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SMALL ARMS USE IN VIET NAM: PRELIMINARY RESULTS

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HUMAN ENGINEERING LABORATORIES



ABERDEEN PROVING GROUND,
MARYLAND

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SMALL ARMS USE IN VIET NAM: PRELIMINARY RESULTS

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ABSTRACT

 The U. S. Army Human Engineering Laboratories developed a questionnaire to find out how small arms are used in Viet Nam. This report gives preliminary results from a sample of 121 combat troops. 

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SMALL ARMS USE IN VIET NAM: PRELIMINARY RESULTS

To gain a better understanding of how, and under what conditions, small arms are used in Viet Nam, the U. S. Army Human Engineering Laboratories (HEL) developed a questionnaire and had it administered to a sample of 121 U. S. Army personnel serving in Viet Nam.

A sample questionnaire is shown on the following pages. It included sufficient instructions for self-administration.

The blank questionnaires were sent to the Director, Joint Research and Test Activity, with a request that they be distributed to combat units which were in combat or which had just returned from combat. The distribution of personnel by combat units was as follows:

1st Infantry Division	38
25th Infantry Division	35
173rd Airborne Brigade	11
101st Airborne Division	12
1st Cavalry Division (Airmobile)	21
Not specified	<u>4</u>
Total	121

The results of this survey are given next to each alternative on the sample questionnaire: the number of personnel marking each alternative, and its percentage of the total responses to the question. (In a few cases, the total number of responses to a question varies from 121, because personnel either omitted the question or marked more than one answer.)

The troops' answers to questions 25 and 27, and their comments, are given at the end of the sample questionnaire. To preserve realism, their statements are reproduced just as they were written, with a minimum of editing.

This preliminary report is based mostly on troops carrying the M16 rifle. Another set of questionnaires is being submitted to combat units that are equipped predominantly with the M14 rifle. Because the important comparison between these weapons cannot be made yet, the M16 results are presented here without discussion or analysis. A more complete, detailed report will be issued when the second set of questionnaires has been returned and analyzed.

COMBAT QUESTIONNAIRE

Instructions

The U. S. Army Human Engineering Laboratories, Aberdeen Proving Ground, Maryland, are doing research to find better ways to design small arms -- so future small arms will be even better and more effective than the ones you use now. But we need your help!

We need background information about how you use your small arms. By answering this questionnaire, you can help us improve future small arms.

This questionnaire should be filled out only by personnel who -

- are Combat Infantrymen or Combat Marines
- have been in Viet Nam at least six months
- are below the rank of Captain
- are squad leaders or members in rifle companies or organization (if possible)

Simply circle the answer closest to what you believe is true. No names are required.

QUESTIONNAIRE

1. What small arm weapon do you normally use?

M1	0	M14	5% 6	M16	89% 108	45 cal. Pistol	6% 7
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2. Do you usually see an enemy soldier to shoot at?

Always	2% 2	Most of the time	6% 7	Some of the time	81% 98	Never	12% 14
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3. Do you aim each shot?

Always	8% 10	Most of the time	45% 55	Some of the time	46% 56	Never	0
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4. Do you usually fire at a target more than once?

Always	21%	Most of	42%	Some of	36%	Never	1%
	25	the time	51	the time	44		1

5. Normally, how far away is the enemy when you shoot?

300 yds	5%	200-300 yds	15%	100-200 yds	49%	less than	31%
	6		18		59	100 yds	38

6. How often do you fire at the enemy at night?

Most of	5%	Some of	74%	Never	21%
the time	6	the time	90		25

7. When you fire at night, do you see the enemy clearly?

Most of	4%	Some of	43%	Never	53%
the time	5	the time	52		63

8. At night, do you aim your weapon or just point it in the general direction?

Always aim	15%	Aim some	46%	Never aim,	39%
	18	of the time	56	just point	47

9. How much ammunition do you normally carry?

More than	68%	100-200	28%	Less than	4%
200 rds	82	rds	34	100 rds	5

10. How often do you get more ammunition?

More than	7%	Once a day	50%	Less than	43%
once a day	8		57	once a day	50

11. Do you or your squad ever use tracer ammunition?

Yes	85%	No	15%
	103		18

12. If you use tracer ammunition, do you use it more at night or in the daytime?

At night $\frac{53\%}{57}$ During the day $\frac{47\%}{50}$

13. Do you carry a bayonet?

Yes $\frac{59\%}{71}$ No $\frac{41\%}{50}$

14. If you have a bayonet, is it fixed to your rifle?

Always $\frac{1\%}{1}$ Sometimes $\frac{30\%}{33}$ Never $\frac{69\%}{76}$

15. Do you ever have a stoppage with your rifle?

Quite often $\frac{11\%}{13}$ Sometimes $\frac{61\%}{74}$ Never $\frac{28\%}{34}$

