SUBJECT: Dissemination of Combat Information

TO: See distribution

1. In accordance with SR 525-85-5, Processing of Combat Information, the inclosed EXTRACTS are forwarded for evaluation and necessary action. It may be appropriate, in certain cases, to take action upon a single extracted item; in others, it may be desirable to develop a cross-section of accumulated extracts on a particular subject before initiating action; and often, the extracted item serves to reaffirm our doctrines and techniques.

2. Copies are furnished to other military agencies to keep them informed concerning theater problems from the front line through the logistical command.

3. These EXTRACTS are derived from reports which are classified SECRET. For the greater convenience of the user, this Office assigns each extracted item the lowest classification compatible with security. No effort is made to paraphrase or delete any portion of the extracted remarks, so that none of the original intent is lost.

4. Combat information EXTRACTS herein which are applicable to training at the company-battery level also appear in Army Field Forces TRAINING BULLETINS.

FOR THE CHIEF OF ARMY FIELD FORCES:

DECLASSIFIED BY AUTHORITY OF
TACG 760978 ON
1976 BY

Extracts from sources
546 thru 575

52-12- 69-J
**DISTRIBUTION:**

<table>
<thead>
<tr>
<th>Copies</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACOFS, G-1, DA</td>
</tr>
<tr>
<td>3</td>
<td>ACOFS, G-2, DA</td>
</tr>
<tr>
<td>15</td>
<td>ACOFS, G-3, DA</td>
</tr>
<tr>
<td>20</td>
<td>ACOFS, G-4, DA</td>
</tr>
<tr>
<td>2</td>
<td>The Adjutant General</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Chaplains</td>
</tr>
<tr>
<td>10</td>
<td>Chief Chemical Officer</td>
</tr>
<tr>
<td>10</td>
<td>Chief of Engineers</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Finance</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Information</td>
</tr>
<tr>
<td>2</td>
<td>The Inspector General</td>
</tr>
<tr>
<td>2</td>
<td>The Judge Advocate General</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Military History</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Transportation</td>
</tr>
<tr>
<td>2</td>
<td>The Quartermaster General</td>
</tr>
<tr>
<td>2</td>
<td>The Surgeon General</td>
</tr>
<tr>
<td>2</td>
<td>Executive for Reserve and ROTC Affairs</td>
</tr>
<tr>
<td>2</td>
<td>Chief Signal Officer</td>
</tr>
<tr>
<td>2</td>
<td>The Provost Marshal General</td>
</tr>
<tr>
<td>2</td>
<td>Chief, National Guard Bureau</td>
</tr>
<tr>
<td>2</td>
<td>The Adjutant General</td>
</tr>
<tr>
<td>2</td>
<td>Chief Chemical Officer</td>
</tr>
<tr>
<td>10</td>
<td>Chief of Engineers</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Finance</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Information</td>
</tr>
<tr>
<td>2</td>
<td>The Inspector General</td>
</tr>
<tr>
<td>2</td>
<td>The Judge Advocate General</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Military History</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Transportation</td>
</tr>
<tr>
<td>2</td>
<td>The Quartermaster General</td>
</tr>
<tr>
<td>2</td>
<td>The Surgeon General</td>
</tr>
<tr>
<td>2</td>
<td>Executive for Reserve and ROTC Affairs</td>
</tr>
<tr>
<td>2</td>
<td>Chief Signal Officer</td>
</tr>
<tr>
<td>2</td>
<td>The Provost Marshal General</td>
</tr>
<tr>
<td>2</td>
<td>Chief, National Guard Bureau</td>
</tr>
<tr>
<td>2</td>
<td>The Adjutant General</td>
</tr>
<tr>
<td>2</td>
<td>Chief Chemical Officer</td>
</tr>
<tr>
<td>10</td>
<td>Chief of Engineers</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Finance</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Information</td>
</tr>
<tr>
<td>2</td>
<td>The Inspector General</td>
</tr>
<tr>
<td>2</td>
<td>The Judge Advocate General</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Military History</td>
</tr>
<tr>
<td>2</td>
<td>Chief of Transportation</td>
</tr>
<tr>
<td>2</td>
<td>The Quartermaster General</td>
</tr>
<tr>
<td>2</td>
<td>The Surgeon General</td>
</tr>
<tr>
<td>2</td>
<td>Executive for Reserve and ROTC Affairs</td>
</tr>
<tr>
<td>2</td>
<td>Chief Signal Officer</td>
</tr>
<tr>
<td>2</td>
<td>The Provost Marshal General</td>
</tr>
<tr>
<td>2</td>
<td>Chief, National Guard Bureau</td>
</tr>
</tbody>
</table>

**Copies furnished:**

- **100 TAG (40 CINCFE; 10 ea, CINC's and CG's of other major overseas commands)**
  - CG's
    - 2 ea First, Second, Third, Fifth and Sixth Armies
    - 10 Fourth Army
    - 4 Army AA Command
    - 2 Military District of Washington
    - 2 Tactical Air Command
    - 1 Chairman, Joint Chiefs of Staff
    - 2 Chief of Naval Operations, Dept of the Navy
    - 1 CO, Mountain & Cold Weather Tng Command
    - 2 Chief, Army Advisory Gp, Air Command and Staff School, Air University
    - 2 Comdt of Cadets, IIS Military Academy
    - Comdt
      - 2 Armed Forces Staff College
      - 2 Marine Corps School
      - 2 USAF Air-Ground Operations School
      - 2 Counter Intelligence Corps School
      - 2 The Provost Marshal General's School
    - 2 Chief, Army Security Agency
    - 1 Officer in Charge, Atlantic Fleet Intelligence Cen, Attn: Ground Forces Officer
    - 1 Director, Weapons Systems Evaluation Group, Secy of Defense, Attn: Col Train

