was not new, especially in Israel and its American supporters. Even before his June 2009 speech in Cairo where he called for a better relationship with the Muslim world, Obama’s frequent condemnation of the settlements and his push for the nuclear deal generated accusations of bias, animosity toward the Jewish state, and even anti-Semitism. Michael Oren, a former Israeli ambassador to Washington, argued that Obama’s affinity to the Muslims stemmed from his unsolved problem with his Muslim father and stepfather. The allegations, contained in a book released in August 2015 and several prepublication articles, stirred up considerable controversy. Although mainstream critics described Oren’s theory as “psychobabble,” the notion that the president had settled for an inferior deal to work out his psychological problems resonated with those who considered the president to be foreign-born and a Muslim. Indeed, the right-wing news site *Breitbart* carried several articles about Oren and what was described as Obama’s “shocking treatment of Israel.”⁶⁰

For its part, the administration tried to show that Israel had manipulated both its American supporters and Congress. Based on a leaked NSA surveillance, *Wall Street Journal* revealed that the Likud government had spied on the Iran-P5+1 negotiations in Switzerland and shared it with Jewish leaders and Congress. The office of the Swiss attorney general which investigated the affair found evidence to support the spying charges. The Kaspersky Lab determined that an updated version of the Duqu malware which, as noted, was used in Iran, was deployed to scoop information from the computers in the Geneva hotel where the talks took place. Administration sources explained that the Israelis used the information to help the Jewish leaders in their effort to influence the public and lobby Congress members.⁶¹

Amid the furious personal exchanges and political maneuvering, the technical details of the emerging deal were left aside. As chapter 1 noted,

the complexities of the nuclear process were hardly amenable to a reasoned public discourse. The issue of centrifuges was particularly vexing. R. Scott Kemp, a professor of nuclear science and engineering and the head of Laboratory for Nuclear Security and Policy at MIT, argued that the number of centrifuges was less important than Iran's SWU. Writing in the *Arms Control Wonk*, he argued that "cannot negotiate simply on the basis of numbers of centrifuges. We must base our computation on the maximum potential separative capacity installed, measured in units of SWU/year." Starting with the assumption that a cascade of IR-1 centrifuges contained 174 units and that the output of each centrifuges was 0.9 SWU/per year, Kemp concluded that the 9,396 IR-1 centrifuges operating in August 2012 (as per the IAEA report) generated 8,500 SWU/per year. The 5,060 IR-1 centrifuges that the JCPOA allowed would have generated only half of that amount. Barring the more advanced IR-2 made a substantial difference because, according to Kemp, one IR-2 produced 4.7 SWU/year.⁶²

While Kemp's calculations reflected the view of the American nuclear experts advising the intelligence agencies, it failed to persuade those in the Israel lobby who had continued to insist on zero enrichment. For instance, Michael Singh, the managing director of WINEP, made a strong case for zero enrichment in the *Arms Control Association* magazine in March 2014. Noting that zero enrichment was "hardly a maximalist position," Singh chastised the P+5 and warned "that the nuclear agreement would threaten vital US such as nonproliferation and regional stability." Gregory Jones, a senior researcher in the Nonproliferation Policy Education Center (NPEC), part of the UANI consortium, made an equally strong argument for zero enrichment. Jones, who worked under the leading neoconservative Paul Wolfowitz in the early 1990s, stated that "the only reasonable negotiating position" is to "insist that Iran stop all enrichment and dismantle its centrifuge enrichment facilities." Other conservative think tanks—the Hoover Institute, the Iran Group in the Heritage Foundation, Center for Security Policy—offered their own support for zero enrichment. Fred Flietz, the former chief of staff for John Bolton, played a leading role in this endeavor. Flietz, by then senior vice president at the CSP, wrote in his subsequent book, *Obama Bomb*, that the deal was so dangerous that it needed to be torn up.⁶³

Not to be outdone, the Iran Project, a group close to the view of NIAC, mobilized experts in favor of the deal. The Iran Project experts reiterated that zero enrichment was not an option and assured the public that the planned agreement would satisfy the security needs of the United States and the world. James Walsh, a research associate at MIT's Security Studies Program, found that the benefits of the agreement would far outweigh its costs. The Iran Project received considerable help from the independent non-proliferation community. Daryl G. Kimball, the head of the Arms Control Associations,

wrote that the “no enrichment” option is dead and urged P5+1 to settle with Iran. Michael Krepon, the well-respected co-founder of the Stimson Center, suggested that the “maximalist condition needs to be set aside” and that Iran was willing to accept “intrusive monitoring” and export much of its fissile material stock. Although Krepon felt that these concessions should satisfy Congress, he was not entirely sanguine about its prospects. In his view, congressmen were risk-averse politicians who excelled in three things: “fund raising, getting reelected, and imposing sanctions.”⁶⁴

