

**FIFTY YEARS AFTER THE
CUBAN MISSILE CRISIS:
TIME TO STOP BLUFFING
AT NUCLEAR POKER**

**BY MARTIN HELLMAN
PROFESSOR EMERITUS, STANFORD UNIVERSITY**

A Briefing Paper on the 50th Anniversary of the Cuban Missile Crisis

October 2012

**Sponsored by Nuclear Age Peace Foundation
and Federation of American Scientists**



The logo for the Federation of American Scientists (FAS). It consists of the letters "FAS" in a large, white, serif font, centered on a dark blue rectangular background.

AUTHOR

Martin E. Hellman is Professor Emeritus of Electrical Engineering at Stanford University. Before joining Stanford's faculty in 1971, he taught at MIT and was on the research staff at IBM's Watson Research Center. Hellman is best known for his invention, joint with Diffie and Merkle, of public key cryptography – the technology that provides secure communications over the Internet. His many honors include induction into the National Academy of Engineering and the National Inventor's Hall of Fame. His current project involves the application of risk analysis to a potential failure of nuclear deterrence. He is an Associate of the Nuclear Age Peace Foundation, a founder of NAPF's Silicon Valley Chapter, and serves on the Federation of American Scientists' Nuclear Security Advisory Board.

ACKNOWLEDGMENTS

I want to thank Professor Barton Bernstein of Stanford's History Department for generously sharing his extensive knowledge of the Cuban Missile Crisis, and studiously critiquing this paper for historical accuracy. Special thanks are also due Dr. Charles Ferguson, president of the Federation of American Scientists, and Dr. David Krieger, president of the Nuclear Age Peace Foundation, for their support, encouragement, and advice during the writing of this paper. I also am grateful to the following people who contributed their time and knowledge to improve the paper: Mr. Sri Devabhaktuni, Dr. Richard Duda, Ms. Dorothe Hellman, Ms. Barbara Kyser, Mr. Thomas Tisch, and Mr. Rick Wayman.

NUCLEAR AGE PEACE FOUNDATION

The Nuclear Age Peace Foundation is a non-profit, non-partisan international education and advocacy organization. It has consultative status to the United Nations Economic and Social Council and is recognized by the UN as a Peace Messenger Organization.

Founded in 1982, the Foundation is comprised of individuals and organizations worldwide who realize the imperative for peace in the Nuclear Age.

VISION

Our vision is a just and peaceful world, free of nuclear weapons.

MISSION

To educate and advocate for peace and a world free of nuclear weapons and to empower peace leaders.

WWW.WAGINGPEACE.ORG

FEDERATION OF AMERICAN SCIENTISTS

The Federation of American Scientists, a nonpartisan think tank and registered 501(c)(3) non-profit organization, provides rigorous, objective, evidence-based analysis and practical policy recommendations on national and international security issues connected to science and technology.

FAS educates policymakers, the public, the news media, and the next generation of scientists, engineers, and global leaders about the urgent need for creating a more secure and better world. FAS experts work on a variety of science and security issues.

Founded in 1945 by many of the scientists who built the first atomic bombs, FAS is devoted to the belief that scientists and engineers have the ethical obligation to ensure that the fruits of their intellect and labor benefit humankind.

WWW.FAS.ORG

FIFTY YEARS AFTER THE CUBAN MISSILE CRISIS: TIME TO STOP BLUFFING AT NUCLEAR POKER

BY MARTIN HELLMAN

EXECUTIVE SUMMARY

Fifty years ago, the Cuban Missile Crisis had us teetering precariously on the edge of the nuclear abyss. Could it happen again today? Most think not – if they think about it at all. This paper shows that society's complacency is ill-founded, and that we are still bluffing in a deadly game of nuclear poker. We run an unacceptably high risk of our bluff again being called and finding ourselves, once more, teetering on the brink of the abyss.

This paper's first section, *Risks During the 1962 Cuban Missile Crisis*, highlights eleven little-known events which demonstrate that 1962 was a significantly more dangerous year than generally realized.

Examples include:

- During the crisis, American destroyers unknowingly attacked Soviet submarines armed with nuclear torpedoes.
- American decision makers who wanted to invade Cuba did not know that the Soviets had deployed battlefield nuclear weapons for repelling an invasion.
- In March, the Joint Chiefs of Staff recommended sinking an American ship in Guantanamo Bay and blaming Fidel Castro to create public support for an American invasion of Cuba.

...society's complacency is ill-founded... we are still bluffing in a deadly game of nuclear poker.

The paper's next section, *Current Risks and Actions for Reducing Them*, identifies eleven current events with the potential to produce a comparable crisis today and provides suggestions for reducing each such risk. Because this paper is written for an American audience, the ameliorative steps are all actions on which we can take the lead. Here are four examples, with more detailed explanations given in that section:

- Warning times have shrunk to virtually zero. *Recommendation:* Take our missiles off hair-trigger alert, and de-emphasize the role that first use of nuclear weapons currently plays in our war-fighting plans.
- Nuclear terrorism has added a dangerous new dimension. *Recommendation:* Reduce the number of nuclear weapons and the amount of fissile material that is vulnerable to theft by terrorists.
- American conventional military superiority causes Russian war-fighting plans to rely on the early use of nuclear weapons. *Recommendation:* Recognize that any war with Russia runs an unacceptable risk of going nuclear, and start acting accordingly.
- Actions taken by Congress and some of our NATO allies reinforce Russian fears that our missile defense system is aimed at them. *Recommendation:* Ensure that our actions are consistent with our repeated claims that Russia is not the target.

Even though terrorists, North Korea, and Iran dominate American thinking about nuclear threats, for reasons detailed in the section on *Current Risks and Actions for Reducing Them*, this paper places more emphasis on the potential for a modern-day Russian-American crisis, mistake, or accident. One reason for that emphasis is that Russia and America possess 95% of the world's nuclear weapons, creating unique potential for destroying civilization.

The *End Notes and References* section at the end of this paper back up some otherwise hard-to-believe facts presented here – for example, that the Joint Chiefs recommended sinking an American ship and blaming Cuba, or that President Kennedy was taking massive doses of amphetamines that might have impaired his judgment. Web links in that section are “clickable” in this paper’s PDF at www.wagingpeace.org/nuclear-poker.

If we continue to bluff at nuclear poker, we automatically subject each new generation to a round of nuclear roulette.

Kennedy and Khrushchev created the conditions for the 1962 Cuban crisis by bluffing at nuclear poker. In today’s less polarized world, the cards may be dealt less frequently, but if we keep playing this risky game, it is only a matter of time before a crisis arises, neither side is willing to fold, the bluffs are called, and civilization is destroyed.

Each individual risk may be small, but taken together over an extended period of time, the risk becomes unacceptably high. Even if nuclear deterrence could be expected to work for 500 years before we destroy ourselves, a child born today would have roughly one chance in six of being killed by a nuclear weapon over his or her 80-year expected lifetime – equivalent to playing Russian roulette with a six-chambered revolver pointed at the child’s head.

If we continue to bluff at nuclear poker, we automatically subject each new generation to a round of nuclear roulette. After fifty years, it is high time we stopped playing those deadly games and started creating true national security.

RISKS DURING THE 1962 CUBAN MISSILE CRISIS

The Cuban Missile Crisis is generally considered to have started on Tuesday, October 16, 1962, when President Kennedy was informed that U-2 photos showed Soviet missiles being installed in Cuba, and to have ended on Sunday, October 28, 1962, when Khrushchev agreed to remove those missiles. However, as will be shown below, considerable, needless risk persisted for months afterward, and is still present today.

American destroyers unknowingly attacked Soviet submarines armed with nuclear torpedoes. On October 27, at the height of the crisis, American destroyers intercepted a Soviet submarine near the quarantine line and forced it to surface by dropping depth charges. Only forty years later did we learn that the sub carried a nuclear torpedo. According to a crew member, the captain gave orders for it to be armed and declared, “We’re going to blast them now! We will die, but we will sink them all – we will not disgrace our Navy!” Fortunately, the captain was dissuaded from taking that action.¹

American decision makers who favored invading Cuba did not know that the Soviets had deployed battlefield nuclear weapons. While President Kennedy eventually decided on a naval blockade, he and almost all the other American decision makers initially favored airstrikes to destroy the missiles, likely to be followed by an invasion to solve the problem once and for all.² The Joint Chiefs of Staff wanted to invade even *after* Khrushchev had backed down, because they did not trust the Soviet promise to remove the missiles.³ None of those counseling an invasion – indeed, none of the American decision makers – knew that the Soviets had placed battlefield nuclear weapons on Cuban soil to deter, and if need be repel, such an assault.⁴

The man who commanded the Strategic Air Command during the crisis was described by an immediate subordinate as “not stable.” General Horace Wade who commanded SAC’s 8th Air Force described his commander, General Thomas Power, as “mean ... cruel ... unforgiving ... I used to worry that General Power was not stable ... [and] had control over so many weapons and weapon systems and could, under certain circumstances, launch the force.” Not surprisingly, General Wade gave this assessment after General Power had died.⁵

At the height of the crisis, an American U-2 strayed into Soviet airspace, creating a risk that nuclear air-to-air missiles would be used. On October 27, a U-2, on an intelligence mission over the Arctic, became lost and accidentally flew into Soviet airspace. MiG fighters were scrambled to shoot it down, while F-102 interceptors from Alaska were sent to escort it home. Due to the crisis, the F-102s’ conventional air-to-air missiles had been replaced with nuclear warheads. As noted by Stanford Professor Scott Sagan, “the only nuclear weapons control mechanism remaining was the discipline of the individual pilots in the single seat interceptors. The critical decision about whether to use a nuclear weapon was now effectively in the hands of a pilot flying over Alaska.”⁶ Fortunately, the MiGs never reached the U-2.

