

NIXING NUKES IN VIETNAM

By Peter Hayes
& Nina Tannenwald

In 1966, a group of scientists studied the possible use of nuclear weapons in Vietnam. Here's why their report advised against it.

AS THE VIETNAM WAR ESCALATED in spring 1966, a high-ranking Pentagon official with access to President Lyndon Johnson was heard by scientist Freeman Dyson to say, "It might be a good idea to toss in a nuke from time to time, just to keep the other side guessing."¹

Dyson was a member of the "JASONS"—a group of some 40 scientists who had met each summer since 1959 to consider defense-related problems for the Pentagon.² Four of their number—Dyson of Princeton, Robert Gomer and S.

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Courtenay Wright of the University of Chicago, and Steven Weinberg, then on leave from Berkeley at Harvard—were so appalled by the remark that they decided to respond with a study that would systematically explore the utility of tactical nuclear weapons in the Vietnam War.

The study looked at the effects of using tactical nuclear weapons against a variety of targets, as well as the likely political effects of a nuclear campaign. Many of the study's conclusions seem relevant today, given the possible conflicts the United States currently faces and the Bush administration's newly stated policies of preemption and willingness to use nuclear weapons against "rogue states."

The Vietnam context

In 1966, the concept of mutual strategic deterrence was less than a decade old. The dominant military viewpoint was that nuclear weapons

were simply one more arrow in the quiver—and after the Korean stalemate, the U.S. military was determined never again to conduct a ground war without using decisive force, including the use of nuclear weapons. Consequently, both the service and unified command war plans to counter Chinese military action in East and Southeast Asia relied heavily on nuclear weapons. After the Chinese nuclear test in 1964, nuclear planning would have had to take into account the possible Chinese use of nuclear weapons in a military conflict.

In contrast, most American strategists, many political leaders, and scientists who had participated in the Manhattan Project or had studied under its leading physicists, had long since realized that nuclear weapons were in an awesome category of their own.

Dyson believes the remark about using nukes that led to the study was made at a briefing at the State Department or at an informal party, but Steven Weinberg recalls a rumor circulating that someone in the Pentagon or the National Security Council was pushing to use tactical nuclear weapons in Vietnam or Laos.³ In any case, the four scientists were persuaded that they should work together at the JASONS summer session in 1966 on a study of the

possible outcomes of using nuclear weapons in Vietnam. “I think I was the main instigator,” Robert Gomer said recently.⁴

The group that took on this task was not responding to specific nuclear war plans or threats, nor to a request from the Pentagon (although Defense Secretary Robert McNamara agreed to the topics the JASONS proposed to study each year).⁵ And to this day, Dyson says he has no evidence that the use of nuclear weapons was seriously considered in prosecuting the Vietnam War. But, he adds, “We had no way to tell whether the speaker was joking or serious. Just in case he was serious, we decided to do our study.”⁶

“I, and I believe others as well,” Weinberg wrote later, “felt that the use of nuclear weapons would make the war even more destructive than it had already become; it would create a terrible precedent for the use of nuclear weapons for something other than deterrence; it wouldn’t help much with the war; and it would open up the possibility of nuclear attacks on our own bases in Vietnam. All this was an immediate reaction, not based on any careful analysis. So we decided to do the analysis, and write a report.”⁷

Thus was born the only known systematic official study of the role of tactical nuclear weapons in the war.⁸

Military utility

After obtaining permission from the Defense Department for the study, and “three man-months” of work, the authors produced a 55-page, highly classified report titled “Tactical Nuclear Weapons in South-East Asia,” which presented their analysis and conclusions in what Dyson later described as “a deliberate hard-boiled military style.”⁹

They defined tactical use “in the strict sense”—that is, use on “military targets, only within the theater of ground combat, and while avoiding civilian casualties so far as practi-

cable.” The reason for this focus, the authors explained, was “that we wish to stay as much as possible in the realm of technical military analysis and to avoid involvement with political and moral judgments.”

“We didn’t have to look far for military reasons against the use of nuclear weapons,” says Gomer. “The Viet Cong [VC] were widely dispersed, our troops concentrated in encampments designed to minimize the perimeters which had to be defended so that we, rather than the VC were extremely vulnerable to attack by small nuclear weapons.”

The authors focused on the suitability of enemy targets for a nuclear strike and the likely effects on enemy ground operations.