16. How often do you clean your rifle?

Several times $\frac{21\%}{26}$ a day Once a day $\frac{66\%}{80}$ Less than $\frac{12\%}{15}$ once a day Never $\frac{0\%}{0}$

17. Which would you rather have?

More accurate rifle $\frac{83\%}{97}$ A rifle that fires faster $\frac{17\%}{20}$

18. Do you ever have any trouble hearing things after you shoot a lot?

Most of $\frac{14\%}{17}$ the time Sometimes $\frac{53\%}{64}$ Never $\frac{33\%}{39}$

19. When you are attacked in a defensive position, what weapons does the enemy usually use?

Small Arms $\frac{48\%}{69}$ Mortars $\frac{21\%}{30}$ Other Artillery $\frac{<1\%}{1}$ All Types $\frac{31\%}{44}$

20. Do you use flares when attacked at night?

All of $\frac{27\%}{33}$ the time Most of $\frac{35\%}{43}$ the time Sometimes $\frac{31\%}{37}$ Rarely $\frac{7\%}{8}$

21. Do you wear any body armor besides your steel helmet?

All of the time	< 1%	Sometimes	36%	Never	63%
	1		44		76

22. What is your biggest health problem?

Colds	13%	Malaria	21%	None	39%	Other	27%
	16		25		47	(Please indicate)	33

23. How well did your training prepare you for this type of combat?

Not so well	22%	Fairly well	40%	Very well	38%
	27		48		46

24. When you see an enemy soldier, is he usually:

Running	27%	Standing	5%	Hidden	66%	Prone	2%
	36		6		87		3

25. What do you need (type of weapon, ammunition, or anything else) which would help you the most? (Please write in 25 words or less)

(See answers on page 7.)

26. Please give:

Your rank & position in your group _____

Your Unit _____

How long in Viet Nam _____

27. If you want to add anything on your own, please do so here:

(See answers on page 13.)

Thank you for your help. The information you have given us will help equip our combat soldiers better in the future.

25. What do you need (type of weapon, amr unition, or anything else) which would help you the most?

We need more cleaning equipment for our weapons. Mostly cleaning rods, maybe a new type that won't break so easily. Also better means of carrying our meals.

Some better means of carrying chow.

Chamber brush and rod for M-16. Lighter rations (LRRP's). W.P. round for M-79.

Lightweight helmet. Lightweight entrenching tool. Explosive charge for foxhole digging (I've heard of them but never seen one). Napalm type grenade for clearing bunkers and small caves.

Sniper rifle for use against long-range targets.

New type cleaning rod and chamber cleaning devices. A 30 rd magazine.

Shotgun adapters for Sqds M-79s.

A weapon with a range greater than the M-16. The M-16 is fine and good fire power, only the VC engage us at ranges greater than the M-16. We have to maneuver against them to get in range with the M-16.

More men. I am down to 25 men for the Plt. TOE 44 men.

We need some other means of resupply, because now we have to carry 5 day rations on operation and it's just too heavy, plus I'm a mortar man and we have to carry at least two 81 mortar rounds.

Rations of lighter weight and size.

Lighter hand grenades and a fast firing, yet accurate, rifle. A greater variety in "C" rations.

A lightweight night scope would be of great value at night, especially when in defense. The starlight is good, but will be of no value during Monsoon season when the skies will be cloudy.

Instead of having twenty round magazines for the M16, they should have thirty round magazines for all the men in the unit.

We need four (4) starlight for each platoon.

I need a more accurate weapon.

A more convenient and easier way to carry ammo. The weapons are the best and so is the equipment. I suggest 30 round magazines and pouches to carry them for the AR 15.

We need AR 16 for it is a lighter weapon and has more fire power.

More starlight scopes.

An M-79 that fires faster.

A flak vest that is lighter and more durable.

Equipment (TA 50) that is lighter and designed for close combat (jungle) areas. To be able to use and wear the equipment and have complete freedom of movement. (The TA 50 we now have has a habit of catching on various jungle growth -- vines, etc.)

A weapon (individual) that will fire canister-type rounds like buckshot. To cover area where you think enemy is hidden.

