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# LESSONS LEARNED

U.S. Army Military History Institute

## 52



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HEADQUARTERS  
UNITED STATES MILITARY ASSISTANCE COMMAND, VIETNAM  
APO San Francisco 96243

Ser No 5373  
22 November 1965

MACJ321

SUBJECT: Lessons Learned Number 52 - Operational Employment of the  
Mity Mite Portable Blower

TO: See Distribution

1. INTRODUCTION: This issue of Lessons Learned has two purposes:

- a. To familiarize US advisors and other interested personnel with the Mity Mite portable blower.
- b. To relate an operation in which the Mity Mite was successfully employed to trace and flush a VC tunnel system and the lessons learned from this experience.

2. GENERAL:

a. The Mity Mite portable blower when properly used in conjunction with smoke pots or smoke grenades will force the smoke throughout a tunnel system and generally reveal the entrances and vents, if any are present. As the Mity Mite portable blower is soon to be issued in quantity to ARVN units, US advisors should become familiar with the methods of employing this piece of equipment.

b. The Mity Mite is an agricultural backpack spray-duster (Inclosure 1). It is powered by a two-cycle gasoline engine, weighs 25 pounds (without fuel or agent) and displaces 450 cubic feet of air per minute. The fuel tank holds approximately one quart of gasoline-oil mixture which will permit operation in excess of 30 minutes. It is equipped with a two foot long flexible tube that has a metal nozzle on the end. The Mity Mite has a polyethylene agent tank which can be filled with either ten pounds of powder agent or three gallons of liquid agent.

c. The Mity Mite portable blower can be used to:

- (1) Force the evacuation of unmasked personnel from a tunnel system using smoke or riot control munitions.

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(2) Locate vents and entrances of a tunnel system using smoke munitions.

(3) Generate an agent cloud for use against unmasked personnel in the open using a powder agent.

### 3. OPERATIONAL EXPERIENCE:

The Mity Mite was employed during a search and destroy operation conducted by the 8th Inf Regt, 5th Div, in III CTZ from 8 to 11 October 1965. This is believed to have been the first tactical employment of Mity Mite by ARVN.

The objective area selected was the Iron Triangle which was known to contain many VC tunnel systems. The US Chemical Advisor to III Corps participated in planning the operation, and proposed the use of the Mity Mite.

The III Corps Chemical Advisor contacted the ARVN 5th Inf Div Chemical Team Leader and coordinated the time and location for organizing and training a tunnel tracing and flushing team. On 7 October a team was organized from the Division Chemical Team as follows:

Team Leader	- Second Lieutenant (Div Chem Team Ldr)
Mity Mite Operator	- Sergeant (carries the blower)
Assistant Operator	- Private (carries two gallons of gas, one quart of oil, tool kit and two ponchos)
Munitions Bearers	- 3 privates (each carries three smoke-pots, HC, 10 pound, M-1 and five smoke grenades, M-8, HC or M-18 colored smoke).

Training for the newly organized tunnel tracing and flushing team included operation and maintenance of the portable blower, and practical exercises in operation of the blower with smoke. The total time devoted to training was two hours. The team also prepared for the operation by cutting a five gallon can in half. A hole the size of the blower nozzle was cut in the upper half to facilitate blowing smoke into vertical entrances of tunnels. It was planned to use the lower half to block tunnel entrances (Inclosure 2).

Initial plans for employment of the tunnel tracing and flushing team called for it to initially remain with the 8th Regt CP and respond to requests from the attacking battalions. However, this plan was later amended to place the team and an engineer platoon in direct support of one of the attacking battalions for each day of the operation. This method of employment would insure that the tunnel tracing and flushing team could respond rapidly to requests, and the engineer platoon could promptly destroy the tunnel system after it was traced and flushed.

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A tunnel was discovered on the first day of the search and destroy operation by the 2nd Bn, 8th Inf Regt. The area surrounding the tunnel was secured by the 2nd Bn while the tunnel tracing and flushing team went into action. The techniques which they employed were as follows:

(1) The Mity Mite blower was placed near the tunnel entrance and a poncho was spread over the horizontal aperture. The hose nozzle was placed through the head opening of the poncho and the hood strings were fastened tightly around the hose nozzle. Earth was placed around the edges of the poncho to form a good seal (Inclosure 3).

(2) The lower half of the five gallon can was inserted in another tunnel entrance which was a few feet away from the original entrance to prevent the smoke from dissipating before penetrating all portions of the tunnel system.