Military obstacles

The analysis highlighted numerous obstacles, including the difficulty of target acquisition, and the fact that even when good targets existed the use of tactical nuclear weapons

bombing would quickly render the 10 remaining operational airfields in North Vietnam inoperable. Other potential targets were large troop concentrations, tunnel systems, and Viet Cong bases in South Vietnam. “TNW can be very effective if the position of bases are known accurately, especially if attacks can be delivered without warning.” Still, the report concluded, using tactical nuclear weapons in South Vietnam would be “helpful, but in no sense decisive. It would be equivalent to a major increase in the strength of B-52 bombardments.”

For instance, it would take 3,000 tactical nuclear weapons per year to interdict supply routes like the Ho Chi Minh trail. More problematically, U.S. forces might become vulnerable to a Soviet-orchestrated counter-attack; and the first use of tactical nuclear weapons against guerrillas might set a precedent that would lead to use of similar weapons by guerrillas against U.S. targets.

In reality, the report concluded,

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would not substantially affect enemy operations. In some cases there were more effective alternatives.

The report identified a number of targets against which, in principal, tactical nuclear weapons (TNW) might be useful. “Bridges, airfields, and missile sites make good TNW targets.”¹⁰ Airfields were also “ideal targets for TNW and are expensive targets for conventional bombing.”¹¹ The introduction of tactical nuclear

few highly suitable targets or effective uses could be found. “The use of TNW on troop targets would be effective only in stopping the enemy from moving large masses of men in concentrated formations. So long as the enemy moves men in small groups and uses forest cover, he would offer few suitable troop targets for TNW.” Using “bomblet-canister ordnance” would be more cost-effective than using nuclear weapons on troops in

the open. Viet Cong base areas in South Vietnam might be destroyed with tactical nuclear strikes, “but this would require large numbers of weapons and an accurate location of targets by ground patrols.”

Tactical nuclear weapons could also block roads and trails in forested areas by blowing down trees, but

Viet Cong with the same.

U.S. bases, harbors, and staging areas in South Vietnam were vulnerable to Soviet bombers and infiltration by guerrillas, and would “offer attractive targets for [the retaliatory use of] TNW.” In fact, they were far more vulnerable to the effective use of nuclear weapons than were the small-

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fallen trees could be relatively easily cut through and cleared.

Finally, using fallout from ground-burst weapons to make trails impassable would require repeated use of nuclear weapons and “would not by itself provide a long-lasting barrier to the movement of men and supplies, without endangering civilian populations at up to a distance of 200 miles.”¹²

In conducting their analysis, the authors drew in part on the findings of nuclear war-gaming studies performed by Rand and the Research Analysis Corporation in the late 1950s and early 1960s, as well as the U.S. Army Combat Developments Command’s 1965 Oregon Trail studies, which demonstrated that it was extremely difficult to target troops in a timely manner.

Counterattack

The second half of the report considered the vulnerability of U.S. forces to tactical nuclear attack. This was based on the assumption that if the United States used tactical nukes first, either the Soviet Union or China might decide to supply the

er, relatively mobile, and difficult-to-find enemy encampments.

In addition, the authors emphasized the “tremendous long-range importance” of avoiding “setting a precedent for the use of TNW by guerrilla forces.”¹³ U.S. forces, they wrote, would always be much more vulnerable than insurgents to nuclear attack: The dangers posed by increased guerrilla activity around the world in the future “will certainly become more acute if the United States leads the way by initiation of tactical nuclear war in Southeast Asia.”¹⁴

Overall, the report concluded, using TNW “in Southeast Asia would offer the United States no decisive military advantage if the use remained unilateral, and it would have strongly adverse military effects if the enemy were able to use TNW in reply.”¹⁵

Political consequences

Although the study stated at the outset that it was intended as a purely technical analysis, in fact it included strong judgments about the political costs and consequences of using nuclear weapons. The last section, “Po-

litical Consequences,” listed possible scenarios in which the response to the U.S. use of tactical nuclear weapons was escalation, although it did not estimate the relative probability of these scenarios.

“The ultimate outcome is impossible to predict,” the authors noted. “We merely point out that general war could result, even from the least provocative use of [nuclear weapons] that either side can devise.”¹⁶

Most significantly, they concluded, even if massive retaliation did not result, a U.S. first use of tactical nuclear weapons in Vietnam would have serious long-range consequences:

“The most important of these is probably the crossing of the nuclear threshold. As Herman Kahn points out, abstention from the use of any [nuclear weapon] is universally recognized as a political and psychological threshold, however rational or irrational the distinction between ‘nuclear’ and ‘non-nuclear’ may be. Crossing it may greatly weaken the barriers to proliferation and general use of nuclear weapons. This would be to the ultimate disadvantage of the United States, even if it did not increase the probability of strategic war.”¹⁷

Whether or not the Vietnamese National Liberation Front or its external backers countered with nuclear weapons of their own, the authors argued, the effect on world opinion, and on the opinion of U.S. allies in particular, would be “extremely unfavorable.” And, “with the exception of Thailand and Laos, the reaction would almost certainly be condemned even in Asia and might result in the abrogation of treaty obligations by Japan.”¹⁸ The effect on public opinion in the United States “would be extremely divisive, no matter how much preparation preceded it.”

