CORRESPONDENCE

Preventing Nasty Nuclear Surprises

William Walker and Nicholas Wheeler's article ("The Problem of Weak Nuclear States," 20.3, November 2013, pp. 411-32) offers a timely reminder of why we need to ensure that the Nuclear Security Summit process is successful. The third summit, which will be held in the Netherlands in March 2014, provides an opportunity to monitor and advance the security of nuclear weapons and fissile materials in states with the most extensive nuclear infrastructure, reducing the risk that they'll fall into the hands of malicious actors.

Walker and Wheeler pitch their article as a general contribution to the literature on the risks of nuclear weapon possession by weak states, but their focus is mostly on nuclear security. They examine weak states' capacity for effective nuclear governance, and their resilience to the kinds of internal disorder that could result in "nasty surprises," such as the acquisition and use of nuclear weapons or materials by non-state actors. This sets their analysis apart from most of the related conceptual literature, which explores whether newly armed weak states are more prone to interstate conflict than their stronger, more experienced counterparts. The notable exception is the Nonproliferation Policy Education Center (NPEC) project on nuclear weapons security crises, which also addresses internal nuclear governance issues. In particular, Reid B.C. Pauly and Scott D. Sagan's article "The Conundrum of Close Calls: Lessons Learned For Securing Nuclear Weapons," (in Henry D. Sokolski and Bruno Tertrais, eds., Nuclear Weapons Security Crises: What Does History Teach?, Strategic Studies Institute, U.S. Army War College Press, July 2013) deserves mention.

Walker and Wheeler's analysis leads to some interesting conclusions. First, any nuclear-armed or -arming state's capacity for effective nuclear governance is extremely hard to gauge—the secrecy surrounding nuclear weapon programs ensures that information is tightly guarded and difficult to obtain. Second, assumptions and expectations that standards of nuclear governance are high in strong states can be misplaced, just as evidence of poor standards in internally weak states can be exaggerated. Knowledge of a country's two nuclear estates (the scientific community/nuclear industry and the military/ defense establishment) is necessary for a reliable assessment. Third, among the three types of weak nuclear-armed states that Walker and Wheeler identify—fragmenting states, proliferating "hard weak" states, and conflicted states—the risks of nasty surprises are different and context-dependent. However, they're greatest in conflicted states, where a mixture of a profoundly disturbed state, society, and regional instabilities create especially dangerous conditions. It's not surprising to see Pakistan as the main focus in this category.

Walker and Wheeler point out that their conclusions are preliminary, and argue that the subject of the internal governance of nuclear-armed and nuclear-arming states should become a separate field of enquiry, of equal status with nuclear deterrence studies. I agree wholeheartedly, although I would include research on states that are hosting civil nuclear capabilities, the sound nuclear governance of which is also critical, due to the dual-use nature of nuclear technologies and the dangers posed by radioactive materials. This is an issue area where the policy community is running far ahead of the academic debate: important multilateral initiatives, such as the Nuclear Security Summit process, UN Security Council Resolution 1540, and numerous efforts by the International Atomic Energy Agency, are already well-established. A more solid body of conceptual analysis would contribute to these and other



initiatives, helping to identify priorities and devise new approaches.

For me, Walker and Wheeler's most important point is that all nuclear-armed and -arming states, whether strong or weak, are in a special category in terms of creating global nuclear risks and thus also have a special responsibility to minimize and eventually eliminate those risks. It is in everyone's interests to ensure that nuclear assurance mechanisms are built, and where necessary. capacity-building assistance is provided, to create confidence in sound nuclear governance. The Nuclear Security Summit process is an important part of this endeavor, but we must not forget that North Korea and Iran two states that Walker and Wheeler single out in their analysis—are absent from that process. Nor should we ignore the linkage between nuclear security, nonproliferation, and disarmament; even the soundest governance practices cannot eradicate the excessive risks posed by nuclear weapons. Ultimately, it's in all our interests that they're eliminated.

Tanya Ogilvie-White

Asia-Pacific representative Fissile Materials Working Group Canberra. Australia

* * * * *

The nuclear nonproliferation regime embodied in the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) was established on the dual premise that states are robust political entities in control of their assets and that nuclear dangers stem from conflicts between states. This ignores the problem of "weak nuclear-armed/-arming states." This problem has come to the forefront of the international security agenda with the collapse of the Soviet Union in the early 1990s and the realization that other nuclear-armed/arming states (such as North Korea, Pakistan, and others) have similar "weak" features and would pose serious threats to the world if they collapsed and/or if their nuclear assets

fell into the hands of terrorists. Yet despite many studies on individual cases, there is no conceptual framework to better understand and address this problem as a whole.

