SAIS REVIEW
Winter-Spring 1985

YELLOW RAIN: THE COST OF CHEMICAL ARMS CONTROL

Peter Pringle

THE USE OF MUSTARD GAS, and possibly even a nerve agent, in the Persian Gulf War, is a sharp reminder of the neglected threat of the proliferation of chemical weapons. Only three nations—the United States, the Soviet Union, and France—are commonly known to have a militarily significant chemical-warfare capability, but recent U.S. intelligence estimates suggest the chemical club is actually much larger and probably expanding. According to these estimates, Iraq may be only one of several countries in the Middle East—including Egypt, Syria, Libya, and Israel—that already possess a chemical weapons capability, or are in the process of obtaining one.[1]

There has never been a more urgent need for the two superpowers to move swiftly toward concluding a bilateral treaty banning the development, production, and stockpiling of these weapons. Yet the policy of the Reagan administration of publicly accusing the Soviets of chemical and biological treaty violations while proposing that the United States resume production of a new generation of "binary" nerve-gas weapons seems bent on delaying instead of hastening the process of working toward a new international agreement. In particular, the administration's incomplete evidence in sup-

1. Jack Anderson, "The Growing Chemical Club," *Washington Post*, 26 August 1984, C-7. The estimates originated in a CIA Special Intelligence Estimate, SNIE 17 November 1983, entitled "Implication of Soviet Use of Chemical and Toxin Weapons for U.S. Security Interests." The SNIE was also the primary source for three other articles, two columns by Jack Anderson, *Washington Post*, 27 August 1984, C-14, and 30 November 1984, E-7, and a third, "The CIA and Europeans," *The Economist Foreign Report* (London), 17 October 1984.

Peter Pringle is a Washington correspondent of the *Observer* (London) and is writing a book on the history of arms control implications of yellow rain.

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port of charges that the Soviet Union has introduced a new chemical weapon known as "yellow rain" to battlefields in Southeast Asia and Afghanistan has resulted in the lack of a cohesive response from the western allies to reports of the use of chemical weapons by Soviet-backed forces. Properly verifiable agreements between the two superpowers may now be even harder to achieve either because of a poisoning of the negotiating atmosphere or because the U.S. Senate, most of whose members appear to believe the "yellow rain" charges, will not ratify a new agreement.

In 1981 the Reagan administration launched its new chemical weapons policy on two fronts. First, the president suspended the four-year-old bilateral discussions on a new chemical weapons treaty with the Soviets in Geneva. President Reagan and Pentagon officials have implied that these talks were broken off because of Soviet intransigence over problems of on-site verification, and because of the Soviet invasion of Afghanistan. The impression that nothing was to be gained by continuing the discussions is challenged by Charles Flowerree, the U.S. negotiator at Geneva from 1980 to 1981. The talks originated in a 1974 agreement between Nixon and Brezhnev to try and develop a "joint initiative" draft treaty. There were at least twelve bilateral sessions, the last two in February (a few weeks after the Soviet invasion of Afghanistan) and in July 1980. President Carter decided to continue the talks, despite the invasion, because of the high level of interest in the forty-nation Committee on Disarmament. Ambassador Flowerree, who also led the U.S. delegation in the Committee, concedes that he and his Soviet counterpart, Viktor L. Israelyan, did not achieve agreement on the problem of verification, but stresses that their final report of August 1980 did provide an important basis for discussion in the Committee. Ambassador Flowerree points out:

> It is a fact of life, although not always enthusiastically embraced by the nonaligned nations, that the *sine qua non* for progress on multilateral treaties in the field of arms control and disarmament is prior agreement by the United States and the Soviet Union on its major provisions. While the fact [remains] that the Committee on Disarmament has entered full- scale negotiations on a [new] treaty . . . the prospects for success of these negotiations are tied to the ability of the U.S. and the Soviets to work out mutually acceptable verification procedures regarding the destruction of stockpiles and the non-production of prohibited chemicals.[2]

In other words, negotiations in the Committee cannot make substantive progress without bilateral agreements. The second part of the Reagan policy was to charge the Soviets with violations of the two existing

2. Charles G. Floweree, "Chemical Weapons: A Study in Verification," *Arms Control Today, 13 (April 1983): 1.*

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treaties: the Geneva Protocol of 1925 that bans the use of poison gas and other chemical weapons in war but does not ban production and stockpiling, and the 1972 Biological Weapons Convention that prohibits the development, production, or stockpiling of biological agents or toxins.