President Kennedy often took massive doses of amphetamines. We have been concerned about Russian leaders having their fingers on the button while under the influence, but the problem is far more general and included President Kennedy. Along with a number of other celebrities, JFK received massive doses of amphetamines from Dr. Max Jacobson, known to his clients as “Miracle Max” and “Dr. Feelgood” for the effect of his treatments.^{7,8} Possible side effects of amphetamine use include euphoria, anxiety, aggression, grandiosity, and paranoia. In chronic or high doses, such as Kennedy received, amphetamine psychosis is also possible. In 1969, a Jacobson patient died of “acute and chronic intravenous amphetamine poisoning,” according to the medical examiner. Jacobson’s medical license was revoked in 1975.⁸ A new medical doctor brought in to treat the president, was aghast at the amphetamine treatments and reportedly warned Kennedy two months *after* the crisis, “that if I ever heard he took

another shot, I'd make sure it was known. No President with his finger on the red button has any business taking stuff like that."⁷

The United States gave numerous indications that it intended to invade Cuba, pushing Castro to desperate measures. The goal of a two-week-long American military exercise involving tens of thousands of military personnel, which started the day before the crisis erupted, was to execute an amphibious assault on a Puerto Rican island whose fictitious dictator was named "Ortsac" – "Castro" spelled backwards.⁹ In the months before the missiles were discovered, congressmen, senators and the American media excoriated Kennedy for allowing the conventional Soviet military buildup in Cuba, many demanding an invasion.¹⁰ The September 21 cover story in *TIME* magazine argued, "The only possibility that promises a quick end to Castro ... is a direct U.S. invasion of Cuba."¹⁰ This convinced Castro that his regime and life were about to be ended. Knowing of the Soviet battlefield nuclear weapons on Cuba, he also believed that an all-out nuclear war would follow. He therefore pleaded with Khrushchev to launch the nuclear-armed Cuban missiles in a preemptive strike on the American mainland, so that the U.S. would suffer as much as possible.¹¹

To create support for an invasion, the Joint Chiefs of Staff (JCS) suggested blowing up an American ship in Guantanamo Bay and blaming Cuba. Seven months before the crisis started, the JCS sent Defense Secretary Robert McNamara a list of proposals known as Operation Northwoods, outlining ways to generate American public support for an invasion of Cuba. Two suggestions read: "We could blow up a U.S. ship in Guantanamo Bay and blame Cuba. ... We could foster attempts on lives of Cuban refugees in the United States even to the extent of wounding [them]."¹² On the first day of the crisis, at a meeting of President Kennedy and his key advisors, Attorney General Robert F. Kennedy similarly suggested: "We should also think of whether there is some other way we can get involved in this through Guantanamo Bay ... you know, sink the *Maine* again or something."¹³ RFK had made similar proposals at least twice before, on April 19, 1961, and August 21, 1962.¹⁴

President Kennedy took actions that added significant risk for months after the crisis had ended in the public's mind. When Khrushchev backed down, Kennedy became emboldened by his success in bluffing at nuclear poker and seized on a wording ambiguity to expand his list of demands far beyond removal of the Soviet missiles, thereby reigniting the crisis out of public view.¹⁵ When a more minor part of the deal fell apart, Kennedy also added risk by questioning whether our pledge not to invade Cuba was still effective, even though that commitment was comparable in importance to the Soviets' promise to remove their missiles.¹⁶ In fact, CIA-sponsored attacks in Cuba and assassination attempts on Castro's life continued until at least 1963.¹⁷ American invasion plans peaked on November 15, three weeks after the public thought the crisis had ended.¹⁸

In the month before the crisis erupted, Kennedy and Khrushchev each drew lines in the sand that later boxed them in. Under pressure from Congress and the press over the Soviet buildup, on September 4, the President warned the Soviets that "the gravest issues would arise" if they introduced "offensive ground-to-ground missiles" into Cuba.¹⁹ On September 11, Moscow drew its own line in the sand when it warned that "one cannot now attack Cuba and expect the aggressor will be free from punishment. If this attack is made, this will be the beginning of the unleashing of war."²⁰ When the Cuban missiles were discovered in mid-October and nuclear war seemed imminent, Kennedy noted that it didn't "matter if you got blown up by a missile based on Cuba or an ICBM flying from the Soviet Union," and regretted his earlier ultimatum: "Last month I should have said we don't care."²¹

Predictions of disaster were ignored. In the spring of 1962, nuclear-armed American missiles became operational in Turkey, putting the idea in Khrushchev's mind to base similar Soviet weapons in Cuba.²² A risk of that nature had been foreseen several years earlier by President Eisenhower, when the Turkish deployment was first considered. Minutes of the 1959 meeting quote the President as seeing a parallel to a

possible Soviet deployment in Cuba: “If Mexico or Cuba had been penetrated by the Communists, and then began getting arms and missiles from [the Soviets], we would be bound to look on such developments with the gravest concern and in fact ... it would be imperative for us [even] to take ... offensive military action.”²³ In spite of this recognition, Eisenhower set in motion events which led to the missiles being given to Turkey. Related concerns occurred to President Kennedy, but he approved deployment of our Turkish missiles the year before the crisis broke.²⁴

During the crisis, Kennedy forgot that we had similar missiles in Turkey. On the first day of the crisis, October 16, JFK expressed shock at Khrushchev’s recklessness in deploying nuclear-armed missiles so close to our shores. Obviously forgetting that he had deployed similar missiles in Turkey, JFK argued, “It’s just as if we suddenly began to put a major number of MRBMs in Turkey. Now that’d be goddamn dangerous.” Kennedy’s National Security Adviser, McGeorge Bundy, was forced to remind him that we had done exactly that. Then, instead of seeing Khrushchev’s move in a new light, Kennedy and his advisers used tortured logic to portray the Soviet’s Cuban missile deployment as fundamentally different from ours in Turkey.²⁴

CURRENT RISKS AND ACTIONS FOR REDUCING THEM

Inadequate concern about proliferation is enlarging the “nuclear club.” In 1962, there were four members: the United States, the Soviet Union, the United Kingdom, and France. Today, five more nations – China, India, Pakistan, Israel, and North Korea – have joined, and Iran may be knocking at the door. Some studies indicate that even a regional nuclear war between India and Pakistan could result in a billion deaths worldwide: The firestorms created as their megacities burned would send dust and smoke into the stratosphere, where it would choke off sunlight, devastate agriculture, and lead to global famine.²⁵ India’s and Pakistan’s war-fighting plans increase the likelihood that a conventional war between them would escalate to the use of nuclear weapons.²⁶

Recommendation: Do not allow lesser considerations to reduce the priority given to nuclear nonproliferation. While nuclear nonproliferation is often said to be a top U.S. priority, history shows that much lesser concerns can trump nuclear nonproliferation. After the Soviets invaded Afghanistan, President Carter’s National Security Advisor Zbigniew Brzezinski wrote to the president: “It is essential that Afghanistani resistance continues. This means ... alas, a decision that our security policy toward Pakistan cannot be dictated by our nonproliferation policy.”²⁷ Not many years thereafter Pakistan developed a nuclear weapons capability, and history shows that our support for the *mujahideen* – many of whom now fight us under the banner of the Taliban or al Qaeda – was not the critical national security concern that Brzezinski believed it to be.

Recommendation: Stop inadvertently giving incentives to would-be nuclear proliferators. North Korea’s and Iran’s nuclear ambitions derive largely from perceived threats to their existence.²⁸ Reducing such threats would reduce the motivation for proliferation, but we have inadvertently done the opposite. When Libya’s Moammar Gaddafi gave up his nuclear weapons program in December 2003, President Bush promised that this would provide “an open path to better relations with the United States and other free nations,” and expressed his hope “that other leaders will find an example in Libya’s announcement.”²⁹ When the U.S. helped overthrow Gaddafi in 2011, North Korea saw a very different example from what President Bush had hoped for and issued a press release stating: “It was fully exposed before the world that ‘Libya’s nuclear dismantlement’ much touted by the U.S. in the past turned out to be a mode of aggression whereby the latter coaxed the former with such sweet words as ‘guarantee of security’ and ‘improvement of relations’ to disarm itself and then swallowed it up by force.”³⁰ The press release went on to defend North Korea’s “very valuable deterrent for averting a war.” While there

may be situations where we need to use force even if it encourages nuclear proliferation, that should be a conscious decision – unlike our attack on Libya, where the issue of nuclear proliferation was absent from the debate.