Walker and Wheeler's article offers a contribution to this gap in the literature. In it, Walker and Wheeler propose a typology of three types of such states and argue that all three share common characteristics: "nuclear estates" in charge of the production and operation of nuclear weapons, and "nuclear policy executives" who bear authority over them. The authors further suggest that there is scope for both confidence and concern that policy executives in weak nuclear-armed/-arming states will create eternally strong and resilient nuclear estates. They also stress that if intervention by foreign powers becomes necessary to address the nuclear dangers associated with the weakness, failure, or collapse of these states, four determinants of success are critical: the maintenance by policy executives of authority over nuclear estates; the need for agreement and coordination among intervening powers; the presence of consent for intervention in the state in question; and the vitality of nonproliferations rules and norms.

Walker and Wheeler offer unique and persuasive insights on an important yet understudied field of nuclear affairs. Two problem areas stand out, however. For starters, as the authors acknowledge themselves, it is unclear whether the analysis can go much further than they have taken it. Given the lack of transparency surrounding nuclear estates, which are organizations that they define as having "a thick protecting shell of Westphalian sovereignty," there are legitimate questions as to whether it is even possible to assess and test their resilience, just as it is complicated to measure the quality and integrity of the policy executives who oversee them. Analysts will face considerable constraints in gathering the information they need to make an accurate assessment, which is bound to remain deeply flawed. Nevertheless, this remains a laudable research endeavor. One promising avenue may be the conduct of an effort that analyzes and compares the (visible) evolution of nuclear estates and their policy executives over time across weak nuclear-armed/-arming states. Such an effort may yield interesting results and produce new knowledge relevant to policy, namely on the importance of "nuclear learning" in such states.

The other problem area relates to the scope of the article. The authors focus on weak nuclear-armed/-arming states. There is no question that such entities should be front and center of any study on weak states, since any loss of control over their nuclear weapons (or nuclear weapon capabilities) would likely have dramatic consequences. However, it is unclear why weak states with civilian nuclear activity, especially those with established or emerging nuclear power programs, have been left out of the analysis because they, too, present serious threats to peace and security. Although the so-called "nuclear renaissance" has slowed down partly as a result of the 2011 Fukushima Daiichi nuclear accident in Japan, it continues its onward march in several weakly governed states in the Middle East and Southeast Asia that are prone to terrorism, insurgency, or natural disasters. This makes it imperative to also pay attention to these states.

To what extent can the conceptual framework developed by Walker and Wheeler be applied to weak states with civilian nuclear activity? What are the differences with weak nuclear-armed/-arming states? (Obviously, sovereignty pressures are less important in weak states with "just" civilian nuclear activity, although they are not nonexistent, as NPT and Nuclear Security Summit politics have shown.) What does this imply in the case of an incident or accident that calls for foreign intervention? Are the determinants of success the same as those proposed by Walker and Wheeler? These are paramount questions that require urgent answers. Today, more than ever, there is a need for an all-encompassing framework for nuclear governance that brings together all states (nuclear-armed/-arming states as well as states using nuclear technology for peaceful purposes) and addresses any weaknesses they may have.

David Santoro

Senior Fellow for Nonproliferation and Disarmament Pacific Forum Center for Strategic and International Studies Honolulu. Hawaii

Searching for Evidence

When US-led forces entered Iraq in 2003, they captured amazing documentation of Saddam Hussein's private meetings with his Revolutionary Command Council, generals, foreign dignatories, tribal sheiks, and others. As Avner Golov correctly points out ("Deterrence in the Gulf War: Evaluating New Evidence," 20.3, December 2013, pp. 453-72), these records provide novel insights into Iraqi perceptions and decision-making. Kevin Woods and other researchers at the Institute for Defense Analyses have performed pathbreaking research using these records. Many scholars have also

drawn important insights from digital copies of captured records at the Conflict Records Research Center (CRRC) and transcripts and analysis in Kevin M. Woods, David D. Palkki, and Mark E. Stout, eds, *The Saddam Tapes: The Inner Workings of a Tyrant's Regime, 1978-2001* (Cambridge University Press, 2011).

Golov is to be commended for drawing attention to these sources and this research and for providing an engaging discussion of scholarship on deterrence in the 1991 Gulf War. He notes that much of the research to date focuses on the bilateral relationship

between the United States and Iraq, and usefully directs attention to Israeli signals and Iraqi perceptions of these signals during the war.

