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OFFICE, CHIEF OF ARMY FIELD FORCES
Fort Monroe, Virginia



ATTNG-26 350.05/22(DOCI)(17 Nov 53)

17 November 1953

SUBJECT: Dissemination of Combat Information

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TO: See distribution

AFFF Letter 22 Jan 54

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FOR THE CHIEF OF ARMY FIELD FORCES:

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ITEM NO 136

NIGHT PHOTOGRAPHY FOR TARGET LOCATION. - The employment of flash and other ground OP's in locating enemy artillery has certain inherent limitations. The two most obvious are the inability of an OP to keep its entire sector under continuous observation, and during periods of moderate or heavy enemy artillery firing to locate or engage more than a few targets.

The requirement for locating active enemy artillery goes beyond the immediate, but important, requirement for neutralization fires. Of greater importance is the need for verifying occupied locations so that they can be engaged for destruction by using observed fire techniques, as soon as visibility and other factors permit. Considering the large number of artillery positions (tunnels, bunkers, caves) which the enemy have constructed, and the relatively large number of these that are unoccupied on any given day, it is of vital importance that targets engaged be not just a position, but an occupied position. To assist in solving this problem, experiments have been made with night photography.

Essentially the technique of night photography involved a nighttime shot double exposed on a previously taken daylight exposure. This permits location of active enemy artillery positions on a photograph which gives sufficient detail to locate those positions. The observed destruction firing can then be directed on positions definitely occupied. Results so far have been encouraging. On at least one occasion a new enemy artillery position was picked up. Normally the positions picked up were already existing positions, occupancy of which was undetermined at that time.

While the technique has been employed only in fixed position warfare it would be of equal value in a war of movement. Also this technique could be employed by division artillery to aid in locating targets other than enemy artillery.

When one considers the cost of one round of delivered 8" howitzer ammunition and the number of rounds required to destroy a single enemy artillery position, the real value of any target getting technique whose end is to engage not only positions but occupied positions is evident. Recommend that the experiment be continued by the appropriate agencies in the CONUS.

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Detailed Procedures:

a. One or more OP's are selected from which enemy artillery activity, actual or expected, can be observed. After the azimuth to the center of the area has been determined the photographer(s) is briefed. He is told what azimuth on which to lay his camera, and during what hour or hours photograph is required.

b. The photographer arrives at the OP during daylight hours. The camera is solidly mounted on sandbags and laid on the proper azimuth, which is checked on the ground-glass focusing screen of the camera. At this point the daylight exposure(s) is made. The exposure used is 1/2 stop under normal exposure, using a regular high-speed panchromatic film such as Super XX.

c. After the daylight exposure is made the camera and film remain fixed in position. During hours of darkness the shutter is opened for about one hour, to approximately f5.6, to take advantage of night, illumination. The result when the film is developed is a normal daylight shot with pinpoint flashes indicating active enemy artillery superimposed on the photo.

d. The second shot may be taken in reverse fashion, i. e., take the nighttime exposure first and the daylight shot in the morning. Additionally, on a bright moonlight or starlight night a shot may be taken during the night only. This requires from two to four hours exposure. The results are difficult to read because of shadows and lack of detail. Another possibility is to take a normal daytime shot and a series of night exposures on separate film strips. Printing these requires a series of successive superimpositions in printing which are at best difficult. The first method outlined has been found to be the most practical.

e. The film is forwarded by air to the photo lab and completely developed and printed within 40 minutes after arrival. From there the finished product is sent to the corps artillery S-2 for evaluation.

f. At this point the problem is one of matching the photo to the counterbattery map. Since the coordinates of the OP are known and the coordinates of distant points on the photo can be determined, a series of directional rays can be drawn on the photo. Generally if the photograph is a good one, inspection alone will give the location once the azimuth is known. However, two photographs from an OP base can be taken and intersecting rays plotted on the counterbattery map to give a higher degree of accuracy.

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g. In most cases the ray plots through a known location confirming the fact that it is presently occupied. When a new position is picked up, it should be verified by other means as soon as possible. A little practice makes it possible to discern between outgoing enemy artillery and the larger and more irregular light spot indicating our own outgoing artillery landing. Thus far no experiments have been conducted on superimposing a grid on the photograph. It has not been found necessary for counterbattery purposes and there is considerable doubt if a horizontal (range) grid is feasible, although a verticle (angle of site) grid and directional rays can be penciled on in a short time.

h. Equipment used in this experiment was the standard PH-47 Speed Graphic with either Super XX or Superpan Press film. So far no tripod has been available for the camera. The normally issued tripods have not been found satisfactory for this work. The "combat tripod" consisting of a heavy-duty pan-tilt head, and short "machine gun" tripod legs can be solidly locked in position, and will allow the aperture and lens setting of the camera to be locked in position without disturbing the camera position. The short legs allow it to be set in the OP aperture thus minimizing danger to the photographer.

i. A simple camera could be constructed which would permit wider use of this technique without the necessity for highly trained photographers. The requirements for such a camera are:

- (1) Lens; focal length 8-10", aperture f5.6 or 4.5 to f22.
- (2) Shutters; time 1/25, 1/50, 1/100 sec.
- (3) Focus; fixed at infinity.
- (4) Body; all metal with simple wire frame view finder.
- (5) Standard 4" x 5" cut film holders or film pack adapters.
- (6) Ground glass focussing panel.

j. The focal length on the PH-47 camera (5") is not ideal for this work since, at the range involved, not enough detail is given. (Command Report - 101st Sig Bn - May 1953)

OCAFF Comment: The method described above is worthy of further exploitation and development. This information should be of value to combat troops in an active situation.