Nuclear terrorism has added a dangerous new dimension. Henry Kissinger has estimated that “if the existing nuclear countries cannot develop some restraints among themselves ... then I would expect the use of nuclear weapons [by terrorists] in some 10 year period is very possible.”³¹ Republican Senator Richard Lugar conducted a survey of 85 national security experts which reached a similarly alarming conclusion.³² In addition to possibly losing an American city and causing a financial panic, a nuclear terrorist attack runs the risk of being mistaken for a Russian attack, which then could catalyze a full-scale nuclear war. That risk is increased if the terrorists disguise their attack, either in the hope that Russia and America will destroy one another, or because they have an apocalyptic bent.

Recommendation: Negotiate large reductions in the number of nuclear weapons that might be stolen by terrorists. The U.S. and Russia currently have thousands of nuclear weapons,^{33,39} making it hard to keep track of them all, and increasing the risk of theft or illicit sale to terrorists. In fact, in 2007, the U.S. Air Force lost six nuclear weapons for over a day, during which time they were not properly guarded. A B-52 was supposed to carry cruise missiles with dummy warheads on a flight from North Dakota to Louisiana, but instead, accidentally was loaded with six nuclear warheads.³⁴ Each had a destructive force roughly 10 times greater than the Hiroshima bomb. It took 36 hours for the Air Force to become aware of this error and correct it. This might be an acceptable risk if 8,000 warheads were needed to ensure U.S. national security, but a number of former military leaders have argued that deep cuts are both possible and desirable. Most recently, in May 2012, General James Cartwright (U.S. Marines, Retired) chaired a commission whose report recommended that, “the United States over the next ten years reduces its arsenal to a maximum of 900 total nuclear weapons,” almost a 90% reduction from current levels.³⁵ General Cartwright is well versed in nuclear strategy – from 2004-2007, he commanded the U.S. Strategic Command (USSTRATCOM), the successor to the Strategic Air Command.

There are approximately 1,440,000 kg of HEU (highly enriched uranium) in the world. As little as 25 kg are needed to create a nuclear weapon.^{36,37} While both HEU and plutonium can be used as the fuel for an atomic bomb, HEU is more dangerous because it is much easier to fashion into a bomb. The “gun assembly” used for an HEU weapon is so simple and reliable that the Manhattan Project scientists did not even test it before using it on Hiroshima. In contrast, the more complex plutonium-fueled “implosion” design used on Nagasaki required a test shot in the New Mexico desert before there was adequate confidence it would work. Such problems persist today, with North Korea’s first plutonium-fueled nuclear test being somewhat of a fizzle.

Recommendation: Reduce the amount of fissile material that can be stolen by terrorists. While progress is being made on reducing the risk posed by this huge stockpile that can be made into nuclear weapons, efforts should be accelerated and greater concern paid to security. South Africa’s supposedly secure Pelindaba nuclear facility provides a good example of the danger. South Africa secretly developed nuclear weapons during the apartheid era, but dismantled them during the transition to majority rule and stored their HEU fuel at Pelindaba. In 2007, two groups of armed men simultaneously broke into the facility and shot one of the operators who resisted.³⁸ Even though these attackers did not steal any HEU, this breach of security is a warning sign with implications that should not be ignored. Although plutonium is more difficult to fabricate into a bomb than HEU, the huge stockpiles created by commercial nuclear power reactors warrant greater attention as well.

Russia's current nuclear arsenal is more than three times larger than during the Cuban crisis. In 1962, the Soviet Union had roughly 3,000 nuclear weapons, whereas today Russia has 10,000. Comparable numbers for the U.S. are 30,000 in 1962 and 8,000 today, so Russia's bloated arsenal is far from a unique aberration.^{39,33}

Recommendation: Stop pretending that very large nuclear arsenals are needed for deterrence. Even though President Kennedy and his advisers were deterred from attacking the Soviets' Cuban missiles out of fear that even one might be fired in retaliation and destroy an American city,⁴⁰ they sometimes acted as if our numerical superiority made a difference,⁴¹ thereby providing some of the motivation for the massive Soviet arms buildup which followed.³⁹ Reductions in the numbers of nuclear weapons to more reasonable levels will not occur so long as we pretend that thousands are needed for deterrence.⁴² As noted above, former USSTRATCOM Commander General Cartwright (U.S. Marines, Retired) has argued that a 90% reduction in our arsenal³⁵ would enhance our national security.

Due to American conventional military superiority, Russian war-fighting plans depend heavily on nuclear weapons. Our military spending is about ten times larger than Russia's, giving us unquestioned conventional military superiority.⁴³ This causes Russian war-fighting plans to be heavily reliant on the use of nuclear weapons if our nations come into conflict over Georgia or some other hot spot.

Recommendation: Recognize that any war with Russia runs an unacceptable risk of going nuclear, and start acting accordingly. We have been called the world's sole remaining superpower so often that we have come to believe it, even though Russia still can destroy us in under an hour. We therefore neglect Russia's vital interests at our peril, but have done so a number of times, most notably with respect to NATO expansion⁴⁴ and missile defense.⁴⁵ We should not let Russia dictate our behavior, but neither can we afford to dismiss its concerns out of hand. Operating on the mistaken assumption that our military power allows us to overrule all Russian objections puts our homeland at needless risk.

Warning times have shrunk to virtually zero. In 1962, most nuclear weapons were carried on bombers which took hours to reach their targets. Today, the primary nuclear delivery vehicles are ICBMs with 30-minute flight times and submarine-launched ballistic missiles which can reach their targets in under 10 minutes. Given how long it takes to detect and verify a launch and then pass the word to military decision makers, who in turn must contact the president, it is questionable whether any warning time remains. Many missiles are therefore on hair-trigger alert.⁴⁶

Recommendation: Take our missiles off hair-trigger alert. Many former American political and military leaders have made this recommendation, but it has not yet been implemented. Most recently, in May 2012, a report chaired by former USSTRATCOM commander General James Cartwright (U.S. Marines, Retired) recommended de-alerting our strategic nuclear forces: "By maintaining launch-ready nuclear postures just as they did during the Cold War, the United States and Russia run risks of nuclear mistakes that could have catastrophic consequences."⁴⁷

Recommendation: De-emphasize the role that first use of nuclear weapons plays in our national security strategy. While many Americans believe that our nuclear weapons are intended solely to deter a nuclear attack on our own nation or one of our allies, that is not and never has been our nuclear war-fighting strategy. Our most recent public pronouncement, President Obama's 2010 Nuclear Posture Review, even held open the possibility of preemptively using our nuclear weapons against Iran, currently a non-nuclear nation.⁴⁸ We have repeatedly resisted joining China and India, the only two nations with a stated "no first use" policy. While

legitimate questions have been raised about the strength of such pledges, they remove one level of bluffing at nuclear poker.

Some American politicians needlessly threaten Russia. Last October, on the day after Gaddafi was killed, former presidential candidate, Senator John McCain, warned that “dictators all over the world ... even Putin may be a little bit more nervous.”⁴⁹ Two months later, when thousands of Muscovites protested Russia’s December election results, McCain again warned Putin in a tweet: “Dear Vlad, the Arab Spring is coming to a neighborhood near you.”⁵⁰ When the Russian opposition’s Moscow protests were not violent enough to look like the Arab Spring, Fox News substituted footage of riots in Athens, complete with streets on fire.⁵¹ When caught, Fox dismissed the substitution as an accident. Such events, coupled with presidential candidate Mitt Romney calling Russia “without question our No. 1 geopolitical foe,”⁵² increase the risk that Russia might mistake innocent American actions as a prelude to intervention in their internal affairs.

Recommendation: Create greater awareness of needless threats which increase the nuclear risk. Even though our national security requires that we stop needlessly threatening Russia, most Americans have no way of learning of these provocations. I read three newspapers every day, but only learned of McCain’s threats and Fox News’ substitution through the *Moscow News* and the Russian news agency Ria Novosti. I then checked them out, even joining Twitter to see McCain’s “Dear Vlad” tweet first-hand. We need to demand more balanced coverage from our media.

American misconceptions about Russian elections add fuel to the fire. Fox News’ substitution of Athens’ riots for Moscow’s much tamer election protests was believable to most Americans because our media have given the impression that Putin is an unpopular dictator. While many Russians resent Putin’s authoritarian rule, others see it as a welcome change from the chaos of the Yeltsin years. Independent polls predicted Putin would win last March’s presidential elections with 66% of the vote – a margin of victory unheard of in recent U.S. elections, and close to the actual 64% which he garnered in the election.⁵³

Recommendation: Stop applying double standards which increase nuclear risk. There are voting irregularities in Russian elections, but the same has been true for a number of our allies, and even within our own nation. Even if Russia’s voting irregularities were unique, we need to consider to what extent our objections will correct the problem, to what extent they will hinder protestors by tarring them as “foreign agents,” and whether the irregularities threaten our national security.