“In sum,” they concluded, “the political effects of U.S. first use of TNW in Vietnam would be uniformly bad and could be catastrophic.”¹⁹

From a purely military perspective,

therefore, even if the target acquisition problem could be solved (and that was not evident), for tactical nuclear weapons to be effective they would have had to be used in such large quantities (and with such frequency) that the political costs would outweigh their military benefits. When the risk of retaliation was added in, along with the risk of weapons spreading to guerrilla forces around the world, it amounted to a strong argument against the use of tactical nuclear weapons in the war.

Was anyone listening?

The fate of this report and the role it played, if any, in influencing the administration's thinking on the role of nuclear weapons in the war, remain vague. The authors handed it to their sponsors in the Defense Department, never to hear of it again.²⁰

However, Seymour Deitchman, who was at the time at the Institute for Defense Analyses (IDA), a federally funded research center under contract to the Defense Department and acknowledged in the JASON report, suggests the report went to Defense Secretary McNamara's office. IDA provided administrative and technical support for the JASONS group. Deitchman recalls briefings on the JASON studies of that summer to three audiences: to the JASONS themselves; to John McNaughton—then assistant secretary of defense for international security affairs, who managed the JASONS relationship with McNamara; and to McNamara himself.

Deitchman recalls the briefing to the JASONS clearly: "I remember being struck by the main conclusion, that if we started down that route [using nuclear weapons] we risked being hurt much more than the North Vietnamese and the Viet Cong."²¹ According to Deitchman, McNamara, who received briefings on the JASON studies every year, was likely briefed in late August or early September 1966. This may

have included a briefing on the nuclear weapons study, although neither Deitchman nor the JASONS involved in the briefings remember what McNamara was briefed on other than the electronic barrier study that year. Deitchman says that after the briefing, the report was never circulated.²²

Since the Defense Department had to sign off on the topics of JASON studies (which were chosen by the JASONS themselves), why would it agree to a study on tactical nuclear weapons in Vietnam? Here we have some faint but intriguing outlines. Deitchman recalls recurring talk around the Pentagon that spring and summer about using tactical nuclear weapons to block passes between North Vietnam and Laos, especially the Mu Gia Pass, a key part of the supply route heading south. The pass was heavily and unsuccessfully bombed by B-52s, with heavy losses for the United States. So when the JASONS proposed the nuclear weapons study topic, McNaughton and McNamara might have found it a useful device for putting an end to

from that, that if consideration had been given to the idea before the study, Mr. McNamara simply dismissed it as something not to think about seriously, and therefore the talk simply went away."

It is possible that the report had little or no influence on McNamara himself—in part because by that point in time (1966), he was already adamantly opposed to the use of nuclear weapons. He was also increasingly skeptical that the war could be won by deploying more troops to South Vietnam and intensifying the bombing of North Vietnam. (He offered his resignation to Johnson in November of that year, largely over disillusionment with the war.) McNamara does not recall either the study or the briefing on tactical nuclear weapons, but concedes the briefing could have taken place.²³ He states that he and McNaughton "were already totally opposed to nukes, but that doesn't mean it [the study] wasn't useful." The Joint Staff, at times during the Vietnam War, had developed plans to use nuclear weapons against China, but

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talk of using nuclear weapons in Vietnam.

It remains unclear what effect the report had. When Deitchman returned to the Pentagon in the fall of 1966, he heard no further talk of using nuclear weapons in Vietnam. "Although I don't know," he recalls, "I think it is reasonable to conclude

McNamara didn't worry about it "because there was no way either he or President Johnson would have authorized their use."²⁴

Ironically, McNamara was much affected by other JASON studies on the Vietnam War conducted by other scientists. These included an analysis showing that strategic bombing

would not break the insurgents' logistical support, because it did not depend on an infrastructure that could be bombed; and another, a notorious JASON study, also completed in the 1966 summer session, proposing the creation of an electronic, heavily mined barrier across Vietnam and Laos like that in Korea.