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With reference to the recommendation for a camera with different lens characteristics than that normal to the PH-47, an accessory lens for use with this camera is the PH-277. It has a 10" focal length and an aperture of f. 1:4.85. This lens has been included in the proposed revision of the T/O&E of the Signal Battalion (Corps).7

(RESTRICTED)

ITEM NO 137

TEST FIRING 155-MM VT AMMUNITION. - Test firing of 155-mm gun ammunition with VT fuze T76E9 has been conducted in Korea during the past three months. As a safety precaution, test firing was conducted from positions within five seconds time of flight from the front lines. Thirty early bursts, varying from nine seconds after firing to five seconds before termination of trajectory, were reported among the 1,298 rounds tested with normal or super charge. Results of the tests compare favorably with those attained by using VT fuze ammunition in weapons of other calibers. The higher muzzle velocity of the 155-mm gun had no material effect on the fuze, and use of the VT fuze greatly increased the effectiveness of the 155-mm gun. (Command Report - Eighth Army - Mar 53)

[OCAFF Comment: The current production VT Fuze, T227, for application with 155-mm and larger caliber weapons is designed for use with the 155-mm gun. The use of any VT fuze with 155-mm gun projectiles is predicated upon the availability of deep-cavitized shells. Although future production is expected to incorporate the deep-cavity feature, present stocks of 155-mm gun ammunition do not.

For other items on this subject, refer to Source No 730 and 731, inclosure to letter, ATTNG-26 350.05/6 (DOCI)(C)(18 May 53), OCAFF, 18 May 1953, subject: "Dissemination of Combat Information."7

(RESTRICTED)

ITEM NO 138

GENERATOR WEAKNESS. - A major problem is 3-KVA generator manufactured by John R. Hollingsworth, Phoenixville, Pennsylvania. This particular generator, in addition to the regular fan belt, has a second rubber belt and a magneto drive belt. This magneto drive belt is of flimsy construction and has rubber teeth. Due to poor construction, the teeth wear out after a limited number of hours of operation; there are no replacement magneto drive belts available. On two separate occasions, it was necessary to write direct to the manufacturer for replacements of magneto drive belt; these belts cost \$6.34 each. (Command Report - 40th Div Arty - Apr 53)

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ITEM NO 139

DIFFICULTIES WITH CAST IRON BRACES FOR RADIOS. - Difficulties have already been encountered with the cast iron brace which holds the radio to the jeep fender. Rough roads of Korea over which military police operate, make this brace impracticable. A modification in the form of a steel mounting together with salvage tires for cushions to ride between the mount and the jeep fender is being developed by this unit. (Command Report - 728th MP Bn - Jul 53)

(RESTRICTED)

ITEM NO 140

ACCIDENTAL SETTING OFF NAPALM MINES. - Care is needed to prevent linemen from tapping into wires attached to napalm mines and setting them off with EE-8 telephones. (Command Report - 35th Inf Regt - May 53)

(RESTRICTED)

ITEM NO 141

INADEQUACY OF M2 and M3 SMOKE GENERATORS FOR REAR AREA OPERATIONS. - Due to congestion, inadequate road nets, and poor visibility, the mobility of the smoke generator is curtailed in rear area installation missions. The comparatively short period of time the M2 or M3 smoke generator is able to produce smoke without resupply of fog oil has been found to be a disadvantage, as resupply is hampered by the same factors that curtail the mobility of the smoke generator. The volume of smoke produced by the M2 or M3 smoke generator is too small to rapidly cover the large areas usually assigned to rear area smoke operations.

Recommend that a study be initiated to investigate the requirement of a smoke generator similar to the M1 smoke generator. This smoke generator should produce a large volume of smoke in a short period of time with a fuel supply of 6 - 8 hours available at semipermanent installations, which would "Box" the vital areas. Such a smoke generator supplemented, if necessary, with mobile M2 or M3 smoke generators would provide a more rapid and denser smoke coverage than than presently available with the M2 and M3 smoke generator. (Command Report - Korean Base Section - Jun 53)

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ITEM NO 142

VT FUZE WITH PERCUSSION ELEMENT. - Occasionally, variable time fuzes have failed to activate and duds have resulted.