(3) One corner of the poncho was raised and a smoke grenade was placed in the tunnel (approximately three feet away from the poncho to prevent burning it). At this time the Mity Mite blower was started. A smoke grenade was used initially so that if the tunnel was small an entire smokepot would not have been expended. Further, the 10 pound smokepot burns approximately eight minutes while the smoke grenade burns for two minutes.

(4) 2nd Battalion troops moved out in all directions (360°) from the blower while smoke munitions were continuously placed into the tunnel entrance. The troops detected smoke escaping from tunnel vents and entrances, and were on the look out for escaping VC. However, no VC were discovered in this particular tunnel system. As vents and entrances were detected, the apertures were marked and sealed.

(5) When it was determined that all entrances and vents of the tunnel system had been detected and the tunnel trace was apparent, further smoke munitions were unnecessary. However, the blower was left running until all smoke had been cleared from the tunnel system.

(6) The engineers then searched through the tunnel system for possible asphyxiated VC, booby traps, weapons, equipment and supplies. Once this had been accomplished, the engineer unit set the charges and destroyed the tunnel system.

This experience with the Mity Mite blower was successful and established that the blower could be used to trace tunnel systems. It should be pointed out that, although only HC smoke was used with the blower on this operation, the use of riot control munitions employed either singly or in combination with HC smoke would be very effective in flushing VC from tunnels.

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4. LESSONS LEARNED:

a. The principles of operation and employment of the Mity Mite portable blower were learned quickly and easily by members of the 5th Inf Div (ARVN) Chemical Team.

b. Plans for search and destroy operations using the Mity Mite team must allow sufficient time for proper tunnel tracing and flushing.

c. The tunnel tracing and flushing team is most effectively employed when attached to infantry maneuver units. If the team stays at a rear location with the headquarters or reserve unit, time is lost and security for movement to the tunnel site is limited. In addition, the team enjoys relatively good security with the infantry maneuver element.

d. Both smoke grenades and smokepots should be taken with the team on an operation. Smoke resources will be conserved by using a smoke grenade for initial tunnel tracing.

e. Extra fuel for the blower must be taken with the team because the blower's fuel tank capacity is only one quart. Determine fuel requirements by totaling the burning times of all smoke munitions (smokepot - 8 min; smoke grenade - 2 min).


f. The upper and lower halves of five gallon can were effective field expedients. The lower half should be used to seal any nearby tunnel entrances and prevent dissipation of the smoke. A hole the size of the Mity Mite blower nozzle should be cut in the center of the upper half. Employing this half with the blower simplified blowing smoke into vertical tunnel entrances. The poncho when tied securely around the blower nozzle was effective on horizontal entrances to tunnels.

g. The Vietnamese soldier is quite capable of carrying the 25 pound blower for extended operations. Further, the desirable smoke munitions load for the ARVN munitions bearer is three smokepots and five smoke grenades.

h. The Mity Mite proved to be effective on this particular operation.

FOR THE COMMANDER:

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HOWARD D. SCHULZE  
Captain, AGC  
Asst AG