Lighter type load carrying equipment, pack, suspenders, ammo pouch, entrenching tool carrier, canteen carriers, plastic canteen cup, light rain resistant poncho, a Texas type felt hat that will hold water to wash in to replace the steel helmet.

Better load carrying equipment and stronger cleaning rod for M-16.

More clothing for use in the field.

There is nothing to add to our present TO&E weapons or ammo.

I believe we have a good weapon, the M-79, and they should come out with a WP round for it and if used correctly it is a darn good weapon.

M16.

Lightweight rifle grenade for M-16 with comparable range and bursting radius of 40mm.

More 60mm mortars.

The 7.62 ammo M-14 is the best type of weapon to use in Viet Nam because of accuracy and because it is an easy weapon to take care of (for the Cuchi area).

I think that we should have concution (concussion?) grenades, to destroy tunnels.

To survive on the battlefield of today, we need weapon sight for night use. I would like the image intensifier.

Magazines that hold more ammunition. Lighter equipment. Something lighter and cooler than the Flak jacket, to protect you from fragments of grenades.

60mm mortars.

60mm mortars.

We need more armor, such as tanks and personnel carriers, when on an operation.

I feel that we need more tanks and personnel carriers.

Weapon similar to the M-1 rifle, lighter, hold 20 rounds, accurate, easy to clean, simple to break down, durable.

I think that tear gas is very good for getting the enemy out of their holes.

Well this M14E2 is about the best weapon I think that the Army has. But the ammunition could be lighter.

A more accurate M79.

A more camouflaged uniform is needed for the combat soldier in Vietnam. A 30-round magazine is needed for the M-16 rifle. A heavier, more effective lubricant is needed for the outer surface of the metal parts of the M-16 rifle.

An M-79 round that will shoot a canister shot or shotgun shell. A shotgun for the point men. Also M-16 ammo Armor piercing type to go thru trees and brush.

A shorter wpn w/a full flash hider due to the suppressor on the M-16 catching weeds and vines. Two 60mm mortars per Plt. 30 rd magazines for M-16. A vest for M-79 rds.

Light body armor.

Cleaning rods, chamber brush.

I feel a slightly heavier cal wpn with less muzzle velocity and retaining the rate of fire would be the ideal wpn.

The M-16 rifle is a fine weapon and gets the job done very well. Cleaning rods, chambers and bore brushes are in critical demand.

Combination tool for M-16 rifle.

The type of weapon I would consider most helpful would be a combination "over and under" small bore and "M-79" type weapon. I feel more important than developing the combination would be first to make the existing M-79 a semiautomatic weapon.

The most important piece of equipment need is cleaning equipment and cleaning rods for the M-16 rifle.

Cleaning equipment for weapons:

- (1) cleaning rods - M-16.
- (2) cleaning equipment for M-79
- (3) bore brushes - M-16

Radios for Sqd level leaders.

Cleaning rods for the M-16, that's all.

Lighter tripods for M-60. Cleaning equipment for present weapons. (M-16) chamber brush. M-16 cleaning rods break too easily.

M-16 machine gun lightweight, lighter than M-60 and smaller ammo, therefore, more rounds can be carried, and more fire power would be put out. I believe the Army would better themselves coming out with a lighter LMG.

A larger magazine for M-16.

A 40mm smoke round for the M79, some type of weapon in the hands of a rifleman that can fire a beehive round. A type of headgear that doesn't have such a defined outline as the steel helmet. A small type pellet harrassing agent, that's not too bulky to clear tunnels and bunkers. A lightweight surveillance device that works on the same principles as the SLAR.

We have the best weapon possible for this type of warfare. The M-16 has no match.

Tear gas grenades that can be fired in M79 grenade launchers.

Water.

A night visual device lighter than the starlight scope.

Lighter equipment. Lighter and more compact early warning devices.

M-16 is a good weapon but needs more killing power. At close ranges the velocity is so high that the projectile does not have good stopping power but instead leaves a puncture wound. Sometimes takes five rounds to kill unless a vital area is hit.

I think we need a better way to carry our ammunition. Some way that would help to lighten our loads.

Dependable radio communication within the platoon.

A magazine for the M-16 rifle which holds more than 20 rounds.

A weapon which would not jam as easily as the M16 does, even when it is thoroughly cleaned and oiled.

One shotgun for the point man with 8 rd magazine.