(See next page)
ATTNG-26 350.05/62(DOCI)(C)(29 Nov 52)

Subject: Dissemination of Combat Information

29 November 1952

Copies furnished: (Cont)

CG's
2 The Armored Center
2 The Artillery Center
2 The Infantry Center

Comdt
2 Army War College
2 CGSC
2 Army General School
2 Asst Comdt, The Artillery School, AA&GM Branch

1 ea Pres, AFF Boards
1 CO, Arctic Test Branch
1 ea Chiefs, AFF Human Research Units No 1 and 2
4.5-INCH ROCKET LAUNCHERS. - On 7 May, a platoon of 4.5-inch rocket launchers, model T66E3, was emplaced within the division sector for the first time and fired on selected targets. This firing was part of a coordinated corps-wide program directed by the Commanding General, IX Corps. At 071600, May, four launchers firing from separate positions fired on selected targets. At 2100 the same date, a platoon consisting of six launchers occupied a single position and massed on an enemy strong point in front of the 32d Infantry. The firing was marked by several malfunctions of materiel and only in a few instances did the rocket launchers fire the number of rounds scheduled. Due to the limited range of this weapon its use in the present division sector, with relatively open terrain to the immediate front, will be extremely restricted as few remunerative targets can be reached.

AIR STRIKE DIRECTED BY ARMY AIRCRAFT. - On 17 May, during an air strike on three confirmed artillery pieces the tactical air coordinator (Mosquito) was forced to leave the area before the completion of the strike. On orders from the fire support coordination center the artillery aerial observer in the sector contacted the flight leader on the Air Force "white" channel and proceeded to do an excellent job of directing the strike which resulted in two positions being destroyed. Since the installation of the Air Force channel in the division artillery Army aircraft, this marked the initial instance in which an artillery aerial observer was actually required to direct a flight onto a target in this division sector. This incident has proved that Army aircraft can successfully direct Air Force fighter-bomber aircraft during a strike.

One of the few outstanding missions of the month occurred at *** when the 57th Field Artillery Battalion began receiving counterbattery fire. Darkness was rapidly approaching and the artillery air observers had begun to
return to base. The aircraft were alerted to return to the target area and one of the observers located the enemy battery firing. In order to neutralize the enemy artillery in the short time remaining before total darkness, the observer adjusted a corps artillery 8-inch howitzer battery and a corps artillery medium battalion using area fire in effect. The enemy battery was effectively silenced and the pilot, aided by make-shift lighting at the air strip, landed the aircraft after darkness without incident.

SOURCE: Command Report - 245th Tank Battalion

DATE: June 1952

(TCONFIDENTIAL)

TANK RECOVERY. - Our tankers have great confidence in the protection offered by their tanks. Our tanks have been hit repeatedly by a great variety of weapons but no crew members in the tanks have been harmed. Two improvements to recovery vehicles will eliminate presently required exposure of recovery vehicle crews during battlefield recovery. First, the large well on the tank recovery vehicle should be covered by an armored hatch. Second, an automatic coupling device should be installed on retrievers to enable them to couple with a disabled tank without dismounting personnel.

* *

(CONFIDENTIAL)

SEARCHLIGHT TANKS. - The searchlight tanks have not been used to their full capabilities as yet. They have aided in the outposting of ***. When they were placed in position, the enemy's preparatory artillery and mortar concentrations damaged the lights and the tanks. The one light that was undamaged was restricted in range due to the tremendous amount of dust raised by enemy and friendly fires. It is felt that it did aid the infantry somewhat and aided the supporting units on the MLR by defining the final protective line. Tanks have lately been placed at the base of hills in positions where they can move to the flanks. It is felt that these tactics will place the beams under the dust, thus giving them more range. If a counterattack were needed, the tanks could move to their up-hill firing positions rapidly.

* *
TANK DOZERS. - Tank dozers have been of great aid in several of our operations. A mechanical weakness in the tank dozer is in the sprockets. Sprocket bolts are sheared by excessive strain. Welding the sprocket does not seem to be the answer since the final drive is overstrained.

FLAIL TANK. - On 17 June, battalion flail tank, with crew from Company B, was sent to 120th Engineer Battalion upon request to clear a path through a friendly AP mine field on road. The flail tank became mired in a rice paddy and could not continue its mission. Mud splattered from flails blinded vision slits and periscopes making control difficult. Crew operating flail tank recommended using a control tank nearby, which could radio instructions to crew. Due to the soft ground, the effectiveness of clearing the mined area could not be determined. The flail tank was recovered the following day by a battalion recovery crew.

TANK AMMUNITION RESUPPLY. - Tank elements used a shuttle system of resupply during operations and as one tank would expend its load of ammunition another one was dispatched from a concealed resupply area to take its place so continuous fire could be brought on enemy targets at all times during the operation.

SOURCE: Command Report - 999th Armd FA Bn
DATE: June 1952

CHANGE IN T/O&E. - This unit is authorized one electric and three gas welding sets and yet the T/O&E authorizes only two welders. Two of the welding sets are in use at all times with the third and fourth being used during periods of movement and operations by training mechanics to serve as welders.