The Ploughshares Fund stepped up its already considerable involvements in the debate as detailed in the previous chapter. By 2015, the fund boasted an “integrated coalition of over 150 experts and 85 organizations dedicated to preventing an Iranian nuclear weapon,” including the RAND Corporation, Center for a New American Security, J-Street, and Win Without War, among others. An article posted on its website suggested that, “Iran hardliners and Israeli skepticism,” helped by the neoconservatives were trying to upend the deal. The article named FDD’s Mark Dubowitz as a leading force in the alleged drive to perpetuate the neoconservative legacy and derail the deal. Further afield, the fund’s grantees emphasized the advantages of the agreement. One of the recipients, the National Public Radio, devoted several programs to the issue offering a mostly positive evaluation of the negotiations.⁶⁵

While Ploughshares Fund and some arms control experts used coded words to convey their dismay at the Israel lobby, leftist critics were far less constrained in attacking the American Jews. Ironically, some of the harshest criticism came from Jewish activists on the left. Marsha B. Cohen, a scholar and activist, described Sheldon Adelson as chief of the “Protocols of Elders of Las Vegas.” She explained that while the Protocols of the Elder of Zion were a nineteenth century hoax, the “Protocols of the Elders of Las Vegas,” on the other hand, is a work in progress” to reshape the American political scene in the image of Adelson. Gareth Porter’s book mentioned in the preceding chapter was an unapologetic indictment of the alleged Jewish control of the American political process.⁶⁶

Gareth Porter—well known for his defense of the Pot Pol regime in Cambodia—could be safely ignored, but the opinion of mainstream experts evidently bothered the Israel lobby. Michael Rubin, a resident scholar at the American Enterprise Institute (AEI), noted that the Ploughshares Fund, which he described as an apologist for Iran, used its grants to influence the expert discourse on Iran. He asserted that the fund organized a “broad-based lobby to exculpate the world’s worst violator of the Nuclear Non-Proliferation Treaty” and even made inroads into the Jewish community—a reference to grant which J-Street had received. Rubin described another fund grantee, the Atlantic Council as Washington’s “most mercantile, play for pay academic institution.”⁶⁷

Funding, however, as noted previously, was a double-edged sword, because the deal advocates responded by tracking the money behind UANI, FDD, and other players in the AIPAC network. Eli Clifton, a fellow in the leftist Nation Institute, and Sina Toossi from IPS, traced a good share of the funding to Sheldon Adelson, Paul Singer, Bernard Marcus, and Seth Klerman. According to Clifton, Adelson contributed half a million dollars to UANI in 2013 alone, a full third of its budget.⁶⁸

While each side accused the other of lavish spending, it was impossible to determine the overall cost of the lobbying effort beyond the dedicated expenditure mentioned above. As with other political debates in Washington, the Iran discourse was embedded in the larger network of think tanks and academic institutions. Jane Mayer, who researched the raise of conservative think tanks and academic programs, noted that these networks were complex and their work occasionally unpredictable. For example, Abbas Milani, the director of the Iran Project at the Hoover Institute, broke with his conservative colleagues who viewed the deal as disastrous. Indeed, Milani went as far as to throw his support for the JCPOA, a fact that was proudly noted in the *Stanford Review*. College professors could be similarly hard to read. To recall the previous chapter, Mathew Kroenig from the reliably liberal Georgetown University, created something of a stir by urging to bomb Iran.⁶⁹

Public debates aside, the Israel lobby leaned heavily on members of the Israel Caucus in the House of Representatives and the bipartisan Congressional Israel Allies Caucus, which mobilize to action even before the final parameters of the deal had become known. Mike Rogers, a member of the House Intelligence Committee, argued that the nuclear agreement was bad and premature. Rogers was convinced that a better deal could be had if the United States were to wait longer to let the sanctions destroy the Iranian economy. Peter J. Roskam, a Republican from Illinois, stated that “no deal is better than this deal” and Doug Lamborn described the administration Iran policy as “recipe for disaster.”⁷⁰

