DEPARTMENT OF THE ARMY
ARMY CONCEPT TEAM IN VIETNAM
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AVIB-LRD 21 February 1967

SUBJECT: Final Report - Grenade Carrier, M26 (ACL-97/67)

TO: Commanding General
United States Army, Vietnam
ATTN: AVHGC
APO 96307

1. REFERENCES

a. Letter, Headquarters USARV, AVC-C%T, 7 June 1966, subject: Requirements for Grenade Bags and Jungle Hammocks.

b. Message, DA 774820, 21 July 1966, subject: Requirements for Grenade Bags and Jungle Hammocks (ENSURE).

c. Message, USARV, DTG 100215Z August 1966, subject: Grenade Bags and Jungle Hammocks

d. Report, US Army Natick Laboratory to AMC, 19 August 1966, subject: Status Report on Selected SEA Requirements, Item: Carrier, Grenade, M26.

e. Message, CG Natick Labs 2004, 18 October 1966, Requirements for Grenade Bags and Jungle Hammocks (ENSURE).

2. PURPOSE

Evaluate the US Army Natick Laboratory designed Grenade Carrier, M26 prior to finalization of design and procurement of operational quantities.

3. BACKGROUND

a. The Army Concept Team in Vietnam (ACTIV) established a project in October 1966 to evaluate and compare the usefulness of the US Army Natick Laboratory designed Grenade Carrier M26 with the grenade bag used by the USMC. The evaluation was a result of a requirement submitted by the 1st Infantry Division and other divisions under the command of USARV.

b. ACTIV received 100 grenade carriers for evaluation on 5 October 1966 and fielded 30 carriers each to the 1st Infantry Division, III Marine Amphibious Force, and the 1st Cavalry Division on 31 October, 8 November, and 9 November, respectively. ACTIV also sent five grenade carriers to the 5th Special Forces Group for evaluation on 16 November 1966.

4. OBJECTIVES

a. Objective 1 - Suitability

Determine if the grenade carrier fulfills all of its intended functions and if it provides any advantages over other methods used to carry grenades.

b. Objective 2 - Durability

Determine if the grenade carrier is sufficiently durable to withstand field usage in Vietnam.

c. Objective 3 - Acceptability

Determine desirability and acceptability of the prototype grenade carrier for US troops in Vietnam.

5. DISCUSSION

a. Because the Army does not stock a grenade carrier in its present inventory of items for issue to combat troops, US Army Natick Laboratories designed a prototype grenade bag (M26) for use by the individual soldier. The carrier has two pockets which will hold a total of six grenades. The upper pocket will hold three canister or fragmentation grenades and the lower pocket will hold three fragmentation grenades. Access to individual grenades is provided by separate snapdown straps. The carrier, fabricated of nylon material, has a shoulder strap, two tiedown ribbons on the bottom, and provision for attachment to a web belt.

b. Distribution of the grenade carrier was made to units of the 1st Infantry Division, the III Marine Amphibious Force, the 1st Cavalry Division, and the 5th Special Forces Group. This provided an adequate geographical spread throughout RVN. ACTIV furnished users' and troop leaders' questionnaires to the units and requested that both types be completed each time ground forces used the grenade carrier on an operational mission.

c. Prior to distributing the M26 Grenade Carrier to major commands in the field, an in-house examination of the carrier was conducted. During this examination several shortcomings and deficiencies were discovered. When six grenades had been placed in the carrier, the lower third of the carrier tilted outward at about a 45-degree angle. This protrusion of the carrier outward from the body presented the possibility of its snagging on brush or limbs in heavily vegetated areas. Carrying a full load of grenades in the cross-shoulder slung position caused neck pains after about 15 or 20 minutes. The narrow shoulder strap concentrated weight of the full bag on the shoulder and neck muscles. Also, in four instances, while demonstrating and examining the grenade carrier, plastic snaps on the individual grenade holddown straps broke.

d. Questionnaires returned from the field evaluating units indicated other shortcomings and deficiencies. For example, the grenade retaining straps did not hold grenades in the pockets, especially when one grenade had been removed from a pocket. Troops reported that when they were in horizontal or crawling positions, grenades fell out of the carrier. Additionally, several instances were reported that grenade fuses became unscrewed from the grenade body. This seems to have been caused by too much space in the pocket, which allowed the grenade to rotate in the pocket while the safety lever was held by the retaining strap sewn across the top back of each pocket. A recommended solution to this problem was that the pockets be compartmentized for each grenade and cut slightly smaller to hold the grenades more snugly.

e. One platoon leader commented that the grenade carrier did not have a thick enough backing to protect the wearer from chafing. Several individuals of his platoon who used the grenade carrier complained that the full grenade carrier could "rub a man raw" during continual wearing of the carrier. About 20 percent of the grenade carrier users and troop leaders commented that the combat soldiers' web belt is already over loaded and the present width of the M26 Grenade Carrier uses too much space on the belt.