Recommend that action be taken to expedite the delivery of variable time fuzes containing a percussion element. (Command Report - 39th FA Bn - May 53)

(RESTRICTED)

ITEM NO 143

PRIME MOVER FOR 240-MM HOWITZER. - This unit is organized as a 240-mm howitzer battalion, towed, under T/O&E 6-515, 18 July 50, with Changes 1 and 2. This T/O&E authorizes 12 M-6 tractors as prime movers for the battalion. Four tractors are issued to each of the three firing batteries and are used as prime movers for the two howitzers and two carriages per battery. The authorization of 12 M-6 tractors does not provide one spare prime mover in the battalion. Through the experience gained on movements, it has been found that one or more of the M-6's usually breaks down. In the event this battalion had to displace as a unit within a short time it might not be possible to move all pieces to the new site.

Recommend that this battalion and other battalions organized under T/O&E 6-515 be authorized one additional M-6 tractor per firing battery. (Command Report - 159th FA Bn - Jun 53)

(RESTRICTED)

ITEM NO 144

DITCH DRAINAGE. - In many instances along the MSR, the depth of ditch necessary to properly drain the subgrade, results in the adjoining rice paddy water level being at a higher elevation than the ditch. During the growing season, the farmers protect and maintain their dikes but during the winter months the dikes fall into disrepair and drain the paddy into the ditches, thus saturating the road subgrade which causes a pumping action to take place under sustained heavy traffic. To prevent the saturation of the subgrade, the practice of placing an insulating layer of granular material below the subgrade has been adopted. The minimum thickness of the insulating layer has been set at four inches. To avoid frost boils and pumping action the insulating blanket is being used in cuts by excavating below grade and backfilling with the granular material. (Command Report - 24th Engr Construction Gp)

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 OCAFF Comment: For other extract on this subject, see Item No 48, inclosure to letter, ATNG-26 350.05/11 (DOCI)(C)(10 Sep 53), OCAFF, 10 September 1953, subject: "Dissemination of Combat Information."

(RESTRICTED)

ITEM NO 145

VOLTAGE REGULATOR FOR PORTABLE ELECTROSURGICAL UNIT. - The electrosurgical unit, portable, medical stock number 3-275-600, has been found difficult to maintain in the field. Medical maintenance personnel have suggested that this is due to the uneven power supplied by field generators. A particular condensor in the internal circuit of the unit has been found to be the weak point and is frequently burned out. A voltage regulator is needed in conjunction with the apparatus to prevent these surges in the current. Such a regulator is a signal item and not authorized at the present time.

Recommend that when an electrosurgical unit, portable, is to be used in the field, a voltage regulator be included with the item at the time of issue. (Command Report - 46th Surgical Hosp - Jun 53)

 OCAFF Comment: Action to correct this deficiency has been initiated.

(RESTRICTED)

ITEM NO 146

MODIFICATION OF AN/MPO-10 RADAR. - Under normal operations two men are required to prepare the set for automatic tracking. One man operates the console and the other man changes a switch on the RD-54 from "Sector Scan" to "Standby." With a modification, the switch on the RD-54 can be left in the "Standby" position. The Azimuth Bug could then be placed in "Sector Scan" or "Standby" by the radar operator at the console. This modification has been employed by this battalion and has proved efficient.

Recommend that a switch for the control of "Sector Scan-Standby" be wired in parallel with the present switch located on the Azimuth Electronic Control Amplifier AM-489-TP (RD-54), and placed on the console. (Command Report - 19th FA Bn - Jun 53)

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ITEM NO 147

USE OF INFRARED FLASHLIGHT FILTERS. - A test was conducted to determine the effectiveness of infrared flashlight filters used in conjunction with metasopes as a means of communication and control. The following facts were found:

- a. Signals can be transmitted up to 700 yards with an effective distance of 150 yards under favorable conditions.
- b. The best all-around effective range lies between 75 and 100 yards.
- c. Signals can be transmitted between the support group and the assault group of any patrol.
- d. It is possible and very practical to arrange simple messages in advance for transmission, especially between patrols and support groups.
- e. The device is suitable for use in identification of returning patrols.
- f. If a patrol is engaged, signaling is not effective because of flashes of small arms fire and exploding shells.
- g. Signals identifying friendly patrols could be controlled and coordinated on a regimental or divisional level, thus reducing the chance of engagement between friendly forces from flanking regiments or battalions.
- h. The infrared filter and metascope can be used to good advantage between combat outposts or combat posts and the MLR. (Command Report - 35th Inf Regt - May 53)

(RESTRICTED)

ITEM NO 148

PERSONNEL REQUIREMENTS FOR FIELD NEUROSURGICAL DETACHMENT. - During the past month a neurosurgical patient expired post-operatively who could have been saved by skilled nursing care and the realization on the part of the nursing staff that the patient was doing poorly so that a doctor could have been notified. At the time of the initial

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formation of the neurosurgical detachments for assignment to the surgical hospitals these units were provisional and the T/O included four nurses for the performance of post-operative ward care. When these detachments were made permanent, only an operating room nurse and no ward nurses were authorized. It has been found that neurosurgical casualties require a specialized type of nursing. It is constantly apparent that, try as they may, personnel taking care of many various types of cases cannot maintain the necessary mental approach to the care of the unconscious patient.