A more reliable weapon which will not jam after 2 or 3 magazines have been fired, even when clean. Also should not be so easily fouled by dirt in a sustained fire fight.

Lighter equipment and more mine detectors and flares.

Mine detectors and more flares.

A lighter type of webb gear.

Lighter equipment and more mine detectors.

The weapons I have are the best for this type of war and the job I have.

More 60mm ammo weapons that do not jam after the first round.

Lightweight machine gun with smaller caliber ammo due to strain of carrying M60 (and chain link ammo) in 120 degree heat!
Automatic firing M-79 with about 5 round clip!

Tear gas.

M-16 rifle.

Need a weapon with a bigger magg (40 rd). Armor pearson round.

Lightweight weap tow due to ammo is heavy. An M79 to fire with a MA2.

38 Pistol. Lighter Web gear and less equipment to carry and a lighter Steel Pot. A lighter and more reliable machine gun.

38 Pistol. Lighter Web gear. Compact rations. Ammunition for rifles packed in disintegrating magazines.

Lighter TA 50, mostly in the way of ponchos or other equipment needed for shelter from rainy weather.

27. If you want to add anything on your own, please do so here.

Containers for water that are lighter than present water cans (5 gal).

Bomb Hanoi.

Why is it after 6 months in combat on the front lines you cannot put in a 10.49. Will you please let the troops know this.

To used a BN size unit or Bridge in a operations to destroy the VC. And their base camp should not be used. Platoon is better for this job. The Plt Leader should have his own platoon to ambush and look for the VC. They should be sent out for three to four days mission -- Ranger type.

23 had training in Hawaii (jungle training). Should be given to all.

The need for American guerilla action is acute. Send out volunteers to play the Viet Cong's type of warfare, i.e., harrassment, ambushing, and clandestine destructive techniques using roughly 10 man teams. Large movements by American units, Battalion and larger, are basically worthless and a waste of money. Utilize the smaller groups, let them roam freely with radio contact for resupply and watch "Charlie's" morale and effectiveness drop!

P.S. Many Amer. G.I.s are willing to volunteer for such duty as we know it'll work!

Assortment of ammunition to heavy and based on expenditure to much.
Example: 4 hand grenades per individual.

I think that our equipment is too heavy for this type of fight.

M-16 shoots high and to the right, but this can be offset if the soldier is aware of this. Need expendable ammo magazine and one with 40 rds instead of 20 rds. Dust cover spring is weak. Need open sight instead of peep sight.

I think we are well equipped, but sometimes the load be too much for as much walking as we do.

We are very satisfied with the M-16.

I think every infantry man should have the appropriate footwear and clothing (jungle fat. and boots).

CS gas is more effective when sprayed.

Emphasis in training the individual soldier for the war in Vietnam should be on small unit tactics. We are now receiving replacements who have received a week's training in jungle warfare at Fort Gordon. This should be expanded to include all basic trainees. These personnel are better oriented upon arrival.

This question should be answered in each person's own words, not with the answers supplied. In most of the answers are not entirely correct.

The cover on helmets fade causing them to turn white and presenting a target appearance for the enemy. I have reverted to burlap bags which is a fairly good interim. Rubber caps for magazine M-16 would aid in keeping ammo clean, which is a critical item with the M-16. M-16 ammo come in bandoleers similar to M-1. Brush knives issued to all units here.

The M-16 rifle is the finest wpn the Army has for its infantry men. But it does rust. I've found that by use only cleaning solvent twice a day keeps my wpn rust free even if I do get a chance to clean it. This wpn also double feeds and fails to extract sometimes, with some wpn all the time. Reason is not known.

If we didn't carry a lot of equipment, which we don't use, we would be much better off, the equipment for example is, gas mask, steel helmet, pack.

A light type pack should be designed to carry full field equipment that can easily be converted to a combat type where minimum equipment is carried, such as mess gear, shaving and washing equipment with light bedding and shovel. This pack should be made to ride high on the back or shoulders with wide straps and not be connected to the belt and ammo pouches.

12 months in 63 active duty MOS, small arms ordinance repair man.

I do not carry a rifle. I carry an M79 and a 45 pistol.

If the platoon leader would relax more and let the squad leader handle his men, I'm sure we could accomplish our mission much more efficiently for we know the capabilities of our men.

Our weapons are almost accurate but we could use a more accurate one.

We have experienced a number of stoppages with our M16's. Some do not chamber properly, some do not eject properly, and a number of the operating rod handles bind in some way which makes them very hard to pull back.

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