



**INSTITUTE FOR NATIONAL  
STRATEGIC STUDIES**

**RADICAL RESPONSES TO  
RADICAL REGIMES:**

**Evaluating Preemptive  
Counter-Proliferation**

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**BARRY R. SCHNEIDER**

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**NATIONAL DEFENSE UNIVERSITY**

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**McNair Paper 41**

*A popular Government,  
without popular information or the means of  
acquiring it,  
is but a Prologue to a Farce or a Tragedy; or  
perhaps both.  
Knowledge will forever govern ignorance;  
And a people who mean to be their own  
Governors,  
must arm themselves with the power which  
knowledge gives.*

**JAMES MADISON to W. T. BARRY**  
August 4, 1822

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**NATIONAL DEFENSE UNIVERSITY  
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## SUMMARY

- On December 7, 1993, Secretary of Defense Les Aspin announced that the United States was adding a military dimension to its fight to prevent the spread of weapons of mass destruction (WMD). The new program, called the *Counter-Proliferation Initiative (CPI)*, provides funding to prepare for combating foes with nuclear, biological, and chemical (NBC) and missile weapons on future battlefields, improves monitoring for locating rival NBC/missile programs, improves theater defenses, and develops weapons capable of penetrating and destroying underground facilities. U.S. efforts will include a diplomatic offensive to persuade U.S. allies to take similar counter-proliferation steps.

- *The central thrust of the CPI is to prepare U.S. and allied forces for dealing with future enemies on the battlefield who are armed with weapons of mass destruction.*

- *An important secondary thrust of the CPI is to provide the Commander-in-Chief with the tools to disarm an adversary unilaterally if necessary, before the adversary can initiate the use of WMD in situations where we are on a collision course with such an enemy and no alternative course seems feasible.*

- *Numerous preemptive counter-proliferation strikes have taken place since 1940.* Allied air forces and special operations forces destroyed German nuclear facilities and heavy water supplies that were an integral part of the Nazi A-bomb research effort. U.S. bombers also destroyed the most important Japanese nuclear research laboratory in Tokyo at the end of WWII. Other raids include: Iran versus Iraq in 1980, Israel versus Iraq in 1981, Iraq versus Iran with seven raids from 1984 to 1988, and the U.S.-led coalition versus Iraq in 1991.

- When deciding whether or not to use military action to

remove a WMD capacity from a rival state, it is important that decision-makers address a number of key questions, and ensure that answers to each are positive, before making PCP decisions:

- *Is the enemy undeterrable, violent, and a risk-taker?*
  - *Is the enemy on the WMD threshold or beyond it?*
  - *Are vital U.S. interests threatened?*
  - *Are key enemy targets precisely located and vulnerable?*
  - *Is surprise achievable?*
  - *Does the United States have a first strike capability?*
  - *Is the United States homeland safe from enemy WMD?*
  - *Would the United States and its allies be safe from retaliation from the WMD of third parties?*
  - *Have all non-military options been exhausted before considering preemption?*
  - *Does the United States have clear objectives achievable by appropriate means?*
  - *Is the United States committing enough resources and is it taking all necessary steps to insure victory?*
- Finally, a note of caution, ***PCP strikes against states armed with WMD had better work completely or they could spell disaster for the initiator.***

# **POLICY SHIFT: THE DEFENSE COUNTER-PROLIFERATION INITIATIVE**

Secretary of Defense Les Aspin announced a significant policy shift on December 7, 1993, that the United States would add a military dimension to its fight against the spread of weapons of mass destruction (WMD). In a speech before members of the National Academy of Science in Washington, D.C., Aspin explained the rationale and initial program of what he termed a U.S. "Defense Counter-Proliferation Initiative."<sup>1</sup>

This new policy is a response to the number of radical regimes that appear on the verge of acquiring WMD<sup>2</sup>. Particularly unsettling was finding out just how close Saddam Hussein's Iraq was to acquiring a clandestine atomic bomb at the time of the Gulf War. A more recent concern, also sparking the new policy direction, is the nuclear threat posed by Kim Jong Il's regime in North Korea.

Aspin stated that the United States is now developing improved and specialized military capabilities, doctrine, training, and contingency plans to pursue its counter-proliferation policies. In addition, he said that the Department of Defense was tripling the number of people assigned to gathering counter-proliferation intelligence.

Specifically, the DOD Counter-Proliferation Initiative (CPI) will include:<sup>3</sup>

- Additional preparations for combating nuclear, biological, chemical (NBC) and missile weapons on future battlefields by changes in contingency planning, doctrine, equipment, and training;
- Stepped-up monitoring of selected NBC/missile programs around the world, and a tighter coordination of U.S. defense and intelligence operations directed against emerging



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programs and arsenals;

- Improved non-nuclear weapons capable of penetrating and destroying underground facilities;
- A U.S. diplomatic offensive aimed at NATO, Japan and other allies to persuade them to take similar steps to strengthen their own counter-proliferation efforts;
- Accelerated funding for high-technology defense programs to facilitate the timely detection and location of mobile missile systems like the Iraqi Scuds;
- Enlisting Japan in a cooperative effort to develop a regional ballistic missile defense program against a potential North Korean nuclear missile threat;
- Renewed emphasis on developing effective theater missile defenses<sup>4</sup> capable of intercepting missiles with NBC warheads;
- Altering the 1972 ABM Treaty to permit the development, testing, and deployment of an effective U.S. theater defense system.<sup>5</sup>
- Setting up an interservice office for dealing with defenses against biological weapons.<sup>6</sup>

While laying out these new military and intelligence initiatives, Aspin also indicated that *diplomacy, treaty restrictions, security assurances, export controls, non-military sanctions, and economic cooperation* would remain the *primary* U.S. means of preventing, and coping with, the proliferation of WMD.

Nevertheless, the CPI would provide improved U.S. capability to deal with, in Aspin's words, a "Saddam Hussein with nukes," either in a *reactive* or a *preemptive* mode, primarily the former, but also the latter when no other option provides a better means of defense.

This new U.S. policy anticipates a troubled world in which more states acquire WMD—with some of those states governed by dangerous and hostile radical regimes. Hopefully, leaders of such states can be deterred from WMD use. However, it is for those states who are willing to accept risks, are very dissatisfied with the status quo, and may not be deterred by threats to their people or their nation's economy that the DoD Counter-Proliferation Initiative was designed.

## **THE SPREAD OF WEAPONS OF MASS DESTRUCTION**

Of the 185 states with membership in the United Nations<sup>7</sup>, 8 or more have nuclear weapons<sup>8</sup>, 20 or more have chemical weapons<sup>9</sup>, 8 to 10 or more possess biological weapons<sup>10</sup>, and 18 or more deploy ballistic missiles.<sup>11</sup>

The United States counter-proliferation effort includes multiple tools: nonproliferation agreements, export controls, political persuasion, conventional arms sales, regional security arrangements, economic aid, and alliances. This has helped to slow the spread of WMD, but has not prevented a steady expansion in the number of states developing and, probably, deploying undeclared weapons.

There have been some notable successes in the effort to cap proliferation.<sup>12</sup> For example, there have been significant additions to the Non-Proliferation Treaty (NPT) signatories in the past decade. Both France and the People's Republic of China announced their intentions to sign the treaty. Ukraine, Belarus and Kazakhstan have signed and ratified the pact. South Africa, Ukraine, Belarus, and Kazakhstan have either scrapped their nuclear weapons altogether or have pledged to do so. Argentina and Brazil have agreed to take steps to implement the Latin American Nuclear Free Zone. Both states also have agreed to allow IAEA inspections and safeguards. Also, in the wake of the Gulf War, Iraq's nuclear facilities have been dismantled and safeguards put in place by the IAEA.

Further, under severe U.S. diplomatic pressure, and given a number of incentives to cooperate, and disincentives if they did not, the North Korean Government agreed to reopen seven nuclear facilities to IAEA inspections.<sup>13</sup> Moreover, Ukraine by agreeing, after lengthy debate, to rid itself of nuclear weapons, no longer blocks the reductions mandated by the Strategic Arms Reduction Treaty (START). This, in turn, opens the way for U.S.

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and Russian START II reductions. Efforts to retard nuclear proliferation have been working far better than would have been predicted a decade ago, or even a year ago

Nevertheless, there are a small number of extremely hostile and dangerous radical regimes who have been actively pursuing WMD and who appear on the threshold of acquiring them.

Several of these radical regimes pose special threats to the United States or its allies. Iraq likely will be a potential threat so long as it is governed by Saddam Hussein. Not only has his regime waged a prolonged war with Iran, invaded Kuwait—threatening Saudi Arabian and Middle Eastern oil supplies, and attacked Israel, but Hussein's subordinates also attempted to assassinate former President George Bush on his trip to Kuwait in early 1993.<sup>14</sup>

Hussein's quest for the atomic bomb might be renewed in earnest as soon as the Coalition departs from Iraq unless adequate safeguards are made to limit that program. Some U.S. nuclear experts believe Iraq could have a weapon in a matter of five or six years or less if left to pursue its own independent path.<sup>15</sup>

Colonel Muammar Khadafi of Libya is another radical leader who poses a special threat to U.S. allies and interests. His regime is accused of harboring and financing international terrorists, and has engaged in threats and military actions against states in the region. Khadafi has attempted to purchase a nuclear weapon from the Peoples Republic of China and from the black market, so far, it appears, unsuccessfully.<sup>16</sup> Further, he has helped to finance the Pakistan nuclear effort and has contributed yellow cake nuclear fuel for Pakistan reactors in an effort to achieve an Islamic bomb.<sup>17</sup> He had hopes to share in the technology of the Pakistani effort one day even though Libya itself is not close to being able to produce such a weapon from within.

Iran is another hostile radical state that appears to be seeking a nuclear weapons capability. At present there is a perception that this Islamic country is making grudging progress. The CIA in public testimony has estimated Iranian production of a nuclear weapon to be "unlikely before the end of the decade without foreign assistance."<sup>18</sup>

Still another radical proliferation threat is posed by Kim Jong

It's regime in North Korea, another country thought to be either in the possession of atomic bombs or on the threshold of acquiring their own indigenous nuclear weapons. The Pyongyang regime is considered hostile and immediately dangerous to U.S. allies in the region, and could become directly dangerous to the U.S. homeland.<sup>19</sup>

Leaders of these radical regimes<sup>20</sup> may see the world so differently, and desire such immediate large-scale changes in their regions of the world, that they might not be very easily deterred, if at all, from first use of WMD against their perceived enemies. It is not always clear what price such radical leaders might accept for their populations in order to destroy an enemy state. *The Western concept of deterrence, applied throughout the Cold War, may not play well against these actors from a far different set of values, culture, historical experience, and world view.*

## **QUESTIONS DEMANDING AN ANSWER: RESPONDING TO RADICAL PROLIFERATORS**

Only recently has the U.S. Government begun to formulate a coherent and comprehensive counter-proliferation strategy to cope with or prevent countries from acquiring WMD, involving the entire spectrum of U.S. diplomatic, economic, political, and military tools needed to accomplish the job.

Radical states on the threshold of acquiring nuclear weapons now confront the U.S. Government with a whole new set of national security questions for consideration. For example, what response is required if one of the world's most ruthless leaders, hostile to the United States, has or is about to acquire a nuclear weapons capability?

Is there ever an occasion *in peacetime* when U.S. military force should be used to prevent proliferation? Or, should the United States, in all peacetime cases, take its chances with diplomacy, political persuasion, economic incentives, and other non-military means?

In determining when U.S. preemption is appropriate, what can we learn from previous cases where other nation's leaders faced a developing regional nuclear threat?<sup>21</sup>

What *key questions* should be asked and what *guidelines* should be applied to determine whether or not the United States should preempt militarily in a given case?

In general, how should the United States prepare for radical regimes seeking to acquire WMD?