Golov makes a central claim, in the subtitle of his article, that he is about to take the reader on an expedition "Evaluating New Evidence" in the form of captured Iraqi records. A more appropriate subtitle would have been "A Literature Review." Nowhere in the article does one find evidence or otherwise get the sense that the author has reviewed any CRRC records, any captured Iraqi records at the Hoover Institution or the University of Colorado, or any of the transcripts available in The Saddam Tapes or on the Internet. While celebrating the arrival of new primary source material, Golov seems unaware of the volume of the captured records and of the existence of the various collections beyond the CRRC. He writes (p. 453) that US-led coalition forces captured more than 800 records, basing this figure on the number of digital copies of captured Iraqi records available to scholars at the CRRC. Sadly, the CRRC database contains copies of only a small fraction of the captured Iragi records. Millions of Iragi state records were captured, as well as over 7,000 audio files.1 The CRRC is on the verge of complete closure for lack of funding, yet much work in releasing records remains.

Golov's treatment of the relatively small number of primary sources he does cite is sometimes troubling. For instance, in his lone use of a declassified interrogation report (pp. 457 and 469), he incorrectly attributes a key quote to Saddam.² The only captured records he cites are two Harmony records, yet he omits how he accessed these documents (p. 470, notes 40 and 63). These are puzzling

omissions, given that these records are not publicly available. By contrast, citations of these documents, along with brief summaries of precisely the same information upon which Golov draws, are available in Woods's published analysis. Did the author borrow the citations from Woods's work, presenting this portion of the research as if it were his own?³ Other explanations may exist, though if so, they have eluded this reviewer.

His essay will leave historically minded readers wondering what to make of an evaluation of new evidence that, by and large, finds its basis in others' interpretations rather than in the evidence itself. Without reviewing the primary sources, how can Golov claim—without a footnote—that the "Iraqi records provide no evidence" (p. 462) that Saddam ordered an unconventional attack on Israel? And, without reviewing the primary sources, does it really make sense for him to write that the "Iraqi data reveal" (p. 465) one thing or another?

One problem with relying on others' summaries and interpretations, rather than the original sources, is that the summaries and interpretations can be wrong. Consider, for instance, how readers can be misled based on one of Golov's references to my own research. Golov cites me as his source for a January 2, 1990, meeting involving Saddam and Husayn Kamil. He then references, as further evidence, a meeting from the second week of January (p. 458). The problem here is that I had cited my recording as coming from "the "second week" of January, and not "January second." What Golov refers to as two separate meetings are actually one and the same.⁴ Scholars

¹ Dina Rizk Khoury, *Iraq in Wartime: Soldiering, Martyrdom, and Rememberence* (New York: Cambridge University Press, 2013), pp. 12-13; Woods, Palkki, and Stout, *The Saddam Tapes*, p. 12.

² The quote is a summary of what Saddam had said, and not Saddam's exact words. Also, the correct page in the interrogation report is p. 2, not p. 13, and the correct date for the report is May 13, 2004.

³ Woods, *The Mother of all Battles: Saddam Hussein's Strategic Plan for the Gulf War* (Annapolis, MD: Naval Institute Press, 2008). Woods refers to the first Harmony record on p. 155, p. 170 note 116, and on p. 336, and to the second on p. 160, p. 171 note 133, and p. 335.

⁴ See also *The Saddam Tapes*, p. 250. Oddly, on p. 460, Golov describes the meeting as taking place on January 2, citing Woods as the source, yet Woods dates the meeting as "sometime in early January" and in "the second week of January."

who rely on Golov's summaries and analysis, in this particular instance, will conclude that the evidence is stronger than is warranted.

This is not to say that Golov fails to offer cogent analysis or that he does not get some very important things right. Indeed, there is much to be said for his essay. What it does illustrate is the extraordinary importance of being careful with one's citations and of checking key claims in the primary sources. If readers were hoping to find in Golov's essay an evaluation of new primary source evidence rooted in primary source research, then they will have to wait.

David D. Palkki

Stanton Nuclear Security Fellow Council on Foreign Relations Washington, DC

Avner Golov responds

I would like to thank David Palkki for reviewing my article. Notes from an experienced expert provide an opportunity for a young scholar like me to improve my historical analysis of the reason for Iraq's restraint during the 1991 Gulf War, when Saddam Hussein publicly threatened to launch unconventional attacks on Israeli targets but never did.⁵ I accept Palkki's technical corrections and will focus on the essence of his remarks.