American misperceptions about a resurgent Russia create needless risk. Most American media coverage of the 2008 Russo-Georgian War gives the impression that Russia is guilty of totally unprovoked aggression,⁵⁴ even though an EU commission determined that Georgia bears some of the blame and fired the first shots.⁵⁵ *Newsweek* even ran an article which argued against “appeasing Russia,” and gave “historical reasons why the West should intervene in Georgia.”⁵⁶ This call to arms echoed President Bush’s earlier promise to Georgia that “the American people will stand with you.”⁵⁷ The risk of Russian and American troops shooting at one another was reduced when Bush did not follow through on that pledge, but his use of military transport planes and warships for sending aid to Georgia⁵⁸ incurred some such risk. A second round in that war is possible,⁵⁹ and having Obama as president could make it more dangerous since his political opponents – unlike Bush’s in 2008 – would be unlikely to remain quiet in the face of inaction. In September 2008, as a vice presidential candidate, Sarah Palin stated that we would be expected to go to war with Russia if such a rematch occurred.⁶⁰ The root causes of that war have not been resolved, increasing the likelihood of a second round.

Recommendation: Stop applying double standards which increase nuclear risk (the same recommendation as for the previous risk). Most Americans see any Russian military intervention as unwarranted, but all of our own as justified. In the case of Afghanistan, this double standard has even been applied to the same country and some of the same adversaries – many of the *mujahideen* “freedom fighters” we armed in the 1980’s are now our Taliban and al Qaeda enemies. Even if Russia’s military actions were uniquely heinous, we need to consider to what extent our actions will correct the problem, and to what extent they threaten our national security.

Russia is threatened by NATO expansion. In September 1995, when we were considering expanding NATO into Eastern Europe, Russian President Boris Yeltsin warned it would “send the whole of Europe into the flames of war.”⁴⁴ Two years later, when Hungary, the Czech Republic, and Poland were joining NATO, the Russian Duma passed a resolution calling this “the most serious threat to our country since 1945.”⁴⁴ While the U.S. claims that NATO enlargement should not be seen as threatening by Russia, retired German Vice Admiral Ulrich Weisser has noted that “Poland and the Baltic states use every opportunity to make provocative digs at Russia; they feel themselves protected by NATO and backed by the U.S.”⁶¹

Recommendation: Make sure that our alliances do not harm our national security. Some alliances enhance our national security, but others can threaten our very existence. We need to carefully weigh those tradeoffs before entering into new treaty obligations, such as following through on President Bush’s and President Obama’s promises to Georgia that it will become a member of NATO. We also need to warn any of our allies who jeopardize our national security by needlessly poking the Russian bear that NATO’s security guarantees do not apply in such cases.

Actions taken by Congress and some of our NATO allies reinforce Russian fears that our missile defense system is aimed at them.^{62,64,67} We say our missile defense system is directed solely against “rogue nations” such as Iran, and reject as paranoid Russian objections that it threatens their nuclear deterrent.⁶³ Yet the Eastern European nations that will host parts of the system justify it primarily as protection against Russia.⁶⁴ Russia’s (and China’s) fears are exacerbated by articles – including one in the prestigious journal *Foreign Affairs* – which claim that missile defense will give us the capability to destroy Russia and China while suffering only limited damage ourselves.⁶⁵ While such claims are highly questionable, they create fear, and therefore risk. In fact, the dispute over our missile defense plans came close to causing a “Cuban Bomber Crisis” in July 2008, much as our Turkish missile deployment played a key role in Khrushchev’s decision to base Soviet missiles in Cuba in 1962.^{22,66}

On July 21, 2008, *Izvestia* quoted an anonymous, high-level Russian Air Force official as saying that Russia was considering deploying nuclear-capable bombers on Cuba to offset the threat that it believes our missile defense system poses to its nuclear deterrent. In response, and in a move reminiscent of President Kennedy drawing a line in the sand that he later regretted, Air Force Chief of Staff General Norton Schwartz declared, “We should stand strong and indicate that is something that crosses a threshold, crosses a red line for the United States of America.” Fortunately, the mini-crisis was defused when the Russian Defense Ministry claimed the original story was a false rumor. (Other evidence indicates that the story was valid, and Russian threats involving Cuba may resurface if the conflict over the U.S. missile defense system is not resolved. Basing weapons on Cuba is a way for Russia to “jump over” our European missile defense system.) This incident ended less than two weeks before the outbreak of the August 2008 Russo-Georgian War. If it had overlapped or occurred in the highly charged environment which followed, the risk of a full-blown crisis would have been increased.

Recommendation: Ensure that our actions are consistent with our repeated claims that Russia is not a target. While we have repeatedly rejected Russian objections that our missile

defense system threatens them, Congress limited President Obama's ability to share data with the Russians to allay such concerns.⁶⁷ (Obama used a signing statement to override those limits, but the Russians still saw a message from Congress.) If the system is directed at Russia, then our government needs to publicly admit that, so that the American public can assess the system in that light. And if, as we currently maintain, the system is not aimed at Russia, then we need to make sure our deeds match our words.

Even though terrorism, North Korea, and Iran dominate American thinking about nuclear threats, this section has placed more emphasis on the potential for a modern-day equivalent of the Cuban Missile Crisis for the following reasons:

- Russia and America possess 95% of the world's nuclear weapons. A Russian-American conflict therefore has unique potential for destroying civilization.
- Unlike in Middle East conflicts, neither nation poses an existential threat to the other, *except* through their nuclear arsenals. Resolving Russian-American disputes is therefore the low-hanging fruit, and should be addressed before considering more entrenched conflicts.
- Recreating the kind of Russian-American partnership that existed under Gorbachev, Reagan, and George H. W. Bush would make it much easier to settle those more entrenched conflicts, including dealing with Iran's nuclear program.
- Most Americans are unaware of our actions that have increased Russian fears and nuclear risk. These need to be brought to the public's attention so pressure can be brought to stop this needless, risky behavior.

CONCLUSION

Although the Cold War is over, many of its basic attitudes persist, limiting cooperation on non-proliferation and counter-terrorism – the two greatest threats to both Russian and American national security. These counter-productive attitudes also make the risk of a major Russian-American crisis much higher than most people realize.

To reduce the risk of major international standoffs comparable to the 1962 Cuban crisis, we need to adopt a more rational approach to national security. Considering the July 2008 Cuban Bomber Mini-Crisis described above, while Russian bombers on Cuba would be a dangerous provocation, they would have no real impact on our national security. Similarly, American missiles in Poland are a dangerous provocation, but have no real impact on Russia's national security. Both nations need to react more rationally to such provocations. But each nation also needs to be more sensitive to how its actions will be perceived. That would avoid needless provocations that increase the risk of a nuclear disaster.

Where human survival is concerned, we cannot afford to let emotional, gut-level reactions prevail.

Where human survival is concerned, we cannot afford to let emotional, gut-level reactions prevail. Because the most relevant gut-level reaction relates to whether nuclear weapons are essential for preserving the peace or will inevitably destroy civilization, an excellent first step would be for the National Research Council to assess the level of risk posed by our current nuclear strategies. If the risk is found to be unacceptable, the analysis should also identify the most likely failure mechanisms, so that ameliorative efforts can be applied where they are most effective in reducing the risk. The National Research Council stands ready to undertake such a study, but needs authorization and budgeting from Congress.⁶⁸

Most fundamentally, we need to recognize that we are still bluffing at nuclear poker and stop doing it. Only then can we start to develop true national security. Otherwise, it is only a matter of time before our bluff is called and we have to choose between the humiliation of a great nation backing down versus unleashing the horror of a nuclear holocaust.

In discovering that path to a safer future, it would help to consider the counsel of some American leaders who experienced the nuclear threat in a personal way that most of us can only imagine:

“Every man, woman and child lives under a nuclear sword of Damocles, hanging by the slenderest of threads, capable of being cut at any moment by accident, or miscalculation, or by madness. The weapons of war must be abolished before they abolish us.”

-- **President John F. Kennedy**, 1961

“A nuclear war cannot be won and must never be fought. The only value in our two nations possessing nuclear weapons is to make sure they will never be used. But then would it not be better to do away with them entirely?”

-- **President Ronald Reagan**, 1984

“The one thing I convinced myself of after all these years of exposure to the use of nuclear weapons – is that they were useless. They could not be used. You can have deterrence with even lower number of weapons, but I mean why stop there? Why not continue on – why not get rid of them altogether.”

-- **General Colin Powell**, Former Secretary of State and Chairman of the Joint Chiefs, 2010

“Once nuclear weapons are used we will be driven to take global measures to prevent it. So some of us have said, let's ask ourselves if we have to do it afterwards why don't we do it now?”