### HISTORY'S LESSONS FOR PREEMPTIVE COUNTER-PROLIFERATION DECISIONS

There are just a handful of cases since the inception of WWII<sup>22</sup> that can shed light on the subject of PCP:

- **Nazi A-Bomb Blocked:** Allied efforts to deny Hitler the atomic bomb were successful when a Norwegian saboteur sunk a ferry carrying most of the German heavy water. Allied air attacks on German nuclear laboratories also hampered their progress.
- **Tokyo Atomic Labs Destroyed:** U.S. bombings of Tokyo destroyed the most advanced Japanese nuclear weapons research laboratory on April 13, 1945.
- **Osirak I:** Iranians launched an unsuccessful attack on the Iraqi Osirak nuclear reactor, September 30, 1980 in the Iran-Iraq War.
- **Osirak II:** On June 7, 1981 Israel initiated an air attack on the same Iraqi Osirak reactor, destroying it.
- **Kahuta Attack Plan:** Israeli interest in destroying Pakistan Kahuta reactor to scuttle the “Islamic bomb” was blocked by India’s refusal to grant landing and refueling rights to Israeli warplanes in 1982.
- **Bushehr: Attacks on an Iranian Reactor:** Iraq launched seven air attacks on the Iranian nuclear reactor at Bushehr between 1984 and 1988 during the Iran-Iraq War, ultimately destroying the facility.

- **Gulf War NBC/Scud Targeting:** The American-led Coalition air offensive in January 1991 only partially destroyed the Iraqi nuclear, biological, chemical and Scud assets in the 1990-91 Persian Gulf War, largely due to lack of information about their location and numbers.

## Preventing NAZI A-Bombs

At the inception of World War II, leading physicists on all sides were cognizant of the possible revolution in explosive power that might be extracted from a uranium bomb. However, each side was faced with a huge investment and scientific challenge before theoretical knowledge could be converted into an operational atomic weapon.

American and British nuclear physicists felt they started their A-bomb projects considerably behind their German counterparts and feared Hitler's forces would be the first to have use of atomic arms. This evaluation was based on a number of considerations:<sup>23</sup>

- The high caliber of German theoretical and experimental physicists like Otto Hahn, Paul Harteck, Werner Heisenberg<sup>24</sup>, Fritz Strassman, and Carl-Friedrich Von Weizsacker;
- German control of Europe's only uranium mine after the conquest of Czechoslovakia;
- German capture of the world's largest supply of imported uranium with the fall of Belgium;
- German possession of Europe's only cyclotron with the fall of France;
- German control of the world's only commercial source of heavy water after its occupation of Norway.

Attacks on German nuclear installations from 1941 until the end of 1943 were not effective in doing more than harassing the

German nuclear research effort. A key target was the German-controlled heavy water production plant, Norsk-Hydro, at Vemork, Norway.<sup>25</sup> Heavy water was required to conduct nuclear fission experiments and denial of the Norwegian plant's output would cripple the German atomic bomb research effort.

British intelligence recommended destruction of Norsk-Hydro at the earliest possible date. British paratroopers failed in their first raid in late 1942 when their gliders crashed during infiltration. In February 1943, six Norwegian saboteurs supplied and trained by the British, dynamited the heavy water facilities and disrupted production at Norsk-Hydro for two months. Upon seeing a resumption of German production at the site, the RAF and American Eighth Air Force dropped over 400 bombs on the plant on November 16, 1943, inflicting only light damage.<sup>26</sup>

This raid, however, had positive results in that it persuaded the German authorities that Norsk-Hydro was an unsafe location for their heavy water production. Berlin decided to move everything back to Germany. This was a fatal mistake.

British intelligence learned of the timing and route of the German shipment of heavy water to Germany, and positioned a Norwegian saboteur, Knut Haukelid, aboard a ferry *Hydro* carrying all 600 kilograms of Germany's heavy water across Lake Tinnsjoe in Norway while enroute to Germany.<sup>27</sup> The ferry *Hydro* sank and, with it, Germany's hopes of getting an atomic bomb before the end of World War II.<sup>28</sup> This was the first nuclear counter-proliferation operation in history and it worked.

Uncertain of this fact, however, the allies continued to fear that Germany might achieve the bomb and snatch final victory from defeat before they could overcome the Nazi forces in the field. Allied bombers continued to pound and destroy a number of German research laboratories until the end of the war, further retarding Nazi A-bomb possibilities.

## **Bombardment of Tokyo's Nuclear Labs**

Japan's scientific community was also aware of the explosive possibilities of an uranium bomb. During World War II, the Japanese Army funded one nuclear research project in Tokyo and the Japanese Navy started two other such projects.



The lieutenant general who ran the Aviation Technology Research Institute of the Imperial Japanese Army, Takeo Yasuda, followed the scientific literature on the potential for large energy releases due to nuclear fission, and ordered the first study of the subject in April 1940 in Japan.<sup>29</sup> Yasuda passed this mission on to the Japanese Physical and Chemical Research Institute that, in turn, gave the assignment to Japan's leading nuclear physicist, Yoshio Nishina who had previously worked with Niels Bohr in Copenhagen. Nishina worked on this problem at his research institute, the Riken, equipped with a small staff, a small cyclotron, and marginal funding beginning in April 1941.<sup>30</sup>

In the Spring of 1942, the Japanese Navy began its first of two parallel research projects. The Japanese Naval Technological Research Institute convened a group of outstanding scientists to look into the feasibility of a Japanese atomic bomb.<sup>31</sup> After ten meetings, this scientific panel concluded that "a bomb would necessitate locating, mining and processing hundreds of tons of uranium ore and ...U235 separation would require a tenth of the annual Japanese electrical capacity and half the nation's copper output."<sup>32</sup> They decided the bomb was feasible, but could not be built by Japan before the war's likely end. The Japanese Navy therefore dropped the project on March 6, 1943.

The Japanese Imperial Army project under Dr. Nishina continued however, and was later supplemented by the Imperial Navy's second nuclear program, this one financed by the Fleet Administration Center. The Navy contract was awarded to the University of Kyoto where a second cyclotron was built and operated by Dr. Arakatsu.<sup>33</sup> Each of these Japanese nuclear weapons research projects were underfunded and ran into significant experimental problems. Indeed, Japan was still not very close to a nuclear weapon at the end of the war.

Allied bombs destroyed Nishina's cyclotron on Friday the 13th of April, 1945, terminating Japan's most advanced nuclear research project.<sup>34</sup>

There is some evidence that Germany and Japan were beginning to collaborate at the end of World War II on missile and radiological weapons. One historian wrote that "On or about 17 May 1945 ... a German U-boat commander accede(d) to the Allied directive to surrender, (and) presented the United States

with both the documentary and the physical evidence not only that the Nazi Government had achieved a nuclear reactor, but that they had used it to produce radiological weapons which they proposed should be introduced into the conflict by Japan.<sup>35</sup>

The German transport submarine reportedly carried “charts, aviation material and information headed for Japan for the purposes of aiding Japan’s air war with rocket and jet engines and other *German V-type bombs*.”<sup>36</sup>

In addition, and more chilling, the German transport submarine also carried 550 kilograms of unspecified uranium.<sup>37</sup> This led the historian, Geoffrey Brooks, to speculate that it might have been for conversion into Japanese radiological weapons, to be used like a chemical munition, capable of spreading radioactive dust over the the battlefield and with the potential to destroy “a number of major cities, condemning millions of men, women, and children to death by radiation sickness or from lethal cancers contracted by the spread of the material.”<sup>38</sup>

### **Iran Attacks an Iraqi Nuclear Reactor**

In September 1980, at the onset of the Iran-Iraq War, the Israeli Chief of Army Intelligence had publicly urged the Iranians to bomb the key Iraqi Osirak nuclear reactor near Baghdad. Co-located at the site is the Iraq Nuclear Research Center where Israeli intelligence believed the first Arab atomic bomb was going to be assembled.

Whether by coincidence or design, nine days into the war, on September 30, 1980, two Iranian Phantom jets, part of a larger group of aircraft attacking a conventional electric power plant near Baghdad also bombed the Osirak reactor. Minor damage to the reactor was reported, although the reactor was up and running again a short time thereafter. No further Iranian air attacks against Iraqi nuclear facilities were identified during the rest of the seven-year war.

It is not clear whether this attack was consciously designed as a strategic strike to deny Saddam Hussein an atomic bomb or whether this raid was an afterthought of two Iranian pilots who had weapons and fuel left to bomb a target of opportunity after their group had attacked the electric power plant.

Whichever is true, the Iranian raid constitutes the third time any country had attacked the nuclear facilities of an enemy and was the first recorded PCP attack since World War II.<sup>39</sup>

## Israel's Osirak Attack

In June 1981, Menachem Begin, then Prime Minister of Israel, faced the same dilemma that had faced Iran concerning Saddam Hussein's Iraq. The Israelis had watched apprehensively for two years as Saddam appeared to be nearing a nuclear weapons capability. The centerpiece of his effort was a French-built Osirak-type nuclear reactor turning out plutonium at Tuwaitah.<sup>40</sup> After considerable internal debate within the Israeli ruling circle, Begin ordered his aircraft to bomb it to derail the Iraqi nuclear bomb effort.<sup>41</sup>

Ariel Sharon, part of the Israeli ruling circle, said that, "This was perhaps the most difficult decision which faced any (Israeli) government during all the years of the state's existence."<sup>42</sup>

Begin and a number of other Israeli leaders have been very effective in dealing with terrorists and tough in making military decisions because they, too, were once urban guerrillas operating from relatively weak military positions. They understood the bottom line on fights to the death; hit first with maximum strength. Those who hesitate may die. No present Western national leaders have had this hard experience or appear to share the street fighter mentality that might be required in a confrontation with a nuclear-armed and hostile radical regime.

Israeli intelligence had followed the Iraqi military buildup in the late 1970s. Saddam Hussein had assembled an army of 190,000 men organized into 12 divisions, augmented by 2,200 tanks and 450 aircraft.<sup>43</sup> Both the Israeli Labor government of 1974-77 and the Likud government of 1977-81 closely watched and debated what to do about the Osirak reactor then being constructed with considerable French and Italian help.<sup>44</sup>

Leaders of the opposition Labor Party had adopted a "wait and see" policy that relied upon diplomacy to try to forestall the Iraq effort. Indeed, in 1981 Peres felt he had an understanding with Francois Mitterand, who had just been elected President of France, to reverse the French policy of helping Iraq in nuclear

matters. Therefore, Labor favored continued diplomatic efforts to head off Iraqi nuclear capability.<sup>45</sup>

Prime Minister Menachem Begin, leader of the Likud Party, disagreed completely. He did not trust leaving this matter to the French or to fate. He certainly had no reason to trust in the reasonableness of Saddam Hussein.<sup>46</sup> He felt military action was the only remedy.<sup>47</sup> As one Middle East specialist has written, "For Begin, the prospect of an Iraqi nuclear capability, indeed, *any* Arab nuclear capability, was totally and irrevocably intolerable. It was a devastating weapon that he had no doubt would be used to try and destroy the Jewish nation, a holocaust in the flick of an eye. Begin approached the issue not only in practical terms, but from a passionately emotional and ideological stance."<sup>48</sup>

"For Begin, a survivor of the Holocaust, Hussein was Hitler, and the Osirak reactor was a technologically advanced version of the Final Solution."<sup>49</sup> Begin's decision told the world that there would be no nuclear holocaust involving Israel in the Twentieth Century.

According to some estimates, Iraq in 1981 was still as much as five to ten years away from the ability to build a nuclear weapon.<sup>50</sup> Others estimated at that time that Iraq might get its first such weapon within a year or two.