Recommend that the T/O of a field neurosurgical detachment be increased by three nurses to a total of four, all to have ward nursing rather than operating room experience. (Command Report - 46th Surgical Hosp - Jun 53)

(RESTRICTED)

ITEM NO 149

TRAINING OF MEDICAL ENLISTED PERSONNEL. - A large percentage of enlisted personnel received directly from basic training in CONUS with MOS of 5657 and 1666, fall in mental groups IV and V. Because of the low intelligence scores, the absolute lack of previous medical or hospital experience, and lack of interest and adaptability on the part of most of these men, it is not considered desirable to use them in the care of patients. (Command Report - 48th Surgical Hosp - Jun 53)

∩ OCAFF Comment: A surgical hospital (mobile Army) is authorized medical corpsmen (MOS 5657) but not medical aidmen (MOS 1666).

In basic medical training the highest quality trainees are sent to medical service schools for training in the advanced technician specialties, and then assigned to medical units including surgical hospitals (mobile Army) and other hospitals. The next quality trainees are awarded MOS 1666 and assigned to medical detachments and medical companies where they serve at times with minimum supervision. The remaining trainees are awarded MOS 5657 and are assigned to hospitals where appropriate supervision can be given by nurses and doctors. 7

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ITEM NO 150

DEFICIENCIES OF COMBAT BOOTS, INSULATED. - A study was conducted to determine failure of boots, combat, insulated, utilized in the Eighth Army area during the winter 1952-53. A total of 985 pairs of boots were classified as unserviceable, out of 90,000 pairs of boots

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processed by QM reclamation and maintenance center. A breakdown of the failures noted included peeling of the material used to attach the toe, lip and heel surface to the boot, hook and eyelets being pulled out or ripped through the edge of the stay; the heel pieces tearing off. Of the failures noted, a high percentage of repairs can be made at the service centers by vulcanizing with hot patches. The present specification for boots, combat, insulated, should be revised to eliminate the use of hooks and to use eyelets only. (Command Report - 443d QM Base Depot - Jun 53)

∩ OCAFF Comment: The deficiencies indicated in the boot, combat rubber insulated have been corrected. Stronger material is being used to attach the soles and heels, and hooks have been eliminated in boots now being procured.7

(RESTRICTED)

ITEM NO 151

QM MOBILE FIRE UNIT REPAIR SHOP. - The field service platoon put into operation a mobile fire unit repair shop. A rack holding six fire units, tools, and commonly used spare parts has been mounted on a 1/4-ton trailer. This shop moves to forward area kitchens where M-37 fire units may be repaired. By on-the-spot repairs or exchange of fire units at the company level, it is anticipated that a decrease of 80% in fire units overhauled will be experienced. A major overhaul costs approximately \$7.19 and past records indicate that approximately 400 are overhauled for the Division each month. (Command Report - 3d QM Co - Jun 53)

∩ OCAFF Comment: Mobile repair teams providing direct on-the-spot service to the user have proved valuable during World War II as well as in Korea.7

(RESTRICTED)

ITEM NO 152

NEW SERIES RADIOS. - The new series radios continue to perform in an excellent manner. The greatest problem has been the short life of the dry cell batteries for the AN/PRC-9 series. (Command Report - 75th FA Bn - Jun 53)

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ITEM NO 153

SIZE OF COMBAT PATROLS. - Due to the proximity of MLR's and the consequent ability of an experienced enemy to reinforce rapidly, the custom had been established in previous sectors held by this regiment of dispatching only strong self-supporting patrols. In the present area, however, the regiment has found that the majority of enemy patrols are small in size and are encountered sufficiently far from enemy lines to preclude rapid enemy reinforcement. Our larger size patrols had thus restricted stealth and movement without any compensating advantage. In view of this, the battalions are now using smaller patrols except where the objective is close to enemy position. (Command Report - 27th Inf Regt - Jun 53)

[OCAFF Comment: The size of a patrol should be determined by the mission assigned the patrol. The size of a patrol to accomplish a given mission should be established as soon as the requirement for the mission is determined.]

(RESTRICTED)

ITEM NO 154

ENGINEER EQUIPMENT CHANGES IN T/O&E 6-126. - T/O&E No 6-126, 15 May 1952, includes under engineer equipment, one command post and fire direction equipment set, No 1. Among the components found in this set are the following items:

- Eight scale coordinate, plastic, stock number 18-6764.500-500.
1:20,000 and 1:62,500 in yards on one side.
1:25,000 and 1:50,000 in meters on one side.