In September 1981 then Secretary of State Alexander M. Haig charged the Soviets—albeit indirectly at first—with these violations. According to the administration's "strong and compelling, but nonetheless preliminary evidence," the Soviets had been supplying client states in Southeast Asia with a new toxin made from the fungus Fusarium. If true, both treaties had indeed been violated. As identified by the United States, the new agent is both biological and chemical: it is produced by a fungus, but the actual toxin made by the fungus is a chemical. Similar charges were not made against Laos or Kampuchea because neither is a party to the treaties.

These are terribly grave charges with clear repercussions for negotiations concerning new treaties as well as for creating the political and military conditions inviting a new chemical arms race. The Soviets immediately denied the charges, and in their rebuttal accused the United States of being responsible, through the Agent Orange defoliation program in Vietnam, for any increase in mycotoxin poisoning in Southeast Asia. The Soviet countercharge was so farfetched, however, that it was easily and roundly dismissed by United States scientists. High-pitched rhetorical exchanges on yellow rain between Washington and Moscow continued throughout President Reagan's first term. The bilateral talks remain suspended.

For the United States' charges to have been an effective diplomatic tool and not simply viewed as propaganda the evidence of treaty violations had to be good enough to attract outside scientific and political support. But three years after Secretary Haig's speech it is clear that the specific charge against the Soviets of using a fungus toxin cannot withstand independent scientific scrutiny. The government's scientific evidence remains scanty; only minute and militarily insignificant traces of poison are reported to be in the samples. As the government's investigation has continued, its original evidence has become scientifically insupportable. In the face of the independent evidence challenging the charges, the administration has had no option but to rest its case on the claims that significant corroborative intelligence data exist, and that there is supporting evidence from allied governments. The intelligence data are classified and the administration is unwilling, or unable for legitimate security reasons, to make the data public. The second claim is simply not valid. Although allied governments have said they believe some chemical warfare occurring, no allied government has stated publicly that it has

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evidence to support the trichothecene charge.

History warns us to beware of governmental charges concerning the use of chemical weapons: The Vietnamese accused the French of using gas in 1947; the Egyptians accused the Israelis in 1948; the North Koreans charged the United States in 1951; Cuban emigre groups accused Castro in 1957; in the same year the Algerians accused the French; in 1958 Peking charged Nationalist Chinese forces—all without subsequent confirmatory evidence. Indeed, the lesson of history is that allegations of the use of chemical weapons have been an effective short-term propaganda tool, but modern Western leaders who are negotiating arms control treaties in Geneva should regard the use of such propaganda as a crude and outdated method of diplomacy, unless the allegations can be proved.

Even government officials now privately admit that Secretary of State Haig was ill-advised to charge the Soviets with treaty violations when the only physical scientific evidence then possessed by the government was a single leaf and a twig reported by a single laboratory to contain minute traces of fungal poisons known as trichothecenes. The paucity of the evidence and the fact that the toxins were produced by a common fungus raised the possibility, even in the most unscientific of minds, that the fungal poisons could be of natural origins. Independent scientists wondered why the government had not been able to obtain confirmation of the findings from another laboratory, in accordance with the basic rules of scientific inquiry. But those rules would be broken more than once in the course of the government's inquiry. Government scientists, either through incompetence or willful omission, ignored evidence at their disposal and persuaded the administration and an unusually large, fifty-member interagency group that the toxins could not be of a natural origin because trichothecenes are not found in Southeast Asia. But their conclusions are incorrect: fungus of the genus Fusarium and various toxin-producing species are found all over the world.[3]

Skeptical independent scientists and chemical-warfare experts began to explore two central questions posed by Haig's charges. First, why would the Soviets bother making and using a new agent when they already possessed several others that could do the job more cheaply and more effectively?[4] Second, given that Fusarium does grow all over the world, was it possible

3. The U.S. government's assertion that "these mycotoxins do not occur naturally in Southeast Asia", appears in a State Deptartment Fact Sheet, 14 September 1981. The statement was repeated in a State Department press briefing, 29 November 1982. Canadian investigations of yellow rain identified 13 isolates of Fusarium in 20 plant and soil samples collected in Thailand in 1982. One of the isolates was a toxin producer; see Lois Ember, *Chemical and Engineering News*, 25 June 1984, 27.

4. Saul Hormats, " A Chemical Warfare Expert Who Doubts the Soviets Used Yellow Rain," *Washington Post*, 26 February 1984, D-1.

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that the poison on the sample leaf could have gotten there by natural means instead of by chemical warfare?

The government reacted strongly to such probing, dismissing questions with an air of confident authority. Officials maintained that the Soviets appeared to be using Southeast Asia as a proving ground for new agents; and that at least one of these had to be trichothecenes because these toxins produced a distinctive symptom—namely internal hemorrhaging—which a large number of the refugee victims of the alleged chemical attacks had described. Moreover, the poison could not have been produced naturally, officials asserted, because the quantities on the leaf were too high for natural Fusarium production and because the combinations of the poisons are not found in nature. As for the Soviet connection, there was a well-established link. At the end of World War II, the Soviets had suffered epidemics of trichothecene poisoning after people had eaten moldy grains, so Soviet biologists knew a great deal about the toxins. The assumption was that the Soviets had the ability and the knowledge to turn these toxins into weapons.

But the absence of evidence on trichothecenes in tropical Southeast Asia was not necessarily evidence of their absence. In fact, it emerged that U.S. government scientists had failed to turn up some important evidence that was in fact there. Professor Matthew Meselson, a well-known Harvard biochemist and America's leading independent expert on chemical and biological warfare, quickly discovered that trichothecenes had been reported in the tropics in quantities not incompatible with those found on the alleged yellow rain samples. The combinations of trichothecenes reported were indeed unusual, but because so little work has been done on the production of fungal mycotoxins in the tropics, no one could say for certain that those combinations could not exist naturally.

Still more unanswered scientific questions concerning the government's case persuaded Meselson to continue his scientific inquiries. More than a year after the Haig charges the government announced quite unexpectedly that many of the environmental samples of yellow rain, reported by the government to be yellow, sticky, and rainlike, were full of microscopic pollen grains of the kind that might be collected by bees. One government scientist said the Soviets had created a "very clever" mixture of pollen and fungus poison in which the pollen was intended as a carrier—a hypothesis later to be retracted.[5]

At the invitation of the U.S. State Department, other nations, including Britain, Canada, and France, joined the search, and Meselson obtained his

5. State Department press briefing, 30 November 1982; also, WGBH TV, Boston, Nova Series no. 1111, 30 October 1984.

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own samples of the little yellow spots from the Canadians. With three colleagues—Joan Nowicke, a pollen expert at the Smithsonian Institution, Thomas Seeley, a professor of entymology at Yale University, and Peter Ashton, a specialist in the flora of Southeast Asia at Harvard University—Meselson discovered that the pollen grains in the samples were indeed of a type collected by bees, but more important, several of the pollen grains could be traced to plants and trees common to Southeast Asia. This was positive evidence for a "natural origins" hypothesis. But how did foraging bees make spots of pollen on leaves?

Professor Seeley observed that bees often make these little spots; that they are, in fact, bee feces. Being scrupulously clean creatures, bees frequently go on "cleansing flights" during which tens of thousands of them defecate together at a healthy distance from the hive. If one happens to be standing underneath such a bombardment, it feels like a light shower of rain, as Meselson and Seeley discovered while on a field trip in Thailand. A group of Hmong refugees from Laos identified the bee feces as *"chemie"*—their word for chemical warfare. Putting together all their evidence, the professors concluded that the deposits of the yellowish substance handed in by the refugees and known as yellow rain are not the aftereffects of chemical warfare, but the feces of wild honey bees.

Yellowish substances were only part of the government's case, however. A university analyst working for the government had also reported finding trichothecenes in samples of blood, urine, and body tissue from alleged victims of yellow rain. Meselson acknowledged that people do not eat bee feces. But people do eat moldy food. So was it possible that the alleged victims of yellow rain who had trichothecenes in their blood and urine had eaten moldy grains or rice contaminated with Fusarium fungus and trichothecenes? Not enough data exist to answer this question. However, the value of this biomedical evidence is in serious doubt. The concentrations of the poison found in the victims' blood suggested the victims had been contaminated more recently than the attacks were said to have occurred. The trichothecenes had been taken from the alleged victims often several days, even weeks, after the attack. Yet the bulk of scientific studies on trichothecene poisoning indicates that trichothecenes break down rapidly in the body, disappearing completely within forty-eight hours.

Altogether, the evidence in favor of the government's charges is not only strikingly insufficient, but, as subsequent inquiries have shown, internally inconsistent. In the government's investigation, only five of more than a hundred environmental samples of varying shapes, sizes, and hues said to be yellow rain have been reported to be contaminated with trichothecenes. These positive results were reported by an independent analyst working for the government; the government's own laboratories found no positive

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results. Out of about sixty samples of blood and urine, only twenty were reported to be positive by the independent laboratory. The government analyst found no trichothecenes in these samples.

It is also extraordinary that during more than five years of searching for an answer to the riddle of yellow rain the government has been unable to produce a single munition or shell fragment contaminated with trichothecenes. Moreover, according to the published evidence, no Western doctor has examined even one of the bodies of the more than 10,000 people who were reported to have died from chemical attacks.

The administration has also accused the Soviets of using trichothecenes directly against the *mujaheddin* in Afghanistan, and the most promising evidence from any battlefield presented by the government was a trichothecene-contaminated Soviet gas mask from Afghanistan. (The positive test was reported by three laboratories.) Government officials at first implied that the mask had been used by a Soviet soldier in battle, but they said later that the mask had, in fact, been bought in Kabul, and that no trichothecenes had been found in the mask's filter, where poisons would have lodged had the mask been used in a chemical attack. What had seemed to be definite, incriminating evidence turned out to be much less significant. (Tests on a second gas mask, said to have been removed from a dead Soviet soldier, were reported to be "indicative of the presence of trichothecenes," but this result was later discarded as important evidence by government analysts.) From a strictly scientific viewpoint, no one could draw any conclusions about the use of yellow rain from a single contaminated gas mask. Yet by introducing scientific proof as an element in their charges against the Soviets, the administration had invited people to judge this meager evidence by scientific standards.

By the end of 1984 the administration began to rely increasingly on what officials called the totality of the evidence: refugee reports, samples, human intelligence, satellite intelligence, and radio intercepts. If the skeptics could only see how the intelligence corroborated the sample results, officials claimed, they would agree with the charges. But, of course, the intelligence information was classified and could not be released without compromising the methods and sources of collecting it.

Finally, the government sought to bolster its case by calling on the supposed support of the allies. If only those allied governments who had positive results would release them, U.S. officials said, the world would readily acknowledge the overwhelming weight of the evidence against the Soviets. According to the administration, several European allies, including Britain and France, were among those nations that had found evidence supporting the trichothecene charge. But none of these countrieshas ever produced such scientific evidence, and several Western

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chemical-warfare experts have said privately that they do not believe the United States' trichothecene theory.[6]

THE U.S. GOVERNMENT HAS REPORTED that trichothecene attacks eased during 1983. In a submission to the United Nations, the government said that although toxic-weapon attacks, deaths, and incapacitations continue to be reported, "there appears to have been a diminution of attacks in Afghanistan and a decrease in the lethality of attacks in Laos and Kampuchea." The government's conclusion is that pressing the charges was a success: the Soviets took notice and cut back the use of lethal chemicals. But given the evidence, this is a hollow victory. The United States has identified the lethal chemicals used by the Soviets as trichothecenes. (The government has always reported that nonlethal riot-control agents, which are accepted by the United States under the 1925 Protocol, have been used.) But there is not enough evidence to confirm the government's identification. Claiming to have stopped something that no one can prove ever started is not effective diplomacy. A resumption of meaningful bilateral negotiations with a reelected Reagan administration may prove extremely difficult. The force of the government's charges has left little room for political or diplomatic maneuvering. The level at which the charges were made—first by the secretary of state and then by the president—has made it politically impossible for the administration even to acknowledge that the yellow substance offered by the refugees as chemical warfare is, in fact, bee feces. Congress, by and large, has accepted the government's judgment. In February 1984 the U.S. Senate passed a resolution, without a single dissenter, condemning the Soviet Union for waging chemical warfare in Southeast Asia and Afghanistan. Instead of laying groundwork for negotiations to begin in Reagan's second term, the yellow rain adventure has prepared domestic opinion in the United States for an upgrading of the Pentagon's chemical-warfare capability. This could entail much more than the administration's continued effort to obtain funds for the production of new binary nerve-gas weapons. The alleged use of toxins raises all kinds of legitimate concerns in the Pentagon, such as the extent of a greater threat from Warsaw Pact forces which could include new weapons, the ability of NATO forces to detect and identify the new weapons, and the potential need for new protection and decontamination equipment. Add to this the CIA's forecast of a steady increase in chemical-weapons proliferation, and the result is that an administration favoring a stronger retaliatory capability is in a position to present

6. Author's interviews with chemical warfare experts at the First World Congress on New Compounds in Biological and Chemical Warfare: Toxicological Evaluation, Ghent Belgium, 21–23 May 1984; see also, Lois Ember, *Chemical and Engineering News*, 25 June 1984, 25–28.

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compelling arguments to Congress and to the American people.

What do the NATO allies think of all this? At a time when alliance members need to be working together to solve the mystery of yellow rain and to conclude a new chemical weapons treaty, the administration, through its unproven yellow rain charges, has risked serious divisions in NATO. The governments of some European countries have simply not been prepared to accept the low standards of scientific evidence embraced by the Reagan administration. Administration hard-liners say this is because Europeans do not want to make a political issue over chemical weapons; that European governments have had enough trouble coping with the introduction of U.S. cruise and Pershing II missiles; and that resulting domestic political considerations cause Europeans to demand too high a standard of evidence of Soviet violations while giving too low a priority to chemical weapons, such that they have little or no strategic importance. In the end, say the hard-liners, this attitude means that the Europeans feel that chemical weapons are not worth making a fuss over unless the evidence against the Soviets is overwhelming enough to convict. The hard-liners warn that Europe's failure to respond to even apparent treaty violations may be giving the Soviets time to arm themselves, thus permitting the strategic balance to become unstable.

Such accusations are disingenuous. To be sure, European governments have their own special political problems as they play host to U.S. bases containing a new generation of intermediate-range missiles, and, in Germany's case, as they continue to hold old stocks of chemical weapons. But allied wariness also stems from an unstated assessment on the part of European governments that the administration overplayed its hand on yellow rain.[7] And this wariness has recently been compounded with the administration's apparent support for a new, related allegation about Soviet biological warfare activity.

In a series of articles last year the *Wall Street Journal* suggested that the Soviets could be diverting some of their expertise in bioengineering to produce a new range of biological weapons.[8] The eight-part series, entitled "Beyond 'Yellow Rain,' the Threat of Soviet Genetic Engineering," purported to show that the Soviets were actually developing previously undreamed-of biological weapons. The evidence was based on interviews with Soviet emigré scientists who admitted only to secondhand information about such a program, plus open scientific literature authored by Soviet biologists who were studying the chemical components of highly toxic venoms from cobras, scorpions, and other natural

7. Ibid.

8. The eight-part series ran in the *Wall Street Journal* from 23 April to 10 May 1983. The *Journal* editorial writers have maintained an uncritical faith in the yellow rain charges. An update to this series was printed in the *Journal* on 28 December 1984.

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sources. The articles said these studies were the exposed tip of a new Soviet germ-warfare program. (In a letter to the *Wall Street Journal*, Harvard University Professor Elkan Blout pointed out that Soviet journalists could have implied a similar U.S. program from the amount of ongoing toxin research in the United States.) Apparently setting some store by such speculative reports, Defense Secretary Caspar W. Weinberger in his 1984 report on Soviet military power voiced his own suspicions about Soviet activity in this area. He said there is an "apparent" effort by the Soviets to transfer some genetic-engineering research to biological warfare centers; the connection "may" be there.

THE FRAGILITY YET DURABILITY OF THESE CHARGES against the Soviet Union makes one wonder how they can possibly maintain such bureaucratic momentum, aside from the fact that the administration contains some top policymakers who are clearly against new arms control pacts with Moscow. The CIA's intelligence estimates provides an important clue.[9] One estimate mentions that gathering intelligence on Soviet chemical and biological warfare activities has been receiving an increasingly higher priority since 1973, when Soviet armored personnel carriers captured by the Israelis were found to be well-equipped for fighting in a battle environment saturated with chemical weapons. Intelligence priorities are assigned by the National Security Council, with "Priority One" being the most important. The priority of Soviet chemical and biological warfare was raised to "Three" in 1975, "Two" in 1977, and to an unprecedented "Priority One" under Reagan.[10]

The increased surveillance has resulted in a heightened awareness of the possibility of treaty violation and a tendency on the part of the intelligence community to be more suspicious—at times even oversuspicious—of reports of unlawful Soviet activity. One such example is the controversial Sverdlovsk incident, when the Soviets admitted an epidemic of disease caused by anthrax bacteria. Between 20 and 1,000 people, depending on whose intelligence estimate one uses, are believed to have died. It is unclear, however, whether the accident was related to military production or testing of anthrax, or whether it arose out of "natural" causes. The Soviets say the epidemic was caused by tainted meat, and refused independent inquiries. United States intelligence concluded that the epidemic was related to outlawed germ warfare. No one is certain, but the incident, like yellow rain, is freely used by Reagan officials as another example of Soviet perfidy.