Recommendation: That an armored medium or heavy artillery battalion be authorized four welders on the T/O&E.
DEFECTS IN M41 ARMORED VEHICLES. - The pulley on the left rear of the carriage of the M41 which carries the cable to elevate and lower the firing platform and spade is secured to the carriage with a U bolt that is not sufficiently strong. We are experimenting with modifications to overcome this defect.

The M41 powered with the two Cadillac 110 HP engines is underpowered. Ordnance has installed two Cadillac 150 HP engines in five of our M41's and they are a considerable improvement.

SOURCE: Command Report - 5th Infantry Regiment
DATE: June 1952

CONSTRUCTION TRAINING NEED. - It was found that replacements reporting from the zone of interior were lacking in knowledge of construction of bunkers and digging gun positions. It is recommended that training include practical work, so that troops know how to dig positions and construct bunkers of sufficient strength and thickness to withstand heavy mortar and artillery fire.

AMMUNITION CLERK FOR TANK COMPANY. - Because of the many types of ammunition and the problems that arise when tanks are extended, it is recommended that the T/O&E of the medium tank company be changed to include one ammunition clerk with the primary duty of supervising ammunition supply, storage, and accounting.

SOURCE: Command Report - 73d Tank Bn(M)
DATE: May 1952

MAINTENANCE PROBLEMS - M46 TANK. - Maintenance problems on the M46 remained the same with final drives and oil cooler fan drives...
and clutches continuing to fail. We have received the new type clutch in limited quantities and have had several failures. The part which fails in the new clutch is the round insulator. It cracks and results in the clutch shorting out.

SOURCE: Command Report - 279th Inf Regt

DATE: May 1952

(RESTRICTED)

FLEXIBILITY IN EMPLOYMENT OF TANKS. - It was learned from this operation that the units constituting the blocking force had to be strong and highly mobile. Consequently, it was discovered that the decision was sound to attach tanks to these units initially and as they came through the MLR on Lines *** and *** to pass these tanks to operational control of the two battalions on line. As the battalions on line withdrew through the units occupying positions on the OPLR, these tanks once again reverted to the units constituting the blocking positions. By utilizing this method, the "shell" group was able to maintain a high state of maneuverability but also possessed an abundant source of firepower.

SOURCE: Command Report - 8th Army (EUSAK)

DATE: January 1952

(CONFIDENTIAL)

DISPOSITION OF DISABLED TANKS. - Recent experience and Combat Loss Reports indicate the CCF do not attempt to recover our immobilized tanks. Our tanks have been destroyed in the past by using units to prevent them from falling into enemy hands.

Tanks that become so immobilized as to preclude immediate recovery and return to friendly lines should not be destroyed. If the situation prevents outposting of the tank pending recovery or repair operations, and necessitates temporary return of the area to enemy control, the crew should render the tank and its armament inoperable through the removal of parts.
Dependent upon the situation and the time available, as many of the following should be accomplished prior to the abandonment of the tank.

a. Complete removal of all secondary armament.
b. Removal of tank gun firing mechanism from breach block.
c. Removal of radio crystals, headsets and microphones.
d. Rendering the tank inoperable by:
   (1) Removing battery cables from battery.
   (2) Turning off fuel valve and removing fuel valve handles.
e. Closing and locking all hatches.
f. Booby-trapping tank.
g. Emplacing AP mines in immediate vicinity.

SOURCE: Command Report - 936th FA Bn
DATE: June 1952 Source No 553

(RESTRICTED)

NCO REPLACEMENTS. - The lack of enlisted qualified replacements by MOS and grade during the past six months has become a matter of great concern. It is realized that the greater portion of noncommissioned officers of the lower grades are normally made within the unit but it must also be recognized that the time factor in this theater does not lend itself to training an individual and developing both his technical and leadership abilities to fill key positions in the upper grades.

Under present conditions it is necessary to fill T/O vacancies with the best available personnel without regard to over-all qualifications; as a result, 32% of the NCO's of the top three grades have been promoted three times since arriving in Korea. As of 30 June this battalion had a total assigned of 100 NCO's of the top three grades, of this number 52 had less than two years of service.
A system requiring such fast advancement eventually results in lowering the standards desired for competent noncommissioned officers and, within a short period of time, fills a unit with NCO's of lower caliber who are expected to train a replacement. Thus the standards of proficiency and leadership are progressively lowered.

At the present time the majority of key positions that call for grade E-7 are filled by competent NCO's, but if it becomes necessary to replace these few with men who have little or no experience, the situation may become critical and even dangerous.

The experience of the past six months has shown that the percentage of replacements received by MOS and grade, against that which was requested, is very low. In the next three months this unit will lose 47% of the first three grades NCO's. It is recommended that greater effort be made to fill personnel requisitions by grade and MOS and to place the experienced personnel in the combat units in order to achieve the efficiency necessary to accomplish their mission in combat.

SOURCE: Command Report - IX Corps, Bk II, Part 3

DATE: March 1952

(RESTRICTED)

EFFICIENCY OF UNITS. - Rotation of personnel within the divisions is reducing the efficiency of many units. Key personnel are generally the ones who have been in the unit the longer period of time and therefore are the ones that are being rotated. It would increase the efficiency of units if provisions were made to allow over strength in units until such time that replacements were trained to carry out their duties efficiently.