Still, it came as a surprise that the Israeli prime minister accepted the invitation of House Speaker John A. Boehner to address Congress without consulting the White House. Ron Dermer, the Israeli ambassador in Washington, first raised the idea with Republican Senate majority leader Mitch McConnell and Boehner. In his 50 minutes speech on March 3, 2015, Netanyahu described the deal as an existential threat to Israel. The Holocaust framing was made poignant when Netanyahu acknowledged Eli Wiesel seated in the gallery. The administration blamed Dermer for arranging the speech and mulled the option of revoking his diplomatic credential, but eventually settled on “freezing him” out of the White House.⁷¹

Such public snubbing of President Obama created an unease in the Jewish community where support for the JCPOA run high, according to several

polls. But AIPAC, which coordinated congressional lobbying, was determined to push through, working its long list of congressional contacts. In early spring 2015, Tom Cotton, a junior senator from Arkansas who received generous support from the Emergency Committee for Israel (ECI) linked to Bill Kristol, the neoconservative editor of *Weekly Standard*, wrote a letter to the Supreme Leader of Iran advising him not to sign the deal. Signed by 47 Republican senators, the letter warned that Congress would not ratify the deal. Around the same time, two legislators close to the Jewish lobby, Senators Robert Menendez, a Democrat from New Jersey, and Mark Kirk, a Republican from Illinois, introduced a bill to extend the 1996 Iran Sanctions Act for another 10 years. Menendez explained that a congressional intervention was crucial, because “the trend lines of the Iran talks are deeply worrying, our red lines have turned into green lights, leaving snapback as one of the few tools available to demand Iranian compliance with an agreement.” Aware that the legislation would have undermined the nuclear negotiations, the administration worked with Senators Robert “Bob” Corker, a Republican from Tennessee, and Ben Cardin, a Maryland Democratic, to produce an alternative. Congress approved their Iran Nuclear Agreement Review Act in May 2015, essentially letting the administration to continue with the negotiations. According to the Act’s terms, Congress was required to vote on the final agreement between Iran and the P5+1 within 30 days. Cardin and Corker rejected several “poison pill amendment” such as requiring Iran to recognize Israel. Tamir Pardo, the Mossad chief, who met with Cardin and Corker, had an opportunity to present the Israeli intelligence community view on the JCPOA. But Cotton and the hard-liners were upset by the bill, calling the legislation “at best misleading and at worse toothless.”⁷²

With the JCPOA concluded on July 14, 2015, both sides engaged in frantic maneuvering in Congress. Parsi hardly exaggerated when writing that “Capitol Hill was a war zone in the summer of 2015.” The Israeli lobby mobilized all its assets to defeat the bill. Davin Nunes, a pro-Israel Republican from California who chaired the House Intelligence Committee, was scathing: “I don’t know what information the Obama administration possesses that indicates this deal will actually prevent Iran from getting a nuclear weapon or will cause the mullahs to reduce their support for worldwide terrorism, but it sure isn’t the same intelligence we’re seeing in the Intelligence Committee. Iran has killed hundreds of US soldiers, tried to conduct a terrorist attack in the United States, and is committed to annihilating Israel. This deal will guarantee Iran the capability to carry out its clear intent.”⁷³

To personalize the issue, AIPAC had arranged for some 700 activists to fly into Washington to speak to their congressional representatives. Bolstering this so-called “fly-in” was a huge letter writing drive, advertisement in newspapers and television. AIPAC-founded Citizens for a Nuclear Free Iran

was dedicated to informing the public “about the dangers of a nuclear Iran” and its threat to Israel. The Christian Zionists were lobbied equally diligent against the deal. Coinciding with the announcement of the agreement, the annual CUFI meeting in Washington in July 2015 turned into an anti-JCPOA rally. Noting that “God brings us to DC just in time to make a difference,” Pastor John Hagee added that “the mantra of this 10th CUFI anniversary is to compel the members of the U.S. Congress, when you have the chance to vote on this deal, vote it down. Stop the bomb. Do not let it happen.” Other speakers, including members of the Congressional Allied Caucus, vowed to defeat the administration. Trent Franks proclaimed that the deal was part of Obama’s “shameful legacy.” In its own version of the AIPAC “fly-in,” CUFI urged their members to take time off the conference to lobby Congress.⁷⁴

