

THE HIDDEN ARSENAL

You Can't Keep a Deadly Weapon Down

by Arthur Kanegis

Less than one year after President Nixon issued his famous restriction on chemical and biological warfare, the Pentagon has developed a technique that makes the use of deadly nerve gas on the battlefield tactically feasible for the first time.

The new development is tactical nerve gas, a "binary weapon" which consists of two chemicals that are non-lethal when kept separate, but deadly when mixed. They are packaged inside a mortar shell, kept apart by a "rupture system" which breaks them open only after the shell is fired. Fins make the shell spin during flight, thoroughly mixing the two chemicals in less than 10 seconds. When the shell bursts open on target, the gas escapes and kills everyone in the area.

The President's speech last year implied that the United States was cutting back on the production of lethal gases and bacteria, but binary weapons represent a major escalation in U.S. chemical warfare posture. At the same time, these weapons will eliminate much of the opposition to nerve gas, which erupted only after it was discovered that quantities of

deadly gas were being stored and shipped inside the United States, and after 6,000 sheep were felled by gas in Dugway, Utah. Since binary weapons are harmless until mixed, they can be safely stored or transported. And since it requires about 5,000 times the force of gravity to rupture the containers, it is unlikely that even a train or truck accident could cause the chemicals to combine.

By doing away with any direct threat of gassing the American public, the binary weapons will defuse a large amount of the public opposition that has put the Pentagon's CBW program on the defensive and has caused widespread opposition to all CBW programs. After the old-style gas that is still around is detoxified, a tactical nerve gas will provide a new low-profile and discreet chemical warfare arsenal.

Last year, the Pentagon asked the Senate Armed Services Committee to block reenactment of the law which currently prohibits the procurement of delivery systems specifically designed to disseminate chemical or biological agents or their components. Military spokesmen argued that if the provision were "reenacted into law each year until the time for procurement of binary weapons, the fact of such procurement would be immediately apparent. It might be perceived

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However, the Army gave up on this approach when Senator Charles Goodell threatened a floor fight which would bring about the very publicity the Army was trying to avoid on this perceived “act of escalation of the arms race.” The Army withdrew its request, realizing it was actually unnecessary for fulfillment of the military’s aims, for a special feature of the binary weapons is that the shell can be fired from the same 155 mm howitzers already in use in Vietnam.

The older, clumsier, doomsday gases were, like the big nuclear bombs, a product of the mutual deterrence era, when the very potential for total destruction of a country’s population made it impossible for such gases to be used as long as both sides possessed them. The fact that the old gas could not be unleashed with surgical precision made it impractical for today’s limited warfare era. Tactical gas solves this problem with the howitzer, which can hit a specific target away from U.S. and friendly forces.

With such easy deployment, tactical nerve gas seems to have some attraction for all branches of the military. The Navy, previously uninterested in CBW munitions due to the danger on shipboard, has shown a particular interest in binary weapons.

The Air Force is launching a new million-dollar program in “chemical-biological defense equipment.” The Army, which has traditionally dominated the CBW field, is particularly enthusiastic, since nerve gas now becomes “a tactical weapon to be used in the field.” Even the Marine Corps appears ready for this new weapon, having said earlier that chemical munitions “are ideally suited to counter guerrilla tactical operations It is unlikely that guerrilla forces can obtain CB defensive equipment. Lethal . . . attacks over large areas by aircraft . . . offer optimum means for destruction of these forces. . . .”

To Calm Unsettled Nerves

While the military hasn’t fully declassified its spending for binary weapons for fiscal 1971, it has become apparent that the figure will be at least \$3.9 million for research and development, plus a large budget for indirect support items. Total chemical CBW research totals \$8.6 million, lethal chemicals at \$4.4 million, and simulant test support for the chemical program at over \$2 million.

One budget item which accompanies the Pentagon’s declared “major emphasis” on binary systems is the \$21.2 million to be spent this year on chemical detection and troop protec-

tion systems. Binary weapons would be poorly suited for battlefield use if the military did not have a way to detect the invisible gas and protect U.S. troops against it. The "modular collective protection system" is one of the projects the Army is concentrating on in this area, as well as the XM 8 portable nerve gas detection alarm and other alarms using lasers and infrared rays.