These have proved unsatisfactory for the following reasons:

- a. Construction of light plastic causes excessive breakage.
- b. Many have been found to be inaccurate by as much as 40 meters or yards.
- c. There is no further need for 1:20,000 and 1:62,000 in yards on one side. This leads to confusion for the user and maps of this scale are no longer available in such quantity as to justify continuation of this scale.
- d. Insufficient quantity due to large number of personnel required to read coordinates.

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Recommend that:

- a. The scale, coordinate, be constructed of light metal with scales etched thereon to improve durability and accuracy.
- b. The scales contain 1:25,000 and 1:50,000 in meters on both sides to eliminate confusion.
- c. The number of scales, coordinate, issued be increased to include one per liaison officer and one per forward observer in field artillery battalion. (Command Report - 10th FA Bn - May 53)

(RESTRICTED)

ITEM NO 155

REGIMENTAL TAC PARTY. - A regimental tactical air control party headed by a lieutenant is assigned to the regiment. The regimental TACP should:

- a. Be familiar with all aspects of air-ground operations prior to being assigned as TACP's.
- b. Be designated a member of the regimental commander's special staff and work closely with the S-2 and S-3 in their selection of targets for ground controlled, air controlled and MPQ air strikes.
- c. Be required to monitor radio transmissions of all planes operating in support of the regiment, including MPQ air strikes.
- d. Effect liaison in order to obtain information concerning time and place of air support missions prior to their actual delivery. This information is desired in order to facilitate observation by ground OP's of the results of the air drops. (Command Report - 35th Inf Regt - May 53)

∩ OCAFF Comment: Responsibility for providing the equipment and personnel for the TACP (less the Forward Air Controller) will be transferred from the Air Force to the Army, effective 1 January 1954, in accordance with AR 95-330/AFR 55-9, 27 August 1953.

The TACP is especially organized to direct close air support by the use of radio and visual means in the vicinity of forward ground elements (i. e. the battalion level or below). At the regimental level the

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forward air controller (FAC) functions as an air liaison officer. He should be qualified to perform the duties indicated above. While it is not practical to designate him as a member of the regimental commander's staff, his status and function is similar to that of the artillery liaison officer.]

(RESTRICTED)

ITEM NO 156

USE OF DUMMY POSITIONS. - This regiment has employed dummies, dummy positions, and dummy tank turrets to draw fire and attention from occupied MLR and outpost positions. This was a coordinated program, each battalion developing "masquerade" areas within its sector and the regimental tank company building and placing dummy tank turrets. To further create the impression that these false positions are occupied, fresh earth, new wire, and a few tin cans were left in the immediate area. Damp wood and green wood left smoking in or near a dummy position, or a candle left burning in a dummy position at night are some of the other methods used to give the positions the appearance of being occupied. By using recoilless rifle fire and machine gun fires displaced to these dummy positions at night, a further illusion of occupancy was created. Proof of the success of this plan was evidenced by the enemy's beginning to shell these dummy positions when they are started and his continuation of this shelling.

The use of the dummy and decoy positions should be a definite part of all defensive works. The cleverness and skill of the commander in this matter will reduce his casualties and cause the enemy to adopt plans based on false assumptions. However, the plan should be carried out by regimental or higher headquarters so that coordination and continuity of effort will be effected. (Command Report - 17th Inf Regt - May 53)

[OCAFF Comment: The use of dummy positions should be incorporated into and governed by the plans of higher headquarters. Department of the Army Training Circular No 8, 22 May 1953, defines and outlines the scope and objectives of combat deception.]

(RESTRICTED)

ITEM NO 157

FIRING PLATFORM M1 FOR TOWED 8-INCH HOWITZER. - It has been necessary on many occasions, in order to silence active enemy artillery, to fire howitzers on or near the limit of traverse. This has resulted in frequent shifting of the piece with the resultant displacement

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which has a serious adverse effect on the accuracy in precision destruction missions. A second result of firing near or on the limit of traverse is the dislodgement of the rear spades which necessitates the cessation of fire until the spades and "dead-men" can be re-emplaced. As a possible solution to alleviate this condition, recommend that a firing platform M1 such as designed as auxiliary equipment for the 155-mm gun on heavy field carriage M1, which is the same carriage used by the 8" howitzer, towed, be utilized to permit the rapid shifting of the howitzer. (Command Report - 424th FA Bn - Jun 53)

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ITEM NO 158

CHANGES TO T/O&E. - Recommend that:

- a. An "A" frame be perfected for attachment to the front of a 3/4-ton truck for the purpose of lifting drums of POL products.
- b. This type unit be authorized three 3/4-ton trucks with an "A" frame on each.
- c. Authorization of 30-gallon-per-minute dispensers and 100-gallon-per-minute dispensers be deleted from T/O&E inasmuch as 50 and 225-gallon-per-minute dispensers are considered sufficient for operations and are far superior to the 30 and 100-gallon-per-minute dispensers.
- d. This type unit be authorized a foam fire truck for each 5,000,000 gallons of POL stored. (Command Report - 529th QM Petroleum Supply Co - May 53)

OCAFF Comment: T/O&E 10-77, Quartermaster Petroleum Supply Company recently revised and forwarded to DA for final approval and publication includes the item kit "A" frame for 12 of its organic trucks, cargo, 2-1/2-ton, 6x6, M35, WW. These "A" frames with the contingent item sling barrel chain, 3 leg, endless 2 hooks, each leg 3/8 in x 12 ft, are for the purpose of lifting drums of petroleum products. The items, pump, gas, dispensing, 50-gallon-per-minute, and pump, dispensing, 225-gallon-per-minute, are both included in the revised T/O&E. Both of these pumps were recently standardized in T/O&E's.