The Tea Party, which by 2015 moved beyond its libertarian foreign policy core to embrace a virtually neoconservative position on Israel, added momentum to the anti-deal movement. Senator Ted Cruz, a favorite of both the Tea Party and Christian Zionists, took the lead in criticizing the nuclear agreement. During a September 2015 rally organized by the Tea Party Patriots, Cruz shared the podium with Sara Palin, Trent Franks, and leading Christian Zionists. Cruz suggested that the JCPOA should be fought by “fleets of layers,” a reference to civil litigation. Tim Huelskamp, from the Club for Growth and the House Freedom Caucus, who had previously stated that the deal offered a “gift for radical Islam,” was on hand to castigate the administration. Jenny McCarthy, the co-chair of the Tea Party Patriots, urged the participants to call their senators to stop the deal, a plea she repeated in radio ads. Penny Nance from the Concerned Women of America, a group striving to bring “biblical principles to all levels of policy,” noted that unlike the Holocaust which was shrouded in secrecy, the rally helped to publicize the pending catastrophe. Morton Klein, the president of the hard-liner Zionist Organization of America remained the crowd that the nuclear agreement would bring a catastrophe to the Jews of Israel. On a different occasion, Klein stated that “this deal is the most immoral and catastrophic deal maybe ever.”⁷⁵

Using their own contacts with Christian Zionists, the Israelis had organized several events to bolster the lobbying effort. The Israeli Knesset Christian Alliance, a group of lawmakers who worked with Christian Zionist in America was especially active. For instance, the Knesset members teamed up with the Israel Allies Foundation to finance a trip of Trent Franks and another sympathetic House member to Egypt and Israel. The visit to Egypt was particularly important as Franks and his colleagues could claim that the Egyptians were strongly opposed to the pending deal.⁷⁶

Fearing defeat in Congress, the White House launched its own lobbying campaign equipped with the so-called “peace room,” an equivalent of a “war room.” Ben Rhodes and other aides coordinated the complex outreach to

shape what considered the “defining debate of the presidency.” In a controversial account of the operation, David Samuels noted that the administration leaned heavily on “freshly minted experts cheerleading for the deal.” Samuel elaborated that by 2015, “legions of arms-control experts began popping up at think tanks and on social media and then became key sources for hundreds of often-clueless reporters.” Samuels called this information loop an “echo chamber.” While acknowledging the importance of the JCPOA vote, Rhodes and other officials claimed that Samuels misrepresented the narrative. Joseph Cirincione, whose objectivity was already questioned by Michael Rubin, took special offense that he and other nuclear experts were part of the “echo chamber” created by the administration.⁷⁷

The White House, which admitted that the deal represented the “most contentious moment in relationship between American Jews and the administration,” devoted a lot of attention to the Jewish community. Matt Nosanchuk, Obama’s liaison to the community, worked with liberal groups like J-Street to provide a counterpoint to the Israel lobby. For its part, J-Street allocated two million dollars for a mailing and ads campaign to support the JCPOA. Jerry Ben-Ami, the head of the organization, contended that the Jewish mega-donors who financed the Israel lobby did not speak for American Jews. To prove his case, Ben-Ami quoted a special poll commissioned by the *Los Angeles Jewish Journal*. The survey found that American Jews supported the deal by a large margin, 49 percent to 31 percent. Steven M. Cohen, a leading expert on Jewish public opinion who conducted the survey, emphasized that the Jewish organizations which lobbied against the agreement did not represent the Jewish community.⁷⁸

According to Parsi, J-Street provided “crucial political coverage for lawmakers.” Such coverage was necessary, in his view, because Jewish lawmakers who supported the JCPOA were harshly attacked by their co-religionists. Jerrold Nadler, a Democrat from New York, for instance, admitted to being “stunned” by the invectives against him: critics called him a True Traitor, compared him to kapo, and told that “the blood of Jews and Israel are on your hands.” But it was apparently Netanyahu’s speech which mobilized the Democrats in Congress to act. By her own admission Janice Schakowsky, a Jewish congresswoman from Illinois, felt outraged enough by Netanyahu and the official Jewish organizations to organize a boycott of his speech. She also circulated a letter signed by 150 in support of the deal.⁷⁹

In addition to liberal Jews, the administration could count on several pro-deal constituencies. After years of lobbying, the business community was ready to throw its considerable resources into the debate. Some companies acted through USA* Engage, which was supported by the NFTC. Their statement announced: “The NFTC and USA*Engage have supported the negotiations because we support engagement as the best solution to complex

international problems and the one which will most likely take business interests into account. The commercial dimensions of Iran's re-entry into the global economy, if sanctions are lifted pursuant to the agreement, are not trivial." Others, such as the Boeing Company which hoped to sell aircraft to Iran, lobbied through PR firms like Hills and Company International Consultants.⁸⁰