Begin struck against the Osirak reactor when he did because he feared that his party would lose the next election, and he did not believe the opposition party would have the toughness to preempt prior to the production of the first Iraqi nuclear bomb. Begin did not want to lose what might be the only chance he would have to save the Jewish state.<sup>51</sup>

### **India Thwarts Israeli Destruction of Pakistan's "Islamic Bomb"**

There is some evidence that Iraq was not the only nuclear peril to Israel that Begin saw in the early 1980s. Nor was the Osirak reactor in Iraq his only intended target. He also feared the Pakistani nuclear effort because Israeli intelligence had found evidence that Libya and other Moslem states were helping Pakistan, supplying both money and uranium to their effort.<sup>52</sup>

Pakistan's leader, Bhutto, was therefore under some obligation to share the nuclear fruits of Pakistan's bomb effort with other Moslem states such as Libya.

According to an Indian official, Subramaniam Swamy, a former Janata Party member, Israel in 1982 asked him to sound out other Indian leaders to see if India would grant Israeli warplanes landing and refueling rights were they to undertake an Osirak-type raid against the Kahuta nuclear reactor in Pakistan.<sup>53</sup> India refused, probably for a combination of reasons. As one expert on South Asia speculated:

"First, the Kahuta facility is well-protected and is thus a hard target to destroy. Second and more important, India expects that any first strike by India against Kahuta would be swiftly followed by a Pakistani attack against India's nuclear facilities. Such an exchange would leave India worse off, since any potential deterrent capability against China would thereby be eliminated. Finally, India would be wary of launching such an attack against Pakistan as it would cause not only great death and destruction to Pakistan, but could blow radioactive fall-out back over India. Such an attack against Pakistan would also alienate the Muslim Middle Eastern states whose amity India has assiduously cultivated." <sup>54</sup>

In 1991, India and Pakistan signed a treaty pledging that neither would preemptively attack the nuclear facilities of the other.

## **Iraq Destroys Iran's Bushehr Reactor**

In the last years of the Iran-Iraq War, well after the June 1981 destruction of the Osirak reactor by the Israelis, Saddam Hussein attempted and eventually succeeded in his own PCP strikes against the Iranian nuclear reactor at Bushehr.

Iraqi warplanes first struck the Bushehr reactor on March 24, 1984, inflicting light damage. Two more Iraqi air strikes took place in 1985, one in 1986, two in 1987, and a final raid occurred in 1988<sup>55</sup>. These seven raids destroyed most of the known Iranian capability to produce special nuclear materials. No ballistic missiles landed on nuclear sites, although this was the first war in history where both sides exchanged ballistic missile attacks.

Apparently, Iraq was no more eager to face an Iranian atomic bomb than Israel had been to confront Iraqi nuclear weapons.

## Lessons of the Gulf War

At the inception of the Coalition air war against Iraq in the 1990-91 Gulf War, removal of Iraqi forces from Kuwait was *the* primary motive for the Allied campaign. Such a campaign was not launched purely to prevent an Iraqi atomic bomb. However, the Coalition was acutely aware of the potential danger of Iraqi WMD. Therefore, as part of a much wider effort to defeat the Iraqi forces, there was also a very concerted effort to destroy Iraq's WMD in order to protect allied troops and territory, as well as to remove a future threat to the stability and peace of the region.

This was the first time that anyone had deliberately attacked a nuclear reactor while it was in operation.<sup>55</sup> One of the principal lessons to be learned from the 1990-91 War is that successful attacks against WMD sites and forces can be very difficult to execute short of all-out ground combat and occupation of the rival's homeland. Air power needs to be augmented by ground power. According to the U.S. Gulf War Air Power Survey (GWAPS):

The Iraqi nuclear program was massive, for most practical purposes fiscally unconstrained, closer to fielding a weapon, and less vulnerable to destruction by precision bombing than Coalition air commanders and planners or U.S. intelligence specialists realized before Desert Storm. The target list on 16 January 1991 contained two nuclear targets, but after the war, inspectors operating under the United Nations Special Commission eventually uncovered more than twenty sites involved in the Iraqi nuclear weapons program; sixteen of the sites were described as "main facilities."<sup>56</sup>

After the war, it was concluded that "the air campaign no more than inconvenienced Iraqi plans to field atomic weapons."<sup>57</sup> The GWAPS study states that "We now know that the Iraqis'

program to amass enough enriched uranium to begin producing atomic bombs was more extensive, more redundant, further along, and considerably less vulnerable to air attack than was realized at the outset of Desert Storm.”<sup>58</sup>

In total, the Coalition mounted approximately 970 air strikes against NBC targets.<sup>59</sup> Despite this, post-war surveys showed no evidence that Iraqi biological weapons were either destroyed or even found to exist.<sup>60</sup> Further, the U.N. Special Commission teams uncovered some 150,000 chemical munitions that were untouched by the bombings.<sup>61</sup> Finally, as stated, only two of twenty nuclear sites were even identified and targeted during the war.<sup>62</sup>

Unfortunately, there also was no great allied success in destroying Iraqi Scuds during Desert Storm. As GWAPS states, “Over the 43 days of Desert Storm, roughly 1,500 strikes were carried out against targets associated with Iraqi ballistic missile capabilities.”<sup>63</sup>

Despite this, GWAPS also concludes that:

“The actual destruction of any Iraqi mobile launchers by fixed-wing Coalition aircraft remains impossible to confirm. Coalition air crews reported destroying about eighty mobile launchers, another score or so were claimed by special operations forces. Most of these reports undoubtedly stemmed from attacks that did destroy objects found in the Scud launch areas. But most, if not all, of the objects involved now appear to have been decoys, vehicles such as tanker trucks that had infrared and radar signatures impossible to distinguish from those of mobile launchers and their associated support vehicles, and other objects unfortunate enough to provide ‘Scud-like’ signatures.”<sup>64</sup>

Nor was the Coalition any more successful in finding Scuds in the countryside. Background clutter hid Scud locations. Indeed, official conclusions now are that “few mobile Scud launchers were actually destroyed by Coalition aircraft or special forces during the war.”<sup>65</sup> GWAPS concluded that “there is no indisputable proof that Scud mobile launchers—as opposed to

high-fidelity decoys, trucks, or other objects with Scud-like signatures—were destroyed by fixed-wing aircraft. Luckily, the Iraqi Scuds were inaccurate and carried only conventional ordnance in the 1990-91 Gulf War.

The lack of success of the air campaign against NBC/Scud assets should not be laid at the feet of the U.S. Air Force. Rather, this was a U.S. intelligence failure, since information about NBC/Scud target locations was very incomplete.

What this Gulf War experience demonstrates, however, is that carrying out a counter-proliferation attack can be difficult in the extreme. Intelligence may not be able to locate WMD due to enemy countermeasures (i.e., constant relocation, mobility and decoys) thwarting even determined attacks on such assets. The 1981 Osirak example may be misleading because that target was a fixed and fragile installation whose continued operation was absolutely key to the rapid development of Iraqi nuclear weapons at the time. By 1991, Iraq's NBC and missile assets were hidden and dispersed, and far less vulnerable to air attacks. Saddam Hussein had learned a lesson from the destruction of his Osirak reactor a decade earlier.<sup>66</sup>

After Israel's 1981 bombing of the Osirak reactor destroyed Iraq's fast-track plutonium path to nuclear weapons, Saddam Hussein chose to develop several less vulnerable alternative paths to the bomb using highly enriched uranium rather than plutonium. Besides using gas centrifuge techniques, Iraq adopted another older, less efficient technology, since discarded by the United States, to produce this enriched uranium, calutron electromagnetic separation.<sup>67</sup>

Western intelligence missed this Iraqi calutron effort entirely, focusing mistakenly only upon gas centrifuge technology which was more advanced and more widely adopted elsewhere.<sup>68</sup> This was a case of cultural bias, assuming that the Iraqi leader would opt for the efficient, state-of-the-art technology that so appeals to Americans.

When there are several ways to develop a nuclear weapon, or any other WMD, a Third World leader may opt for a very different path to the same end. U.S. intelligence should be guided by how persons from that culture might think rather than how the United States would attack the problem. For example,



there are several ways to make an A-bomb, and such weapons need not be the most advanced, clean, and miniaturized versions that the United States designs.

Presidents contemplating a PCP action should realize that they may not know the entire scope of the enemy NBC or ballistic missile capabilities. *Unfortunately, if an attack misses even a few such enemy weapons, they could cause tens of thousands of American casualties in retaliatory strikes.*

Even the relatively complete destruction and occupation of a country might not arrest its NBC and ballistic missile program entirely. Indeed, as former CIA Director Robert Gates has testified, once Iraq is left free to operate independently, he predicted that it will take no more than two years to return to the nuclear technology level it had achieved at the inception of the Gulf War.<sup>69</sup>

Looking back, experts now believe that "If Iraq had not invaded Kuwait in 1990, ... it would still have needed three to four years to produce its first nuclear weapon."<sup>70</sup> Thus, if the United Nations leaves Iraq, the Hussein regime may be able to build its first nuclear weapon about five to six years later.

## **The Missile Crisis: An Air Strike Deferred**

In October 1962, U.S. intelligence collected evidence that the Soviet Union was clandestinely and rapidly constructing nuclear missile sites on the island of Cuba.

This was the first introduction of non-U.S. atomic arms into the Western Hemisphere, a different kind of nuclear proliferation, the *horizontal* transfer of pre-existing medium range missiles with nuclear warheads from Eurasia to Cuba where these missiles for the first time would be within range of all U.S. targets from the Atlantic coastline to the Mississippi River. The 1962 Cuban missile crisis is not representative of the kind of preemptive counterforce issues facing the United States and its allies from radical proliferant states today. It was a confrontation, rather, between two major nuclear powers and not a nuclear terrorist or radical state nuclear threat. The primary danger was not only that a few warheads might survive a U.S. strike on missiles in

Cuba and a U.S. city might be destroyed in retaliation<sup>71</sup>, but rather that the Soviet Union might use its entire homeland retaliatory strike force against many U.S. cities and other targets.

Nevertheless, there are some lessons for those considering preemptive attacks on nuclear forces in the 1962 crisis. Soviet MRBMs in Cuba would have greatly augmented the limited firepower of Soviet ICBMs and strategic bombers in 1961. This move threatened to dramatically alter the prevailing military balance of power between the United States and the Soviet Union.

In one swift geographical move, the Soviet Union would have achieved virtual strategic parity with the United States even though they did not then possess an equivalent intercontinental delivery capability.

Until that point, the United States enjoyed a substantial strategic nuclear advantage. With the introduction of Soviet missiles into Cuba, the entire United States east of the Mississippi River was within range of their medium range ballistic systems. Warning times would be cut to five minutes or so, compared to half an hour or longer if ballistic missiles were launched from the USSR. At the time the missile construction was discovered, it was perceived that the United States would become much more vulnerable within the space of just a few more days.<sup>72</sup>

President John F. Kennedy and his crisis advisors considered a number of options to prevent this proliferation of enemy weapons in close proximity of the United States. The options considered by Kennedy's crisis group ranged on the escalation ladder from "doing nothing", to diplomatic protests, to offering to remove U.S. Jupiters from Turkey in exchange for removing Soviet missiles from Cuba, to blockading Cuba, to an air strike against the Soviet missiles in Cuba.

It is instructive that President Kennedy's initial impulse was to destroy the Soviet missiles with an air strike. He was dissuaded from this by fear of escalating the crisis into a central nuclear war, by the fact that a blockade would buy time and yet force the Soviets to react, and by the fact that an air strike could be used if the Soviet failed to back down. But, most importantly, he hesitated to use airpower because the U.S. Tactical Air

Command promised that while an American airstrike would certainly destroy 90% of Soviet missiles in Cuba, it could not guarantee him that such a strike would destroy all of them.<sup>73</sup> Thus, the airstrike might trigger a Soviet nuclear counterattack by perhaps 10% of Cuban-based MRBMs and by the Strategic Rocket Forces based in the USSR.

Unfortunately, an enemy counterattack putting even one nuclear bomb on one large American city could cause the deaths of more Americans in one day than were killed in four years of fighting Germany and Japan in World War II.<sup>74</sup> *Preemptive counter-proliferation strikes against nuclear-armed states had better work completely or they could spell disaster for the initiator.*

## DEALING WITH A POTENTIAL “*NUCLEAR HITLER*”

What principles should guide decision-makers in choosing whether to attempt to preemptively disarm an emerging dangerous and hostile nuclear regime? Obviously, U.S. preemptive counter-proliferation should be considered, if at all, only in *very special cases*, ideally characterized by optimal conditions. If these exist, all in the same situation, then a decision to initiate a PCP assault probably would be necessary, and could be successful. On the other hand, ill-considered preemptive strikes could backfire catastrophically. When and how should the United States consider preemption, if ever, to ward off an even greater danger downstream? Here are some questions that should be addressed when deciding whether or not the U.S. should intervene with military force in any given proliferation situation:

**1. *Is The Enemy Undeterrable, Violent and a Risk-taker?*** The regime about to acquire or in possession of nuclear weapons would have to be a sworn and dedicated enemy of the United States, its rulers ruthless practitioners of violence to achieve their ends, and willing to take extreme risks rather than following conservative foreign and military policies. The enemy would have to be considered erratic, unpredictable, and quite possibly non-deterrable by the threat of retaliation against his country's assets.

**2. *Is the Enemy On The WMD Threshold?*** Before acting, U.S. intelligence would have to have extremely convincing evidence that such an enemy regime was about to acquire nuclear weapons and/or other WMD, as well as the means of delivering them.

3. *Are U.S. Vital Interests Directly Threatened?*<sup>75</sup> The situation would have to be seen very clearly as a kill-or-be-killed scenario. The enemy regime would have to pose a “clear and present danger” of striking the United States, its allies, or other *vital* interests after it had acquired a certain number of WMD. The costs of *not* striking first would have to be seen as totally unacceptable. This would have to be a case of either decisively intervening or there being a very high probability of being struck a devastating blow.

4. *Are Key Enemy Targets Precisely Located and Vulnerable?* The intelligence available would have to be documented that so U.S. leaders would conclude that they knew all locations of enemy WMD, and believed these targets to be vulnerable to U.S. conventional preemptive attacks, without causing extensive collateral damage to civilian populations. Damage expectancies would need to be high so that the adversary could not be expected to retaliate with a devastating counterattack on the United States, its allies, and vital interests. Moreover, the U.S. would need to be able to document the presence of enemy WMD to effectively counter enemy denials and propaganda.

5. *Is Surprise Achievable?* A preemptive strike to eliminate enemy WMD has a greater likelihood of success if it has not been telegraphed in advance. If the adversary had warning and time to move its relocatable nuclear assets, and prepare a retaliation attack, then a U.S. PCP operation should be aborted, unless the U.S. leadership was absolutely convinced that an enemy WMD strike was imminent.

6. *Does the U.S. Have A First Strike Capability?* Friendly forces within range of the enemy targets would need to be capable of carrying out a preemptive strike with a very high confidence of success against enemy WMDs, preferably with very few casualties among the civilian population of the enemy state. It would be best if the enemy leadership could be captured or neutralized, and replaced with one much less threatening.

**7. *Is the U.S. Homeland Safe From Enemy WMD?***

Even a small number of adversary nuclear weapons exploded on one or more large U.S. or allied cities would deliver a historically unprecedented number of war deaths on the United States and its friends. Starting an armed conflict, especially a highly dangerous one against a heavily armed and dangerous enemy, could only be done in the existential moment when the U.S. President and his top national security leaders were utterly convinced that the path of inaction was absolutely catastrophic, and that further delay and a failure to act would be fatal. Unfortunately, there is no guarantee that a WMD could not be used against the United States, since such a weapon could be smuggled into the country and exploded in a targeted area, even if the adversary lacked missiles or bombers capable of reaching North America.

**8. *Would The United States Be Safe From WMD Retaliation By Third Parties?***

It is particularly important that it be *very* unlikely that any other state with NBC weapons would be willing to strike the U.S. or its allies on behalf of the enemy engaged.

**9. *Has The U.S. Exhausted All Other Non-Military Options First?***

Clearly, the United States should and would not attack another state unless it tried and failed with all other diplomatic, political, and economic options to avert the threat to the United States. PCP should be the last resort unless time was clearly not available to pursue alternative means and to fail to act was to absorb almost certain catastrophic damage. Generally, however, PCP should be the very last resort. To do otherwise, would be immoral, set a very dangerous precedent, undermine international law, and could ruin the good reputation of the United States.

**10. *Has the U.S. Set Clear Objectives And Is It Using Appropriate Means?***

Clausewitz wrote, "No one starts a war—or rather, no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war, and how he intends to conduct it."<sup>76</sup> If the war takes

an unanticipated turn, we should continue to reassess ends and means keeping the use of force proportional to our needs while recognizing that when such a conflict is no longer in our national interest, we disengage expeditiously, just as we should also escalate some conflicts to bring their rapid termination about.<sup>77</sup> Means must be appropriate to ends, however, excessive force (e.g., the use of nuclear weapons) would lose the high moral ground for the United States and could bring a backlash of major political and military problems.

**11. *Is The U.S. Committed to Win?*** As former Secretary of Defense Caspar Weinberger has recommended, “If we decide it is necessary to put combat troops into a given situation, we should do it wholeheartedly, and with the clear intention of winning. If we are unwilling to commit the forces or resources necessary to achieve our objectives, we should not commit them at all.”<sup>78</sup> Remember that a preemptive strike, even for defensive purposes, is an act of war and is unlikely to remain an isolated incident, so the U.S. leadership and armed forces had better be fully prepared for what follows.

Unfortunately, real world decisions often must be made when time is short and information is incomplete. Decision-makers seldom have the luxury of perfect intelligence and a complete understanding of the adversary. Nor is it possible to predict with absolute certainty the future behavior of adversaries or the amount of rationality they will bring to future relations.

If the answer to all these questions are “yes”, then the United States might be wise to intervene with military force to prevent a hostile radical state from acquiring or using existing WMD. The more answers of “no” or “maybe” to these questions, the more likely the United States should decide against military intervention.

On the other hand, it is important to remember that these are *guidelines*, not iron laws for decision. Sometimes a President must act quickly with fragmentary information because to wait would be to miss the opportunity to succeed.

As early strategist William Shakespeare once said, "There is a tide in the affairs of men, which, taken at the flood, leads on to fortune; omitted, all the voyages of their life is bound in shallows and miseries."<sup>79</sup> Translation: the PCP window of opportunity to succeed may be a fleeting one.

On the other hand, a President is also warned about blindly leaping into the abyss. In general, decision-makers would do very well to proceed with extra caution when the preemptive decision they are tempted to make is based on many large uncertainties accompanied by huge costs for failure.



## THE PROLIFERATION CHALLENGE OF NORTH KOREA

There is considerable attention being paid to the possibilities that North Korea is developing a nuclear weapons capability. Indeed, there is no certainty that the Pyongyang regime has not already developed a few clandestine nuclear weapons.

Intense negotiations—face to face, through the media, and through world diplomatic channels—and a rather public examination of U.S. military options may have finally prevailed to avert a crisis. Had Pyongyang not begun to comply with requested inspections of its nuclear facilities, the ensuing crisis might have ended with economic sanctions against North Korea and with the possibility of further escalation of U.S. military actions.

It remains to be seen if the DPRK government will comply with the agreement negotiated in Geneva between U.S. ambassador-at-large Robert Gallucci and North Korean Vice Foreign Minister Kang Sok Ju, signed in North Korea on October 21, 1994.

If carried out as agreed, North Korea will “eliminate its current nuclear infrastructure, and with it, its ability to produce nuclear weapons and to come into full compliance with the nuclear Non-Proliferation Treaty (NPT).”<sup>80</sup>

Elements of the agreement include these key points:<sup>81</sup>

- The DPRK will accept full scope safeguards on all its nuclear facilities including two nuclear waste storage sites previously in dispute;
- The DPRK will cease operations at, and close reactors and reprocessing operations at Taechon, Sinp'o, and Yongbyon, and ship 8,000 spent fuel elements, now stored in pools, to a third country once the U.S. and its allies ship replacement nuclear reactors to North Korea;

- The U.S. will arrange for the construction in North Korea of two light-water 1000 megawatt nuclear reactors through a new multinational consortium (estimated investment of \$4 billion);
- The United States will supply the DPRK with 3.65 million barrels of heavy oil per year over the next 10 years to compensate North Korea for electricity shortages caused by shutting down the Yongbyon reactors;
- Both the U.S. and DPRK also pledged to improve their economic and diplomatic relations, including the opening of liaison offices in each other's respective territories.

If implemented on both sides, the agreement may have frozen the DPRK nuclear weapons program at 1994 levels rather than letting it proceed to much high numbers of nuclear weapons. While it does not totally eliminate the DPRK arsenal, potentially one to four or five nuclear weapons, it could prevent the DPRK from developing a force of 40-50 or more nuclear weapons in a few years. The agreement, at least temporarily, ends a crisis that appeared headed for military conflict in the Spring and Summer of 1994.

In the best case scenario, this agreement could not only freeze the DPRK nuclear arsenal, it could lead to ultimate agreement to denuclearize the Korean Peninsula, and open the DPRK to positive political changes that could result from continuous contact with the outside world.

In the worst case scenario, this agreement could come apart either because of DPRK violation of the agreements, or because of U.S. Congress or U.S. allies refusals to fund the agreement as negotiated. There is also the possibility that the DPRK has some clandestine nuclear facilities now operating that are not covered by the Gallucci-Sok Ju agreement, allowing them to quietly go about working toward an atomic bomb without legal or outside restriction.

The DPRK has a record of treachery and the government of Kim Jong Il must continue to be regarded as very dangerous. The late Kim Il Sung, leader of North Korea, was considered a

sworn and bitter enemy of the United States<sup>82</sup> and the Republic of Korea. In 1950 he initiated a war against South Korea, and his government was considered to have been behind the bomb explosion that killed eighteen high officials of the Republic of Korea meeting in Rangoon, Burma (now called Myanmar) in October 1983.<sup>83</sup> The blast appears to have been an assassination attempt against South Korean President Chun Doo Hwan. North Korea attempted to decapitate the entire ROK ruling elite in one stroke.<sup>84</sup> North Korea has been proven to be responsible for numerous acts of international terrorism, including blowing up of a South Korean airliner several years ago just to create chaos and fear in the South.

Kim Il Sung, like Saddam Hussein of Iraq, murdered freely to preserve his power and created a personality cult glorifying his role while setting up a totalitarian police state where coercion, ideology, and control of communications unite to immobilize dissent.

The "Great Leader's" son, the 52-year-old "Dear Leader" Kim Jong Il, is his successor and is regarded by some as at least as dangerous as his father. Indeed, he is not only seen as just as ruthless and hostile, but also a very strange personality. Some observers have speculated that he might even be psychotic. He is also blamed, rightly or not, for managing some of the terrorist acts of the North Korean state.<sup>85</sup>

Since 1953, the North Korean regime has been deterred and contained by U.S. and ROK military power augmented by a one-sided U.S. advantage in nuclear arms. Whether the status quo can be preserved when both sides possess nuclear weapons is a good question.

After acquiring their own atomic arsenal, could Kim Jong Il and the Pyongyang regime be deterred from directly attacking the ROK as it has been restrained from doing since 1953?<sup>86</sup> Or will the North Koreans be more likely to risk striking first in some future contingency, either with nuclear force, or with conventional forces, under the umbrella of their own nuclear deterrent force, to forestall a U.S. nuclear counterattack?

It appears likely that the United States will continue to retain an overwhelming nuclear capability vis-à-vis North Korea even if the DPRK has a few nuclear weapons or goes nuclear in the

future. North Korean leaders, if they behaved rationally, would be deterred from action against the South by the threat of the U.S. conventional and nuclear forces.