-- **Henry Kissinger**, National Security Adviser to Presidents Nixon and Ford, 2010

END NOTES AND REFERENCES

If you are reading the printed version of this paper, the PDF, which is accessible at www.wagingpeace.org/nuclear-poker, will make all links “clickable.”

1. William Burr and Thomas S. Blanton, “The Submarines of October: U.S. and Soviet Naval Encounters During the Cuban Missile Crisis,” National Security Archive Electronic Briefing Book No. 75, October 31, 2002, accessible at <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB75/>. An English translation of the crew member’s recollection of the captain’s wanting to use the nuclear torpedo is accessible at <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB75/asw-II-16.pdf>. It was translated by Svetlana Savranskaya of the National Security Archive, and references the original Russian text as coming from Alexander Mozgovoi, “The Cuban Samba of the Quartet of Foxtrots: Soviet Submarines in the Caribbean Crisis of 1962,” *Military Parade*, 2002.

2. Sheldon M. Stern, *The Week the World Stood Still: Inside the Secret Cuban Missile Crisis*, Stanford University Press, Stanford, CA, 2005, pp. 40-41, 67-69, 87-90.

Sheldon Stern was the Historian at the John F. Kennedy Presidential Library from 1977 to 1999 and is recognized as one of the world’s leading experts on deciphering the low-quality audio tapes which JFK secretly made of many meetings during his presidency. This book is derived from those tapes, and is first-hand source material.

3. Sheldon M. Stern, *The Week the World Stood Still*, pp. 195-196. See also David G. Coleman, “The Missiles of November, December, January, February ... The Problem of Acceptable Risk in the Cuban Missile Crisis Settlement,” *Journal of Cold War Studies*, vol. 9, No. 3, 2007, pages 5-48.

4. Aleksandr Fursenko and Timothy Naftali, *One Hell of a Gamble*, W. W. Norton & Company, New York, 1997, p. 212.

5. Scott D. Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons*, Princeton University Press, Princeton, NJ, 1995, p. 150. Prof. Sagan gives as his reference for General Wade’s remarks: U.S Air Force, Oral History of General Horace M. Wade, October 10-12, 1978, pp. 307-308, K239.0512-1105, AFHRC. Dr. Fred Kaplan’s book, *The Wizards of Armageddon* (Simon & Schuster, New York, 1983, pp. 245-246), describes General Power in similar terms:

Power was a brutal, easily angered man who struck Air Staff officers outside SAC as dim-witted and insensitive to the dilemmas that the bomb raised. Once, when Herman Kahn was briefing Power on the long-term genetic effects of nuclear weapons, Power suddenly chuckled, leaned forward in his chair and said, “You know, it’s not yet been proven to me that two heads aren’t better than one.” Even Kahn was outraged, and sternly lectured Power that he should not discuss human life so cavalierly. ...

[When RAND researcher William Kaufman briefed General Power on a new Air Force doctrine which held some weapons in reserve, Power retorted:] “Why do you want us to restrain ourselves? ... Why are you so concerned with saving their lives? The whole idea is to kill the bastards. At the end of the war if there are two Americans and one Russian left alive, we win!”

In private correspondence, Dr. Kaplan told me that he obtained this information from direct interviews with Herman Kahn and William Kaufman.

6. Scott D. Sagan, *The Limits of Safety*, pp. 136-137.

7. Robert Dallek, *An Unfinished Life: John F. Kennedy, 1917-1963*, Little Brown & Co, 2003, pp. 398-399 and pp. 581-582. Another quote, on the latter pages, indicates that Kennedy may even have been on amphetamines *during* the Cuban crisis:

Through much of 1962, Jacobson made occasional professional visits to the White House. ... Bobby was concerned that the president might become addicted to the amphetamines Jacobson was using. Inconclusive lab tests, however, allowed Jacobson to continue treating Kennedy through at least the fall of 1962.

8. William Bryk, "Dr. Feelgood," *The New York Sun*, September 20, 2005, accessible at <http://www.nysun.com/out-and-about/dr-feelgood/20251/>.

9. Laurence Chang and Peter Kornbluh (Editors), *The Cuban Missile Crisis, 1962: A National Security Archive Documents Reader*, The New Press, New York, 1998, pp. 370-371. Note that the page numbers are for the 1998 edition, not an earlier one.

10. "The Nation: The Presidency: The Durable Doctrine," *TIME*, vol. 80, No. 12, September 21, 1962, pp. 17-20; Robert Dallek, *An Unfinished Life*, pp. 539-540; and Richard Ned Lebow and Janice Gross Stein, *We All Lost the Cold War*, Princeton University Press, Princeton, 1994, pp. 20-21.

11. Jerold L. Schecter, translator and editor, with Vyacheslav V. Luchkov, *Khrushchev Remembers: The Glasnost Tapes*, Little, Brown, Boston, 1990, pp. 176-177. After being deposed, Khrushchev put his memoirs on tape and smuggled them out of the Soviet Union. This is a translation of those tapes. Their authenticity was initially questioned, but after censorship was lifted, Khrushchev's son Sergei vouched for their authenticity. The relevant quote is:

We received a telegram from our ambassador in Cuba... He told us in great detail that Castro informed him he had reliable information that the Americans were preparing within a certain number of hours to strike Cuba. ... In addition, our own intelligence informed us that such an action was being prepared and that an invasion would probably be unavoidable unless we came to an agreement with the president [Kennedy]. ...

Castro suggested that in order to prevent our nuclear missiles from being destroyed, we should launch a preemptive strike against United States. He concluded that an attack was unavoidable and that this attack had to be preempted. In other words, we needed to immediately deliver a nuclear missile strike against the United States. When we read this I, and all the others, looked at each other, and it became clear to us that Fidel totally failed to understand our purpose. Only then did I realize that our friend Castro, whom I respect for his honesty and directness, had failed to understand us correctly. We had installed missiles not for the purpose of attacking the United States, but to keep United States from attacking Cuba.

12. George Washington University, National Security Archives, "Operation Northwoods," accessible at <http://www.gwu.edu/~nsarchiv/news/20010430/northwoods.pdf>. This PDF is the originally TOP SECRET document, signed by General L. L. Lemnitzer, Chairman of the Joint Chiefs of Staff, clearly showing the authenticity of these otherwise hard-to-believe facts. The quotes used in this paper are in "Annex to Appendix to Enclosure A: Pretexts to Justify US Military Intervention in Cuba." A searchable, transcribed version of the documents is accessible at <http://cryptome.org/jcs-corrupt.htm>.

13. Timothy Naftali and Philip Zelikow, *The Presidential Recordings*, vol. 2, Norton, New York, 2001, p. 452; and Sheldon M. Stern, *The Week the World Stood Still*, p. 50.

14. Stephen G. Rabe, *The Most Dangerous Area in the World: John F. Kennedy Confronts Communist Revolution in Latin America*, University of North Carolina Press, Chapel Hill, 1999, p. 207, footnote 19.

15. Laurence Chang and Peter Kornbluh (Editors), *The Cuban Missile Crisis*, The New Press, New York, 1998, p. 394:

Nikita Khrushchev has inadvertently opened the door to U.S. demands that additional weapons systems be removed by telling Kennedy in his October 28 letter that he would remove “those weapons you describe as offensive.” [Khrushchev repeatedly insisted that his missiles were defensive in nature, intended to deter an American invasion of Cuba.] Although the crisis has centered around the deployment of Soviet missiles, the United States used several arguments to support its contention that the bombers [largely obsolete Soviet IL-28’s] are also “offensive.”

On pp. 396-397 Chang and Kornbluh list four additional classes of weapons that Kennedy later added to the “offensive” list. On page 398, they note:

In a three-page letter to President Kennedy, Premier Khrushchev writes that he is “seriously worried” about the way in which the United States has defined “offensive weapons” that the Soviet Union is to remove from Cuba ... Khrushchev asks Kennedy to withdraw his “additional demands,” saying that the Soviet Union views them as “a wish to bring our relations back again into a heated state in which they were but several days ago.”

16. Richard Ned Lebow and Janice Gross Stein, *We All Lost the Cold War*, p. 345:

Castro [who was livid at not having been consulted in the decision to remove the missiles, and who viewed American promises as worthless] remained adamant in his refusal to cooperate in any of the external inspection and verification measures that the United States had demanded and that the Soviet Union had accepted. As a result, the Kennedy administration withheld its *quid pro quo* and refused to issue the promised formal assurances that the United States would not invade Cuba.

17. Richard Ned Lebow and Janice Gross Stein, *We All Lost the Cold War*, p. 25.

18. David G. Coleman, “The Missiles of November, December, January, February ... The Problem of Acceptable Risk in the Cuban Missile Crisis Settlement,” *Journal of Cold War Studies*, vol. 9, No. 3, 2007, pages 5-48.

19. Laurence Chang and Peter Kornbluh (Editors), *The Cuban Missile Crisis*, p. 367.

20. Richard K. Betts, *Nuclear Blackmail and Nuclear Balance*, The Brookings Institution, Washington, DC, 1987, page 112.