American businesses were more than matched by their EU counterparts anxious to access the Iranian markets. Headed by Federica Mogherini, the EU high commissioner, the EU launched its own campaign against the Israel lobby. EU officials informed members of Congress that failure to pass the deal would result in the collapse of the sanction coalition against Iran. They pointed out that Russia and China, two powerful P5+1 actors, were especially eager to bolt, in part because they were promoting a scheme to de-dollarize cross border financial transactions. Were Congress to sink the JCPOA, the China International Payment System (CIPS) could substitute for SWIFT. Lobbyists from key European countries descended on Capitol Hill to make sure that this and other consequences of an anti-deal vote would be clearly understood.⁸¹

The administration could also rely on the scientific community, which, as noted, tended to favor the deal. Scores of nuclear experts and other scientists signed letters of support, a fact which several articles in the *New York Times* noted. One article pointed out that "top scientists, including Nobel laureates, veteran nuclear arms makers and former White House science advisers" praised the deal as "innovative and stringent." Another one listed Richard L. Garvin, the designer of the first hydrogen bomb, Siegfried S. Hecker, a former director of the Los Alamos Laboratory and a professor at Stanford University, and Freeman Dyson from Princeton University among the prominent scientists. Ernest Muniz, the secretary of energy, who negotiated the technical parts of the agreement, had an impeccable reputation dating to his days as the head of the nuclear physics department at MIT. Muniz's ubiquitous media presence and testimonies before Congress was especially helpful in assuaging worries about the difficult to understand technical issues.⁸²

In yet another display of support, dozens of senior military officials offered endorsements of the deal. That senior military and intelligence leaders should have come as no surprise because, as this work documented, the top security echelons were eager to avoid another conflict in the Middle East, a fact that has been documented in the preceding chapters. Having fought for years to avoid a clash with Iran, some in the military took to debunking the notion that a "better deal" could be had.⁸³

Indeed, the White House could also point out that many among Israeli security officials shared these views. Most details of the opposition to Netanyahu-Barak for a preemptive bombing of Iran had become known in the United States by mid-2015. Proponents of the JCPOA routinely published

names of Israeli generals and politicians who condemned the preemptive action. For instance, the Friends Committee on National Legislation, the political arms of the dovish American Friends Service Committee, listed Meir Dagan, Ephraim Halevy, Yuval Diskin, and Aharon Zeevi Farkash, and the former prime minister Ehud Olmert under the headline "Israeli Security Officials Warn Against Attacking Iran." The anti-Israel professor and blogger Juan Cole and his guests empathized that "Israeli [nuclear] scientist and military sided with the deal undercutting Netanyahu." To deflect criticism that "J-Street was undermining Israel's security," Jeromy Ban-Ami routinely quoted Dagan to the effect that a preemptive strike would be ill-advised.⁸⁴

Significant as these arguments and endorsements were, the White House needed to match the Israel lobby's show of grass root activism. The president rallied his supporters by complaining that the campaign against the JCPOA "is fierce, it is well-financed, it is relentless." Although Obama did not disclose the identity of those behind the agreement, there were plenty of others to point the finger at AIPAC and the Jewish money. Paul Pillar, a former CIA official and a harsh critic of the Jewish neoconservatives, quoted an anonymous AIPAC official whom he claimed stated that "Iran has been the group's *raison d'être* for two decades and it does not know what else to do." He added that fighting the Iran deal generated "copious amounts of money" for the organization and its allied groups. Others warned that the Jewish neoconservatives who had led the United States to the war in Iraq were behind the agitation against the White House. The Council for the National Interest (CNI) that boasted several former CIA and State Department officials, explained that the "sole immutable of neoconservative foreign policy is that it should benefit Israel."⁸⁵

Left-wing groups which had previously advocated against the war in Iraq were first to respond. MoveOn.org made securing the JCPOA deal its top legislative priority. Ben Wikler, its Washington director, had become the *de facto* coordinator of what he described as a "five alarm fire" emergency. Taking a page from AIPAC's playbook, Wikler and his colleagues created a coalition of 37 groups named "Win Without War." Coalition members launched numerous petitions and made some 141, 631 calls to members of Congress, mostly Democrats. As Wikler put it, "We want to make certain that every member of Congress knows that this is a vote they will have to live with the rest of their political careers." Implied in the message was the threat that a vote against the deal would cut their careers short.⁸⁶

In the run-up to the congressional vote scheduled for September 17, 2015, both sides engaged in last moment exchanges. Critics seized upon the secret side deal with the IAEA which described the sampling protocol at the Parchin site, among others. A version published by the Associated Press, alleged that the Agency let the Iranians to collect the samples around the facility.

