

# DOD Says "Nuclear Winter" Bolsters Its Plans

*Congress is disappointed by a report on the impact of soot on nuclear strategy*

To some weapons experts and arms control advocates, the recent discovery of a climatic phenomenon known as "nuclear winter" offered a powerful reason to rethink the basic assumptions underlying U.S. nuclear strategy. Not so, says the Defense Department. In a controversial new report to Congress, the Pentagon has concluded that a "nuclear winter" may never occur, and that in any event its discovery only strengthens the arguments for existing weapons modernization plans and arms control policies.

"The issues raised by the possibility of effects of nuclear war on the atmosphere and climate only strengthen the basic imperative of U.S. national security policy—that nuclear war must be prevented," says the 17-page report, entitled *The Potential Effects of Nuclear War on the Climate*. "For over three decades, we have achieved this objective through deterrence and in the past 20 years we have sought to support it through arms control. Now, through the Strategic Defense Initiative, we are seeking a third path to reduce the threat of nuclear devastation."

Specifically, the report suggests that a number of recent weapons developments diminish the chance of war, as well as the likelihood that a nuclear exchange could loft enough dust and soot to prevent heat and light from reaching much of the earth's surface, thereby creating a "nuclear winter." These include the deployment of "systems which are more discriminating" or accurate; the "development of a wide range of combinations of targeting and system selection options" that give the United States "escalation control" or the ability to fight a limited nuclear war; and a trend toward increased targeting of military assets, not urban centers. These will have the effect of "reducing unwanted damage" that can lead to severe climatic perturbations, the report states.

In lieu of the fact that many weapons experts consider these developments provocative and destabilizing, the report has already generated considerable controversy. "It is basically a shallow treatment," says an aide to Senator William Proxmire (D-Wis.), who cosponsored the study requirement as an amendment to last year's defense bill. "This is a serious business and to have the Pentagon just come back and manipulate it to

justify their nuclear weapons modernization, the "Star Wars" program, and their arms control position is just not serious." Similarly, Jacob Scherr, an attorney who directs a "nuclear winter" study project at the Natural Resources Defense Council, termed it "totally deficient—17 pages of promotion."

Cornell astronomer Carl Sagan, who published an equally controversial assessment of the policy implications of "nuclear winter" in *Foreign Affairs*, says that "we heard from some quarters at the beginning that 'nuclear winter'

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## Theodore Postol wonders if soot will incapacitate "Star Wars" defenses.

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was liberal propaganda. I'm glad to see that the Pentagon at least acknowledges its possibility. But it is sad that they can grasp the enormous dangers of nuclear war and somehow not realize that the answer is not to build more weapons." Sagan's own prescription is to reduce the total yield of U.S. and Soviet arsenals below a threshold at which "nuclear winter" might be triggered, a level perhaps one-tenth the present total. The Defense Department report, echoing the view taken by most academic experts on "nuclear winter," suggests that no such threshold may exist, and that in any event it cannot be identified at present.

Much of the criticism is directed at the report's abbreviated treatment of what many analysts have considered the most far-reaching potential military implications of "nuclear winter." These include the possibility that a major war might wreak sufficient environmental havoc to incapacitate key items of military equipment, such as satellites or airborne command posts; that it might render useless any civil defense preparations; and that it might turn a so-called first strike into a suicidal act, through worldwide dispersal of dust, soot, toxic gases, and fallout. "We hear this talk from the Pentagon about a protracted nuclear war, which would supposedly last as long as six months," Proxmire noted last year. "The personnel left to fight a protracted nuclear war might face subfreezing tem-

peratures for months, a devastated agriculture and environment, and global epidemics. Would we have any people to fight a protracted nuclear war even if the equipment worked?"

The report has been criticized because it contains little substantive discussion of such practical considerations. With regard to the effects of soot and dust on key military assets, for example, the report says only that under the Reagan Administration's strategic modernization program, the survivability and effectiveness of command, control, communications, and intelligence devices has been "significantly enhanced." The climatic impact of a first-strike is not even discussed, and the potential implications for civil defense are scarcely mentioned. "The Federal Emergency Management Agency (FEMA) believes that until scientific knowledge regarding climatic impacts of nuclear conflicts is more fully developed it would be impractical to develop cost-effective policies regarding civil defense, or to change existing policies," the report says. [To some extent, the issue may be unimportant: The Administration has proposed a 34 percent cut in FEMA's budget for next year in the wake of several contracting and management scandals.]

The study also did not directly address a host of additional policy issues raised by various weapons experts. Writing in the spring 1984 issue of *Foreign Affairs*, for example, political scientists Dan Horowitz and Robert Lieber noted that nuclear deterrence of Soviet forces in Europe could become somewhat less credible, due to the high density of urban centers there and the danger that any use of nuclear weapons could escalate into a full-scale conflict, triggering a lot of smoky fires and a devastating "nuclear winter." Stanford physicist Theodore Postol has also questioned whether the optically aided antiballistic missile systems and defense radars planned for "Star Wars" can operate in a soot-laden environment.

These issues will doubtless be explored as the new defense budget winds its way through Congress. Senator William Cohen (R-Maine), who co-sponsored the study requirement, has asked for a hearing on "nuclear winter" before the Senate Armed Services Committee.

—R. JEFFREY SMITH