The authorization of a foam fire truck in T/O&E 10-77, when the unit stores 5,000,000 gallons of petroleum is not considered justified. The normal mission of this unit is one of operating from one to six

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petroleum supply points. Its secondary mission may be one of operating bulk storage facilities for a short period of time when these facilities are located in the forward areas of supply. The storage of 5,000,000 gallons of petroleum is considered beyond the scope of the unit's secondary mission and one rightfully belonging to T/O&E 10-377, Quartermaster Petroleum Depot Company.7

(RESTRICTED)

ITEM NO 159

QM LAUNDRY COMPANY TUMBLER AND WASHER. - The T/O&E of a quartermaster company, infantry division, authorizes two units, laundry, mobile, two-trailer type for the field service platoon.

Each of these units is composed of one washer trailer and one tumbler trailer (dryer). Experience indicates that the normal capacity of the washer trailer is twice that of the tumbler (180 lbs for the washer to 90 lbs for the tumbler in a one-hour period). To provide the additional drying facilities to balance the washing capacity, various field expedients are presently being used. However, none has yet been devised which is satisfactory or effective during rainy weather or the cold winter season. Neither are they so readily available for instant use as is the tumbler trailer. After periods of movement, and during rainy weather or the cold winter season, mobile field laundries are forced to operate at half capacity as a result of the lack of drying facilities.

Recommend that the T/O&E for division quartermaster companies and laundry companies be amended to include two tumbler trailers per washer trailer. (Command Report - 3d QM Co - Jun 53)

∩ OCAFF Comment: Action is under way to increase the tumbler capacity of the mobile laundry to 180 pounds per hour. For other extract on this subject, see Item 160, this inclosure.7

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ITEM NO 160

DRYING OF LAUNDRY. - Due to the reduced drying capabilities of the tumblers in comparison to the washers processing volume, a definite drying problem is created. At the present time wire lines are being utilized in all available areas to facilitate the drying process, this method being necessarily used only under favorable weather conditions. Nelson heaters are also being utilized to supplement the laundry tumblers in the drying process. (Command Report - 539th QM Ldry Co - May 53)

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[OCAFF Comment: The problem of inbalance between the washing and drying operations has been noted in many reports both combat and training.

The two-trailer mobile laundry was designed to produce balanced operation at a production rate of 120 pounds (dry) of laundry per hour. Tests at the Quartermaster Board, Fort Lee, Virginia, showed that this design was met. Two washer loads per hour equal 120 pounds per hour.

When the time of the wash formulas is reduced so that more than two loads per hour can pass through the washer more work is passed on to the extractor with a corresponding decrease in quality of laundering. This would tend to prevent thorough extracting (centrifuging). Normal extraction should have a residual moisture of approximately 38%. Both of these changes, if practiced, pass more pounds of laundry with larger moisture content to the dryer. Quartermaster observers are investigating laundry operating procedures to determine to what extent this is being practiced.

Recognition has been made of a need for larger drying capacity when the wash formulas are shortened, despite the reduction in quality of the work processed. Action has been taken to increase the tumbler capacity of 180 pounds per hour by passing more air through the tumbler, and at the same time burning more fuel. A 1,000-hour laboratory test is currently in progress to determine if the heat exchangers designed for this increased capacity will have a reasonable life expectancy.7

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ITEM NO 161

PORTABLE FOX HOLE COVERS. - The 2d Rocket Field Artillery Battery has obtained four portable fox hole covers made of 1/4-inch armor plate. Twenty more of these covers are to be obtained to make a total of 24. Each of the 12 rocket sections will have two of these covers, which will give the section more adequate protection from premature rocket bursts. (Command Report - 75th FA Bn - Jun 53)

(RESTRICTED)

ITEM NO 162

INSTRUCTION IN CONSTRUCTION OF DEFENSIVE POSITIONS. - It is evident that with the mass artillery and mortar technique used by the enemy, any fixed defensive position of the future must depend upon protection afforded by the heavy deeply-sunk bunkers now used. Preparation of such a position requires not only knowledge of the bunker

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construction itself but a basic understanding of how to plan the development of the position in order to utilize available manpower to the maximum. This is essentially a problem of small job planning and organization. Although this regiment has an adequate SOP on the subject, the junior officers and NCO's had difficulty at first in following it because of their inexperience in planning such projects.

Recommend that appropriate service schools include instruction in the design of heavy bunkered positions and construction planning incident thereto. (Command Report - 27th Inf Regt - Jun 53)

[/ OCAFF Comment: Letter, ATTNG-24 353/151(7 Jul 53), OCAFF, 7 July 1953, subject: "Model Defensive Positions," is designed to implement instruction in planning construction and occupation of defensive positions. Emphasis is not placed on actual construction of these positions due to limited training time. Training in planning and defense of permanent type field fortifications is being employed as concurrent training in ATP's and is being emphasized in leaders' courses.]

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ITEM NO 163

REQUIREMENT FOR LIGHT AUTOMATIC WEAPON. - Critique of the raid on "Old Charlie" revealed that movement of the assault team up the steep slopes was slowed down by the weight of BAR's and ammunition carried. Had all members of the assault team been armed with a lighter automatic weapon, such as the Carbine, or SMG, M3, they could have negotiated the steep slopes much quicker and effected more surprise. (Command Report - 15th Inf Regt - May 53)

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ITEM NO 164

REQUIREMENT FOR CANNISTER AMMUNITION FOR 90-MM TANK GUNS. - It has been observed through experience in combat that cannister ammunition for 90-mm tank guns would be very effective in defense against "human sea" tactics.

Recommend that this type ammunition be developed, expedited and delivered to the units in Korea for combat and training. (Command Report - 223d Inf Regt - May 53)

[/ OCAFF Comment: Cannister ammunition for the 90-mm gun is presently under development.]

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ITEM NO 165

TRAINING IN USE OF HAND GRENADES. - Replacement personnel coming into this regiment from the CONUS lack sufficient training in the use of the hand grenade. This observation is derived through friendly patrol activity in which our own personnel are not using hand grenades to the maximum effective degree, but instead resort to automatic weapons and small arms fire prematurely which reveals their position to the enemy.

Recommend that more training be devoted to the use of hand grenades and the actual practice of throwing live hand grenades in infantry RTC's. (Command Report - 223d Inf Regt - May 53)

[OCAFF Comment: In addition to formal training in hand grenades presently included in ATP's, use of grenades is included and emphasized as concurrent training in tactical problems. Training in the use of hand grenades is not a difficult problem and is presently covered adequately. Command emphasis on use of grenades is a solution which would seem effective.]

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ITEM NO 166

VAN - TYPE VEHICLE FOR FDC. - The divisional light artillery battalion displaces more frequently than any other type artillery battalion in a tactical situation. On moving into a new position the battalion fire direction center must be ready to function on very short notice. With the transportation currently authorized, it is necessary to unload the fire direction equipment from a vehicle, set up a CP tent (in inclement weather or at night) and install the equipment. This is time consuming, and even after the operation is completed, the installation is barely satisfactory as a fire direction center.

This organization has rebuilt the bed of a 2-1/2-ton 6x6 truck with folding sides and steel framework, extra large tarpaulin with skylights; installed a terminal strip, interior wiring, and switchboard stand for wire communications, and a mount for the FDC radio. There is adequate space for operation of FDC and S-2 section. This makeshift vehicle has been valuable even in the stable situation current in Korea.

Recommend that T/O&E 6-126, headquarters & headquarters battery of the divisional light artillery battalion, be amended to add a van-type vehicle, similar to a mobile ordnance shop van, to serve as a

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mobile battalion fire direction center. This vehicle should be constructed specifically for that purpose. This would take the place of the 2-1/2-ton 6x6 truck assigned to the operations section, which would be deleted from the T/O&E. (Command Report - 10th FA Bn - Jun 53)

∩ OCAFF Comment: Ordnance is currently building a 2-wheel van for test as a mobile FDC. In addition to the trailer, other van-type trucks are under consideration and will be tested against the trailer van.

For other items on this subject refer to: Source No 393, inclosure to letter, ATTNG-64 350.05/51(DOCI)(C)(14 Jul 52), OCAFF, 14 July 1952, subject: "Dissemination of Combat Information," and Source No 558, inclosure to letter, ATTNG-26, 350.05/62 (DOCI)(C)(29 Nov 52), OCAFF, 29 November 1952, same subject. 7

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ITEM NO 167

USE OF VAN-TYPE TRAILERS FOR WORK SHOPS. - There are many van-type vehicles which are used for various types of work shops and command posts. These vans are stationary vehicles and move only when the division moves. Periods of immobility vary according to the activity of operations, but for the most part, such vehicles deteriorate from age rather than from use. A four-wheel van-type trailer would suffice for this purpose in all known instances. The prime movers of these van-type trailers could be conventional cargo vehicles which would become active resupply vehicles after moving into a position. Mobility and maneuverability would increase and the unit cost would be materially reduced.