The so-called self-sampling story dominated the news for days, prompting some nuclear experts to explain that the AP got the story wrong. The 24-day period to resolve disputes between the JCPOA and the IAEA had proved controversial as well. While supporters lauded the provision as reasonable, critics pointed out that the Agency needed to have immediate access to all sites at minimal notice. Testifying before Congress, David Albright argued that Iran's long history of violations required speedy access to sites. He also wandered whether the JCPOA's monitoring protocols would provide an ironclad verification guarantee. While some considered Albright's critique to be a legitimate expression of doubt, others attacked him for being a paid member of the Israel lobby. One leftist critic went as far as to call Albright "Netanyahu's nuclear monkey boy."⁸⁷

With none of the Republican expected to cross the isle, the president and his supporters lobbied wavering Democrats. Hackers who accessed documents of the National Democratic Committee released a memo from the White House which expressed concern that "wobbly democrats" could topple the deal. Listed among the "wobblers" were senators with close ties to AIPAC—Corey Booker from New Jersey, Kirsten Gillibrand from New York, Mark Warner from Virginia, and Barbara Mikulski from Maryland.⁸⁸

Last moment procedural maneuvers added drama to the vote. Representatives Peter Roskam and Michael "Mike" Pompeo, staunch supporter of Israel, introduced three separate measures, including one which could have prevented the White House from lifting sanctions on Iran. In the end, however, the House did not have enough votes to override an expected presidential veto. In the Senate, the Democrats managed to defeat a Republican filibuster and other procedural maneuver by a vote of 56 to 42.⁸⁹

Although the White House hailed the "historic" vote in Congress, Republicans, and the Israel lobby vowed to fight on to undermine the deal. The election of Donald Trump in 2017 increased their chances. But, as the concluding chapter indicates, repealing the JCPOA may be difficult even for a president who called it the worst deal in history.

NOTES

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Conclusions

The Complex Case of Iran's Nuclear Intelligence

By most measures, Iran's nuclear project is an excellent case study in the problematic of the counterproliferation endeavor. Bearing out the introductory first chapter, lack of clarity, confusion, and politicization had occurred in every state of the process and in every analytical venue.

Iran's negotiated political order under which the parastatal Revolutionary Guards, together with their allies in the IAEO, dominated the nuclear project, was a major source of confusion. Government officials were not clear about the extent of the enrichment project and possibility quite oblivious to the PMD work dispersed in many locations. Negotiators in Vienna were likewise occasionally left in the dark, a situation which contributed to the mistrust of the regime's commitments. Conversely, the same system offered nuclear managers the opportunity to inflate the numbers to please Principalists such as President Mahmoud Ahmadinejad. The latter had contributed to self-deception which elevated the threat perception of Iran's project in the international community.

Numbers aside, the political culture of the Islamic Republic had also contributed to the perception of threat. In the gray area of intentions—sorted into strategic plans, latent intentions, and tactical intentions—the regime had sent contradictory and confusing signals over the years. While some Iranians, including President Ahmadinejad had hinted at the strategic intention of acquiring an arsenal, others had vehemently denied such plans. Another group of officials seemed to have espoused a latent intention, that is, pursuing scientific know-how without fabricating a bomb. The rhetoric was particularly muddled about tactical intentions denoting the end-stage use of a bomb. Occasionally, some leaders, including Ahmadinejad, mused about using an atomic weapon against Israel or American forces stationed in the Middle East. After protest abroad, a round of frantic denial and dissimulation

followed, a routine that had led Western analysts to reach widely disparate conclusions. While some dismissed this type of talk as harmless rhetoric, others warned about the apocalyptic “mad mullahs,” with a bomb.

By opting for a front-end enrichment strategy based on dual technology, Iran made it harder on the IAEA to assess the project. Hampered by its narrow search mandate, the Agency had repeatedly certified Iran as compliant with the NPT. It took the MEK revelations in 2002 to unveil the clandestine production sites, but the politicization of the Agency under Mohammed ElBaradei prevented the BOG from referring Iran to the Security Council. As ElBaradei made clear, he considered the Iran issue within the larger politics of the nuclear “haves” versus the “have nots.” He was especially incensed about the double standard of the nonproliferation regime which allowed Israel, a non-NPT country, to develop an undeclared nuclear arsenal.

At the same time, in his view, the West pushed for an overzealous inspection process to infringe on Iran’s sovereign right to produce civilian nuclear energy. More the point, ElBaradei was suspicious about the information provided by the American and Israeli intelligence community. The internal struggle over the credibility of evidence and allegation that the EXPO Division, the political arm of the Agency, tailored reports to exculpate Iran, led to a rupture with the experts in the Safeguards Division. The conflict was so intense that, on several occasions, Safeguard officials openly contradicted ElBaradei.

For Israel, which the Islamic Republic designated as a theological enemy as well as a realpolitik adversary, a nuclear Iran was a high priority strategic concern. The Mossad and Aman took an early interest in the project, often working with anti-regime groups, notably MEK. But despite this collaboration, the intelligence community failed to arrive at a reliable estimate of Tehran’s achievement in enrichment, let alone in weaponization. Absent a consensus, both politicians and security officials were often at odds with each other about the so-called point of irreversibility. Described as the moment when Iran’s nuclear production could not be rolled back, the various estimates were hiding an intense debate between the political and security echelons about the way to stop Iran.

Meir Dagan, the chief of the Mossad, and an interagency team in charge of the Iran portfolio, were sure that Iran made only a modest progress in uranium enrichment and had even less success in weaponization. Dagan felt strongly that an array of delaying tactics ranging from international sanctions to sabotage, which included Stuxnet, would hamper Iran progress. But without ironclad figures, virtually impossible to produce in nuclear intelligence, the Iran estimate fell victim to politicization. Prime Minister Benjamin Netanyahu used the incessant threat of the regime, which reached a crescendo under Ahmadinejad, to claim that once equipped with a bomb,

Iran would become an existential threat. While critics charged that Netanyahu was making use of Iran's nuclear project to improve his electoral prospects, much of the public shared the view that Iran's nuclear ambition stemmed from a genocidal wish to eliminate the Jewish state. Even Netanyahu's staunch opponents despaired that it was difficult to argue with the promise to "wipe Israel off the map."

To avert such an outcome, Netanyahu, and Ehud Barak, advocated a preemptive kinetic action on Iran's nuclear facilities. Theories of deterrence consider preemption a last resort, but Netanyahu put little trust in sanctions and other non-kinetic rollback measures. Testifying to a high level of distrust between the civilian echelon and the intelligence chiefs, Netanyahu and the radical right wing doubted the Aman-Mossad Iran estimate. But the intelligence chiefs found support among top IDF brass, who helped to block Netanyahu from launching a preemptive attack. Even without describing this development as a silent military coup, as some observers had suggested, the unprecedented discord illustrates the difficulty of fashioning a genuinely objective nuclear intelligence evaluation and building a broad political consensus around counterproliferation measures. Nothing shows this point more than the fact the experts from the IAEC who had informed the Aman-Mossad assessment, were in effect ignored by the advocates of the kinetic option. Ultimately, it was the reluctance of the military to carry out the strike which carried the day.

In the tightly woven triad of Tehran-Jerusalem-Washington, the developments in Israel had a significant impact on the American evaluation of Iran's nuclear project. Yet, for the United States, the widely recognized watchdog and de facto enforcer of counterproliferation, Israel was only one of the factors in the complex matrix through which Iran's nuclear project was assessed. The invasion of Iraq and the subsequent failure to find WMD overshadowed the Iran estimate at several levels. Organizationally, the intelligence community was reformed to prevent a calamitous predictive failure, a reconfiguration which added several layers of review.

Psychologically, many intelligence officials felt guilty for playing a role in a war which by mid-2000s was turning into a disaster for both American personnel and Iraqi civilians. By most accounts, the Iran NIE of 2007 was at least partially designed to avoid a kinetic action in Iran. Put differently, the 2007 report was as much an assessment of Iran's nuclear capabilities as it was a strategy to block the hard-liners from bombing Iran.

Less noticed but equally important, the Iraqi fiasco strengthened the power of the IAEA, which in the run up to the war disputed the CIA finding of WMD in Iraq. If nothing else, it prompted ElBaradei to turn the traditional compliance verification role of the Agency into a high-profile policymaking noted above. Reflecting on his time in Vienna, ElBaradei felt proud that the

Agency had contributed to preventing an attack on Iran. Although developing countries had accused his successor, Yukio Amano, of being an agent of the United States, the IAEA has avoided the political and professional clashes which marred the tenure of his predecessor.

Under the best of circumstances, collecting and interpreting nuclear intelligence is an arduous process for reasons listed in the Introduction. With multiple analysts involved, honest disagreements could and did occur. For instance, experts in the intelligence community, the National Laboratories, and lay observers, had debated the SWU of the Iranian centrifuges, by far the most authoritative indicator of the strength of the enrichment output. Experts had likewise pondered the information contained on the laptop, the meaning of the trench in the Parchin facility, and the cylindrical container built to conduct the alleged Danilenko experiments. As long as the Principalists in Iraq had stymied President Obama, the intelligence discourse was relatively low key and confined to specialized venues. Things changed dramatically, however, when the Obama administration set out to negotiate a deal with President Hassan Rouhani.

After initially dismissing the Rouhani government as a window dressing for Iran's abiding nuclear ambition, the Israeli government was forced to scramble after the White House moved the talks to Vienna and Geneva. In the ensuing sharp discourse, the Israel lobby, augmented by a growing number of advocacy groups, squared with the Iran lobby and the White House. While both sides tried to marshal facts, the Israel lobby mixed its arguments with emotional reference to the Holocaust for the Jews or Armageddon for the Christian Zionists.

As a rule, the media and the politicians are responsible for injecting a more scientific note into the discourse. But as the CIA chief Michael Hayden stated, nuclear intelligence reports were too complicated for both journalists and politicians. While none of them were expected to take a crash course in nuclear physics, Congress, with its considerable array of research infrastructure, could do better. Yet by the time the agreement reached the congressional review, legislators were split along strict partisan lines. In other words, no amount of reassurance from nuclear experts or leading physicists, however eminent, would have prompted the Republicans to cross the aisle in support of the administration.

Some observers blamed Israel and its American lobby for this situation. Brent Scowcroft, the former national security adviser to George H. W. Bush and a prominent member of the Iran lobby, lamented that "the seeming effort to make the JCOPA the ultimate test of Congress's commitment to Israel is probably unprecedented in the annals of relations between two vibrant democracies." Others linked this implacable anti-JCPOA stand to the

changing attitude of the Republican Party toward diplomacy and arms control. In this view, underlying the struggle over the Iran agreement was a “more generalized hostility toward diplomacy as a mechanism to reduce proliferation challenges.”¹

Finally, some analysts suggested that turning the JCOPA into a litmus test of American loyalty to Israel, was a Republican ploy to undermine Obama and score points in the 2016 presidential elections. There is some merit to this claim since all early contenders for the Republican nominations highlighted their devotion to Israel and anti-deal credentials. So much so that Senator Marco Rubio from Florida ran a commercial produced with the help of the Israel lobby to highly the danger of the JCOPA. Michael Huckabee, a former governor from Arkansas claimed that President Obama was marching Israel “close to the doors of the oven.” Subsequent developments seem to add credence to this thesis. Donald Trump, as noted, argued that the deal was the worst of its kind in history. Interestingly, observers who subscribe to this view have challenged the accepted wisdom that it was Israel and its American lobby which drove the politics of Iran nuclear intelligence. In this reconfigured equation, it was the Republican Party which had cynically exploited Prime Minister Netanyahu for its own political purposes.

As expected, President Trump and the Republican-controlled Congress launched an effort to cancel the agreement. Several alleged concerns pertained to technical details of the JCPOA. David Albright and Ollie Heinonen who become the senior adviser on science and nonproliferation at the FDD raised the possibility that Iran could enriched uranium in secret sites outside the purview of the IAEA. Under the sneak-out scenario which Albright and Heinonen envisioned, the Iranians could amass enough HEU to fabricate a bomb and then leave the NPT. These and other critics also argued that Iran has never satisfactorily answered queries about PMDs first raised in the 2011 Safeguards Report. However, because the IAEA had certified Iran as being compliant, the administration found it difficult to abrogate the agreement on technical issues, a step which the rest of the P5+1 group vehemently objected to.

For Trump and Prime Minister Netanyahu, who urged the White House to cancel the agreement, the IAEA position was a major obstacle. In the end, the president had to resort to a complicated maneuver. The 2015 INARA legislation obligated the administration to certify to Congress every ninety days that Iran complied with the JCPOA, a step which the White House took twice. On October 13, 2017, however, the president refused to certify Iran, using a provision of the bill which questioned whether the lifting of the sanctions was in the interest of American national security. He finally pulled out on May 8, 2018.

The administration's action has thrown the future of JCPOA and, indeed, the question of Iran's nuclear project and perhaps the fate of the regime wide open. Whatever the outcome, it is quite clear that the new round of debates would reproduce the deep political divisions of the past.

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