Indeed, it is hard to see what North Korea would accomplish by attacking the South. It is very unlikely that the North Korean military could long prevail against the combined arms of the U.S. and ROK forces, even if they seized some initial advantages. Nor is it credible that rational leaders would go into nuclear combat with the world's largest superpower, but Kim Jong Il is known as a bizarre personality, surrounded perhaps by sycophants. Further, he has been isolated from the rest of the world his entire life. It is not certain what he might do in a stressful crisis or wartime situation, particularly if he felt his power and life threatened.

How much of a direct military threat is North Korea? Clearly, DPRK forces could not destroy the United States, and probably could not even reach it with a wounding blow at present. They could, at most, destroy major cities in the Republic of Korea, and perhaps in Japan if they possessed nuclear arms. Of course, terrorist acts versus the United States might be within the capability of the DPRK.<sup>87</sup>

Such an attack would trigger a U.S. nuclear response. In President Clinton's words, "we would quickly retaliate if they were ever to use a nuclear weapon. It would mean the end of their country as they know it."<sup>88</sup>

Given U.S. escalation dominance, a North Korean attack on South Korea would make little sense so long as the Pyongyang regime believed that the U.S. threat to retaliate was credible, and had even a rudimentary appreciation of U.S. nuclear capabilities. The rational thing for North Korea to do, is to keep the peace.

Unfortunately, irrational leaders *do* appear on the world scene from time to time.<sup>89</sup> Further, as the saying goes, just because you are paranoid, does not mean someone is not out to get you. North Korean fears of preemption are not entirely misplaced, especially if their behavior appears both irrational and very threatening as Pyongyang approaches entry into the nuclear club. Shriill, bizarre, and threatening North Korean behavior could prompt others to take preemptive action.

But would a preemptive strike to deny Pyongyang the bomb

make any more sense than a North Korean attack on the South? Either action would likely trigger a bloody, second Korean war. The first one killed or wounded 2.4 million soldiers including 136,528 Americans, 843,572 South Koreans, 520,000 North Koreans, and over 900,000 Chinese.<sup>90</sup> In addition, it is estimated that over one million Korean civilians were casualties in the Korean Conflict.

Is it worth the price of another war to try to deny North Korea the atomic bomb when U.S. leaders do not yet know if they would be peacefully deterred by U.S. nuclear guarantees to South Korea? North Koreans have been deterred from war for 40 years by American and ROK military power and would be on the very short end of military capability in a future war.

Pyongyang would have to be suicidal to bring on such a war. Given this fact, it is better to give reason a chance to work on the North Koreans even if Kim Jong Il and his regime do not always appear to be reasonable.

Clearly, the North Korean regime has been hard at work to develop a nuclear expertise and capability. They have a complex of facilities in Yongbyon made up of an eight-megawatt research reactor, a five-megawatt power reactor, a 50-megawatt reactor still under construction, a nuclear fuel-rod fabrication plant, and a plutonium reprocessing installation. These are the facilities that will be shut down if the October 1994 pact is implemented. At Taechon they are constructing a 200-megawatt reactor and they have plans for a nuclear power plant at Sinp'o on the coast of the Sea of Japan.<sup>91</sup> Work at these sites will be frozen and all reactors are to be shut down under the terms of the October 1994 US-DPRK agreement.<sup>92</sup>

Ironically, the NPT that North Korea wants to withdraw from, offers legal protection against a preemptive attack against its nuclear facilities.

When the NPT was first created 25 years ago, the United States, Soviet Union, and United Kingdom all pledged their intention to seek United Nations actions to assist any non-nuclear NPT signatory state that was subject to either nuclear threats or nuclear aggression.

Later, Presidents Carter and Bush also gave a public pledges that the United States would not use nuclear weapons against any

non-nuclear state party to the NPT.<sup>93</sup> Thus, *legally*, the United States might be constrained from a *nuclear* PCP action. Of course, the United States would not use nuclear weapons first in any likely event. There are too many negatives associated with such an action.

Of course, a *conventional* PCP action would also be illegal in terms of international law since it would be an act of war. On the other hand, in U.S. domestic law using physical force is legal in cases where it could be proved that it was "anticipatory self defense." Preemptive counter-proliferation would be the international analog to this.

CIA Director James Woolsey in a television interview on November 30, 1993, stated that U.S. intelligence believes that the North Koreans have enough weapons-grade plutonium for one or two bombs.<sup>94</sup> This, of course, does not mean that they will use them, especially if confronted by a superpower with thousands of such weapons.

Nor is it known where, exactly, the North Korean weapons might be located. Nuclear weapons or the components for such weapons can easily be moved or buried deep underground. The exact location, very likely, could be very difficult to find and to target.

This perhaps leaves the North Korean reactors at Yongbyon, Taechon, and Sin'p'o as possible targets for consideration. Even these might be very poor choices. If the reactors were critical, bombing them might cause radioactive fallout over civilian population centers<sup>95</sup> across North Korea, China, Japan, South Korea and Taiwan.

At this point, due to the lengthy confrontation between the United States and North Korea over its nuclear operations, it would be next to impossible to achieve tactical surprise in any military operations directed against North Korean targets. Quite likely, any DPRK weapons and special nuclear materials are now in underground bunkers or caves, not vulnerable to conventional air attacks. Press accounts also indicate that Pyongyang has recently erected a substantial air defense around its major nuclear sites.

It would be surprising if the North Koreans were not on military alert and if they had not already taken countermeasures

against possible military operations. They have been given ample warning signals by none other than President Clinton who told NBC's *Meet the Press* that, "North Korea cannot be allowed to develop a nuclear bomb."<sup>96</sup>

In another warning speech, Secretary of State Warren Christopher said that, "If North Korea refuses the necessary inspections and refuses to resume a dialogue with South Korea on nuclear issues, then we are prepared to recommend that the United Nations Security Council consider options other than negotiations."<sup>97</sup> Christopher appeared to be talking about economic sanctions rather than military action. Fortunately, the visit of former U.S. President Jimmy Carter to Pyongyang to mediate the dispute shortly before Kim Il Sung's death led to a resumption of U.S.-DPRK negotiations and the October 1994 agreement to settle the issue peacefully.

Any U.S. preemptive action against Pyongyang's nuclear facilities would be made far more dangerous if the North Koreans could count on Chinese Communist intervention. China was willing to attack U.S. forces in Korea in October 1950 even though the United States had nuclear weapons at the time and China did not. It is not clear what a nuclear-armed China would do if North Korea were attacked in the future. China has refused to back economic sanctions against North Korea and conceivably might side with it again in a future conflict. Any uncertainty on this point should make the United States think again about such an action.

Nor would a U.S. attack on North Korean reactors and other nuclear facilities necessarily get full U.S. public support. The U.S. public will support short victorious military operations, but probably not military decisions that result in thousands of American deaths and casualties, particularly if there were non-military options that had not been thoroughly explored before taking military action.

Prior to the October 1994 diplomatic breakthrough easing the crisis, some U.S. officials considered North Korea to be a "test case for the Administration's commitment to preventing regional powers from developing nuclear weapons."<sup>98</sup> However, the outcome of a decision to intervene is too uncertain and too risky to warrant U.S. military action.

Unfortunately, the certainty of a bloody conventional Korean War now, especially if made more dangerous and lethal by one or two North Korean nuclear weapons, outweighs the uncertain future risks created if the DPRK nuclear proliferation goes unchecked. Neither choice is positive, but the choice between jumping into war now, or taking a chance that it could be deterred,<sup>99</sup> is not hard to make.



## REVIEWING RADICAL RESPONSES TO RADICAL REGIMES

Proliferation is not illegal under international law if the government involved is not, at that time, a member of the NPT regime. On the other hand, preemptive strikes against states not at war *is* illegal in international law! So, too, are any nuclear strikes against NPT members!<sup>100</sup> In all but the rarest of cases, i.e., anticipatory defensive action taken to ward off an impending attack, U.S. policy should follow the United Nations Charter and the law of nations. The sovereignty of other states ought to be respected and non-military means should be used in very nearly every case in pursuing U.S. counter-proliferation policy.

PCP actions should be reserved only for the unique criminal regime whose previous violent and dangerous actions do not warrant giving it the benefit of the doubt. For example, think of Hitler's Germany in 1940 and add a German nuclear facility that could produce an atomic bomb in a year. If a country was in a position to intervene and destroy that kind of capability, by that kind of regime, should it not take such action?

Clearly, in the vast majority of situations, the case against PCP is far stronger than the case for such a policy. Conditions would have to be so dire, and yet so precisely favorable, that PCP attacks were the only route to take, the least dangerous of two or more risky options.

In dealing with most states who are in the process of acquiring WMD, the United States would be wise to rely strictly on non-military means to curtail proliferation. Of course, in most instances, the United States will be dealing with a more benign country than an Iraq under Saddam Hussein, a North Korea under Kim Jong Il, a Libya under Muammar Khadafi, or an Iran under Rafsanjani.

In some cases, it may be possible to preserve security, prevent proliferation, and deal with dangerous radical regimes short of military action. Logically, if the personal political power,

regional security needs, economic goals, and political goals of such leaders could be achieved by less radical and risky means, it might be possible that they might slow or abandon the quest for their own WMD.

Or, if radical regimes are not deterred from acquisition of such weapons, they may be deterred from use of them by countervailing military power, and, in time, the leadership of such regimes will change and relations may improve with their successors.

Long-term enemies have, from time to time, decided to make peace after many wars and much bloodshed. Note the Egyptian-Israeli peace treaty engineered by Anwar Sadat and Menachem Begin in 1980, and the more recent accord reached between Yassir Arafat's Palestine Liberation Organization and Israel in 1993. Even more dramatic has been the end of the Cold War and subsequent warmer relations that exist between the republics of the former Soviet Union and the United States.

In confronting a radical proliferator, sometimes the decision to intervene is made for you by the adversary's warlike actions. Saddam Hussein's invasion of Kuwait may have been a long-term blessing in disguise for rest of the world, for Iraq's subsequent defeat has allowed Coalition forces to move into Iraq and systematically destroy another decade's worth of Iraqi work on nuclear, chemical, and missile development initiated since the Israeli Osirak strike a decade before.

However, in most cases the conditions are missing for a U.S. success in using force to arrest proliferation. Striking and failing to disarm a nuclear foe could be lethal. And, even if you succeed in disarming a WMD foe, letting a proven and ruthless adversary such as Saddam Hussein reestablish his control after a period of occupation and forcible disarmament could be a grave mistake, akin to letting a rattlesnake loose in the house after catching and confining it.

Some analysts believe that Saddam Hussein's nuclear establishment could be up and running again very quickly once outside military forces leave Iraq. In a few years, an Iraqi nuclear bomb could be a reality. Hussein has already tried to kill President Bush on a visit to Kuwait and might seek nuclear revenge on the United States and its allies when he has reloaded.

As Dr. Victor Alessi, the head of the U.S. Department of Energy's Arms Control Office, has testified to Congress, the Coalition victory and occupation does not stop all Iraqi efforts to make WMD. Their previous experience shortens the time to rebuild the capability and resurrect the threat. Alessi noted that:

The Iraqis still possess in abundance the single most important dual-use resource necessary for nuclear weapons development—a reservoir of trained, dedicated, and experienced scientists and technicians. In this regard, DOE scientists on the IAEA inspection teams have frequently expressed surprise that the Iraq scientists do not behave like they are members of a defeated nation. In fact, they have openly boasted that the U.N. inspectors cannot take away the knowledge that Iraqi scientists have in their heads and that this can be used to rebuild their program.<sup>101</sup>

Despite U.S. escalation dominance, if Saddam Hussein had possessed nuclear weapons and the means to deliver them during the 1990-91 Gulf War, he might have struck the forces or homelands of his enemies as the Coalition armies closed in for the kill after routing his forces in Kuwait.<sup>102</sup> If so, Israel and Kuwait could both be radioactive wastelands today. A large part of the coalition armies, as they massed on the Saudi Arabian-Kuwait border or as they entered Iraq, could also have been destroyed.<sup>103</sup> Clearly, the coalition strategy and tactics would have been radically altered by knowledge that Saddam had atomic bombs.

To leaders like Saddam Hussein, the world is seen as a dangerous place where you liquidate your enemies quickly before they liquidate you.<sup>104</sup> Often they have attained power by violence and keep it by violence or the threat of violence. If such a ruthless leader secures the ultimate weapons, aren't the United States and its allies required to play by *his* rules rather than by the niceties of international law in order to guarantee their survival?<sup>105</sup>

In rare cases where the threat is so clear, and the conditions for intervention are favorable, these questions nearly answer themselves. Preemptive attack, as a last resort, in an extremely dangerous and unique situation, makes sense. In general,

however, preemptive counter-proliferation actions should be considered only in the most extreme cases, where all other options appear to be ineffective, and where the conditions favor success. If a nuclear "Hitler" appears on the horizon, we should have the means to end his threat. The United States should not seriously consider a disarming operation unless it encounters such a danger in the rare case where good conditions exist for military success.

Finally, it is important to remember that preparing for the preemption option for possible use in the very worst case scenario, is a relatively minor part of U.S. counter-proliferation policy. The dominant thrust of U.S. counter-proliferation policy is to prepare U.S. forces for future battlefield contingencies where they are only too likely to find themselves engaged in combat with enemy forces that are already armed with such WMD.

Unfortunately, this wartime contingency has become more real with the passage of time, as more and more hostile and radical states move closer to acquiring WMD and missile weapons systems.

## Notes

1. John Lancaster, "Aspin Pledges New Military Efforts to Counter Weapons Proliferation," *The Washington Post*, December 8, 1993, p. 7. See also, Paul Quinn-Judge, "U.S. Plans to Fight Spread of Weapons," *Boston Globe*, December 8, 1993, p. 3; Art Pine, "Pentagon Unveils Plan to Counter Mass-Destruction Arms," *Los Angeles Times*, December 8, 1993, p. 1; and Steve Komarrow, "U.S. Revamps Nuke Policy to Fit Times," *USA Today*, December 8, 1993, p. 4A.
2. Weapons of mass destruction (WMD) in this discussion will include two forms of nuclear weapons, nuclear explosives and radiological weapons. The definition also includes biological and chemical weapons.
3. *Ibid.* Les Aspin announced his departure from the Department of Defense shortly after the Defense Counter-Proliferation Initiative was announced, but there is no reason to believe that that the Clinton Administration will not continue the new policy direction since the underlying reasons for it remain. Assistant Secretary of Defense, Ashton Carter, is the official in charge of coordinating counter-proliferation policies in the Pentagon.
4. Known as the Theater High Altitude Area Defense (THAAD) System. See "Aspin Emphasizes Missile Defense In Proliferation Approach," *Defense Daily*, December 8, 1993, p. 347.
5. Suggesting revisions to the ABM Treaty will likely spark a major Senate debate given the popularity and support for the existing agreement.
6. Bill Gertz, "Aspin Outlines Threat of Arms Proliferation: Pentagon Unveils Counterstrategy," *Washington Times*, December 8, 1993, p. 4. During the Gulf War, the United States forces failed to stockpile enough vaccine to inoculate all personnel to prevent infection from germ warfare agents, had they been used by Iraq. This shortfall is now being addressed.
7. United Nations Office of Public Information, U.N. Headquarters, New York, New York, 1993.
8. The declared nuclear weapons states in 1995 include the United States, Russia, China, France, and the United Kingdom. Ukraine

is in the process of dismantling its nuclear force. Belarus and Kazakhstan have already done so. Undeclared nuclear weapons states that almost certainly have them are Israel and India. Undeclared nuclear weapons states that probably could assemble one within a year or two or perhaps already have a few are Pakistan and North Korea. South Africa is a special case. It claims to have had several nuclear weapons that have since been dismantled in the past few years.

9. Countries generally reported as having undeclared offensive chemical warfare capabilities include Egypt, Iran, Iraq, Israel, Libya, Syria, China, North Korea, Taiwan, Myanmar (Burma), and Vietnam. Both the United States, its NATO allies and the newly independent states of the former Soviet Union have had chemical weapons that are now being destroyed or are in storage awaiting destruction. See Office of Technology Assessment, U.S. Congress, *Proliferation of Weapons of Mass Destruction: Assessing the Risks*, OTA-ISC-559 (Washington, D.C.: U.S. Government Printing Office, August 1993)pp. 65-66.
10. Countries generally reported as having undeclared offensive biological warfare programs include Iran, Iraq, Israel, Libya, Syria, China, North Korea, and Taiwan. See Office of Technology Assessment, U.S. Congress, *Proliferation of Weapons of Mass Destruction: Assessing the Risks*, OTA-ISC-559 (Washington, D.C.: U.S. Government Printing Office, August 1993)pp. 65-66.
11. Pinpointing the numbers of states engaged in chemical and biological weapons production is far more difficult and the estimates are made with less confidence since it is relatively simple to operate clandestine CW and BW programs, the costs are relatively low, and the technology is within the reach of many countries. Data on ballistic missile programs is probably more accurate since there is no treaty barring possession, and such programs are easy to monitor in the test stage of development. For a good survey article on who has what kinds of WMD, see: Steve Fetter, "Ballistic Missiles and Weapons of Mass Destruction: What Is the Threat? What Should Be Done?" *International Security*, Vol. 16, No. 1, Summer 1991, pp. 43-72. For another good survey of where NBC arms and missile proliferation is going, see Brad Roberts, "From Nonproliferation to Antiproliferation," *International Security*, Vol. 18, No. 1, Summer 1993, pp. 139-173. Also, every year or two for the past decade, Leonard S. Spector, a respected analyst from the Carnegie Endowment for International Peace, has published a book updating the most recent events around the world

- concerning the spread of nuclear weapons. See his *Nuclear Ambitions: The Spread of Nuclear Weapons 1989-1990* (Washington, D.C.: Carnegie Endowment for International Peace, June 1992); *The Undeclared Bomb: The Spread of Nuclear Weapons 1987-1988* (Washington, D.C.: Carnegie Endowment for International Peace, 1988); *Going Nuclear: The Spread of Nuclear Weapons 1985-1986* (Washington, D.C.: Carnegie Endowment for International Peace, 1987); *The New Nuclear Nations: The Spread of Nuclear Weapons 1985* (Washington, D.C.: Carnegie Endowment for International Peace, November 1985); and *Nuclear Proliferation Today: The Spread of Nuclear Weapons 1984* (Washington, D.C.: Carnegie Endowment for International Peace, 1984).
12. See Thomas W. Graham, "Winning the Nonproliferation Battle," *Arms Control Today*, September 1991, pp. 8-13.
  13. The North Koreans have agreed to reopen their seven nuclear sites to IAEA inspections, but there is still uncertainty about whether they have diverted enough plutonium to build a nuclear bomb or two. See David E. Sanger, "Despite Atom Accord, U.S. Asks: Does North Korea Have a Bomb?" *New York Times*, January 9, 1994, p. 1.
  14. On April 13, 1993 former President Bush began a three-day visit to Kuwait City. At that time, Kuwait authorities had discovered and prevented a terrorist attempt to kill Bush utilizing a powerful car bomb. Sixteen suspects were arrested, tried, and convicted. Their leaders included two Iraqi nationals. After a thorough investigation, the United States concluded that Iraq had planned, equipped, and launched the terrorist operation. On June 26, 1993 the United States launched a missile attack against Iraqi Intelligence Service Headquarters in Baghdad to retaliate for the assassination attempt. See "Challenges to UN Decisions Scrutinized: Baghdad sites attacked after assassination plot," *UN Chronicle*, September 1993, p. 20.
  15. IAEA experts who inspected the Iraqi nuclear facilities, estimated that they were four years away from producing their first A-bomb. CIA Director James Woolsey has stated that Iraq has the capability to return to their pre-Gulf War nuclear status in two years from the time the IAEA and UN inspectors leave Iraq, if the Coalition forces withdraw and Saddam Hussein again has a free hand in Iraq.
  16. Mohammed Heikal, *The Road to Ramadan* (New York: Quadrangle/The New York Times Company, 1975), pp. 76-77. For a good general discussion, see Leonard S. Spector, *The New Nuclear Nations* (New York: Vintage Books, 1984) p. 150. See

also, Steve Weissman and Herbert Krosney, *The Islamic Bomb: The Nuclear Threat to Israel and the Middle East* (New York: Times Books, 1981) pp. 55-57. The story was broken by Cord Meyer, "Writer Reports Libya A-Bomb Bid," *Washington Post*, April 16, 1979. See also, Joseph V.R. Micallef, "A Nuclear Bomb for Libya? *Bulletin of the Atomic Scientists*, August-September 1981, p. 14.

17. Weissman and Krosney, *Op. Cit.*, pp. 210-213.
18. OTA, *Op.Cit.*, p. 64.
19. It is estimated that North Korea could have an ICBM capable of reaching the continental United States within 15 years according to a CIA report made public. See Bill Gertz, "North Korea, Iran and Iraq Capable of Developing ICBM," *The Washington Times*, December 24, 1993, p. A3. See also, Thomas W. Lippman, "ICBM Threat to U.S. is Called Slight," *The Washington Post*, December 24, 1993, p. A9. The Agency reported that there was no present evidence that either North Korea, Iran or Iraq were now working on such a project, although they all have the technical capability to do so within 15 years and are states that have both the political support and motivation to do so.
20. Most of these dictatorships are run by ruthless leaders who have ruled by a mixture of coercion and cunning. In the case of one or more, it hard to discern whether he retains full mental capacity. In the case of Brezhnev or Mao Tse-Tung in their last years, this is doubtful. History is full of heads of states that have had mental problems. According to Jerome Frank, "At least seventy-five chiefs of state in the last four centuries, actually or symbolically, governed for a total of several centuries while suffering from severe mental disturbances - a not very surprising figure considering the inbreeding of royal families and the fact that the right to rule had nothing to do with competence. See Jerome Frank, *Sanity and Survival, Psychological Aspects of War and Peace* (New York: Random House, 1967) p. 57. Note also his original source for this information: R. L. Noland, "Presidential Disability and the Proposed Constitutional Amendment," *American Psychologist*, Vol. 21, March 1966, pp. 230-235.
21. India and Pakistan are both thought to be undeclared nuclear weapons states. Anticipating the possibilities of preemptive attacks on their nuclear facilities, each by the other, the two countries have signed an agreement banning such preemptive strikes against each other's nuclear facilities.
22. During WWII, the allies attempted to keep both the Germans and