Recommend that van-type work shops and command posts vehicles not be live vehicles but that suitable 4-wheel trailers be substituted therefor and appropriate cargo-type vehicles be placed in the T/O&E. (Command Report - 740th Ord Bn - May 53)

∩ OCAFF Comment: There is presently under development a 1-1/2-ton trailer, the XM 154, which is primarily for office and quarters for field use. Indications are that this trailer will be tested for command posts and field shops. 7

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ITEM NO 168

ADAPTING THE K-24 AERIAL VERTICAL SHOT CAMERA TO OBLIQUE USE. - Recommend consideration be given the advisability of adapting the standard K-24 aerial vertical shot camera to alternate oblique use. Due to the inherent advantage offered by its long focal length lens and the frequent call for oblique studies on target of opportunity, the K-24 model of this division's signal photo section was modified to accommodate this requirement by addition of a simple eyepiece and viewfinder device as shown in photographs below. These were attached to the top of the camera body and zeroed in for free-hold sighting. During the short time the modified camera has been employed over the MLR, the innovation has proved invaluable to the photo reconnaissance effort. (Command Report - 3d Sig Co - May 53)

3d Inf Div Comments: Concur in above recommendations. The K-24 camera, with its locally improvised viewfinder to facilitate hand hold shots, is superior to the K-20 camera. The K-24 reproduces a larger scale photo, making possible higher and safer flight altitudes. It reproduces pictures in greater detail which aids in photo interpretation. Moreover, the hand held camera shots are better suited for pinpoint photography than fixed mount shots. The task of aiming the camera rather than the plane is quickly accomplished, resulting in less target misses, less flying time, and less expenditure of film.

IX Corps Comments: Experiments have been conducted by the Photo Section, 101st Signal Battalion (Corps) using the K-24 camera for oblique use. Results were superior to those obtained from vertical use. Pictures were reproduced in greater detail and clarity, aiding in photo interpretation. However, the modification of the K-24 camera with an eye-level viewfinder was not employed, making sighting somewhat difficult. Recommend that the K-24 camera with eye-level viewfinder as innovated be considered.

OCAFF Comment: The weight and bulk of the K-24 and long focal length of the lens used would make it extremely difficult, if not impossible, for the average photographer to hand hold and procure acceptable pictures. The K-44 camera presently under test at Board No 1 should fulfill the Army aerial camera requirement.

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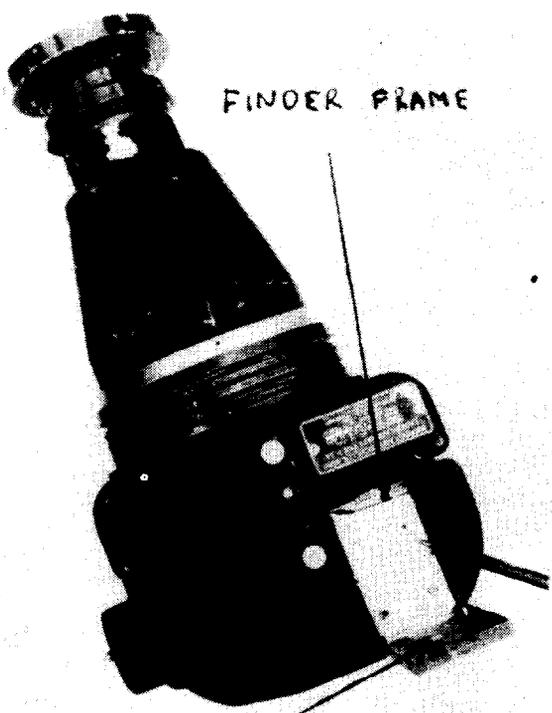
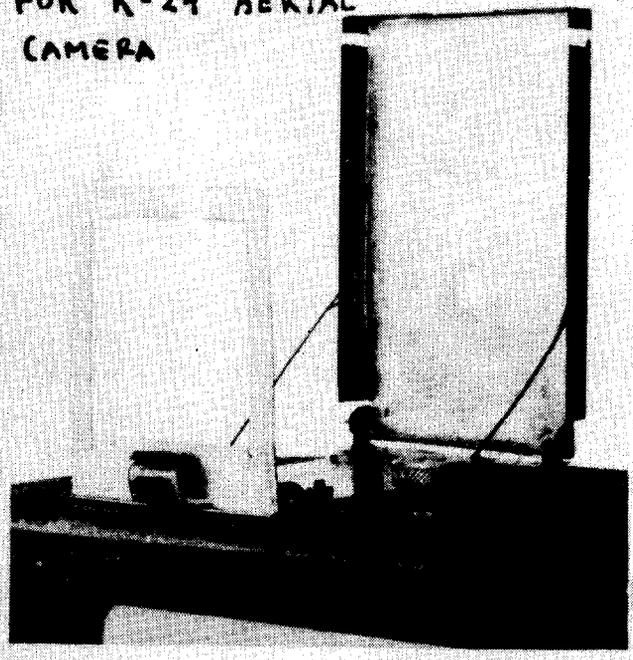
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ENLARGED VIEW OF EYE SLOT
AND FINDER FRAME ADAPTATION
FOR K-24 AERIAL
CAMERA



FINDER FRAME

EYE SLOT

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