21. Richard Ned Lebow and Janice Gross Stein, *We All Lost the Cold War*, p. 425, footnote 43.

22. Fedor Burlatsky, *Khrushchev and the First Russian Spring*, Charles Scribners Sons, New York, 1991, p. 171:

The idea of deploying the missiles came from Khrushchev himself. ... Khrushchev and [Soviet Defense Minister] R. Malinovsky ... were strolling along the Black Sea coast. Malinovsky pointed out to sea and said that on the other shore in Turkey there was an American nuclear missile base [which had recently been deployed]. In a matter of six or seven minutes missiles launched from that base could devastate major centres in the Ukraine and southern Russia. ...

Khrushchev asked Malinovsky why the Soviet Union should not have the right to do the same as America. Why, for example, should it not deploy missiles in Cuba?

23. Barton J. Bernstein, "Reconsidering the Missile Crisis: Dealing with the Problem of the American Jupiters in Turkey," pages 55-129, in James A. Nathan (Editor), *The Cuban Missile Crisis Revisited*, St. Martin's Press, New York, 1992. The quote used here is on page 58.
24. Sheldon M. Stern, *The Week the World Stood Still*, p. 50.
25. Alan Robock and Owen Brian Toon, "Local nuclear war, global suffering," *Scientific American*, vol. 302, January 2010, pp. 74-81. Accessible with payment or subscription at <http://www.scientificamerican.com/article.cfm?id=local-nuclear-war>, or at <http://climate.envsci.rutgers.edu/pdf/RobockToonSciAmJan2010.pdf>.
26. Walter C. Ladwig III, "A Cold Start for Hot Wars: The Indian Army's New Limited War Doctrine," *International Security*, vol. 32, No. 3, Winter 2007-2008, pp. 158-190. Accessible at http://belfercenter.ksg.harvard.edu/files/IS3203_pp158-190.pdf.
27. Zbigniew Brzezinski, "Reflections on Soviet intervention in Afghanistan," memo to President Carter, December 26, 1979. Accessible in transcribed form at <http://www.temple.edu/history/immerman/291/syllabus/BrzezinskiToCarterAfghanistan.htm> and in original form at http://www.wilsoncenter.org/sites/default/files/AfghanistanV1_1978-1979.pdf. The latter link is to a large collection of documents, but searching on *cannot be dictated* will take you to the memo in question.
28. Siegfried S. Hecker, "Lessons learned from the North Korean nuclear crisis," *Daedalus*, Winter 2010, pp. 44-56. Prof. Hecker is a former Director of Los Alamos National Laboratory and has visited North Korea seven times since 2004 on "track 2" diplomatic missions. On page 52, second column, he notes, "Pyongyang views its security concerns as existential."
29. George W. Bush, "Libya Pledges to Dismantle WMD Programs," speech in the James S. Brady Briefing Room, December 19, 2003. Accessible from the US State Department Archive at <http://2001-2009.state.gov/p/nea/rls/rm/27459.htm>.
30. DPRK Information Center, "DPRK Foreign Ministry Spokesman Denounces U.S. Military Attack on Libya," March 22, 2011. Accessible at <http://nknews.org/2011/03/dprk-foreign-ministry-spokesman-denounces-u-s-military-attack-on-libya/>.
31. Henry Kissinger, statement in "Nuclear Tipping Point" video. Available free of charge from the Nuclear Security Project at <http://www.nucleartippingpoint.org/orderDVD.html>.
32. Senator Richard G. Lugar, "The Lugar Survey on Proliferation Threats and Responses." This survey of 83 experts on national security is accessible at <http://lugar.senate.gov/nunnlugar/pdf/NPSurvey.pdf>. The relevant questions for this reference are on pages 14-15.
33. Federation of American Scientists, "Status of World Nuclear Forces 2012." Accessible at <http://www.fas.org/programs/ssp/nukestatus.html/nuclearweapons/nukestatus.html>.
34. Walter Pincus, "4 Colonels Lose Their Air Force Commands," *The Washington Post*, October 20, 2007. Accessible at <http://www.washingtonpost.com/wp-dyn/content/article/2007/10/19/AR2007101902512.html>.

35. Thom Shanker, "Former Commander of U.S. Nuclear Forces Calls for Large Cuts in Warheads," *The New York Times*, May 16, 2012, page A4. Accessible at <http://www.nytimes.com/2012/05/16/world/cartwright-key-retired-general-backs-large-us-nuclear-reduction.html>. The full report, "Global Zero U.S. Nuclear Policy Commission Report: Modernizing U.S. Nuclear Strategy, Force Structure and Posture," May 2012, is accessible at <http://dl.dropbox.com/u/6395109/GZ%20US%20Nuclear%20Policy%20Commission%20Report.pdf>.
36. Corey Hinderstein, Andrew Newman, Ole Reistad, "From HEU Minimization to Elimination: Time to Change the Vocabulary," *The Bulletin of the Atomic Scientists*, vol. 68/Issue 4, July/August 2012. Accessible on line at <http://www.nti.org/analysis/opinions/heu-minimization-elimination-time-change-vocabulary/>.
37. "Civilian HEU Reduction and Elimination Resource Collection," NTI website. Accessible at <http://www.nti.org/analysis/reports/civilian-heu-reduction-and-elimination/>.
38. Micah Zenko, "A Nuclear Site is Breached," *The Washington Post*, December 20, 2007. Accessible at <http://www.washingtonpost.com/wp-dyn/content/article/2007/12/19/AR2007121901857.html>. A 12-minute video report by CBS News' "60 Minutes" is well worth watching at <http://www.youtube.com/watch?v=8dlvjLAXHJU>.
39. Natural Resources Defense Council, "Table of Global Nuclear Weapons Stockpiles, 1945-2002." Accessible at <http://www.nrdc.org/nuclear/nudb/datab19.asp>.
40. William Burr (Editor), "'How Much is Enough?': The U.S. Navy and 'Finite Deterrence,'" National Security Archive Electronic Briefing Book No. 275, May 1, 2009. Accessible at <http://www.gwu.edu/~nsarchiv/nukevault/ebb275/index.htm> by searching on *even one missile*. The relevant quote is: "When President Kennedy and the 'ExCom' learned that the Air Force could not guarantee that a U.S. air strike would destroy all Soviet missiles on Cuba, the prospect that even one missile would survive was enough to deter the United States from taking military action against Cuba."
41. Sheldon M. Stern, *The Week the World Stood Still*, pp. 67-68. The Joint Chiefs, and especially Air Force Chief of Staff General Curtis LeMay, argued that if the U.S. threatens the Soviet Union, Khrushchev will have no option but to back down. While not explicitly basing their argument on our numerical superiority, that would seem to be the primary logical basis for their believing that, in such a stand-off, Khrushchev would be more deterred than we.
42. Jon Kyl, "What's at Stake in the Missile-Defense Debate?," *The Wall Street Journal*, April 2, 2012. Accessible at <http://online.wsj.com/article/SB10001424052702303816504577311601745664294.html>. Because the article also deals with missile defense, here is the relevant part: "the American people should question the assumptions behind the president's quest to reduce the number of nuclear weapons well below New Start Treaty levels. ... Would the world be safer and more peaceful if the U.S. had fewer nuclear weapons? Is the current nuclear balance unstable? Are there incentives to strike first during a crisis? ... The answer to all of these questions is no."
43. "Background paper on SIPRI military expenditure data, 2010." Accessible at <http://www.sipri.org/research/armaments/milex/factsheet2010>. This report shows 2010 U.S. and Russian military spending to be \$698 billion and \$58.7 billion respectively.

44. Peter Vincent Pry, *War Scare: Russia and America on the Nuclear Brink*, Praeger, Westport, CT, 1999. Written by a former CIA analyst, this book includes the following quotes on page ix, which give Americans a window on Russian thinking:

“It will be a major political mistake of those who insist on the NATO expansion. It will definitely send the whole of Europe into the flames of war.” President Boris Yeltsin, September 8, 1995

“The role of nuclear weapons today remains even more important than it was during the Cold War.” Viktor Surikov, Director, Institute of Defense Studies, September 10, 1996

“One of the reasons for Russia's increased emphasis on nuclear weapons ... has clearly been NATO's expansion. The Cold War is over, but the threat of a new world war is only just taking on new form.” *Novyye Izvestiya*, January 14, 1998

“NATO enlargement means the appearance of the most serious threat to our country since 1945.” Russian Duma Resolution, January 23, 1998

45. “Medvedev: Libya has influenced our position on Syria,” RT (also known as Russia Today, a news network which hopes to be seen as the “BBC of Russia”), accessible at <http://rt.com/politics/official-word/russia-medvedev-britain-syria-364/>. This article is primarily about Libya and Syria, but searching on “the problem is that no one understands entirely what missile defense actually stands for” will bring up the full context for the following quote by Russian Prime Minister Dmitry Medvedev:

The US administration and some European partners keep telling us, “You don’t need to worry, you and we are certainly friends and we collaborate through the NATO-Russia Council, so everything will be alright.” But at the same time, US lawmakers on Capitol Hill are openly saying, “Of course it is against Russia, who else?” ... And unless we manage to agree on something by 2018, a new arms race may become a possibility – which would be extremely bad for all of us, expensive and badly inefficient too.