Recommend that key personnel replacements arrive in time to be trained on-the-job, prior to departure of veterans of Korea.
(RESTRICTED)

FIRING TABLE FINISH. - It is recommended that a more durable finish or facing be used on the new Dual Granulation Graphic firing tables (M39 A1) and the Graphic Site Tables (M53 A1). The present type facing is less permanent than the type used in the old Single Granulation Tables, and after approximately three weeks of continuous use, the facing becomes dirty and the marking becomes difficult to read. Erasure or washing deletes the markings and lines.

T/O&E CHANGE, AAA BN. - Recommend that a generator, 5 KW be authorized in lieu of the generator, 3 KW presently authorized, inasmuch as 3 KW does not produce an adequate supply of power for the needs of this organization.

ROK TACTICS. - At 0200, 6 May, friendly troops withdrew from outpost Kelly without actual contact, sucking in an enemy squad to the outpost. The 58th Field Artillery Battalion placed artillery fire on the unsuspecting enemy and when the ROK's returned to Kelly, they counted 9 enemy casualties. This type of tactics was often used by ROK infantry during May.
MOBILE FDC. - The 999th Armored Field Artillery Battalion has devised a mobile Fire Direction Center constructed in a four wheel, van-type trailer (inside dimensions 7'5" x 17'6" x 6'2"). This mobile FDC has been a great help toward speed in displacements and also for the health and comfort of the FDC personnel during cold and wet weather. The prime mover for this van is the S-2 half-track. A gasoline stove from an arctic tent was used in the van during the winter and in addition to providing heat, hot coffee was also available for the night shift. Computers chairs, and desks, HCO, VCO, and S-3 desks, radios and telephones are secured in the trailer so as to remain in place during moves. Upon arriving in a new position, the connection of telephone lines is the only thing necessary to place this unit into operation.

It is recommended that a van trailer of a type similar to this be authorized for armored artillery units engaged in cold or wet weather operation.

ARTILLERY IN SUPPORT OF ROKA. - It was demonstrated during February that it is possible to have American units placed in direct support of ROK units and furnish a good portion of the necessary number of liaison officers and forward observers. Corps light battalions can furnish seven officers for this work if at all near full strength. The principal advantages of having American forward observers with ROK units are: (a) The morale aspects of having US officers from the supporting arm appearing at the front with ROK troops showing American willingness to share ROK dangers; and (b) the more accurate receipt of information at higher US headquarters due to the fact that no language barrier intervenes in the flow of information. The main disadvantage is the lack of interpreters. Forward observer and liaison officers must have the closest association with their company and battalion commanders. Without adequate interpreters this is not possible.
In the current situation, only a few interpreters are available and this fact prevents the full coordination desired. The limited T/O&E of corps battalions is stretched to the breaking point in both personnel and equipment by the policy of having a forward observer with each company in the line.

Recommend that American light field artillery battalions in direct support of ROK units, on application, be given a number of interpreters sufficient to allow the fire direction center and each forward observer and liaison officer to have a qualified interpreter.

American light battalions assigned to direct support roles in ROK units should be given a personnel and equipment augmentation to enable them to follow American artillery system of having a forward observer with each company and a liaison officer with each battalion and with regiment.

SOURCE: Command Report - 3d Logistical Command (B)

DATE: June 1952 Source No 560

(RESTRICTED)

TRAIN AMBUSH. - Bandit activity was highlighted during the period by an ambush on Korean National Railroad Train No 111, eight miles South of Saga-ri, which resulted in two US personnel killed and one wounded, twenty-one ROKA killed, seven National Policemen killed, and seventeen Korean civilians killed. Eight railway coaches were burned and the train engine derailed and damaged.

SOURCE: Command Report - 145th AAA Bn

DATE: March 1952 Source No 561

(RESTRICTED)

INCLUSION OF WINTERIZATION KIT IN T/O&E FOR AA BATTALION FOR M3A1 PERSONNEL CARRIER. - The winterization kit for the M3A1 personnel carrier, though not authorized by T/O&E or SNL, was acquired through special requisition and has proved invaluable in utilizing the M3's.

UNCLASSIFIED
It is felt that their value is not limited to cold weather. Good use can be made of them through the dusty and rainy seasons to provide more head-space, light and protection from the elements.

It is recommended that the winterization kits for the M3A1 personnel carriers be made an item of T/O&E.

* * *

(FULL TRACK VEHICLE FOR M45 TURRET) - It is recommended that the M45 turret be kept for divisional antiaircraft artillery automatic weapons battalions but they be mounted on a full track vehicle.

---

SOURCE: Command Report - 424th FA Bn
DATE: March 1952

(CONFIDENTIAL)

"FLARE BACK" AND FLASH DEFILADE. - There has been an unexplainable phenomena occurring at times on firing the 8-inch howitzer. It has been named "Flare Back" by the battalion gun crews and occurs in the form of increased blast, increased noise, and increased flash when firing the howitzer. The blast is so great that it has knocked cannoneers down in rear of the pieces. The noise produced is very sharp compared to normal howitzer firing, and is very painful to the ears and in some cases ear drums have been pierced. Whenever the "Flare Back" occurs dust evolves from the surrounding ground and parapets in great clouds, much heavier than normal.

There seems to be no apparent reason for these "Flare Backs!" Originally, it was felt that it was due to swabbing with too much water. To eliminate this, cannoneers have wiped the powder chamber dry after swabbing; however, it did not seem to eliminate the "Flare Back." Uniform hard ramming was emphasized but it caused no noticeable change. The following items were checked and were the same when "Flare Back" occurred and when they did not occur:

(1) Swabbing uniform and not wet.
(2) Powder lots identical and stored dry.
(3) Ramming was hard at all times.

(4) Powder was not left in tube to heat.

(5) Powder was not left open to absorb moisture.

All batteries experience the "Flare Back" and it occurs on all guns with no definite frequency but averages, approximately, once out of eight rounds fired. The battalion has experienced this through about 40,000 rounds of ammunition with all lots of powders, lots of projectiles and lots of primers. It has also been experienced through various types of power packing and ammunition storage by different ammunition dumps and personnel.

The "Flare Back" has generally been considered only uncomfortable and irritating; however, from night observations it has been discovered that the "Flare Back" has a tremendous effect on the amount of flash defilade required for the howitzer. Normally, five yards of defilade at 800 yards distance will hide any flash that occurs when the howitzer is fired. However, when the "Flare Back" occurs, it is estimated that it would take 30 yards of defilade at about 5,000 yards to hide the flash.

If the reason for "Flare Back" could be determined and eliminated, it would certainly eliminate, for all practical purposes, the problem of flash defilade for the 8-inch howitzer.

SOURCE: Command Report - IX Corps

DATE: May 1952

Source No 563

(RESTRICTED)

CGF COUNTER-INTELLIGENCE TECHNIQUES. - Reports from EUSAK, X Corps and results of certain IX Corps interrogations indicate that increased emphasis is being placed on the indoctrination and training of guerrilla-type espionage and sabotage personnel, as well as enemy agents. Through instruction given at political schools and liaison offices, certain agents are being indoctrinated in Communist methods and espionage techniques and infiltrated into UN occupied territory. Particular attention is being given the well-known Communist device of "boring from within." Two line-crossers who surrendered to elements of the 40th Infantry stated
that following a ten-day briefing they were assigned the mission of crossing the UN lines in the 6th ROK Division sector and joining a ROK intelligence unit. If successful they were to obtain certain information, then volunteer for a North Korean mission to facilitate their return to the Communist zone, and continue their espionage activities while en route. An alternate mission was assigned if the primary mission could not be accomplished and details of the alternate mission were to be divulged only in case of capture.

Another variation of this type mission was disclosed in the interrogation of a CCF PW who had surrendered to elements of the 7th Infantry Division. This prisoner had been given the mission of obtaining information on strength, location and equipment of UN forces and installations; after obtaining this data he was to surrender to UN forces and, upon being imprisoned either at Seoul or Pusan relay his information through a known agent in the enclosure by identifying himself to the agent through the use of a certain code. To deceive the apprehending UN interrogators the agent was well briefed on anti-communist doctrine and supplied with letters and leaflets to substantiate his pretended anti-red stand.

The foregoing techniques indicate the ingenuity of hostile counterintelligence techniques as well as the use of varied devices to pass intelligence agents through UN lines into rear areas. Directing such operations are several departments operating under the North Korean Peoples Army GHQ with responsibilities for tactical information, strength and equipment, detailed information on shipping, airfields, and roads. In addition to the training and dispatching duties an elaborate system of liaison stations in both friendly and hostile territory is maintained along the routes of agent travel.

* * *

(RESTRICTED)

PREVENTIVE MAINTENANCE DEVICES FOR M46 TANK. - As a result of an Ordnance technical report by a civilian technical representative in connection with M46 tank, the following recommendation is made:

A chamois funnel about 12" x 12" be provided each tank to reduce the dirt in fuel.

* * *

(RESTRICTED)

SHELL REPORTING. - Recommend that shell reporting and crater analysis be made an integral part of the basic training of all combat arms
to insure that personnel will be properly trained when they arrive in combat areas.

SOURCE: Command Report - 57th FA Bn
DATE: May 1952

(RESTRICTED)

IMPLEMENTATION OF S-2 SECTION. - At the present time the S-2 section consists of the S-2 and one Master Sergeant. The driver for the S-2 is furnished by the survey section. It is recommended that one Corporal be authorized as an assistant to the Intelligence Sergeant, and one private first class as a full-time driver for the S-2. During combat operations, it is often necessary for the section to function long hours. Furthermore, with only one noncommissioned officer in the section, it would suffer greatly in the event of the loss of the Intelligence Sergeant without an adequately trained assistant to assume his duties. The need for a full time driver is justified due to the extensive travel necessary to be performed by the S-2 in the proper performance of his duties. The present practice of using a driver from the survey section is detrimental to the efficiency of that section.

SOURCE: Command Report - 49th FA Bn
DATE: May 1952

(RESTRICTED)

USE OF GRAPHIC INTERSECTION IN LOCATION OF TARGETS. - The forward observers of the 49th Field Artillery Battalion made considerable use of graphic intersection. All observation posts were surveyed and a reference point located for orienting BC scopes. The primary object was the location of a number of prominent terrain features for use in preparing fire plans. Application proved that this method of locating targets could be invaluable in calling for surprise fires on such targets as enemy troops in the open. Through continued use of the system both FDC and the forward observers developed a proficiency for quickly obtaining an accurate plot.
All field artillery battalions in the division made tests in which they massed fires on targets located by graphic survey. It was found that battalions, using corrected data, could all be expected to hit within 100 yards of the target. Any adjusting rounds fired at troops in the open give enough warning for most of them to get under cover before fire for effect is started. With this method an entire division artillery TOT was possible with a high degree of accuracy within the capabilities of the weapons and within observation of the OP's. Due to the static condition of the front, there were no opportunities to fire on large groups of men; but tests proved that such a mission could be fired with speed and accuracy.

The Artillery School at Fort Sill gives instruction in observing Center of Impact and High Burst Registration. However, it is suggested that computing initial data by graphic intersection be given greater emphasis.

* * *

(RESTRICTED)

PERSONNEL AND EQUIPMENT. - Recommend:

a. That a 20-drop switchboard be authorized for Battalion FDC.

b. That each field artillery battery be equipped with 2 dump trucks with additional capabilities of performing normal 2-1/2-ton duties.

c. That battalion S-2 section be authorized 1 additional enlisted man to fulfill duties of clerk-driver.

d. That augmentation table to include 9 enlisted men be used to bolster battalion FDC in a combat theater.

e. That 2 TP 9's be authorized for each field artillery battalion.

f. In a combat theater AA officers assigned to field artillery units should be no higher in grade than 1st Lieutenant unless they have had Fort Sill training.

g. That division artillery be equipped to provide both visual and electronic metro messages.

h. That consideration be given to the possibility of returning to pre-World War II enlisted ratings.

i. That field artillery battalions be authorized a battalion mail clerk.

Over
j. That field artillery battalions be authorized a special services NCO.

k. That battalion personnel section be stationed with units service battery.

l. That battalion be authorized six TS-10's.

m. That headquarters battery be authorized four SCR 536 for use with survey and wire section.

n. That assault fire methods be emphasized in training.

o. That corps artillery be provided with additional SP weapons to perform assault fire.

SOURCE: Command Report - Northwest AAA Sector

DATE: June 1952 Source No 566

(RESTRICTED)

RADIO SUBSTITUTION, AAA UNITS. - Recommend that consideration be given to the substitution of the AN/GRC-5 radio set and/or the AN/PRC-9 radio set, with the PP-545/U power units, for 10 AN/GRC-9 radio sets and 10 PE-162 power units in all T/O&E's for HAA and MAA gun battalions (T/O&E 44-15, 44-16, 44-17, 44-115, 44-116 and 44-117).

SOURCE: Command Report - 1st FA Observation Bn

DATE: June 1952 Source No 567

(RESTRICTED)

COUNTERBATTERY FIRE. - A study of the locations made by this unit during the past nine months shows a large number of positions which have been intermittently occupied by enemy artillery weapons; and an increasing number of positions which have been reported in action in the same location during the past three months. It is obvious that in many cases counterbattery fire has been ineffective, due either to lack of heavy artillery (for example 240-mm howitzer units to destroy artillery bunkers), dispersion
of available 8-inch howitzer and 155-mm gun battalions, or lack of sufficient ammunition to adequately destroy enemy positions and materiel. It is believed that in the present situation, with enemy artillery increasing in numbers, caliber, and well dug-in in positions, it is necessary to increase both the caliber of friendly artillery and the ammunition available for counter-battery fire, to accomplish the mission of destruction, and not mere neutralization, of enemy artillery.

*(RESTRICTED)*

SOUND AND FLASH RANGING EQUIPMENT. - The critical shortage in PE 210's has made GR8 operation a day-by-day crisis. There is also a shortage of irregular base fans. A defect in the sound ranging paper (PH 438) made by Western Union Telegraph Company has been noted. The paper is too thick, has rough texture and causes the styli to jump.

It is recommended that some thought be given to the development of a flash ranging instrument that incorporates the periscopic effect of the BC Scope and the accuracy of the M-1 azimuth instrument. The British M-2, where the observer is forced to look down on the instrument, makes him particularly vulnerable and is most unpopular among the flash observers.

SOURCE: Command Report - 424th FA Bn

DATE: April 1952
In other positions arrangements were made with various Engineer battalions or companies to use one of their D-7 dozers in this type construction. This large machine must be moved by a special tractor-trailer rig and is actually larger than an artillery battalion can economically handle.

However, a D-6 dozer approaches more closely the desired machine for this type work. This normally would be used for the howitzer positions, ammunition and powder pits and all other dug-in installations necessary for a howitzer battalion in combat. Preparation of adequate positions for protection of personnel and equipment is essential due to the close proximity of the MLR and the enemy's expanding practice of attempted counterbattery. Therefore it is recommended that a D-6 dozer be included in the T/O&E of each 8-inch howitzer battery for purposes outlined above.

SOURCE: Command Report - 92d Armd FA Bn
DATE: March 1952

SOURCE: Command Report - 25th Div Arty
DATE: June 1952

(RESTRICTED)

ARTILLERY FUSE MODIFICATION. - It was determined that the fuse M67, mechanical time fuse, with time cut four seconds, is best suited for the base ejection smoke shells fired in marking missions, all of which involved a time of flight greater than 25 seconds. Since the battalion always fires fuse VT when the mission calls for air bursts, the only other use for fuse M67 is in illuminating shells. For use on both illuminating shells and smoke shells, the booster on the M67 must be removed by drilling out the screw holding it to the fuse proper. This is a time consuming job. It is suggested that a modification of the fuse be considered which would allow the fuse to be detached easily as in the fuse M54 and M55 combination.

SOURCE: Command Report - 25th Div Arty
DATE: June 1952

(RESTRICTED)

ARTILLERY FUSES. - There is a great need for a better time fuse than the one presently available. The 105-mm battalions are frequently
called upon to fire base ejection type shell, smoke and propaganda, both requiring a time fuse. Due to high angle fire and long ranges, and the resulting long times of flight, the M55 combination time and super quick fuse is unsatisfactory due to its time of burning limitations.

It is recommended that the M500 series fuses be made available for use in this theater, particularly a time fuse such as the combination 75-second mechanical time and super quick.