Without the old technical obstacles that served as natural safeguards against the widespread use of nerve gas in warfare, only moral and legal constraints now deter its use. These strictures, however, have only minimal impact on U.S. policy, as illustrated by the fact that after President Nixon's "ban" last year, and after considerable national and international outcry, almost no change in CBW procurement, deployment, or research has taken place.

In fact, while the United States renounced the first use of incapacitating chemical weapons, it continues to use chemicals in Vietnam that are defined by many countries as "incapacitants." It has done so by defining as "riot control agents" some weapons that an overwhelming majority of UN nations regard as gases covered by the 1925 Geneva protocol ban on the use of all biological and chemical methods of warfare. (The U.S. has not yet ratified the protocol.) The U.S. position that tear gases and herbicides now used in Vietnam do not apply to the protocol was rebuffed in the UN General Assembly last year by a vote of 80 to 3.

Such euphemistic terminology as "riot control agent" directly contradicts what the military itself says about its own chemical weapons. For instance, the U.S. classified the gas adamsite (DM), which has been used in Vietnam, as a "riot control agent," while the Army manual says that DM is not to be used in "any operations where deaths are not acceptable." And another "riot control" gas, CS, mixed with an unspecified "pyrotechnic composition" at the Edgewood

Arsenal, was considered so dangerous that Dr. J.S. Foster, the Pentagon's director of Defense Research and Engineering, included it with nerve gas and mustard gas in asking the National Academy of Sciences to do a special report on how to dispose of it without major catastrophe.

Buy Binary For Safety

The range of weapons defined as non-lethal by the U.S. includes all gases—even mustard gas—except the nerve gases. The principal nerve gases, GB and VX, are two of the more than 10 different mixtures of chemicals being studied for use in the binary weapons. GB (the first of the G-series gases) was developed by the Nazis in World War II as sarin, a nerve agent which paralyzes the nervous system, causes muscles to contract, and halts breathing, causing death. V-agents like VX are even more powerful, though similar in effect.

By changing one of the plastic canisters in the binary shell, the type of nerve agent can be varied. While one colonel says this flexibility gives the advantage of helping to "find the best possible combination to produce the best effects on the battlefield," it might also open the way for after-the-fact confusion as to what gas actually was used.

The government does accept a ban on the use of such gases as GB, which presumably would include the new tactical binary weapons, but it only accepts the "first-use ban." This means that the gases would only be used in retaliation. It is widely known, however, that opportunities for vigorous retaliation have a way of surfacing frequently with strange military definitions.

The President's renouncement, then, does not prevent deployment of nerve gas, and even permits continued use of other potentially lethal gases. It also provides major loopholes in other areas of CBW operations. For instance, while his speech did ban any use of biological warfare, the Penta-

gon tried to get around that ban by reclassifying biological toxins as "chemicals." When this attempt was discovered, it was abandoned. However, it seems that the biological warfare programs—which produce diseases such as pneumonic plague, tularemia, brucellosis, anthrax, glanders, and botulism—are still continuing with the rationale that such diseases are being produced solely so the researchers can learn how to defend against them. According to a recent story by Seymour Hersh of Dispatch News Service, one official said: "This sounds very much like what we were doing before."

The disposal of already-produced CBW weapons is still in the recommendation stages, even though a year has transpired since the President's announcement. The Defense Department is taking its time. The date set by the Pentagon for ceasing production of biological warfare agents is not until June, 1971. Disposal of inactivated biological stocks is set for an even later, as yet unspecified, date.

What all this means, incredibly, is that CBW funding for research and development has increased for fiscal year 1971, even though the Nixon speech pledged the government to eliminate and reduce programs. The military appropriations bill, passed by the House in October, now awaiting Senate action, includes a \$3.3 million increase over last year's \$71.6 million CBW funding. (Above the research figure, the military is also receiving \$95.7 million for CBW procurement, as well as hidden funding for installations and support items. And despite the ban on production of biological warfare, \$21.1 million of the 1971 research and development budget is for biological warfare programs.)

These realities will probably be further confused and obscured if the U.S. ratifies the 1925 Geneva convention, a step urged by President Nixon and submitted to the Senate. However, with the loopholes and unusual definitions, the ratification of the

treaty will not change U.S. policy in regard to CBW. The Pentagon was able to declare on March 24, 1970, that ratification, assuming it were done with the Nixon Administration's declared understanding about what it does not cover, would have "no effect on the present chemical warfare program."

While a new international agreement could outlaw any CBW use by any nation for any purpose, the U.S. is currently supporting an agreement that would ban only the biological weapons, which are not tactically feasible like the binary chemical weapons anyway. The non-aligned nations of the Third World, Sweden, and the Soviet allies have been pushing hard for a total ban on production and stockpiling of all CBW weapons, biological and chemical. The U.S. and Britain are attempting to block such a total ban.

The results of President Nixon's heralded speech, therefore, do not bode well for any promise of civilian or international control over the Pentagon's decision on whether to use the new binary weapons. It is not hard to foresee an escalation from the current U.S. use of "non-lethal gases" and "crop control" defoliants in Vietnam to the tactical use of binary nerve gas rounds. ■

Answers to the November Political Puzzle:

A	D	D	R	E	S	S	P	A	C	K	E	R	S
E	E	U					L	I	E				
S	C	R	A	P	E	S	S	P	E	C	I	A	L
E	D	S	T	E	P	S	K	P					
U	N	I	O	N	A	A	C	O	U	P	S		
N	U	C	R	U	S	H	F	O					
V	I	C	T	O	R	L	O	F	F	E	R	S	
A			O	U	T	E	R					T	
E	L	E	C	T	S	R	S	E	P	T	I	C	
C	R	S	L	A	T	E	E	O					
V	E	N	A	L	A	I	T	R	E	N	D		
N	M	E	T	H	E	R	T	M					
E	S	S	E	N	C	E	S	E	N	A	T	E	S
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A	S	K	S	N	O	T	C	O	N	N	O	T	E

THE HIDDEN ARSENAL

Tac Nukes: A More Personal Delivery

by Donald May

"Roll three dice. If the sum is three, the round is a dud. Notify the appropriate umpires and proceed no further."

If the sum is not three, the game is on. Choose your tactical nuclear weapon and turn to the charts in the back of U.S. Army Field Manual 105-6-2, the Nuclear Play Calculator, to find out how much damage you just did.

What, for example, if you chose the 100-kiloton warhead detonating 50 yards above the ground? Within 2,000 yards, 25 per cent of the people inside multistory apartment buildings are killed, 20 per cent are seriously injured, and 30 per cent are trapped in rubble. Within 1,000 yards, 85 per cent of the people in tanks or fox-holes are "immediate casualties" and the rest become casualties within an hour. The trees will be blown down for 2,800 yards around.

Take your transparent plastic card imprinted with the circles of death and superimpose it on a map of Europe, Asia, or continent of your choice. Tabulate and analyze the results.

The Calculator, as its introduction explains, is for keeping score when U.S. troops engage in mock tactical nuclear war during field exercises. If the game ever became reality, the score would be determined by a special breed of nuclear weapons which the public has largely forgotten but which the United States stockpiles in large quantities in many parts of the world.

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While almost all the publicity goes to the ICBMs, submarine-launched missiles, intercontinental bombers, and, for defense, ABMs, the U.S. also has a vast array of tactical nuclear weapons that normally are deployed in a friendly foreign country, to be exploded there or on the soil of an immediate neighbor. They are battlefield weapons meant to attack an invading land army along with its supply lines, its forward airfields, or its own tactical nuclear forces. They could be used in a land war between NATO and Warsaw Pact forces in Europe, in which case Europe itself would become the nuclear battlefield.

Tactical nuclear weapons usually are omitted from Pentagon summaries of the U.S.-Soviet nuclear balance. There were only isolated references to them in Defense Secretary Melvin R. Laird's most recent annual military posture statement to Congress, although Laird devoted three chapters to strategic weapons. They are apparently much in the background at U.S.-Soviet strategic arms limitation talks (SALT). And in recent years they have figured little in the defense debates in Congress.

Yet the United States has many more tactical than strategic nuclear weapons. While U.S. strategic forces total 4,200 warheads (not counting the multiple warhead MIRVs now beginning to be deployed), the U.S. tactical forces in Europe numbered 7,000 warheads in 1967, according to former Secretary of Defense Robert S. McNamara. His successor, Clark Clifford, spoke of 7,200 there. Informed sources say those figures are