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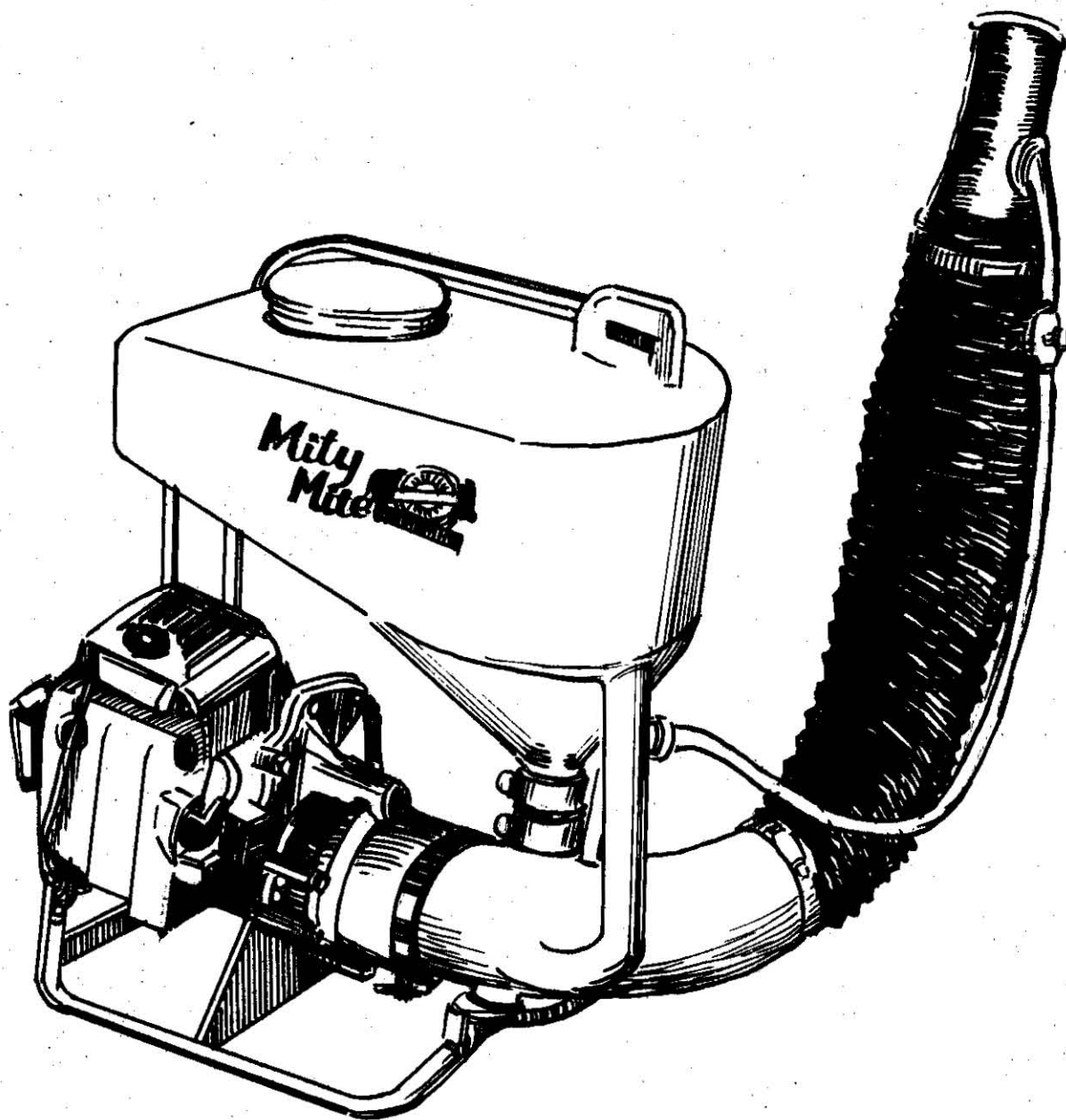
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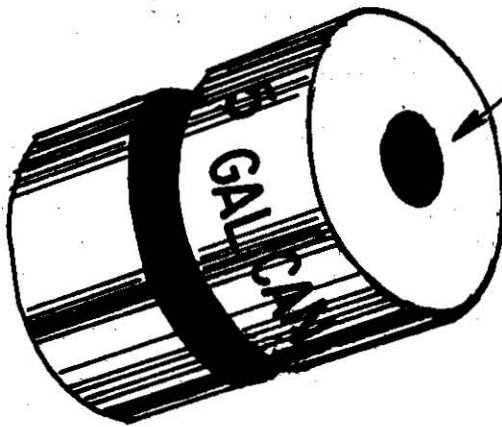
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- 2 - J-6
- 4 - JRATA
- 3 - Dir of Tng
- 1 - OI
- 2 - SOG
- 2 - Hop Tac Secretariat
- 2 - FWMAO
- 5 - Cdr, 2d Air Div
- 475 - CG, USARV (150 each to FFORCEV, 1st Inf Div)
- 150 - III MAF
- 100 - Each SA I, II, III & IV Corps (1 to each Sr Adv down to and including Bn and Sub-Sector level)
- 10 - Each SA CMR, Abn Bde, RF/PF, Marine Adv Gp (1 to each Sr Adv down to and including Bn and Sub-Sector level)
- 5 - Each Chief, AF Adv Gp; Chief, US Naval Adv Gp; Railway Security Adv Det.
- 1 - Each SA I, II, III, IV & V ALC
- 1 - Combined Studies
- 4 - ACTIV
- 10 - OSD/ARPA
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- 1 - DODSPECREP
- 5 - CINCPAC
- 500 - J321

## INCLOSURE I. MITY MITE PORTABLE BLOWER

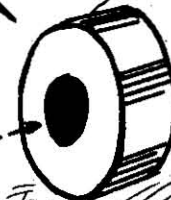




A HOLE THE SIZE OF THE  
MITY MITE FLEXIBLE TUBE  
NOZZLE IS CUT IN THE  
TOP HALF



VERTICAL  
TUNNEL  
ENTRANCE



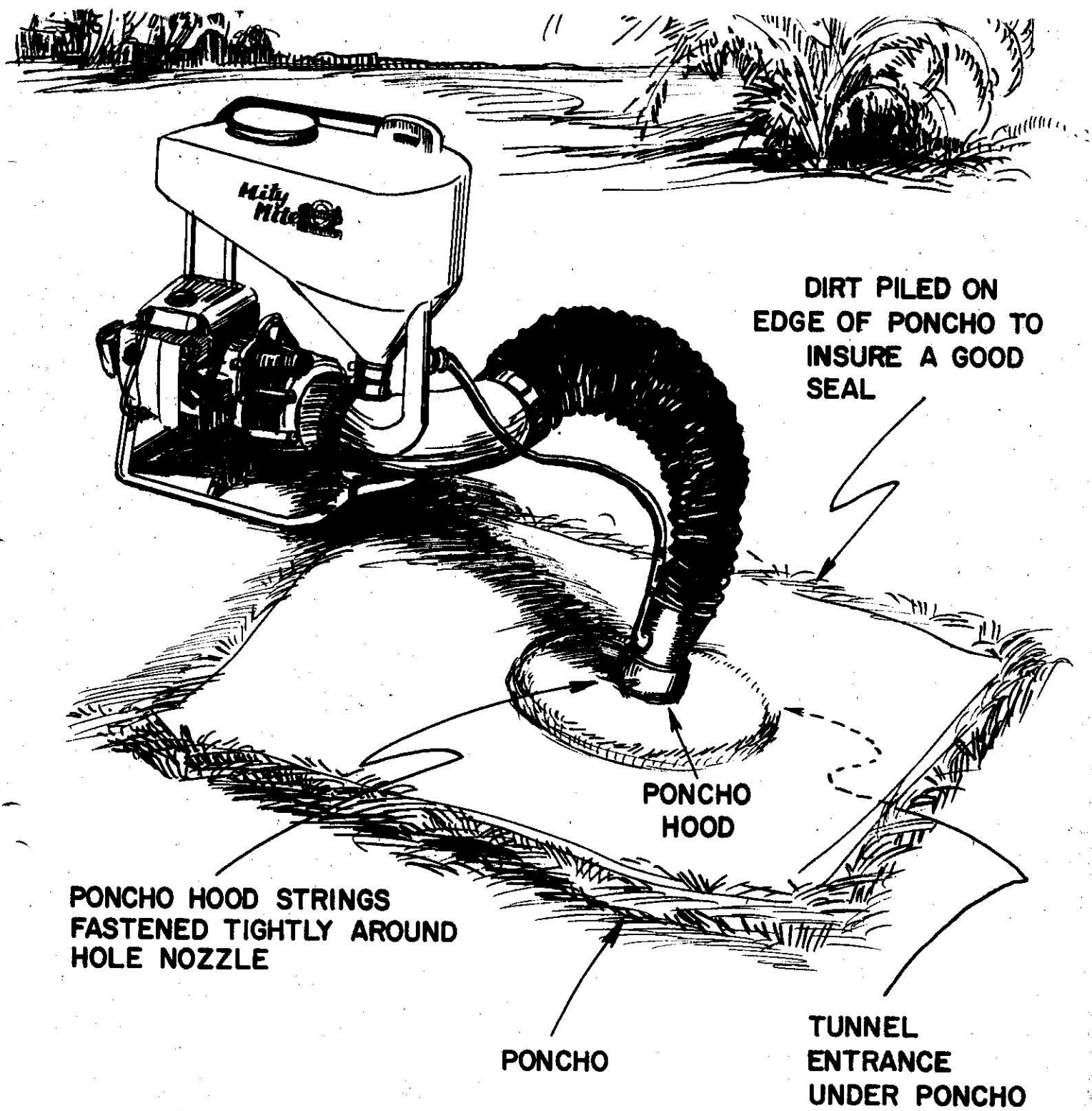
TUNNEL  
ENTRANCE



BOTTOM HALF OF FIVE GAL. CAN  
IS PLACED IN A NEARBY TUNNEL  
ENTRANCE TO PREVENT  
DISSIPATION OF  
SMOKE.

INCLOSURE 2.  
**FIELD EXPEDIENT METHOD USING  
5 GALLON CAN**





**INCLOSURE 3**  
**USE OF PONCHO WITH  
MITY MITE BLOWER**