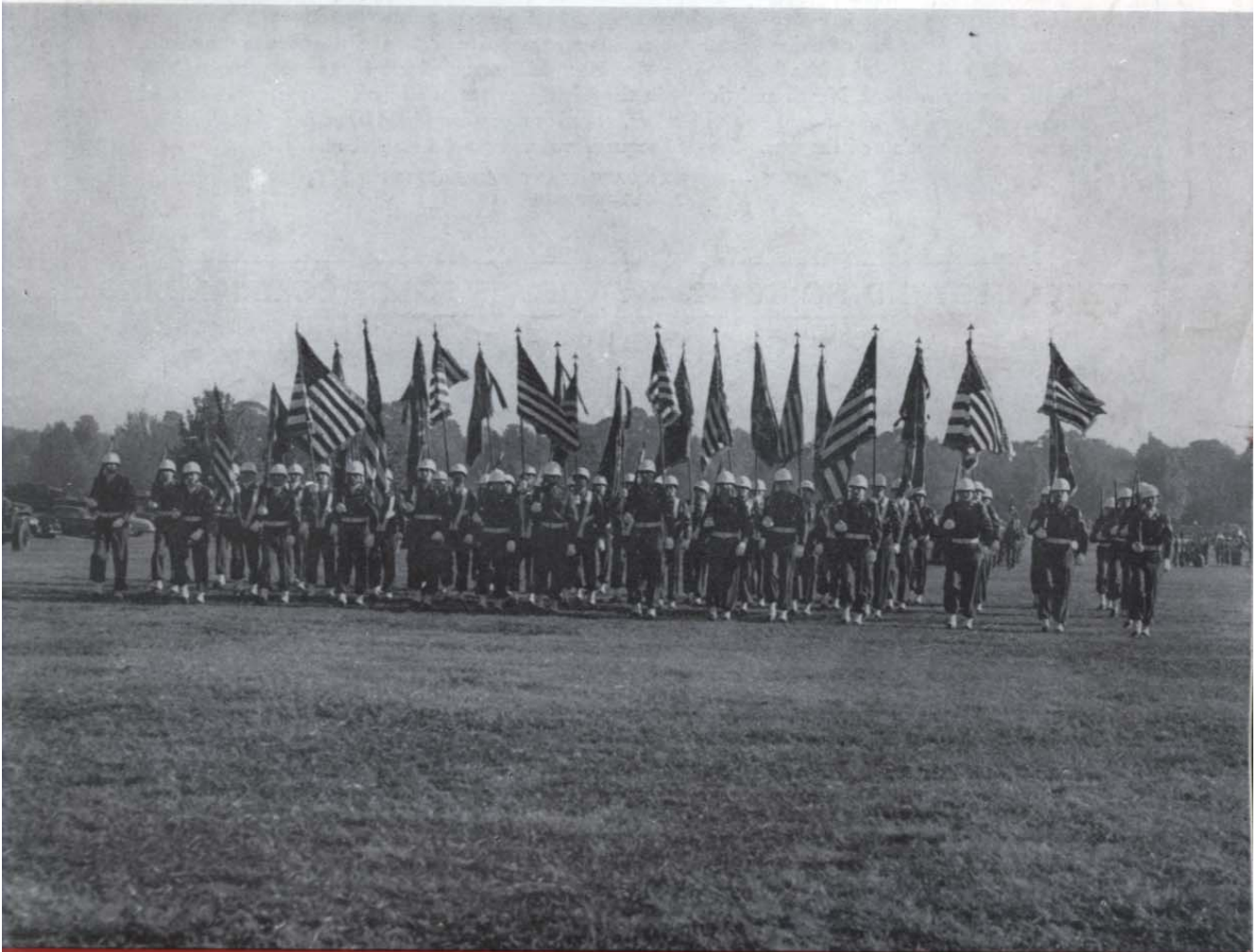


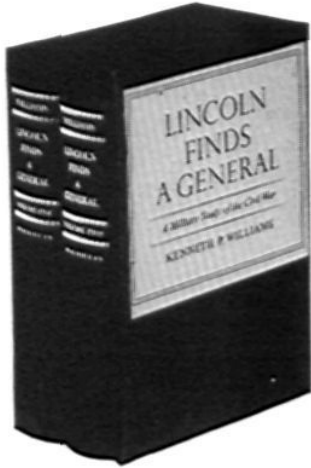
# The FIELD ARTILLERY JOURNAL



NOV.-DEC. 1949



**Be sure to read the important announcement on page 242**



# LINCOLN FINDS A GENERAL

By KENNETH P. WILLIAMS

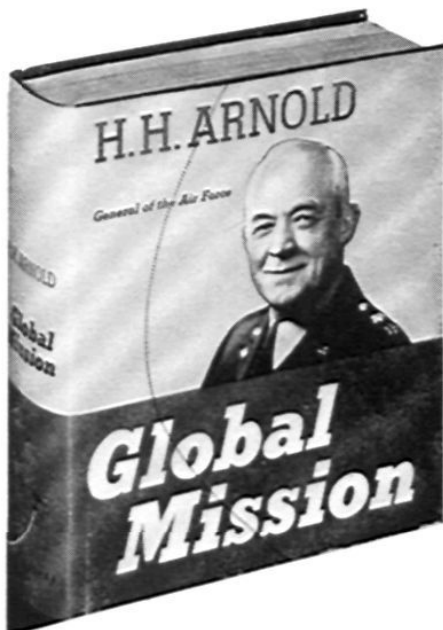
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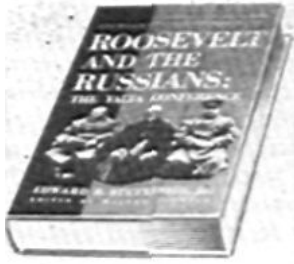


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U. S. FIELD ARTLLERY ASSOCIATION

1218 Connecticut Avenue, Washington 6, D. C.

# TO ALL MEMBERS OF THE ASSOCIATION

Recent events have crystallized the question of consolidation of the service Associations and service Journals. In the very near future it will be necessary to withdraw all governmental support, such as active duty personnel to staff the magazine. The *Field Artillery Journal* (along with the *Antiaircraft Journal* and the *Armored Cavalry Journal*) is faced with three alternatives:

1. To continue publication with full-time civilian personnel.
2. To combine with the *Infantry Journal* to produce one ground combat journal.
3. To cease publication and dissolve the Association.

This matter of a combined ground combat journal has been under consideration for over two years. When the proposal first came up, the Executive Council of the Field Artillery Association went on record in favor of the proposal in principle, and made certain recommendations as a basis for consideration. Pending the time details could be worked out with each of the Associations, the matter was held in abeyance. A new proposal has now come up for consideration. This time, however, the concessions which had earlier been requested by our Executive Council have been made and, after full consideration, the Executive Council, in a recent special meeting, unanimously agreed to go along with alternative No. 2 and merge with the other Associations to form a single combat arms association which would produce a combined monthly journal.

The decision of the Executive Council was influenced to some extent by the fact that the continuation of the magazine with a full-time civilian staff was financially impossible; but also by the desirability of effecting a strong Association directed to the good of the Ground Combat Forces. Secondly, the Executive Council felt that the individual Field Artilleryman would benefit a great deal more from a larger, monthly combined service journal, covering the latest developments in all of the combat branches, than a much

smaller, bimonthly publication, concerned with one branch only.

Alternative No. 3—that is, to cease publication and dissolve the Association—was not favorably considered. The Council feels that the need for a non-official professional journal is greater today than it has ever been. Moreover, in the opinion of the Council, close integration of the Army team and the greater need for all soldiers to be familiar with the roles, weapons, and developments in other branches points clearly to a combined ground combat publication.

The plan for the proposed merger of the combat Journals was worked out by the Secretary-Editors of the four Associations in a committee headed by Brig. Gen. Harry H. Semmes, ORC, a Washington, D. C., attorney who had no connection with any of the various Journals. In brief, the proposal calls for a combined Association publishing a monthly 80-page Journal with a full-time civilian staff. The various Associations would contribute their assets and membership to the combined Association. Each of the other branches would be represented on the staff of the combined magazine by a branch editor. Likewise each of the branches, as well as the Civilian Components, would be adequately represented on the Executive Council. On the cover of the new combined Journal would appear the names of the Journals to which it is the successor. Present subscribers to the *Field Artillery Journal* would continue to receive the combined journal, without increase in cost, until the expiration of their present subscriptions.

Your Council was reluctant for sentimental reasons to see the passing of the *Field Artillery Journal* as a separate publication. However, facing the facts realistically, not only is there little choice in the matter from the standpoint of finances, but it was the unanimous opinion of the Council that the Objects of the Association (see the masthead) could best be served by joining forces to produce a combined publication. The Council felt that a combined journal would contribute a great deal more to the education and information of Field Artillerymen than is possible in a single journal.

The Constitution of our Association empowers the Council to "carry out any measures whatsoever, which, in their judgment, seem expedient to further the interests of the Association and to attain its ends and aims." In view of the foregoing comments, and since the proposed merger has the blessing of the Department of the Army, your Council deemed it advisable to go on record favoring the proposal and to take the necessary steps to implement it. However, before completing final action in the matter, the Council desires to get an expression of the views of the Association members in the field regarding the proposed merger. Consequently, the ballot appearing on this page has been prepared. You, as a member of the Association, are asked to clip the ballot, indicate your views, sign your name, and return it to the Association office.

## BALLOT

Please indicate your views on this ballot and forward to:

The Secretary  
The U. S. Field Artillery Association  
1218 Connecticut Ave., N.W.  
Washington 6, D. C.

..... I favor the proposed merger.

..... I oppose the proposed merger.

As an alternative I suggest:

.....  
.....  
.....

.....  
(Name and rank)

.....  
(Address)  
.....

THE EXECUTIVE COUNCIL  
By B. A. DAY  
Col., FA  
Secretary-Editor and Treasurer



PUBLISHED BIMONTHLY BY THE UNITED STATES FIELD ARTILLERY ASSOCIATION WHICH WAS FOUNDED IN 1910 WITH THE FOLLOWING OBJECTS—AS WORTHY NOW AS THEN

The objects of the Association shall be the promotion of the efficiency of the Field Artillery by maintaining its best traditions; the publishing of a Journal for disseminating professional knowledge and furnishing information as to the field artillery's progress, development and best use in campaign; to cultivate, with the other arms, a common understanding of the powers and limitations of each; to foster a feeling of interdependence among the different arms and of hearty cooperation by all; and to promote understanding between the regular and militia forces by a closer bond; all of which objects are worthy and contribute to the good of our country.



The UNITED STATES FIELD ARTILLERY ASSOCIATION

Organized June 7, 1910

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President of the United States

LIEUTENANT GENERAL RAYMOND S.

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The Field Artillery Journal is not a medium for the dissemination of Department of the Army doctrine or administrative directives. Contributors alone are responsible for opinions expressed and conclusions reached in published articles. Consistent with the objects of our Association, however, The Field Artillery Journal seeks to provide a meeting ground for the free expression of artillery ideas in the changing present.

COLONEL BRECKINRIDGE A. DAY

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"Contributes to the Good of Our Country"

VOL. 39

NOVEMBER-DECEMBER, 1949

No. 6

- Cover: The massed colors and standards of the 3rd Infantry Division pass in review at Ft. Benning, Georgia.

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# YOUR NEW FIELD ARTILLERY ORGANIZATION

By Lt. Col. William A. Hadfield, FA

WHAT changes in field artillery organization have occurred since World War II? Let's take a look, first, at the 105mm howitzer battalion organic to the infantry division. Post-war reorganization has added thirteen officers, five warrant officers, one hundred and fifty-nine enlisted men, and six howitzers to the former strength of this battalion. These changes are a consolidation of T/O&E 6-25N, 21 April 1948; SR 650-206-1, 29 April 1949; and DA Circular #79, 1 June 1949. All three of these publications must be studied in order to determine detailed organization of a field artillery unit at the present time.

In what units have these changes been made?

## BATTALION STAFF

(See Chart No. 1)

### ADDED TO STAFF

1. *Adjutant and S-1* (Captain). