Based on interviews and a reading of medical records, the Canadians concluded that chemical or biological agents are being used against unprotected troops and civilians in Southeast Asia. At least two different materials are involved, Humphreys says. One of them may contain mycotoxins. The other is a "knockout" agent. The Canadians saw and collected samples of yellow rain themselves, and Humphreys can testify to its devastating effects on Hmong villagers.

The Canadian report differs from the State Department's in two important respects. First, the Canadians found the American description of yellow rain poisoning to be exaggerated. Rather than producing immediate vomiting, hemorrhaging, and death, as claimed by the Americans, yellow rain was slow to produce effects and they seemed reversible, according to Humphreys. Those who died were chiefly the very young and very old who, in the absence of good medical care, became dehydrated by 10 or more days of vomiting and diarrhea. The Canadian description is compatible with the observed effects of tricothecene poisoning in laboratory animals.

Second, the Canadians concluded that a closely analyzed battle near Tuol Chrey, Kampuchea, exposed Khmer Rouge soldiers to a "highly potent" incapacitating agent, not yellow rain. The Canadians did not exclude the possibility that some mycotoxins were mixed with the knockout agent. This chemical did not appear lethal, Humphreys says, but did put soldiers out of action for several days. Humphreys is unequivocal: the substance used against the Khmer Rouge soldiers was not vellow rain but a volatile material suitable for use where friendly and hostile forces must operate in the same environment. This contrasts with the U.S. report, which stressed that the blood and urine of the Khmer Rouge victims at Tuol Chrey contained the mycotoxin T2, an alleged ingredient of yellow rain.

The State Department's November paper also emphasizes the fact that high levels of T2 were found in the stomach and intestine of a soldier who died a month after being exposed to the gas attack at Tuol Chrey. Humphreys found it "impossible to exclude blackwater fever [a variety of malaria] as a possible

cause of death." Malaria is rampant among these soldiers. Another factor confuses the case. Humphreys believes the Khmer Rouge may suffer from the misuse of atropine, a drug commonly given by Khmer Rouge medics to soldiers who have been in chemical attacks. Atropine is an antidote only for classic nerve agents. If used wrongly, as Humphreys suspects may be the case here, it can produce a variety of bad side effects. One is the retention of urine. Blackwater fever also produces kidney failure. The soldier from Tuol Chrey, according to the Canadian report, died "in acute renal failure."

Thus, while the Canadian and U.N. inquiries give strong support to the charge that toxic sprays are being used in Southeast Asia, they leave unconfirmed the charge that the poison is specifically a mycotoxin. That uncertainty may end when the Canadian laboratory finishes its analysis of the 200 or so samples collected during Humphreys' visit to Thailand. Perhaps not. It is a good sign, in any case, that other countries have begun to examine the evidence.

-ELIOT MARSHALL

Arms Control Agency on Hold

Senate conservatives block Reagan appointees at ACDA, State in the name of Reagan policies

The Arms Control and Disarmament Agency is rounding out its second year under the Reagan Administration with several senior policy-level appointments still blocked as a result of actions by conservative Republican senators. A group of conservatives, led by Senator Jesse Helms (R–N.C.), stalled ACDA and State Department nominations as part of a campaign to pressure the Administration into heeding their views on foreign policy, including arms control.

As Science went to press, it appeared that a showdown could occur on 8 December when the Senate was scheduled to spend a full day dealing with an appointments backlog. There was no firm indication of the strategy that opponents of the foreign policy nominees would follow. The options include a filibuster.

At the beginning of December, the stakes were raised when Senate Majority Leader Howard H. Baker, Jr., indicated he would move to have the disputed nominations confirmed and conservatives countered with a threat to oppose

the Reagan plan for Dense Pack deployment of the MX missile.

The tactic used to delay the appointment process involves the use of senatorial "holds," which discourage the sending of nominations to the Senate floor for confirmation. Such holds are not uncommon in the jockeying that often surrounds presidential appointments. What sets the present instance apart is the duration of the blocking action-well over a year—and the implacability of the opposition by GOP conservatives to the appointments by an Administration of their own party. In apparent retaliation, liberal Democratic senators have delayed action on nominees to posts at ACDA and State favored by the conservatives. The effect on ACDA is that the post of deputy director and three of four assistant director slots have been occupied by officials working in an "acting" status.

The White House has maintained its support of the ACDA nominees, who are the choices of ACDA director Eugene Rostow, whose appointment Helms initially questioned (*Science*, 8 May 1981, p. 646). Resolution of the nominations snarl, however, has been left to Senate Republican leaders. Reagan budget cuts have reduced ACDA manpower and resources. But the uncertainties over leadership are mainly blamed for sagging agency morale at a time when ACDA would be expected to be gearing up to support major arms negotiations.

At the center of the dispute now are the nominations of Robert Grey as deputy director of ACDA and Richard Burt as assistant secretary of State for European affairs. Another ACDA nominee, Norman Terrell, in line to be assistant director in charge of nonproliferation matters, left the agency at the end of November to take a post as associate administrator for policy of the National Aeronautics and Space Administration (NASA). Helms at one point this summer had offered to see Grey confirmed if Terrell withdrew. Grey proponents viewed Terrell's departure as opening the way to Grey's confirmation. Helms indicated that he felt the deal had been rejected and regarded his offer as having lapsed.

Grey and Terrell were the main targets at ACDA, but two other subcabinet posts were also affected. Action on the nomination of Manfred Eimer as assistant director for verification and intelligence has been delayed by questions from Senator John Glenn (D-Ohio) about Eimer's views on verification. Eimer is a career ACDA official whose nomination gained the approval of the conservatives.