9. Ibid.

10. A note on the increasing priority given to Soviet chemical and biological warfare is contained in the CIA's SNIE, ibid. The note was first published in a Jack Anderson column "Upgrading Chemical Warfare Intelligence," *Washington Post*, 30 November 1984, E-7.

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Increased surveillance of chemical and biological warfare has also resulted in a reassessment of the potential proliferation of chemical weapons. United States intelligence estimates claim that both Iraq and Syria have been receiving major Soviet chemical-warfare training, with the Syrians actually receiving agents and delivery systems from the Soviet Union and Czechoslovakia. The United Nations' confirmation of Iraq's use of mustard gas and a nerve agent in the Persian Gulf War suggests that Iraq may now have its own indigenous chemical-warfare capability. Libya is said to have received lethal chemical-warfare agents from Eastern bloc countries and to have made efforts to contact West German and Swiss firms for plant construction. And, according to U.S. intelligence, Israel has acquired various kinds of chemical-weapons capability, including nerve agents, a mustard agent, and several riot agents with delivery systems. Elsewhere, Ethiopia, assisted by the Cubans, is reported to have used incapacitating agents; Thailand is said to be upgrading its chemical capability as a result of the reports of yellow rain in neighboring Laos and Kampuchea; and Burma is thought to be trying to start a domestic mustard-gas production program. China, Taiwan, and North Korea are also reported to have a minimal chemical-weapons capability.[11]

Whether these intelligence estimates have pinpoint accuracy or are the product of an overzealous staff energized by new intelligence priorities, it does seem that a dangerous trend is emerging. Two actions are required immediately. First, the United States should initiate without delay a resumption of bilateral negotiations on chemical weapons between Washington and Moscow. Second, the United Nations must swiftly conclude the setting up of a special permanent unit to monitor and investigate allegations of treaty violations; the Iraq-Iran allegations were quickly and positively dealt with by a competent U.N. inquiry.[12] The United States, unlike the Soviet Union, has strongly supported this action and should reinforce its efforts.

As the focus at Geneva returns to nuclear arms control, how is all this to happen? First, the president should begin to detoxify the chemical disarmament negotiating atmosphere by suspending any new call for reopening U.S. chemical-weapons production lines. For three years Congress has rejected Mr. Reagan's call for "modernization" of the arsenal, and new chemical weapons are not needed to deter Soviet use of these weapons against Western Europe; current nerve-gas stocks, in

11. These estimates appear in the CIA's SNIE, ibid.

12. A U.N. inquiry—against Soviet opposition—was made regarding yellow rain in Southeast Asia, but because of the explosive political atmosphere surrounding the charges, and because the U.N. team was not permitted to visit the battle areas, the report was of minor significance. The U.N.'s evidence suggested the possible use of some sort of toxic chemical substance in some instances, but was unequivocal enough to be hailed as supportive by both the Soviets and the United States.

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place and serviceable in Germany, continue to act as a sufficient deterrent. Second, the president should put an end to unsubstantiated allegations by administration officials of Soviet treaty violations, unless a more effective case can be made. At the same time the president should increase the involvement of the administration's top-ranking officials in chemical weapons disarmament so that imaginative confidence-building gestures can be made, however modest they may seem. Vice-President Bush has appeared twice at the Committee on Disarmament and should be encouraged to do so again. The president must be involved personally. For example, in a recent effort to emphasize the ongoing, voluntary U.S. program of destroying old and unusable stocks of nerve and mustard gas, the administration invited the forty members of the Committee on Disarmament to tour a chemical munitions destruction facility in Utah. Representatives of twenty nations watched some old, unusable munitions being destroyed. Unfortunately, Eastern bloc nations declined the invitation, and, because the visit was pitched at a politically low level—with only the U.S. ambassador to the committee and a second-string official from the Arms Control and Disarmament Agency attending—the event attracted little publicity. The president's advisors should consider further visits of this kind that involve Mr. Reagan himself. "Photo opportunities for arms control" sounds gimmicky, and it is, but the president has a chance in the next four years to surprise us all with the level of his personal commitment to the destruction of chemical weapons whose use in war was outlawed sixty years ago.