DEPARTMENT OF THE ARMY
UNITED STATES ARMY INTELLIGENCE AND SECURITY COMMAND
FREEDOM OF INFORMATION/PRIVACY OFFICE
FORT GEORGE G. MEADE, MARYLAND 20755-5995

August 6, 1998

Freedom of Information/
Privacy Office

Mr. John Greenewald, Jr.
[redacted]

Dear Mr. Greenewald:

References:

a. Your Freedom of Information Act (FOIA) request of June 2, 1998, for a copy of the following document: Incapacitant and Irritant Chemical Weapons of the Armed Forces of the so-called Federal Republic of Yugoslavia, NGIC-HT-0216-95.

b. Our letter of July 1, 1998, informing you the document must be obtained from another U.S. Army organization and we were unable to comply with the 20-day statutory time limit in processing your request.

Coordination has been completed with the National Ground Intelligence Center (NGIC) and the document was provided to this office for our review and direct response to you.

We have reviewed the referred document and determined that the information is partially releasable to you. The document is enclosed for your use. Fees for processing this request are waived.

Since the release of some of the information deleted from these records would result in an unwarranted invasion of the privacy rights of the individuals concerned, this information is exempt from the public disclosure provisions of the FOIA per Title 5 U.S. Code 552 (b)(6).

The withholding of the information described above is a partial denial of your request. This denial is made on behalf of Major General Robert W. Noonan, Jr., the Commanding General, U.S. Army Intelligence and Security Command, who is the Initial

Denial Authority for Army intelligence investigative and security records under the FOIA. You have the right to appeal this decision to the Secretary of the Army. If you wish to file an appeal, you should forward it to this office for necessary processing so that it reaches the appellate authority no later than 60 calendar days from the date of this letter. Your appeal will then be processed to the appellate authority. After the 60 day period, the case may be considered closed; however, such closure does not preclude you from filing litigation in the courts.

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If you have any questions concerning this action, please contact Mrs. Sealing at (301) 677-3802. Please refer to case #1678F-98.

Sincerely,

Russell A. Nichols

Russell A. Nichols
Chief, Freedom of Information/
Privacy Office

Enclosure

REFERENCE

DEPARTMENT OF THE ARMY

NATIONAL GROUND INTELLIGENCE CENTER
220 SEVENTH STREET, NE
CHARLOTTESVILLE, VIRGINIA 22902-5396

NGIC-HT-0216-95
NGIC HUMAN TRANSLATION #

DATE: June 15, 1995

ENGLISH TITLE: **Incapacitant and irritant chemical weapons of the armed forces of the so-called Federal Republic of Yugoslavia.**

TRANSLATION OF: *Hrvatski vojnik.* 1994 (7 Oct). **4**, 74, 49-52.

LANGUAGE: Serbo-Croatian. **COUNTRY:** Yugoslavia.

COUNTRY OF ORIGIN: Croatia.

AUTHOR (AFFILIATION): Zvonko OREHOVAC.

REQUESTER: IANG-RCH [redacted]

TRANSLATOR: IANG-IX [redacted]

5 USC 552a (b) (6)

W A R N I N G

The contents of this publication have been translated as presented in the original text. No attempt has been made to verify the accuracy of any statement contained herein. This translation has been published with a minimum of copy editing and graphics preparation in order to expedite the dissemination of information.

INCAPACITANT AND IRRITANT TACTICAL CHEMICALS OF THE ARMED FORCES OF THE SO-CALLED FEDERAL REPUBLIC OF YUGOSLAVIA.

Among combat toxins with nonfatal action, the former Yugoslav Army has decided on "CS" from the group of irritants and "BZ" from the group of psychochemical combat toxins. In order to install and employ them, hand grenades, toxic-smoke containers, rifle grenade projectiles, mortar rounds, and a shoulder mounted sprayer have been developed thanks to which these chemical weapons have attained the name "tactical chemical weapon for incapacitating and disabling people.

Written by Zvonko Orehovac.