It is also recommended that the 75-second mechanical time fuse, M67, for use with 155-mm ammunition, be replaced with a mechanical time fuse having a super quick element.

* * *

(RESTRICTED)

HIGH ANGLE FIRE INSTRUCTION. - The procedures and techniques of high angle fire have long been "brushed over lightly" in the instruction given to officers at The Artillery School. As a result, most of the officers arriving in this theater for assignment to artillery units know very little, if anything, about the adjustment, fire direction procedure or ramifications of high angle fire. It is, therefore, necessary to devote considerable time and effort in the orientation and instruction of all newly assigned artillery officers.

SOURCE: Command Report - 75th Field Artillery Battalion

DATE: May 1952

(RESTRICTED)

FIELD UNIT TRAINING FOR SCHOOL TROOPS. - This unit experienced considerable difficulties in its initial period in the combat zone due to the inability of personnel to become acclimated to living in the field. This was a direct result of lack of unit training and training under field conditions. The unit was stationed at The Artillery Center as school troops and although its training in gunnery and service of the piece was superior because of the work it was required to perform for The Artillery School, it was never able to train as a battalion and had little opportunity to live in the field for any extended period. The battalion was, in effect, a collection of gun sections which happened to be quartered in the same general area. Fortunately, the entry into combat was made during a relatively quiet period of operations and up to this time movement has not been necessary. The battalion has in
fact completed its training on the job and has now acquired a high state of morale and esprit de corps.

In view of the experiences of this battalion it is recommended that units of school troops destined for overseas assignment be removed from the control of the school a reasonable length of time prior to their involvement in preparation for overseas movement and placed under the control of a tactical headquarters with a view to undergoing intensive unit training in the field.

SOURCE: Command Report - 424th FA Bn

DATE: May 1952

(RESTRICTED)

DEFICIENCIES IN QUADRANT MOUNT OF 8-INCH HOWITZER. - At 2000 hours 26 May 1952, Batteries B and C, 424th Field Artillery Battalion, participated in a corps artillery Time on Target mission on a reported active artillery piece located inside the no-fire line in front of the 31st Infantry. During this mission, several rounds were reported falling short, landing on a listening post position Company L, 31st Infantry, was preparing to occupy for the night. Since the position was not occupied at the time, no casualties were caused. Examination of craters and fragments the day following showed that the short rounds were fired by one of the 8-inch howitzer batteries.

A thorough investigation into the cause of these short rounds revealed that they were fired by Battery B and that the quadrant mount on the carriage of number three piece in Battery B was out of adjustment. When a certain elevation was set on this piece, using the quadrant mount, measurement of the quadrant elevation using the seats on the breech ring proved that the axis of the bore was at an angle of elevation 11.4 mils greater. Since this particular piece was used as the base piece in registration prior to firing the entire battery, it resulted in number 3 being "on target" during the transfer and the other three pieces firing between two and three hundred yards short.

On the day this maladjustment was discovered, an instrument team from our supporting Ordnance company checked and adjusted all sighting and laying equipment on the four howitzers of Battery B. This had also been done.
approximately two weeks prior to this incident. Commanding officers of the three firing batteries were directed to check the accuracy of the quadrant mounts at least twice daily. When it was discovered that, on the day following this adjustment of Battery B's quadrant mounts, these mounts were already again out of adjustment, from .5 to 1 mil, all firing batteries were instructed to discontinue use of the quadrant mount and use the quadrant seats on the breech ring exclusively.

While it is true that use of the breech ring seats will introduce a range error if cant is present, this error is small enough that it may be disregarded provided the cant does not exceed 100 mils. Test firing with a piece canted at an angle of 65 mils revealed the range error at midrange for charges 6 and 7 to be approximately 25 yards, while the depth covered effectively by impact burst of the 8-inch howitzer projectile is 20 yards.

Since it has not yet been determined what corrective measures are needed to prevent the shock of firing loosening the quadrant mount, it is felt that greater accuracy and safety will be obtained by using the breech ring quadrant seats only.

SOURCE: Command Report - 58th FA Bn
DATE: June 1952

(RESTRICTED)

ARTILLERY T/O&E CHANGES AND AMMUNITION ISSUE. - Recommendation:

a. That T/O&E 6-125, 15 May 1952, be amended to add one tractor w/dozer blade.

b. That some type control be set up by all ASP's to control the issue of ammunition by lot number.

c. That T/O&E 6-125, 15 May 1952, be amended to add one truck 2-1/2-ton, 6x6, cargo, w/winch for use as a mobile fire direction center.

Over
21
(RESTRICTED)

FIELD ARTILLERY BATTALION T/O&E. - As a result of the experience that this organization has gained during the period February through June 1952, the following changes in organization and equipment are believed justified:

Present T/O&E's do not anticipate the loss of personnel due to rotation, illness, R&R, ETS, and many other factors. As a result there are extended periods during which units must maintain twenty-four hour operations with as little as eighty per cent of their authorized strength resulting in a loss of efficiency and a shortage of trained personnel. The policy of not assigning personnel until the physical loss of personnel seriously handicaps the training of new personnel is materially affecting operational efficiency. Experience has shown that it takes at least one month of on-the-job training to enable an individual to relieve a trained specialist and he is still far from being a trained specialist himself, further a trained specialist should have at least ten days of on-the-job training before taking over in a combat zone.