One analytical objection to the JASONS' study is that nuclear counterinsurgency was never in the cards in Vietnam.²⁵ The focus on a scenario in which the Soviets would supply tactical nuclear weapons (the report mentions atomic mortars or recoilless rifles) to North Vietnamese forces was

start to negotiate seriously or risk nuclear attack.²⁷

Still, the scientists had reason to be concerned that the use of nuclear weapons was not "unthinkable" enough with respect to battlefield use in Vietnam. After all, during the 1964 presidential campaign, Barry Goldwater, campaigning for the Republican presidential nomination, had suggested in a speech in May that tactical nuclear weapons should be treated more like conventional weapons, and that "low-yield atomic weapons" should be used for defoliation along South Vietnam's borders.²⁸ A year later, on April 22,

1964 responding to Goldwater.

Perhaps the moment of gravest risk of the kind anticipated by the JASONS occurred in January and February 1968 when a conventional North Vietnamese division was concentrated closely enough to form a lucrative and "nukable" target. It was also threatening to annihilate 5,000 U.S. soldiers under siege at Khe Sanh.

At the time, Gen. William Westmoreland convened a nuclear study group, the results of which have never been made public. Johnson, however, was strongly opposed to even considering nuclear options, and the study group was quickly quashed. At the same time, Johnson took steps to ensure that the military had adequate conventional forces to defend Khe Sanh.³¹

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unusual because that scenario was widely regarded as unlikely, given how tightly the Soviet Union controlled its nuclear weapons. Rather, goes the argument, the risk lay in the possible escalation of U.S. nuclear attacks to urban-industrial areas in the North and ultimately to China, invoking the operational plans to lay nuclear waste not just to Vietnam but to China itself.

We know the U.S. military had detailed operational nuclear war plans to respond to Chinese military action in Southeast Asia/Vietnam, as revealed in the Pentagon Papers and recently confirmed in declassified Pacific Command histories.²⁶ Later in the war, in October 1969, President Richard Nixon put U.S. strategic forces on alert to send a signal to Hanoi via Moscow that it had better

1965, in comments to a New York Times reporter, McNamara refused to rule out the use of nuclear weapons in Vietnam, even though he said their use was inconceivable in the current circumstances.²⁹

Dyson explains the scientists' focus on battlefield use as due to the fact that at the time of the report, Johnson, not Nixon, was president. "The danger we saw," he states, "was actual use of nuclear weapons, not threatened use."³⁰ However, the scientists were undoubtedly responding to loose talk about using nuclear weapons from lower-level officials, rather than from Johnson himself, who was strongly opposed to their use. Johnson did not want to be the president who set a new precedent for the use of nuclear weapons, as he made clear in speeches in September

Are the conclusions relevant today?

How do the JASONS' conclusions relate to the Bush administration's announced doctrines of preventive war and the preemptive use of nuclear weapons against rogue states and insurgents such as Al Qaeda?

According to Dyson, "The general conclusions of our report are still valid for any war in which the United States is likely to be engaged in the future. The main conclusion is that the United States offers to any likely adversary much better targets for nuclear weapons than these adversaries offer to the United States. This is even more true in the fight against terrorism than it was in Vietnam."³²

Since 1966, the notion of the strategic balance of terror ("mutual assured destruction") and the underlying concept of "existential deterrence" have been institutionalized in both national nuclear force postures and a set of bilateral and multilateral arms control/disarmament regimes. But this framework is now challenged by new circumstances and new declaratory policies that call for the expanded use of nuclear weapons

to prevent, or respond to, the use of chemical and biological weapons as well as to the use of nuclear weapons by so-called rogue states and state-sponsored or autonomous non-state actors (including terrorists).

The major issues that the JASON report addressed in Vietnam arguably apply to the new circumstances today in two ways:

First, the JASONS carefully examined the same motivation that today appears to be driving the Bush administration toward war with Iraq and North Korea—the possibility that a state armed with weapons of mass destruction might transfer those weapons to non-state actors willing to use state-scale terror. As in 1966, adversarial states remain unlikely to use nuclear weapons first because to do so would risk escalation or retaliation.

In the context of the Vietnam War, the JASONS noted that the National Liberation Front's backers—China and the former Soviet Union—had little interest in supplying insurgents with nuclear weapons for purposes of a first use. Chinese and Soviet leaders would be either self-deterred by the prospect of loss of control, or would be deterred by the prospect of U.S. retaliation.³³

Second, the JASONS group recognized that any restraint felt by state supporters of insurgents might end if the United States were to use nuclear weapons first. A U.S. first use against insurgents would provoke them—and future insurgents—to seek to acquire their own weapons of mass destruction. And whether for reasons of prestige or credibility, the need to counter overwhelming U.S. power or to demonstrate their own nuclear strength, under those circumstances other states might become more willing to provide weapons of mass destruction to insurgents. And once insurgents had acquired such weapons, they would have the military advantage against the United States, because the United States and its troop concentrations overseas present more

suitable targets for weapons of mass destruction than do insurgents.

An enduring lesson can be distilled from the JASONS' study of the applicability of nuclear weapons to the Vietnam War—that it is a very bad idea to attack insurgents and their state sponsors with nuclear weapons. Doing so—and, we would argue today, threatening to do so—only legitimizes, and makes more likely, the use of the only weapons that can really threaten the United States on the battlefield. ✱

1. Freeman Dyson, interview, January 8, 2003 (www.nautilus.org/VietnamFOIA/report/JASONS.html).

2. For more on the JASONS, see Gregg Herken, *Cardinal Choices: Presidential Science Advising from the Atomic Bomb to SDI* (New York: Oxford University Press, 1992), pp. 152–56.

3. Steven Weinberg, communication with authors, December 25, 2002 (www.nautilus.org/VietnamFOIA/report/JASONS.html).

4. Robert Gomer, e-mail communication January 31, 2003, from forthcoming autobiography, used by permission of the author (www.nautilus.org/VietnamFOIA/report/JASONS.html).

5. Seymour Deitchman, "An Insider's Account on the 1967 JASON Report," February 25, 2003 (www.nautilus.org/VietnamFOIA/report/insider.html).

6. Dyson, January 8, 2003.

7. Weinberg, December 25, 2002.

8. F. Dyson, R. Gomer, S. Weinberg, and S. C. Wright, *Tactical Nuclear Weapons in Southeast Asia*, Study S-266, JASON Division, DAHC 15-67C-0011, Washington, D.C., March 1967 (hereafter referred to as "JASON Report") released under U.S. Freedom of Information Act request, December 4, 2002 to Nautilus Institute (www.nautilus.org/VietnamFOIA/report/report.html).

9. Freeman Dyson, *Disturbing the Universe* (New York: Basic Books, 1979), p. 149.

10. JASON Report, p. 4.

11. *Ibid.*, p. 12.

12. *Ibid.*, p. 4.

13. *Ibid.*, p. 46.

14. *Ibid.*, p. 47.

15. *Ibid.*, p. 7.

16. *Ibid.*, p. 49.

17. *Ibid.*, p. 50.

18. *Ibid.*

19. *Ibid.*, p. 51.

20. Dyson, *Disturbing the Universe*, p. 149.

21. Deitchman, "An Insider's Account."

22. *Ibid.*

23. Robert McNamara, communication with the authors, February 19, 2003.

24. Robert McNamara, communication with the authors, March 5, 2003.

25. Interview with Daniel Ellsberg, January 3, 2003 (www.nautilus.org/VietnamFOIA/background/ellsberg.html).

26. Document 233, Par VI, (Analysis of Option B), Section F, *Likely Developments and Problems if the Communist Side Engaged in Major Retaliation at Some Point*, states that "As operations develop, air and naval attacks will be increased in scope and intensity against Chinese forces and into southern China to increase the pressure on the Chinese communists." The Pentagon Papers, Senator Gravel Edition, Volume 3 (Beacon Press, 1971), p. 639; OPLAN 32-63 refers to "limited nuclear operations in Southeast Asia." OPLAN 32-64, the "Defense of Mainland Southeast Asia" was a "unilateral capabilities plan, revised and promulgated in September 1962" that "remained CINCPAC's principal plan for the defense of mainland Southeast Asia up to the point of general war." CINCPAC Command History, 1963, 1964, released under U.S. Freedom of Information Act request to Nautilus Institute, p. 38 (www.nautilus.org/VietnamFOIA/analyses/bulletin.html).

27. William Burr and Jeffrey Kimball, "Nixon's Nuclear Ploy," *Bulletin of the Atomic Scientists*, January/February 2003, pp. 28–37, 72–73.

28. Theodore H. White, *The Making of the President 1964* (New York: Atheneum Publishers, 1965), p. 311.

29. David Kaiser, *American Tragedy: Kennedy, Johnson and the Origins of the Vietnam War* (Cambridge, Mass.: Harvard University Press, 2000), p. 432.

30. Dyson, January 8, 2003.

31. Nina Tannenwald, *The Nuclear Taboo: The United States and the Nonuse of Nuclear Weapons Since 1945* (Cambridge: Cambridge University Press, forthcoming).

32. Dyson, January 8, 2003.

33. JASON Report, pp. 46–47.

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