46. While it has sometimes been argued that our missiles are not on hair-trigger alert, the roughly 30-minute flight times of ICBM’s and 10-minute flight times of SLBM’s require such rapid decision making on indication of launch (hopefully a false alarm) that the question appears to be one of definition. This is especially so during a crisis or time of heightened tension. Unless a decision can be made and ICBM’s launched in a matter of minutes, they are vulnerable to a first-strike attack and lose much of their value as a deterrent. The May 2012 report, chaired by General Cartwright (U.S. Marines, Retired), referenced in Note 35 above (including a link to the report) notes:

If unilateral U.S. de-alerting of its strategic offensive forces would cause Russia to follow suit, it would buy a large margin of safety against the accidental or mistaken launch of Russian missiles on hair-trigger alert aimed at the United States.

In a December 2003 column, unfortunately no longer accessible, former Minuteman launch control officer and now president of the World Security Institute Dr. Bruce Blair noted:

Ironically, the U.S. hair-trigger posture forces Russia into an identical stance, and the risks of a false alarm on the Russian side have grown since the end of the Cold War due to the steady deterioration of its early warning and command system. By acting as though Russia may intentionally attack, the United States is exposing itself to a real threat of unintentional Russian attack.

In a follow-on, February 2004 column (also unfortunately no longer accessible) Dr. Bruce Blair further stated:

From the time of this highly classified orientation briefing given immediately upon his assumption of the presidency through the end of his tenure, a president is made to believe that he is the nuclear quarterback in control of the nuclear football and would call the shots in the event of a nuclear show-down or enemy missile attack. ... [But, the] option to “ride out” the onslaught and then take stock of the proper course of action exists only on paper. ...

While the rhetoric of top civilian officials, the theories of academics, the media accounts, and the debates on Capitol Hill revolved around the necessity and sufficiency of being able to retaliate massively after absorbing a full-scale Soviet strike, the nuclear commanders had long since jettisoned this principle. They knew full well that the U.S. nuclear command system would collapse under the weight of such a Soviet first strike ...

To his great credit, one senior general spoke candidly of the matter soon after retiring from his exalted position as commander in chief of the Strategic Command in 1994. Former Air Force Gen. George Lee Butler gave an interview in which the truth was finally laid bare for all to read ... “the unfortunate fact that, whatever might have been intended by the policymakers, ... the requirements of deterrence proved impracticable.... The consequence was a move in practice to a system structured to drive the president invariably toward a decision to launch under attack.” [A reference to General Butler’s quote was given: Jonathan Schell, *The Gift of Time*, Metropolitan Books, 1998, pp. 191-194.]

47. “Global Zero U.S. Nuclear Policy Commission Report: Modernizing U.S. Nuclear Strategy, Force Structure and Posture,” May 2012. See Note 35 for a link to the report.

48. “Nuclear Posture Review Report,” April 2010, accessible at <http://www.defense.gov/npr/docs/2010%20nuclear%20posture%20review%20report.pdf>. While emphasizing that our nuclear weapons will only be used in situations involving great peril to us or our allies, those conditions are never defined. As in the Cuban Missile Crisis, there is the danger that minor threats will be mistaken for grave peril. JFK’s statement that, “Last month I should have said we don’t care [about missiles in Cuba],” is but one piece of evidence that the crisis was over appearances, pride and domestic politics, not a grave threat to our national security.

The 2010 Nuclear Posture Review also admits: “The United States is therefore not prepared at the present time to adopt a universal policy that deterring nuclear attack is the sole purpose of nuclear weapons, but will work to establish conditions under which such a policy could be safely adopted.” The NPR also held open the possibility of our using nuclear weapons against a non-nuclear Iran, when it stated on page 15:

the United States is now prepared to strengthen its long-standing “negative security assurance” by declaring that the United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations.

That statement is seemingly benign, but becomes threatening when combined with the earlier assertion on page 3 that, “North Korea and Iran have violated non-proliferation obligations.” The media picked up on the threat to use our nuclear weapons against North Korea and Iran, as did the leaders of those nations. Note 46 above is also relevant, showing that the purpose of our arsenal is not to retaliate for a nuclear attack. As noted there, we do not intend to “ride out” a nuclear attack and then retaliate, creating the possibility that a false alarm could trigger an accidental nuclear war, especially if it occurs during a time of heightened world tensions.

49. Henry Meyer, “Putin, Assad May Be Unnerved by Qaddafi Killing, McCain Says,” *Bloomberg/Business Week*, accessible at <http://www.businessweek.com/news/2011-10-21/putin-assad-may-be-unnerved-by-qaddafi-killing-mccain-says.html>. A video of this part of the interview is at

<http://www.youtube.com/watch?v=SWBL57JBW6c>. See note #52 below for threatening actions by Democratic politicians.

50. Tom Washington, "McCain warns Putin of 'Arab spring'," *The Moscow News*, December 6, 2012, accessible at <http://themoscownews.com/international/20111206/189263561.html>. The "tweet" in which Senator McCain threatened Putin is no longer accessible on Twitter's web site, but I confirmed the wording given in *The Moscow News* while it was still accessible. See note #52 below for threatening actions by Democratic politicians.

51. "Fox News passes off Greek riots as Moscow election protests," RIA Novosti (Russian International News Agency), December 9, 2011, accessible at <http://en.ria.ru/strange/20111209/169503240.html>. The full impact is best seen by watching the Fox News clip, which is accessible at <http://www.youtube.com/watch?v=2SPJKGPRorM>. The biggest give-away occurs 14-15 seconds into the video, when a palm tree is briefly visible on what is supposed to be a Moscow street.

52. "Romney To Russia: 'No. 1 Foe!' Russia To Romney: 'Pea-Brained!'," Radio Free Europe/Radio Liberty, August 28, 2012, accessible at http://www.rferl.org/content/obama_romney_russia_medvedev_enemy_no_1/24533180.html. While both American politicians mentioned in this paper as threatening Russia are Republicans, the problem is, unfortunately, bipartisan. NATO expansion into the former Warsaw Pact started under President Clinton, with the inclusion of Poland, Hungary, and the Czech Republic. President Reagan's former Ambassador to Moscow, Jack Matlock, vainly warned of the danger and noted that "the situation will get much worse if NATO expands to the Baltic states, as the [Clinton] administration reportedly has promised." (The Baltics joined NATO under President George W. Bush.) Ambassador Matlock's full article is accessible on line at <http://www.slate.com/id/3672/entry/24056/>. Similarly, President Obama's administration has reiterated President Bush's promise of NATO membership for Georgia. See Hillary Rodham Clinton, "Remarks With Georgian President Mikheil Saakashvili," US Department of State, June 5, 2012, accessible at <http://www.state.gov/secretary/rm/2012/06/191818.htm>.

53. Nataliya Vailyeva, "Russia Election Poll Predicts Putin's First-Round Election Victory," *Huffington Post*, February 24, 2012, accessible at http://www.huffingtonpost.com/2012/02/24/russia-election-poll-putin_n_1298502.html. The Levada Center, which performed the poll, is an independent, non-governmental, Russian research organization. I confirmed its objectivity in email correspondence with Dr. Steven Kull, who directs the Program on International Policy Attitudes (PIPA) at the University of Maryland.

54. American media coverage during the Georgian War is exemplified by an article in *The Washington Post* (Peter Finn, "Russia-Georgia War Intensifies,"), which stated:

Russian strategic bombers and jet fighter planes pounded targets in many parts of Georgia on Saturday, hitting apartment buildings and economic installations, as well as military targets in an escalating war that is killing more and more civilians and confounding international efforts to secure a cease-fire. Russia continued to pour troops and tanks into South Ossetia, the breakaway region of Georgia that triggered the conflict, to confront Georgian forces that are attempting to reclaim the region.

While the article may be factually correct, it gives the impression of naked Russian aggression by describing only the Russian attack, whereas Georgia used heavy artillery on the civilian population of South Ossetia's capital. It also failed to mention Georgian actions which played a role in starting the war. *The New York Times* (<http://www.nytimes.com/2008/08/11/world/americas/11iht-mccain.4.15181760.html>) also provided a one-sided account, never questioning whether Georgia played a role in starting the war, while quoting both Senator McCain and President Obama as condemning the

Russian actions. Fox News (<http://www.foxnews.com/story/0,2933,402466,00.html>) went even further by quoting Georgia's ambassador as likening Russia's actions to "Nazi Germany's occupation of Poland and Czechoslovakia."