ACDA's bureau of strategic programs, which backstops strategic arms negotiations, has yet to have a candidate formally nominated to head it in this Administration. The nearest miss occurred in the case of Washington arms control consultant Henry Cooper. The White House announced its intention to nominate Cooper, who was acceptable to the conservatives, but ACDA sources say he withdrew after Rostow was unwilling to approve Cooper's terms for taking the post, which included a virtual free hand in appointing staff for his bureau.

No bill of particulars was lodged publicly against Grey and Terrell, but the main issue for conservatives is said to be the alleged lack of concern of the two over verification of Soviet observance of arms control agreements. Objections to Burt apparently center on articles he wrote as a *New York Times* reporter which some conservatives, including Senator Barry Goldwater (R-Ariz.), feel compromised security matters. It is also suggested that some of personal scores were being settled by the critics. But the conservatives say their fundamental case is against policies not personalities.

ACDA was a target for conservatives through the 1970's. The current tensions can be traced to a Reagan transition team report that heavily criticized the agency for seeking new arms control accords with the Soviet Union while ignoring intelligence evidence of possible Soviet violations of existing agreements.

Differences between the White House and conservatives on arms control surfaced shortly after the Reagan Administration took office. Conservatives were angered when two foreign policy advisers from the Reagan campaign organization were fired from posts at ACDA they had filled at the start of the Administration. They were acting deputy director Michael Pillsbury and acting counselor David Sullivan. Both are identified with the view that ACDA should pursue the matter of Soviet compliance much more diligently. Both now serve on staffs of Republican senators, Pillsbury for Orrin G. Hatch (R-Utah) and Sullivan for Steven D. Symms (R-Idaho). Hatch and Symms are active in the group opposing the ACDA appointees, which is now said to number more than a dozen.

Contributing to the conservative opposition to Grey and Terrell is a feeling that conservatives have been bypassed for foreign policy posts in favor of career professionals. A report published last February by the Heritage Foundation, a conservative think tank, expressed this view, observing that "throughout almost the entire foreign policy establishment, foreign policy professionals who had supported Reagan during the campaign and who participated in the transition were undercut by the 'permanent government.' "Grey and Terrell had foreign service backgrounds and both had served in the State Department in posts with arms control responsibilities during the Carter Administration.

Late this summer, when an effort was made under Baker's auspices to break the impasse on appointments, Helms suggested that Grey could be confirmed if Terrell's nomination were dropped. Accounts differ on what occurred subsequently. Apparently, when Terrell received an attractive offer from NASA, where he worked earlier, Rostow assumed that his departure would fulfill Helms' terms allowing Grey to be confirmed. Rostow was quoted in a Washington Post story as saying, "I will find it hard to believe that Senator Helms will welsh." Staff sources say that Helms found the comment "provocative," which reinforced his view that Rostow's rejection had scotched the deal.

The conflict over ACDA appointments has been conducted largely behind the scenes. As is usual in such cases, neither senators nor staff are disposed to comment for the record since such comment might limit room to manuever.

The senatorial hold draws its force from the unwritten rules that govern the conduct of much Senate business. The majority leadership could force the nominations to the floor and doubtless win a vote. In doing so, however, they would invite parliamentary countertactics, particularly a filibuster, which could use up precious floor time and disrupt the present lame-duck session. More significantly, the Administration would risk alienating the conservatives' support on other issues it regards as important, notably, in this case, the MX.

That conflict is seen in a variety of ways. In the view of one Democratic staff member, "The struggle going on was started by Jesse Helms" with the aim of "getting right wing ideologues into government." They have been

"playing games with the Administration, and the Administration has made some bows in their direction," he says, and "this enraged some of the liberals who said, if they can do it so can we."

One of the ironies of the situation is that many liberals regard Grey and Terrell as conservatives on arms control issues. Among arms control professionals who were involved in SALT I and SALT II matters, there is a fairly widespread feeling that Reagan budget cuts and a deprecatory attitude toward ACDA in the Administration has downgraded the agency's role and that the clash over appointments makes things worse. One former ACDA official, who served under both Republican and Democratic administrations, says, "it sets a terrible precedent to tie up Senate clearance of third-level positions in ACDA on political grounds and to allow this to drag on for so long.'

According to Capitol Hill sources familiar with the views of conservative activists, opposition to the Burt and Grey nominations has actually strengthened recently. A meeting of conservative senators with Burt on 3 December reportedly resulted in a stiffening in opposition among some of the conservatives. Senator Hatch made a recent quick trip to Europe to visit U.S. delegations to major arms control negotiations and is said to have returned with a stronger resolve to see arms control matters administered by officials the conservatives regard as more in tune with Reagan policies. Hatch is the source of the intimations of opposition on the MX.

Another observer says that Hatch and other conservatives wish to break new ground in the exercise of the advise and consent powers of the Senate on appointments. They note that, in considering judicial appointments, a nominee's judicial decisions are often closely considered and feel that the same scrutiny should be applied to the records of nominees for foreign policy posts.

In the past, presidents have been given fairly wide latitude by the Senate to pick officials for Executive posts, particularly at the subcabinet level. In the case of the ACDA and State Department nominees, a minority of senators have gone further than is customary in holding appointments hostage to gain their aims. They have acted in the name of Reagan policies, but the issue is whether arms control policy will be interpreted for ACDA by the White House, Rostow, and his subordinates or whether the conservatives will succeed in imposing appointees congenial to their views.

-JOHN WALSH