Present organization of headquarters and headquarters battery under the T/O&E 6-336N w/C 1 and 2 is not adequate to accomplish efficient administration in battalion headquarters, in the operation and fire direction section, and the personnel section when the battalion is organized for combat and is required to establish a battalion rear and forward. The present organization has the Sergeant Major and headquarters clerk (4405) assigned to the operations and fire direction section and a second headquarters clerk (4405) as well as a clerk typist (4405) assigned to the personnel section. Under the present organization the headquarters clerk (4405) assigned to the operation and fire direction section must do all of the administrative work for the S-1, S-2 and S-3 which is too much of a work load for one clerk. The clerk typist assigned to the personnel section would be of far greater value if he were a personnel administrative clerk (4816) and the headquarters clerk (4405) who is also assigned to the personnel section, were a finance clerk (4624) capable of preparing military pay orders, vouchers, allotment records and other related duties. It is believed that the re-establishing of the battalion headquarters section, consisting of the Sergeant
Major (1502), headquarters clerk (4405), agent (5704) and light truck driver (5704); the conversion of the headquarters clerk (4405) of operations and fire direction section to a clerk typist (4405); converting the clerk typist (4405) of the personnel section to a personnel administrative clerk (4816) and replacing the headquarters clerk of this section with a finance clerk (4624) would materially improve the administration and records of the entire battalion. This would eliminate the need for carrying personnel in one MOS and having them perform other duties.

T/O&E 6-339N w/C 1 and 2, for service battery, field artillery battalion, 155-mm howitzer tractor-drawn, authorizes one Ordnance parts specialist (3815), in the grade of Corporal (E-4). The shortage of Ordnance parts and the small quantity of spare parts authorized for the units necessitate that the Ordnance parts specialist spend a great portion of his time in liaison with Ordnance depots and supply companies, this sometimes causes delays in issue of parts and also effects the accounting system for Ordnance parts with a resulting decline in supply economy. It is believed that a more efficient parts operation could be obtained by authorizing two Ordnance parts specialist (3815) in grades of Sergeant (E-5) and Corporal (E-4) so that one Ordnance Parts specialist is available for the issue and maintenance of spare parts records at all times. T/O&E 6-339N also authorizes a motor maintenance Sergeant (1660), Sergeant First Class (E-6) for the battalion motor maintenance section, this individual exercises direct supervision over eleven individuals and indirect supervision over nineteen other vehicle maintenance personnel, three of whom are of equal rank, it is felt that more efficient vehicle maintenance could be obtained if the battalion motor maintenance Sergeant were authorized in the grade of Master Sergeant (E-7).

Recommend that:

a. Present T/O&E's or policies be changed to permit the assigning of personnel to units in excess of T/O&E authorization prior to the physical loss of personnel to insure adequate training and continued high efficiency.

b. The following changes be made to T/O&E 6-336N:

(1) Establish a battalion headquarters section with the following personnel:

<table>
<thead>
<tr>
<th>Position</th>
<th>MOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sergeant Major</td>
<td>1502</td>
</tr>
<tr>
<td>Hq Clerk</td>
<td>4405</td>
</tr>
<tr>
<td>Agent</td>
<td>5704</td>
</tr>
<tr>
<td>Lt Trk Driver</td>
<td>5704</td>
</tr>
</tbody>
</table>

Over
(2) Delete the following personnel from the operations and fire direction section:

Sergeant Major (MOS 1502)
Agent (MOS 5704)
Lt Trk Driver (MOS 5704)

(3) Redesignate the following personnel in the personnel section:

<table>
<thead>
<tr>
<th>Present Designation</th>
<th>MOS 4405</th>
<th>MOS 4816</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerk Typist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hq Clerk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel Admin Clk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance Clerk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Total 4)

These changes would make an increase of one individual in the T/O&E, a headquarters clerk (MOS 4405), but would result in a much higher administrative efficiency.

c. The following change be made to T/O&E 6-339N:

(1) Two Ordnance parts specialist (MOS 3815) be authorized in the battalion maintenance section; one grade E-4 and one grade E-5.

(2) The battalion motor maintenance Sergeant be advanced from grade E-6 to grade E-7.

SOURCE: Command Report - 955th FA Bn
DATE: February 1952

SIGNAL EQUIPMENT FOR FA BN. - The following considerations relative to separate field artillery battalion signal equipment are believed worthy of study:

The long lines necessary for administration, and in some cases tactical, wire communications necessitate the addition of a telephone set TP-9 per headquarters and per service battery.
It is believed that a more economical and equally efficient system for supply of Quartz crystals for radios can be devised. It is recommended that radios be issued with only one crystal per usable channel, that crystals be stocked at corps level and issued for frequency changes on an exchange basis. A similar procedure is undoubtedly applicable to division artillery battalions. In this battalion this procedure would make 208 crystals necessary as compared to the 3840 crystals issued. The over-all number of crystals necessary could undoubtedly be reduced to one half or less the number presently required.

In defensive operations, such as this battalion is presently supporting, an augmentation of wire and switchboards is desirable. Currently the battalion has 120 miles of wire on the ground; the authorization is for 70 miles. Approximately double the authorized quantity of wire is necessary.

The number of lateral lines which can be put out in static situation are limited by the number of switchboard drops available. The change in the T/E from 2 twelve-drop boards plus 2 six-drop boards to 3 twelve-drop boards reduces wire switching flexibility. For defensive operations 3 twelve-drop boards plus 2 six-drop boards are required. This battalion has improved tactical switching flexibility by utilization of 1 twelve-drop board in the FDC. The bulk of the FDC communication is handled through this board.