55. In June 2009, three months before the official EU report was released, Der Spiegel had an article ("EU Probe Creates Burden for Saakashvili", accessible at <http://www.spiegel.de/international/world/a-shattered-dream-in-georgia-eu-probe-creates-burden-for-saakashvili-a-630543.html>) which stated:

Unpublished documents produced by the European Union commission that investigated the conflict between Georgia and Moscow assign much of the blame to Georgian President Mikhail Saakashvili. But the Kremlin and Ossetian militias are also partly responsible. ... *a majority of members [of the commission] tend to arrive at the assessment that Georgian President Mikhail Saakashvili started the war by attacking South Ossetia on August 7, 2008.* The facts assembled on Tagliavini's desk refute Saakashvili's claim that his country became the innocent victim of "Russian aggression" on that day. [emphasis added]

The final report http://www.ceiig.ch/pdf/IIFFMCG_Volume_I.pdf found that both sides bore some of the blame for the war, contradicting the view held by most Americans that this was a case of naked Russian aggression.

56. "Appeasing Russia: The historical reasons why the West should intervene in Georgia," *Newsweek*, August 10, 2008, accessible at <http://www.thedailybeast.com/newsweek/2008/08/11/appeasing-russia.html>

57. "Text: Bush's speech in Georgia," BBC News, May 10, 2005, accessible at <http://news.bbc.co.uk/2/hi/europe/4534267.stm>. Given in the capital of Georgia, the key part of the speech is:

The path of freedom you have chosen is not easy but you will not travel it alone. Americans respect your courageous choice for liberty. And as you build a free and democratic Georgia, the American people will stand with you.

58. An August 2008 US Navy report ("USS McFaul Transports Vital Food Supplies," accessible at <http://www.usnavy.com/uss-mcfaul-transport-vital-food-supplies/>) stated:

The USS McFaul (DDG 74) is a huge guided missile destroyer, that was pressed into service on a humanitarian aid mission delivering supplies to the Republic of Georgia.

Another August 2008 US Navy report ("USS McFaul Brings Aid to Batumi, Georgia," accessible at http://www.navy.mil/submit/display.asp?story_id=39317) adds details:

USS McFaul (DDG 74) pulled into the port of Batumi, Georgia, Aug. 24 to deliver humanitarian relief supplies ... The U.S. Coast Guard Cutter Dallas (WHEC 716) and USS Mount Whitney (LCC/JCC 20) have also on-loaded humanitarian supplies destined for Georgia. ... U.S. Navy C-9, C-40 and C-130 aircraft have flown tens of thousands of hygiene kits into the country over the past week.

Several days later, a British news article (Ian Traynor, "US and Russian warships line up in dispute over Georgia," accessible at <http://www.guardian.co.uk/world/2008/aug/27/georgia.russia1>) noted:

US and Russian warships took up positions in the Black Sea today in a risky war of nerves on opposing sides of the Georgia conflict. ... "Let's hope we don't see any direct confrontation," said Dmitri Peskov, the spokesman for the Russian prime minister, Vladimir Putin, as the Russians

challenged the US policy of using military aircraft and ships to deliver relief supplies. “The decision to deliver aid using Nato battleships is something that hardly can be explained,” said Peskov. “It's not a common practice.”

Another British news article (Luke Harding, “Poti: the hottest place in the new cold war,” accessible at <http://www.guardian.co.uk/world/2008/aug/28/russia.georgia>) added, “Russia's president, Dmitry Medvedev, says they [the US warships] are smuggling arms to the Georgians, and the Russians have shown off five US Humvees left behind by the Americans following a recent US-Georgian military exercise.”

59. Patrick J. Buchanan, “Black Sea Wars,” blog post, September 22, 2009, accessible at <http://buchanan.org/blog/black-sea-wars-2270>. This posting by conservative columnist Patrick Buchanan states:

In August, the Georgian navy seized a Turkish tanker carrying fuel to Abkhazia, Georgia’s former province ... Georgian President Mikheil Saakashvili – who launched and lost a war for South Ossetia in 48 hours in August 2008 – has declared the blockade of Abkhazia, which he claims as Georgian national territory, will remain in force. ... We have here the makings of a naval clash that Georgia, given Russian air, naval and land forces in the eastern Black Sea, will lose. ... What is Saakashvili up to? He seems intent on provoking a new crisis to force NATO to stand with him and bring the United States in on his side – against Russia.

60. In a September 11, 2008 ABC News interview, vice presidential candidate Sarah Palin had the following exchange with ABC anchor Charlie Gibson:

GIBSON: Would you favor putting Georgia and Ukraine in NATO?

PALIN: Ukraine, definitely, yes. Yes, and Georgia. ...

GIBSON: And under the NATO treaty, wouldn't we then have to go to war if Russia went into Georgia?

PALIN: Perhaps so. I mean, that is the agreement when you are a NATO ally, is if another country is attacked, you're going to be expected to be called upon and help.

In that interview, Palin also referred to Russia’s actions as “unprovoked.”

61. Ulrich Weisser. “No Digs at Moscow: The West has to stick to its promises,” *The Atlantic Times*, March 2007, accessible at http://www.atlantic-times.com/archive_detail.php?recordID=802.

62. The Ministry of Foreign Affairs of the Russian Federation, “Statement of the Russian Ministry of Foreign Affairs Concerning the Signing of the US-Czech Agreement on Deployment of Elements of the US Global Missile Defense System on the Territory of the Czech Republic,” July 8, 2008, accessible at http://www.mid.ru/brp_4.nsf/e78a48070f128a7b43256999005bcbb3/2fcc1548822c351c32574810036877c?OpenDocument. On November 23, 2011, President Medvedev gave a speech in which his demeanor communicated that he saw our current approach to missile defense as a grave danger. Key parts include:

the USA began carrying out a new missile defence plan that ... would eventually see the deployment of US missiles and military capability in close proximity to Russia’s borders and in the neighbouring waters. ...

Rather than showing themselves willing to hear and understand our concerns over the European missile defence system at this stage, they simply repeat that these plans are not directed against Russia and that there is no point for us to be concerned ... but legislators in some countries

openly state, the whole system is against Russia. ... [Therefore,] I have made the following decisions:

First, I am instructing the Defence Ministry to immediately put the missile attack early warning radar station in Kaliningrad on combat alert. ... Fifth, if the above measures prove insufficient, the Russian Federation will deploy modern offensive weapon systems in the west and south of the country, ensuring our ability to take out any part of the US missile defence system in Europe.

63. Nicholas Kulish and Ellen Barry, "Romanians Accept Plan for Basing of Missiles," *The New York Times*, February 5, 2010, Page A4. Accessible at <http://www.nytimes.com/2010/02/05/world/europe/05romania.html>.

64. Josh Rogin, "Polish foreign minister: We're not actually worried about Iranian missile threat," *Foreign Policy*, April 29, 2010, accessible at http://thecable.foreignpolicy.com/posts/2010/04/29/polish_foreign_minister_we_re_not_actually_worried_about_iranian_missile_threat.

65. Keir A. Lieber and Daryl G. Press, "The Rise of U.S. Nuclear Primacy," *Foreign Affairs*, March/April 2006, accessible at <http://www.foreignaffairs.com/articles/61508/keir-a-lieber-and-daryl-g-press/the-rise-of-us-nuclear-primacy>. The key quote is:

... the age of MAD is nearing an end. Today, for the first time in almost 50 years, the United States stands on the verge of attaining nuclear primacy. It will probably soon be possible for the United States to destroy the long-range nuclear arsenals of Russia or China with a first strike. ... Washington's pursuit of nuclear primacy helps explain its missile-defense strategy, for example. ... What both of these camps overlook is that the sort of missile defenses that the United States might plausibly deploy would be valuable primarily in an offensive context, not a defensive one - as an adjunct to a U.S. first-strike capability, not as a standalone shield.

66. One of my course notes handouts http://www-ee.stanford.edu/~hellman/sts152_02/handout06.pdf provides details, with links to sources, so individual sources are not each given here. The most important parts are in the section, "Anatomy of another near miss: The 2008 Cuban Bomber Crisis," starting on page 6. The *Izvestia* article is only available in Russian, but with the help of Dr. Inna Sayfer, I was able to confirm the accuracy of the English language reports concerning it.

67. Bill Gertz, "Inside the Ring: Obama to Share Secrets," *The Washington Times*, January 4, 2012, accessible at <http://p.washingtontimes.com/news/2012/jan/4/inside-the-ring-215329133/?page=all#pagebreak>. The most relevant part follows:

Section 1227 of the defense law prohibits spending any funds that would be used to give Russian officials access to sensitive missile-defense technology, as part of a cooperation agreement without first sending Congress a report identifying the specific secrets, how they would be used and steps to protect the data from compromise. ... Mr. Obama said in the signing statement that he would treat the legal restrictions as "non-binding."

68. M. E. Hellman, "How risky is nuclear optimism?" *Bulletin of the Atomic Scientists*, vol. 67, No. 2, pp. 47-56, March 2011, accessible at <http://www-ee.stanford.edu/~hellman/publications/75.pdf>. This paper makes a detailed argument for a National Academies study of the risk that nuclear deterrence could fail.