- the Japanese from acquiring the atomic bomb. An allied saboteur sunk a Norwegian ferry carrying almost all the German heavy water during the war to end the Nazi A-bomb threat after air strikes failed to put the German-held Norwegian plant out of business. See David Irving, *The German Atomic Bomb* (New York: Simon and Schuster, 1967). See also, Philip Gardner and Frank Waller, "1943 and 1991: U.S. Wartime Experience in Counterproliferation Operations," (McLean, Virginia: SAIC, 1994). Allied bombs also destroyed the most advanced Japanese nuclear facility in a Tokyo air raid. For details see Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon and Schuster, 1986)pp. 327, 346, 375, 457-59, 580-82, and 612. See also, Sarah S. Doyle and Joseph A. Yeager, "Japan and U.S. Nonproliferation Policy" (McLean, Virginia: Science Applications International Corporation, December 6, 1993) pp. 32-33.
23. For an excellent summary these points see Phillip Gardner and F. Waller, "1943 and 1991: U.S. Wartime Experience in Counterproliferation-Counterforce Operations," SAIC, 1994, a research report prepared for the National Security Negotiations Division, Headquarters U.S. Air Force, The Pentagon, Washington, D.C., p. 8.
  24. There is some possibility that not all the German nuclear scientists were working to secure a nuclear weapons for the Third Reich. Some claim that Werner Heisenberg acted to slow progress toward a bomb to prevent Hitler's regime from succeeding. See Geoffrey Brooks, *Hitler's Nuclear Weapons: The Development and Attempted Deployment of Radiological Armaments by Nazi Germany* (London: Leo Cooper, 1992). See also, Thomas Powers, *Heisenberg's War: The Secret History of the German Bomb* (New York: Alfred Knopf, Distributed by Random House, 1993).
  25. Geoffrey Brooks, *Hitler's Nuclear Weapons: The Development and Attempted Deployment of Radiological Armaments by Nazi Germany* (London, Leo Cooper, 1992) p. 61.
  26. Irving, *Op. Cit.*
  27. Brooks, *Op.Cit.*, pp. 61, 69-70. Marcel Baudot, *The Historical Encyclopedia of World War II* (New York: Facts on File, 1989). See also, Norman Polmar and Thomas B. Allen, *World War II: America at War, 1941-1945* (New York: Random House, 1991). Another source is Mark Walker, *The Quest for Nuclear Power in National Socialist Germany, 1939-1945* (London: Cambridge University Press, 1989).
  28. For a full account, see David Irving, *The German Atomic Bomb*:

- The History of Nuclear Research in Nazi Germany* (New York: Simon and Schuster, 1967).
29. Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon and Schuster, 1986) p. 327.
  30. *Ibid*, p. 346.
  31. *Ibid*, p. 457.
  32. *Ibid*, p. 458.
  33. Brooks, *Op.cit.*, p. 191.
  34. *Ibid*, p. 612. See also, a short summary in Sarah S. Doyle and Joseph A. Yeager, "Japan and U.S. Nonproliferation Policy" (McLean, Virginia: SAIC, December 6, 1993), pp. 32-33.
  35. Brooks, *Op.Cit.*, p. 171.
  36. *Ibid*, p. 168.
  37. *Ibid*.
  38. *Ibid*, p. 171. Brooks notes that United States officials did not know if there were other such German transport submarines carrying similar cargos that U.S. forces had not been intercepted. This, he argues, may have put pressure on the Truman Administration to end the war as quickly as possible, adding still another reason for dropping U.S. A-bombs on Japan to avoid the possibility of Japanese radiological weapons being used against the United States, its allies, and its forces. The author is indebted to Lt.Col. Richard W. von Berckefeldt, USAF, for this source. See Richard W. von Berckefeldt, "Germany's Atomic Program, 1938-1944," Research Paper submitted as part of requirements of course given by the author on *Weapons of Mass Destruction: Proliferation Issues*, Air War College, Maxwell AFB, Alabama, October 1994, pp. 1-12.
  39. It is also interesting to note that the Iran-Iraq War was also the first conflict where both sides attacked the other with ballistic missiles, although these attacks did not target nuclear sites.
  40. The reactor was a type of French reactor named after Osiris, the Egyptian God of the dead. The French renamed the one being built in Iraq, "Osiraq" to blend the name Osiris with that of the recipient state, Iraq. French orthography then made it "Osirak." It is called by both names in the literature. Iraq called the reactor "Tammuz," after the month in the Arabic calendar when the Ba'ath party came to power in a 1968 coup. See Jed C. Snyder, "The Road To Osiraq: Baghdad's Quest for the Bomb," *The Middle East Journal*, Autumn 1983, p. 567.
  41. Amos Permuleter, Chapter 35, "Begin Bombs the Iraqi Nuclear Reactor - and the 1981 Elections," *The Life and Times of Menachem Begin* (Garden City, N.Y.: Doubleday & Company,

1987) pp. 360-371. For an account of the actions leading up to the Osirak bombing within Iraq, see Efraim Karsh and Inari Rautsi, *Saddam Hussein, A Political Biography* (New York: The Free Press, 1993) pp. 126-128. See also, other accounts of "Operation Babylon" as the Israelis termed the operation: Seymour M. Hersh, *The Sampson Option: Israel's Nuclear Arsenal and American Foreign Policy* (New York: Random House, 1991) pp. 8-13; Amos Perlmutter, et.al., *Two Minutes Over Baghdad* (London: Valentine, Mitchell & Co. Ltd., 1982); Amos Perlmutter, "The Israeli Raid on Iraq: A New Proliferation Landscape," *Strategic Review* (Winter 1982); Shai Feldman, "The Bombing of Osirak—Revisited," *International Security*, Vol. 7, No. 2, Fall 1982; "The Israeli Air Strike," Hearings before the Committee on Foreign Relations, U.S. Senate, 97th Congress, (Washington, D.C.: GPO, 1981); "The Iraqi Nuclear Threat—Why Israel Had to Act," Government of Israel, Jerusalem, 1981; Warren H. Donnelly, "Fact Sheet on the Iraqi Nuclear Reactor Bombed by Israel on June 7, 1981," (Congressional Research Service, Library of Congress, 1981); and "Analysis of Six Issues About Nuclear Capabilities of India, Iraq, Libya and Pakistan," Prepared for the Subcommittee of Arms Control, Oceans, and International Operations of the Senate Foreign Relations Committee, (Congressional Research Service, Library of Congress, 1982).

42. Weissman and Krosney, *Op.Cit.*, p. 8.
43. *Ibid*, p. 362.
44. *Ibid*, p. 363.
45. *Ibid*, p. 364.
46. Begin, after the Osirak raid, pointed out that Saddam Hussein had murdered his way to the top in Iraq and remained there through the same methods. He was equally violent against his neighbors, and Iraq had never recognized Israel's right to exist, maintaining a continuing state of war with Israel since 1948. Shortly after achieving power in 1979, Hussein told a personal guest that: "I know there are scores of people plotting to kill me and this is not difficult to understand. After all, did we not seize power by plotting against our predecessors? I am far cleverer than they are. I know they are conspiring to kill me long before they actually start planning to do it. This enables me to get them before they have the faintest chance of striking at me." See Efraim Karsh and Inari Rautsi, *Saddam Hussein, A Political Biography* (New York: The Free Press, 1993), p. 2. Two months prior to the Osirak attack, Israel intelligence prepared a 33-page psychological portrait of

Saddam Hussein and sent it to Begin. The report portrayed Hussein as a hard-headed operator much of the time calling him at one and the same time, "cunning, sophisticated, cruel and brave." However, in an exceptional situation, filled with high stakes, they warned that Hussein could act very differently. "When he sees a chance to fulfill his megalomaniac ambitions for personal greatness, he is ready 'to take risks and drastic action, without weighing all the risks he is actually running in the situation.'" See Weissman and Krosney, *Op.Cit.*, p. 20. The report said that "If in his (Hussein's) estimation, the use of atomic weapons would give him the chance to strike Israel, and gain for himself at the same time a leadership position in the Arab world, he would not hesitate to use the bomb...even if it would cost him similar retaliation from Israel, which would create damage and loss of life in Iraq itself." *Ibid.* This Israeli psychological portrait of Saddam Hussein as an extreme risk-taker was not dispelled in 1990-91 when he failed to compromise when confronted by overwhelming military strength by the coalition led by the world's foremost military power, the United States. The result was the ruin of Iraq and its military forces. Hussein perhaps thought the United States was bluffing, or found it impossible to compromise under the stress of the situation, or preferred to sacrifice his own people rather than look bad by backing down. He may have calculated that he had more to lose personally from being seen as withdrawing under U.S. pressure than by refusing to budge from Kuwait even if it meant suffering a military defeat.

47. Begin stated his view of the Iraqi leader after the Osirak attack: "Saddam Hussein, the ruler of Iraq, who with his own hands killed his best friends in order to be the sole ruler of that country, had an ambition. He wanted to develop nuclear weapons so that he can either try to bring Israel to its knees on behalf of the Arab world, or to destroy her men folk and infrastructure and the great part of her army, which consists of reservists in the cities. In other words, he wanted to destroy our existence—in fact, our people and our country."
48. *Ibid.*, p. 363.
49. Perlmutter, *Op.Cit.*, p. 362.
50. This was the position of General (ret.) Yehoshua Saguy, the head of the Intelligence Division of the IDF at the time of the air strike. He argued for continuing to try to find a non-military solution to the threat in the five to ten years he felt Israel still had before Iraq would have its first nuclear weapons. See Ilan Peleg, *Begin's*

- Foreign Policy, 1977-1983, Israel's Move To The Right* (New York: Greenwood Press, 1987), p. 187.
51. *Ibid.*, P. 365. Begin told a close political advisor, "I know there is an election coming. If they (Labor) win, I will lose my chance to save the Jewish people."
  52. See Steve Weissman and Herbert Krosney, Chapter 5, "Colonel Quaddafi's Bomb," and Chapters 11-13 on the Pakistani nuclear project in *The Islamic Bomb: The Nuclear Threat to Israel and the Middle East* (New York: Times Books, 1981), pp. 53-65 and pp. 162-223.
  53. Based on an interview granted Neil Joeck by former Janata Party member Subramaniam Swamy, January 1984. See Neil Joeck, "Pakistani Security and Nuclear Proliferation in South Asia," in Joeck, ed., *Strategic Consequences of Nuclear Proliferation in South Asia* (London: Frank Cass, 1986) p. 89. See also, "India Said to Eye Raid on Pakistani A-Plants," *The Washington Post*, December 20, 1982, p. 9; "The Islamic Bomb," in *The Wall Street Journal*, January 17, 1983, p. 24; and, finally, in "Four Minutes to Islamabad," *Pakistan Times*, April 1, 1985, p. 6.
  54. *Ibid.*
  55. Anthony H. Cordesman, *Iran and Iraq: The Threat From The Northern Gulf* (Boulder, CO: Westview Press, 1994) p. 105. See also: *Nucleonics Week*, November 19, 1987, p. 1; November 26, 1987, p. 5; March 3, 1988, p. 7; and July 28, 1988, p. 5.
  56. This point was made by Harald Muller, David Fisher and Wolfgang Kotter, *Nuclear Non-Proliferation and Global Order* (London: Oxford University Press, 1994) p. 131. They note that "A taboo connected with the non-proliferation regime was broken during the Persian Gulf War. For the first time, nuclear facilities (at Tuwaitha) containing irradiated material were purposefully attacked. Previous attacks on nuclear facilities (at Osiraq and Bushehr) took place when no fuel had been introduced into the reactors."
  57. Thomas A. Keaney and Eliot A. Cohen, editors, *Gulf War Air Power Survey: Summary Report*, (Washington, D.C.: USGPO, 1993) pp. 78-79. Key Iraqi facilities remained undisturbed after 1,000 hours of air war. Only total defeat and subsequent inspection revealed the extent of the Iraqi nuclear weapons program.
  58. *Ibid.*, 82. This was the opinion of an American who participated in some of the IAEA inspection teams that went into Iraq under UN Resolution 687 in 1991.
  59. *Ibid.*
  60. *Ibid.*, p. 80.

61. *Ibid*, p. 82. The allies targeted three types of BW targets - research facilities, production facilities, and a series of refrigerated bunkers suspected of containing biological weapons. However, after the war, UN inspectors were not able to confirm that the Iraqis had actually produced any biological weapons prior to 17 January 1991.
62. *Ibid*, p. 81.
63. *Ibid*, pp. 78-79.
64. *Ibid*, p. 83.
65. *Ibid*, p. 83.
66. *Ibid*, p. 89.
67. Iraq almost developed a nuclear weapon without that fact being discovered by the outside world until too late. How did Saddam Hussein's government keep their project under wraps and still make such progress toward atomic weapons? First, Iraq's oil wealth bought much outside expertise and nuclear-related materials. Second, Iraq pursued multiple paths to a nuclear weapon, including 1940s Manhattan Project Calutron enrichment technology. Calutron technology was considered obsolete and was not even classified any longer in the United States. Third, Iraq went underground and disguised its other above-ground nuclear facilities to avoid detection. Fourth, Iraq joined the NPT and misled IAEA inspectors about their program, getting a clean bill of health from them just before the Persian Gulf War. Fifth, Iraq purchased dual use items and gave the impression that they were for non-nuclear projects. Sixth, Iraqi officials bought subcomponents rather than full components of nuclear technology and assembled them into larger units inside Iraq. Seventh, Iraq manufactured a fair amount of its own components indigenously, avoiding the necessity of purchasing items from abroad. Eighth, Iraq used third party intermediaries to purchase sensitive items for them. Ninth, Iraq used the bid and proposal process to pry secrets out of nuclear contractors eager for work in Iraq. They would elicit information from the contractors and often would walk away with the information without letting a contract. Tenth, Iraq found many contractors willing to sell the most sensitive information or technology for a price. Indeed, the Iraqis got a great deal of technical aid from companies in the United States and in Western Europe, as well as from the secondary nuclear supplier market that has sprung up in recent years. See, for example, Gary Milhollin, "Licensing Mass Destruction: U.S. Exports to Iraq: 1985-1990," (Washington, D.C.: Wisconsin Project on Nuclear Arms Control, June 1991) and Harald Muller, "Europe's Leaky Borders," *The Bulletin of the Atomic Scientists*, Vol. 49, No.

- 5, June 1993, pp. 2729.
68. David Albright and Mark Hibbs, "Iraq's Quest for the Nuclear Grail: What Can We Learn?", *Arms Control Today*, July/August, 1992, p. 5.
  69. *Ibid*, p. 3. See also, Stephen J. Hedges and Peter Cary, et.al., "Saddam's Secret Bomb: How Money and an Obsession with Weapons of Mass Destruction Very Nearly Made Iraq a Nuclear Power," *U.S. News & World Report*, November 25, 1991, pp. 34-42.
  70. Albright and Hibbs, *Op. Cit.*, p. 5.
  71. *Ibid*, p. 3.
  72. In January 1992, retired Soviet General Anatoly I. Gribkov revealed that "The Soviets had tactical nuclear weapons in Cuba and the military commanders there were authorized to use them without asking permission, should the United States launch an invasion." See Warren Rogers, "Nuclear Brink, Plus 32," *The Washington Times*, October 30, 1994.
  73. In one sense this was true. Clearly, the Soviet nuclear capability would have been enhanced against U.S. targets by the additional medium range missiles in Cuba. One the other hand, how much nuclear firepower is enough to do totally unacceptable damage to U.S. cities and forces? Some would argue that the Soviet Union already had achieved such a capability without the added dimension given them by positioning missiles in Cuba. McNamara summed this up during one of the Missile Crisis discussions when he said that "A missile is a missile," meaning that it mattered little if a nuclear missile came from Cuba or the Soviet Union, the result was the same, and they already could massively hit the United States from their homeland. Soviet capability grew considerably in later years in absolute quantities, but not so much relative to the soft target set in the United States. They had that covered in 1962.
  74. See Graham T. Allison, *Essence of Decision* (Boston: Little, Brown, 1971), p. 126. There might also have been a moral reason factored into President Kennedy's decision not opt for an air strike. The experience of Pearl Harbor, where a Japanese preemptive air strike crippled the U.S. Pacific fleet, left a bad taste about preemptive bolt-from-the-blue strikes in the American consciousness. During the ExCom debate over the air strike option, Robert Kennedy passed Theodore Sorenson a note saying "I now know how Tojo felt when he was planning Pearl Harbor." While the two historical situations may have been radically different, the remark shows RFK's bias. Whether he shared this particular view

with his brother, the President, is not on record. See Michael R. Beschloss, *The Crisis Years, Kennedy and Khrushchev, 1960-1963* (New York: HarperCollins Publishers, 1991) p. 435.

75. There were roughly 330,000 U.S. battle deaths in all of World War II.
76. The term "vital interests" is often used inappropriately to describe interests important but not absolutely necessary to the United States. In this criteria, the author is talking about a threat to the life of a significant portion of the American nation, such as destruction of major U.S. cities or any step that could ruin the U.S. economy on a massive scale.
77. Carl von Clausewitz, *On War*. Cited in Caspar Weinberger, *Fighting For Peace: Seven Critical Years In The Pentagon* (Warner Books, 1990 ), p. 441.
78. See Caspar Weinberger, *Fighting For Peace: Seven Critical Years In The Pentagon* (Warner Books, 1990 ), p. 441. Former Secretary of Defense Weinberger advocates six major tests to be applied when U.S. leaders are weighing the use of combat forces abroad. One, don't commit unless your vital interests are engaged. Two, put enough force in to win. Three, have clearly defined political and military objectives. Four, keep ends and means in proportion. Five, ascertain that there is support from the American people and the U.S. Congress for the venture. Six, commit forces only as a last resort. See Caspar W. Weinberger, "The Uses of Military Power," Remarks to the National Press Club, Washington, D.C., November 28, 1984.
79. *Ibid.*
80. William Shakespeare, *Julius Ceasar*, Act IV, Scene e, Line 217.
81. Arms Control Association, "Chronology of North Korea's Nuclear Program," Press Release, Washington, D.C., October 19, 1994, pp. 1-7.
82. *Ibid*, p. 1. For a critical and negative analysis of this agreement, see Albert Wohlstetter and Gregory S. Jones, "Breakthrough In North Korea," *Wall Street Journal*, November 4, 1994. These authors point out that the dangers that the DPRK will renege on the agreement and decide to enrich and reprocess the plutonium produced by the light-water reactors to be supplied by the U.S. allies. They also point out that the DPRK leadership promised in 1985 to forswear nuclear weapons when it signed the NPT. They then apparently broke their pledge. Wohlstetter and Jones ask what makes anyone believe these same leaders will keep their word this time?



83. Byung Chul Koh, "Images of the United States," *The Foreign Policy Systems of North and South Korea* (Berkeley, CA: University of California Press, 1990) pp. 88-93.
84. Marguerite Johnson and Edwin M. Riengold, "No Words for the Bitterness, A Nation in Mourning Points a Finger At Its Northern Neighbor," *Time Magazine*, October 24, 1983, p. 46. See also, "South Korea's Grief and Rage, A Terrorist Bombing Decimates Chun's Government - and Seoul Blames the North," *Newsweek Magazine*, October 24, 1983, p. 87.
85. Brian Jeffries, "The Slaughter in Rangoon," *Macleans*, October 17, 1983. See also, Brian Jeffries, "A Bitter Quest for Revenge," *Macleans*, October 24, 1993, p. 36.
86. Some dispute this view of Kim Jong Il, suggesting that the "psychotic" label is one put out by propagandists in the South Korean intelligence services. See Bruce Cumings, "Crazy Kim," *The Nation*, November 29, 1993, p. 644.
87. For a good discussion, see Leonard S. Spector and Jacqueline R. Smith, "North Korea: The Next Nuclear Nightmare?" *Arms Control Today*, Vol. 21, No. 2, March 1991, pp. 8-13.
88. North Korea is the source of funds and training for terrorists recruited from their own population. For example, they were responsible for the detonation of a bomb aboard a Korean Airlines (KAL) jet in 1987 which killed all aboard. DPRK assassins were caught and confessed to the act.
89. Mark Mathews, "Clinton Says North Korea Must Not Develop A Nuclear Bomb," *Baltimore Sun*, November 8, 1993.
90. For an interesting historical discussion of mentally-ill world leaders see Jerome D. Frank, *Sanity and Survival, Psychological Aspects of War and Peace* (New York: Vintage Books, 1967).
91. Rutherford M. Poats, *Decision in Korea* (New York: The McBride Company, 1954) p. 337. The United States suffered 29,550 dead, 103,492 wounded, with 3,486 missing in action. The Republic of Korea suffered 415,004 dead, and 428,568 wounded. No figures exist on the number of ROK troops missing in action. Additional casualties, including 3,143 dead and 11,833 wounded, were suffered by the United Kingdom, Turkey, Canada, Australia, France, Thailand, Greece, Netherlands, Colombia, Ethiopia, Belgium-Luxembourg, Phillipines, New Zealand, and South Africa.
92. Arms Control Association, Fact Sheet: "North Korea's Nuclear Facilities," (Washington, D.C.: ACA, October 1992).
93. Senator Frank Murkowski, Republican from Alaska, and new Chairman of the East Asia Subcommittee of the Senate Foreign

- Relations Committee reports that North Korean officials “told us that they have frozen development of their 50 megawatt and 200 megawatt (nucler) reactors and stopped operating the 5 megawatt reactor.” See T.R. Reid, “Visiting Senators Learn Little of N. Korean Leader,” *Washington Post*, December 12, 1994, p. A1.
94. Leonard L. Spector and Jacqueline R. Smith, “North Korea: The Next Nuclear Nightmare?” *Arms Control Today*, March 1991, p. 13. See also, Roger M. May and Roger D. Speed, “Should Nuclear Weapons Be Used?” in W. Thomas Wander and Eric Arnett, Eds., *The Proliferation of Advanced Weaponry: Technology, Motivations, and Responses* (Washington, D.C.: AAAS, 1992) p. 242.
95. Bill Gertz, “U.S. Intelligence: North Korea Could Have Nukes,” *Washington Times*, December 2, 1993, p. 3.
96. Steven A. Holmes, “U.S., in Stern Terms, Warns North Koreans on A-Arms,” *New York Times*, November 18, 1993, p. 1.
97. *Ibid.*
98. *Ibid.*
99. David E. Sanger, “U.S. Delay Urged on Korea Sanction,” *New York Times*, International Edition, November 4, 1994.
100. Eliot Cohen, director of strategic studies at the School of Advanced International Studies (SAIS), Johns Hopkins University, questions, “But really, who can imagine a President authorizing a large-scale, unilateral attack against a country that has done no direct harm to the United States or its allies?” Cohen asserts that “The days of Osirak-type raids on a single, easily located and above-surface nuclear facility are over. Secrecy, camouflage, deception and dispersion will make preemption a far more extensive and uncertain operation than ever before.” See Eliot Cohen, comments on Heather Wilson’s “Missed Opportunities: Washington Politics and Nuclear Proliferation,” *The National Interest*, Winter 1993/94, p. 38.
101. North Korea would be legally protected from nuclear attack by NPT Membership, something that the United States would need to take into account in any PCP action, not only for legal reasons. Such a direct violation of the NPT could undermine it, causing non-nuclear state parties to the NPT to revise their thinking about acquiring nuclear weapons and going it alone. Also, nuclear use by the United States would greatly weaken the “no nuclear use” international norm that has grown up since Hiroshima and Nagasaki were bombed in 1945. American decision-makers would be constrained to use only conventional forces in PCP actions if they ever wished to retain legitimacy and credibility when advising

- against, criticizing, or taking actions against the spread of nuclear weapons.
102. Victor E. Alessi, then-Director, Office of Arms Control and Nonproliferation Technology Support, Department of Energy, Statement before the House Permanent Select Committee on Intelligence, U.S. House of Representatives, November 13, 1991, pp. 4-5. Alessi addressed DOE's contributions to uncovering and limiting the Iraqi nuclear weapons complex after the Gulf War and he laid out some suggestions for strengthening U.S. nuclear nonproliferation policy.
  103. It is interesting that Saddam Hussein's forces did not strike the coalition with its full complement of chemical arms like they did in the Iran-Iraq war earlier. Perhaps Saddam was deterred by the superior WMD warfare capability of the United States that might have been unleashed. In the parlance of the strategist, the United States had escalation dominance.
  104. Saddam Hussein, just before Desert Storm, asserted that: "With the help of Allah, we shall rid the region of American influence. Our missiles cannot reach Washington, but if they could, we would hit there as necessary."
  105. Karsh and Rautsi, *Op.Cit.*, p. 2-5.
  106. In domestic law, preemptive action is legal if it can be proven to be "anticipatory self defense."

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