As Palkki notes, relying on others' research and interpretations should be done cautiously. The fact that even the files available on the Internet are English translations of the original Iraqi documents and that the Federal Bureau of Investigation (FBI) interrogation summaries were written by FBI staff indicates, as stressed in the

beginning of my article, that "one should consider the limitation of this research while addressing the proposed conclusions." (p. 454.) However, this methodological challenge emphasizes the importance of using systematic analysis, which not only provides historical evidence to support specific theoretical argument, but also nullifies alternative explanations.⁶

For that reason, the article tests, for the first time, a wide range of alternative hypotheses of the Iraqi restraint against Israel: US or Israeli (and conventional or unconventional) deterrence success, no Iragi plan to attack, no Iragi battle decision, and Iragi "lost orders." It suggests that the main reason Saddam did not use weapons of mass destruction against Israeli targets was that his conditions to do so had not been met. It also highlights the "hole" in Saddam's deterrence strategy: he did not strengthen his deterrence credibility by making known the existence of his "doomsday orders." This comprehensive historical analysis, which combines new evidence with earlier studies in order to indicate causality between Saddam's decisions in the Israeli arena and US and Israeli deterrence performances, has not been previously undertaken.⁷ Palkki implies that he

⁵ For example, on January 20, 1991, Saddam claimed on CNN that Iraq could install nuclear, chemical, and biological warheads on its missiles. He promised that he would not hesitate to use these weapons if needed. Cited in Efraim Karsh and Inari Rautsi, *Saddam Hussein: A Political Biography* (Tel Aviv: Ma'arachot, 1991), p. 229.

⁶ Alexander George and Andrew Bennett, for example, stress that a single case study analysis should be applied to a wide range of alternative hypotheses because omitted variables could threaten the validity of the analysis. See Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge, Massachusetts: MIT Press 2004), p. 207.

⁷ Whereas some studies have addressed the general question of the Iraqi nonconventional restraint, there is a lacuna concerning the Iraqi policy in the Israeli arena. For example, see Kevin M. Woods, The Mother of All Battles: Hussein's Strategic Plan for the Persian Gulf War (Annapolis, MD: US Naval Institute Press, 2008); Palkki in Scott D. Sagan, "PASCC Final Report: Deterring Rogue Regimes: Rethinking Deterrence Theory and Practice," Center for International Security and Cooperation, Stanford University, July 8, 2013, http://hdl.handle.net/10945/34336.

finds my analysis cogent even after noting some of its weaknesses.

Evaluation of the new evidence is not merely confined to historical discussion. My article also seeks to contribute to contemporary discussion of the effectiveness of a no-first-use (NFU) nuclear policy. In 1991, the United States and Israel faced several challenges related to this issue that could be relevant to future conflicts between unconventionally armed states. Hence, my analysis provides several lessons for today's discussion of the effectiveness of a NFU nuclear policy by examining three key terms: ambiguous nuclear policy, existential deterrence, and the stability-instability paradox. In doing so, my article underlines the complexity of using nuclear deterrence against non-nuclear threats, including chemical and biological weapons, as well as conventional arms. In July 2013, Stanford University's Scott Sagan published a report summarizing the work of approximately forty scholars, Palkki among them, about the lessons that can be learned from the documents at the Conflict Records Research Center at the National Defense University regarding the ongoing challenge of deterring roque regimes. Sagan's report

infers, for example, that "the caution encouraged by nuclear weapons may not be enough to prevent nuclear conflict once conventional conflicts begin or if small nuclear forces are vulnerable to preemptive attacks." This conclusion highlights the importance of the theoretical discussion presented in my article.

Palkki is right. My article was not about "an evaluation of new primary source evidence rooted in primary source research." This was not its objective. The article's main goal was to evaluate the new evidence in two aspects—historical and theoretical—in order "to draw conclusions from an analysis of Irag's non-use of unconventional weapons against Israel during the Gulf War, as well as to raise additional questions concerning the debate about the most desirable nuclear posture, and especially the question of the efficacy of a declaratory NFU policy." (p. 468.) Therefore, Palkki's suggestion about changing the subtitle to "A Literature Review" is imprecise. If anything, my article seeks to look beyond the documents and evaluate their contribution, rather than merely reviewing them.

* * * * *

Errata

In the November 2013 issue, three endnotes on pages 469-70 in the article "Deterrence in the Gulf War" were inadvertently left incomplete by the author. The full citations are as follows:

29. Federal Bureau of Investigation, Baghdad Operations Center, "Saddam Hussein casual conversation," May 13, 2004, p. 2, www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB2 79/23,pdf>.

40. Harmony document folder CMPC-2003-004325, "Memorandum to Defense Diwan from Ministry of Industry," (Ref no.2/1/35/9/160), Subject: "Munitions Receiving, 31 December 1990," and Subject: "Minutes of

Special Warheads." (January 11, 1991). Cited in Woods, *The Mother of All Battles*, p. 155.

63. Harmony file ISGQ-2003-M0004609, "Audio recording of a Revolutionary Command council meeting on 2 November 1990." Cited in Woods, *The Mother of All Battles*, p. 160.

⁸ Sagan, "PASCC Final Report: Deterring Rogue Regimes: Rethinking Deterrence Theory and Practice," p. 13.