In issue 53 of 17 December, 1993 of the journal "Hrvatski Vojnik" there was an article titled "Production of chemical weapons of the former Yugoslav Army at the Military Technical Institute - Mostar Proving Grounds", which discussed a large secret program for manufacturing chemical weapons for the former Yugoslav Army. From the article it was apparent that the former Yugoslav Army had decided on the production of two groups of military toxins.

One group is the fatal combat toxins and these are sarin type nerve agents and iperite blistering agents. The second group contains nonfatal combat toxins, in other words, irritating and incapacitating agents and this includes the nonpersistent "CS" tear gas and the persistent psychochemical "BZ" type agent. Despite the differences in characteristics of these two groups of combat toxins and methods for their production and employment (shells, multiple barrel rocket launcher projectiles, and aerial bombs for fatal toxins as well as hand grenades, toxic-smoke container, rifle grenade and mortar rounds and shoulder mounted sprayers for disabling toxins), there exists a clearly conceptual definition of the former Yugoslav Army or the so-called Federal Republic of Yugoslavia concerning the use of chemical weapons which can be condensed in two sentences: lethal chemical weapons are intended for offensive (sarin) and defensive (iperite) operations in operational and operational-strategic sectors; nonlethal chemical weapons are tactically designed mainly for defensive combat operations, ambush, surprise raids as well as for special psychological operations and under certain conditions they can be also used in offensive combat operations.

Equipment for installing and using incapacitant and irritant toxins.

Since the former Socialist Federal Republic of Yugoslavia was a public patron of all international treaties which involved the prohibition of use, manufacture and storage of chemical weapons, tactical-technical data concerning their lethal chemical weapons were the strictest state secret and no regulations or instructions were ever written for them and yet military schools during training

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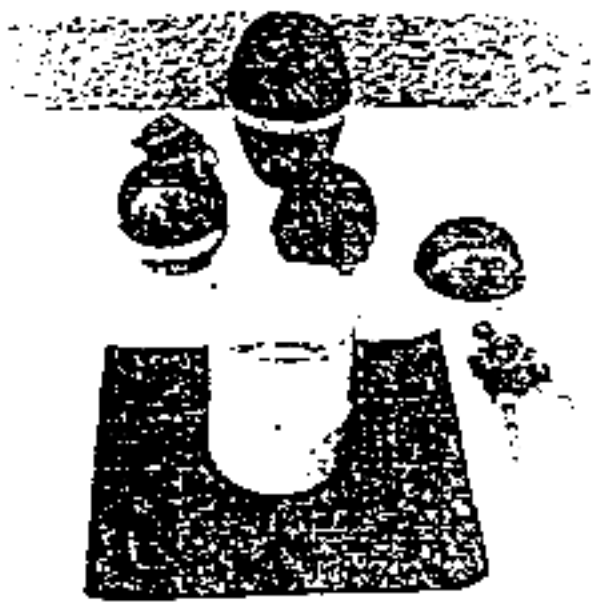
in tactical employment of chemical weapons used foreign literature and foreign data on these weapons. In regard to the fact that the employment of this chemical weapon is intended in exceptional situations as a weapon of revenge against those who use it on the armed forces of the Socialist Federal Republic of Yugoslavia or during engagements for operational-strategic targets, there were no necessary regulations for a wider circle of members in the armed forces but only for the member-commander who would have planned such use.

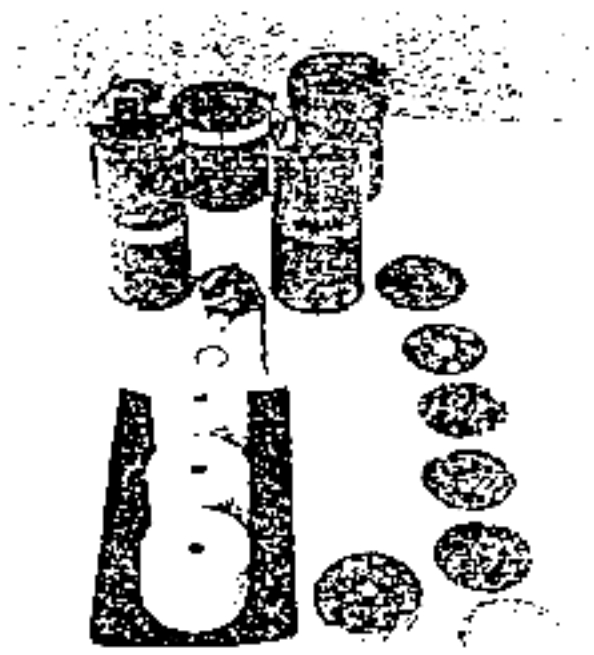
The second situation is for tactical chemical weapons which have the purpose of massive use and which even in peace time are in formations of the former Yugoslav Army, or the armed forces of the so-called Federal Republic of Yugoslavia of today. In order to get around the chemical weapon prohibition convention which prohibits the manufacture and use of any toxin or toxic weapon, the former Yugoslav Army manufactured "training" chemical equipment and issued regulations and instructions for training chemical equipment or regulations which provide the special chemical weapons with the purpose of fighting against saboteurs , in other words, nationalists from the ranks of constitutive nations of the former Socialist Federal Republic of Yugoslavia. These training chemical weapons are discussed by data in tables 1 and 2 as well as by the diagrams of dismantled "training" and special chemical veapons found in barracks of the former Yugoslav Army, on captured members of Serb military units and Serb paramilitary formations as well as at liberated facilities.

All the mentioned weapons are filled with the combat toxin of the type CS and CS-1 type in quantities from 110 to 1320 grams and the shoulder mounted sprayer is even filled with 10 kilograms, while AG-2 and AF-2 special hand grenades (identical to the AG-1 and AF-1 filled with CS) are filled with BZ toxin in quantities from 50 to 105 grams.

BRS M79 AF-1 special hand grenade is filled with CS and BRS M79 AF-2 is filled with BZ.



BRS M79 AG-1 special hand grenade is filled with CS and BRS AG-2 special hand grenade is filled with BZ.



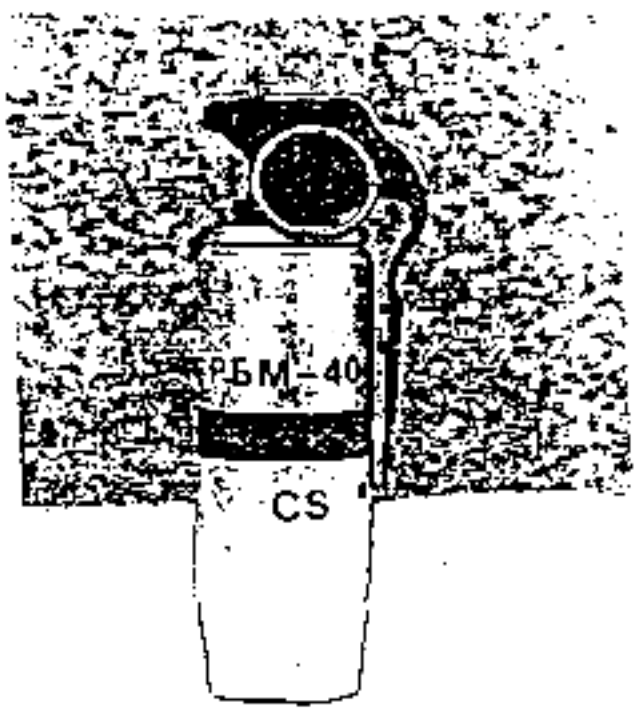
Method of their dispersion is with the use of smoke in pyrotechnical devices, explosive in explosive devices, and compressed air in the shoulder mounted sprayer. The difference between the pyrotechnical and explosive devices is the following:

The pyrotechnical mixture burns (smokes) for a longer time (from 60 seconds to 20 minutes) and during that time dense toxic smoke develops which can be carried by wind for up to several kilometers. After cessation of the smoking process, the concentration of toxin in the air is reduced to a safe dilution. Wind accelerates the dilution process. In explosive devices, contamination of a medium is almost instantaneous with high concentrations in the vicinity of the explosion which provides instantaneous shock and instantaneous incapacitation for fighting and in regard to CS, the range for carrying this explosive dispersed toxin by wind is much less than the range of smoke dispersed CS, however at the site where the explosive is used contamination is strong and long lasting (even after several days) which is advantageous for creating a chemical barrier.

The use of toxin dispersed by the shoulder mounted sprayer has the characteristic of sudden contamination even more than 200 meters from the site of usage with distinctly high concentrations

of toxin which also is planted on local objects and facilities creating long duration contamination in this way. CS dispersed by the sprayer can be carried by wind for up to even several kilometers from the site of application.

RBM-404 SPECIAL HAND GRENADE FILLED WITH CS



The method of action of CS applied by these devices is typical. The contaminated individual will show irritation of eyes, burning, and inability to see, intense tearing, difficult breathing and choking. Among the uninformed and untrained there arises terror and panic. A soldier who did not put on his mask in time has the need to remove it as a result of the toxin which is already attacking him. As a result of the mentioned symptoms, contaminated soldiers are immediately unable to fight until the action of the CS ceases and exposed parts of the body and clothing are decontaminated. A soldier who used his protective equipment in time is protected against the action of CS but due to difficult breathing caused by the protective mask, he is subject to intense physical fatigue especially if he must quickly walk, run, climb and is very prone to rapid physical exhaustion. Before employing personal decontamination especially if CS is still on clothing, the soldier is not allowed to remove protective mask.

The action of the psychological toxin BZ begins in the time from 30 minutes to one hour after the explosion or smoke emission and it disables a person for a duration of several hours to several days. In the contaminated person, depending on the quantity of inhaled toxin, physical constitution, and endurance of the organism, there occurs disruptions in the mental function and in this regard illogical reasoning, reduced or enhanced physical activity which is unsupervised and inappropriate in difficult circumstances.

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TACTICAL TECHNICAL CHARACTERISTICS OF EQUIPMENT FOR BUILDING AND USING DISABLING AND INCAPACITATING COMBAT TOXINS.

Key: gama = rubber; celicni lim = steel plate; donj. inerc. s uspor = bottom inertia with delay. 1 - material of body; 2 - diameter of body mm; 3 - height of body, mm; 4 - total weight,g; 5 - weight of smoke fill; 6 - weight of active chemical fill; 7 - class of active chemical fill; 8 - fuse; 9 - time of retardation (ignition) sec.; 10 - class of explosive; 11 - Quantity of explosive, g; 12 - time of combustion (emission of smoke) min.; 13 - throwing (launching) range, m; 14 - Range of action of toxin in direction of a 2-4 m/s wind; 15 - safety zone when using 2 kom. and 10 kom., m;

Taktičko-tehničke značajke sredstava za konfekcioniranje i primjenu bojnih otrova za onesposobljavanje i iznurivanje ljudstva

Tablica 1.

	Opis osobine	Osobine po tipu sredstva									
		BRS M79 AF-1	BRS M79 AF-2	BRS M79 AG-1	BRS M79 AF-2	MTHŠ-E M83	MTHŠ-D M83	KODPŠ M1F i M1E	KODŠ M2	KODŠ M3E i M3F	KODŠ M4F i M4E
1.	Tvorivo tijela	guma	guma	čelični lim	čelični lim	dur.-aluminij	dur.-aluminij	čelični lim	čelični lim	čelični lim	čelični lim
2	Promjer tijela (u mm)	75 ± 1	75 ± 1	56,6 ± 0,2	56,6 ± 0,2	61	40	170 ± 5	85	85	180 ± 5
3	Visina tijela (u mm)	108 ± 1	108 ± 1	147 ± 1	147 ± 1	397	330	240 ± 10	130	130	240 ± 10
4	Ukupna masa (u gr)	236 ± 5	172 ± 3	450 ± 8	450 ± 8	610 ± 10	400 ± 12	3750 ± 100	750	700 ± 30	5200 ± 100
5	Masa dimnog punjenja	–	–	250 ± 5	250 ± 5	–	130 ± 5	2750 ± 100	450	450 ± 30	4000 ± 100
6	Masa aktivnog kemijskog punjenja	112 ± 3	50 ± 3	103 ± 2,5	103 ± 2,5	160 ± 5	120 ± 55	907 ± 50	150	150 ± 15	1000 ± 50
7	Vrsta aktivnog kemijskog punjenja	CS-1	BR-1	CS	BR	CS 1	CS-1	CS	CS	CS	CS
8	Upaljač	M 206 A2	M 206 A2	M 206 A2	M 206 A2	UT M70 P1	donj. inerc. s uspor.	F frikcion. E-elektron.		F frikcion. E-elektron.	F frikcion. E-elektron.
9	Vrijeme usporenja (upaljivanja) u sek	3 – 4	3 – 4	3 – 4	3 – 4	–	7,5	20 ± 2 8 ± 2	5 – 6	5 – 6	5 – 6
10	Vrsta eksploziva	pentolit	pentolit	–	–	pentolit	–	–	–	–	–
11	Količina eksploziva (u gramima)	4 ± 0,5	4 ± 0,5	–	–	16 ± 0,5	–	–	–	–	–
12	Vrijeme djelovanja dimnog punjenja u min.	–		1 – 2,5	1 ± 2,5	–	1,5 – 3,5	14 ± 2	15	15	15
13	Domet u bacanju – ispaljivanju (u m)	35	35	35	35	460	340	–	15	15	
14	Domet djelovanja otrova u smjeru vjetra brzine 2–4m/s	70	50	200	200	50	20	1000 – 1500	200	200	1000
15	Zona sigurnosti pri uporabi 2 kom i 10 kom (u m)	500	400	1000	1000	350	400	5000	1000	1000	3000

THE ACTUAL PURPOSE AND PRINCIPLES OF TACTICAL CHEMICAL WEAPONS OF THE ARMED FORCES OF THE SO-CALLED FEDERAL REPUBLIC OF YUGOSLAVIA.

Despite the portrayal of these chemical weapons that use CS and BZ as a training equipment, their actual purpose ultimately is the employment in combat actions at the tactical level against tactical targets. This statement is confirmed by the following facts:

1) Each of these weapons contains active chemical fill in the form of CS or BZ and in no case can it be said that the fill is a training toxin or imitation of a toxin.

2) Up until 1989 the former Yugoslav Army manufactured more than 100 tons of CS and CS-1. From January of 1992 the armed forces of the so-called Federal Republic of Yugoslavia has occupied facilities (Lucani-Serbia) for the semiindustrial production of CS at a volume of 200 kg/day and BZ at a volume of 5 kg per day as well as lines for their installation into the mentioned delivery means (Krusevac-Serbia).

3) Equipment for installation and employment of the mentioned toxins is diverse and intended to be used by individual people.

TABLE 2

TACTICAL-TECHNICAL CHARACTERISTICS OF MI (RL-M1) SHOULDER-MOUNTED SPRAYER

* CLASS OF SPRAYER:	
-total	14.42 kg
-carrier	8.97 kg
-container, 1.5 l	2.70 kg
-storage tank, 12.5 l	2.75 kg
*Class of box with spare parts tools and accessories	13.7 kg
*Dimensions of box	415-330-490 mm
*Capacity of storage tank is 10 kg of powdered CS-1 or 10 l in liquid form.	
*Container pressure	200 bars
*Operating pressure	8 bars
*Safety valve pressure	10 bars

*Time of continuous discharge..... 4-5 sec

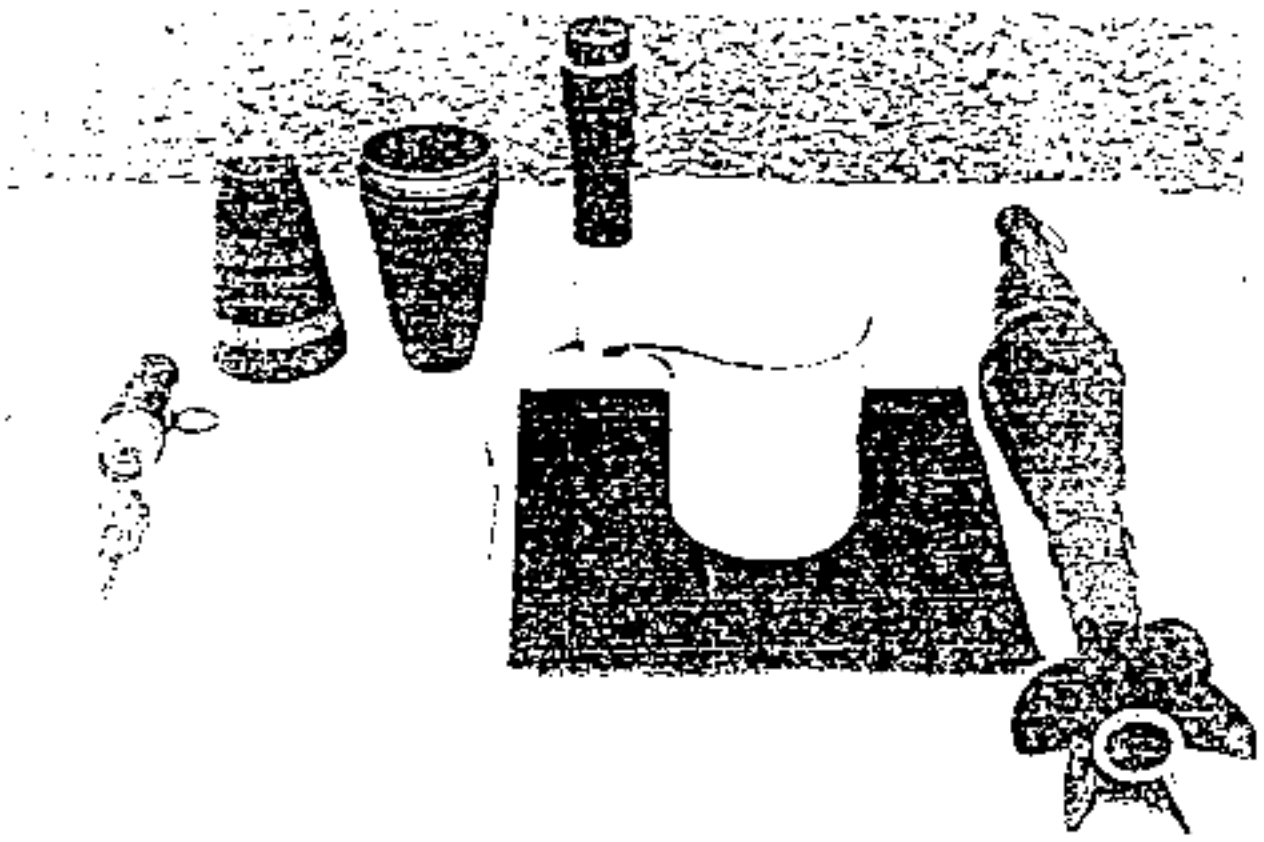
*Range of dust jet in 2-3 m/sec wind..... 15 sec

*Extent of a CS-1 cloud in 2-3 m/sec wind..... 500 m

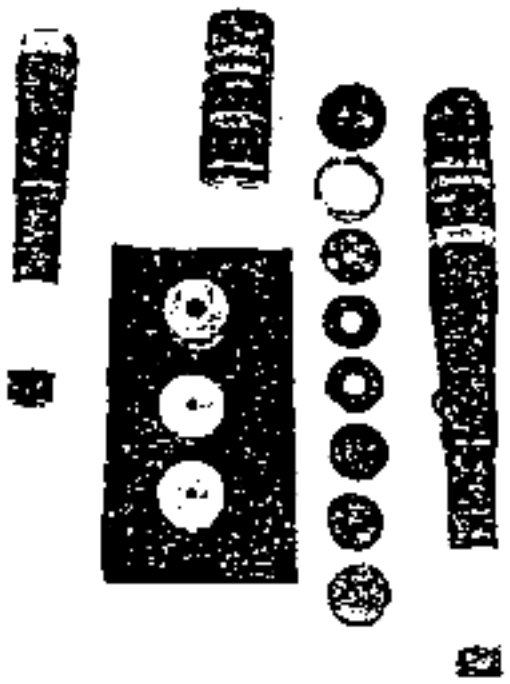
Their large numerical placement indicates that these toxins have been produced in large quantities and that they have been released at the tactical unit level.

4) Instructions and regulations have been published for the cited equipment and especially regulations for the following:<< M79 special hand grenade and M1 shoulder mounted sprayer>>, <<M83 training rifle grenade launcher training round>>,<<Equipment for simulating the action of a nuclear, chemical and incendiary weapon>>. In addition to the tactical-technical characteristics there is also a special chapter concerning the use and principles of use of these chemical weapons. According to these regulations all the cited equipment is used (or can be used) during ground reconnaissance; acting from ambush; during encirclement and destruction; during pursuit; in defensive combat operations; in blockades in construction of obstacles in gaps; in preventing tactical surprises especially at night; in attacks on well defended facilities or river banks; in fighting against disorders, rebellions, and riots in prisons and work camps.

M83 TRAINING-EXPLOSIVE CHEMICAL RIFLE GRENADE ROUND FILLED WITH CS (THERE IS THE CAPABILITY FOR THIS ROUND TO BE FILLED ALSO WITH BZ)



M83 TRAINING-SMOKE CHEMICAL RIFLE GRENADE ROUND FILLED WITH CS (THERE IS THE CAPABILITY FOR THIS ROUND TO BE FILLED ALSO WITH BZ)



The actual purpose of these weapons is most clearly expressed by several of the following quotes from the cited regulations:<<in order to deceive the enemy, these grenades (AG-2 and AF-2, when they are used no specific smell or irritation is sensed) can be used in combination with BRS M79 AG1 and AF-1 (which during action provokes irritation of eyes and respiration organs) so that the impression is made that only BRS M79 AG-1 and AF-1 are used from ambush. In spite of this action groups or units are intentionally not destroyed or captured because it is expected that such a unit or group will cause great damage and losses to their own forces somewhat later as a result of the effect of the chemical substances (BZ, op. a.) consisting of BRS M79 AG-2 and AF-2. In this situation, an enemy patrol, sentry team, command personnel can be a target of attack from ambush>>, <<The use of BRS M79 AG-1 and AF-1 against forces in an offensive is carried out without warning, simultaneously and massively at the moment the assault begins and during the assault. This action must be accompanied by a powerful volley on the attacking forces in order to inflict the greatest

possible damages and losses. In order to repulse unexpected surprise raids in the day or at night, hidden sectors, which cannot be observed and which can serve as approaches for an attacking enemy are sporadically contaminated by using BRS M79 AF-1 and AF-2>>. The use of RL-M1 is possible when the wind blows in the face of the attackers. [next sentence is partially illegible] Then in this way the combat disposition of the attacker is covered by the RL-M1. The most advantageous moment for using the RL-M1 is at the moment the assault starts.

POSSIBLE CONSEQUENÇES OF THE USE OF TACTICAL-CHEMICAL WEAPONS OF THE ARMED FORCES OF THE SO-CALLED REPUBLIC OF YUGOSLAVIA.

The wide range of cited chemical weapons with the potential for selecting the method of toxin dispersion, toxin class, range of equipment and times, sites and targets against which these weapons are used, can by and large cause a series of negative effects on people and military formations from toxicological to psycho-physical effects for an individual and from disruption of planned speed and depth of attacking operations to provocation of panic and disorganization in command and control of the formation. In conditions of specific use of these weapons such as the mixed use of weapons filled with CS and BZ or BZ with other conventional rounds and grenades against formations, logistical units and command point or similar, it is possible to cause panic in the formation and violence among members of the formation itself as a result of the delayed psychological effect of the BZ. Among personnel who are equipped with protective equipment, recurrent losses can reach up to 5% of personnel of the stricken formation as a result of surprise (ambush and assault), terror, and severe physical fatigue resulting from breathing with mounted protective mask and wearing it for up to several kilometers in combat. At the same time it is still necessary to stress the reduced combat capability of a soldier in protective equipment who moves slower and with more difficulty in battle and significant reduction in strength. If an individual and formation are not equipped with protective equipment or are even insufficiently trained and unaccustomed to wearing protective equipment in conditions of combat activity, then losses in personnel can reach in excess above 5% and even the entire formation can be disabled.

KODS-M3F (AND M3E) TRAINING TOXIC-SMOKE CONTAINER FILLED WITH CS.

KODS-M2 TRAINING TOXIC-SMOKE CONTAINER FILLED WITH CHLOROACETOPHENONE

KODS-M4F (AND M4E) TRAINING TOXIC-SMOKE CONTAINER FILLED WITH CS.

CONCLUSION

Under the mask of chemical training equipment, the former Yugoslav Army or the Armed Forces of the so-called <<Federal Republic of Yugoslavia>> of today have developed tactical chemical weapons for incapacitating and disabling people. By analysis of capacities of potential production of CS and BZ, equipment for their installation and use as well as accessible regulations with tactical-technical characteristics and method of use, we come to the conclusion that the Armed Forces of the so-called Federal Republic of Yugoslavia and through them the para-military Serb formations from occupied parts of the RH are capable and equipped to use the cited chemical weapons in all forms of combat activity. In order to reduce losses in formation personnel as much as possible, it is necessary to equip each unit with high quality protective equipment, to train the unit for action in conditions where chemical weapons are used, and to prepare the unit for prolonged wearing of protective masks during combat. Otherwise, consequences can be frightening and even can lead to losing the tactical and tactical-operational initiative.

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INTELLIGENCE AND SECURITY COMMAND
FREEDOM OF INFORMATION/PRIVACY OFFICE
FORT GEORGE G. MEADE, MARYLAND 20755-5995

July 1, 1998

Freedom of Information/
Privacy Office

Mr. John Greenewald, Jr.
[redacted]

Dear Mr. Greenewald:

This responds to your Freedom of Information Act (FOIA) request of June 2, 1998, for a copy of the following document: NGIC-HT-0216-95, Incapacitant and Irritant Chemical Weapons of the Armed Forces of the so-called Frederal Republic of Yugoslavia. Your letter was received in this office June 30, 1998.

Since the information you seek must be obtained from another U.S. Army organization, we are unable to comply with the statutory 20-day time limit in processing your request. Therefore, you may consider this delay an administrative denial, or you may agree to wait for a substantive reply upon completion of our coordination. Your agreement to waive the statutory time limit does not prejudice your right to appeal any releasability decision after it is made.

The Commanding General, U.S. Army Intelligence and Security Command, is the Initial Denial Authority in this matter under the FOIA. You may appeal this decision to the Department of the Army, Office of the General Counsel. If you wish to file an appeal, you should forward it so that it reaches this office for necessary processing no later than 60 days from the date of this letter (excepting Saturdays, Sundays and legal public holidays). The mailing address is:

FREEDOM OF INFORMATION AND PRIVACY OFFICE
ATTN IAMG C FOI/PO
4552 PIKE RD
FORT MEADE MD 20755-5995

If you have any questions concerning this action, please feel free to contact Mrs. Sealing at (301) 677-3802. Refer to case #1678F-98.

Sincerely,

Russell A. Nichols

Russell A. Nichols
Chief, Freedom of Information/
Privacy Office

DEPARTMENT OF THE ARMY
NATIONAL GROUND INTELLIGENCE CENTER
220 SEVENTH STREET, NE.
CHARLOTTESVILLE, VIRGINIA 22902-5396

REPLY TO
ATTENTION OF:

June 24, 1998

Mr. John Greenwald, Jr.
[redacted]

Dear Mr. Greenwald:

Your letter, dated June 2, 1998, was received on June 17, 1998, requesting the following document:

NGIC-HT-0216-95, Incapacitant and Irritant Chemical Weapons of the Armed Forces of the So called Federal Republic of Yugoslavia

We have forwarded your request to the following address for appropriate action and direct reply to you. In the interim, if you wish, you may contact them at:

Freedom Of Information
And Privacy Office
Central Security Facility
4552 Pike Road
Fort Meade, MD 20755-5995

Sincerely,

for Yvonne O. Ange
RONALD J. MASON
Resources Management