f. Approximately 50 percent of the individuals questioned used the grenade carrier in the shoulder slung position with leg tiedown straps, 30 percent attached the grenade carrier to their web belt, and 20 percent used the carrier in other forms. Most individuals of this last 20 percent were radio telephone operators (RTO). They described in their debriefing questionnaires how they fitted the M26 Grenade Carrier down the back and under the bottom of their AN/PRC-25 radios. All RTO's generally carried three smoke grenades in the upper pocket of the grenade carriers and signaling panel markers in the lower pocket. The RTO's noted that this method was very satisfactory for carrying their required signaling devices.

g. Troop leaders, in commenting on the reactions of troops to the prototype grenade carrier, stated that initial enthusiasm was high, but that many troops were disappointed after combat use. The number of grenades carried in the grenade carrier varied considerably. Among those who responded to this item in the questionnaires, 3 percent, 10 percent, 28 percent, 15 percent, and 44 percent carried 2, 3, 4, 5, and 6 grenades, respectively. Of all individuals carrying grenades in the M26 Grenade Carrier, only 38 percent actually used grenades on an operational mission and only 5 percent used all 6 grenades. Individuals participating in this evaluation carried an average of 4.75 grenades each.

h. The opinion of using troops was 62 percent to 38 percent in favor of issuing some type of grenade carrier to combat units in the Republic of Vietnam. Many comments from users lauded the nylon material used to construct the prototype grenade carrier because it was easy to clean, wash, and maintain. Drying of wet carriers was rapid in comparison with cotton web gear.

i. The III Marine Amphibious Force was requested to comment on the M26 Grenade Carrier relative to grenade carriers presently used by the US Marine Corps. Less than 50 percent of the Marine users wanted the prototype grenade carrier as an item of issue for combat troops because of general design deficiencies and shortcomings.

j. The III Marine Amphibious Force Headquarters furnished ACTIV samples of two grenade carriers presently used by the US Marines Corps. These were two- and three-pocket grenade carriers capable of carrying six and nine fragmentation grenades respectively. The Federal Stock Numbers of these items are 8465-261-9543 and 8465-26[illegible]-5002, respectively. Both carriers are constructed of cotton canvas material with brass snap fasteners on each pocket flap. Each carrier has a brass wire hanger used for attaching the carrier to eyelets on the web belt. Only the three-pocket carrier has leg tiedown ribbons on the bottom corners while the two-pocket carrier has a leather tiedown thong attached to the drain rivet of the lower pocket.

k. In addition to the deficiencies and shortcomings described in some of the preceding paragraphs, the following specific, unsolicited comments from individuals using the M26 Grenade Carriers were noted:

(1) A complete re-evaluation and redesign of a grenade carrier along the idea and concept of the M79 Ammunition Carrier [illegible] was recommended. This vest should have universal-type elasticized pockets that would hold fragmentation grenades, cannister grenades, or ammunition clips. If the pocket size is similar to those of the M26 Grenade Carrier, they should be compartmentized. Retention of at least two pockets for M79 ammunition would assist individuals whose AR15 or M16 rifles are equipped with the XM148 grenade launcher.

(2) In conjunction with the discussion above, a suggestion was made that a plastic polystyrene holder such as that issued with each three rounds of M79 ammunition be incorporated in the package of grenades to better seat grenades in the pocket.

(3) Many individuals interviewed desired that Velcro fasteners such as those used on the M79 Ammunition Carrier Vest, be used on a redesigned grenade carrier.

(4) The present-day combat soldier has too many items to put on a web belt and any items that are eliminated, replaced by improved items, or moved to a better position would improve the capabilities and posture of the combat soldier.

6. FINDINGS

a. The M26 Grenade Carrier, in its evaluated configuration, does not fulfill the requirements for a grenade carrier for US combat troops in the Republic of Vietnam.

b. A definite need existed for a grenade carrier for US combat troops.

c. The design of the prototype M26 Grenade Carrier did not provide any advantages over other methods used to carry grenades.

d. The materials used in the construction of the M26 Grenade Carrier, with the exception of the plastic snaps, were sufficiently durable to withstand field usage.

e. The prototype M26 Grenade Carrier was not acceptable or desirable for troop issue.

f. The design concept of the M26 Grenade Carrier was desired by AN/PRC-25 RTO's to carry smoke grenades and marker panels.

7. CONCLUSIONS

It is concluded that:

a. The M26 Grenade Carrier is made of durable material, with the exception of the plastic snaps, but is not suitable or acceptable for issue to combat troops.

b. A need exists for an ammunition and grenade carrier.

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8. RECOMMENDATIONS

a. For better, more comfortable weight distribution, ease of movement, versatility of use, and comfort in a tropical climate, the M79 Ammunition Carrier Vest of aerated nylon fabric should be redesigned to hold general purpose ammunition and grenades. The pockets should be of elasticized material so each could securely hold a variety of magazines or grenades.

b. A smoke grenade and panel marker carrier should be developed for AN/PRC-25 RTO's.

c. The deficiencies and shortcomings described in the discussion should be corrected in any future designs of a grenade carrier.

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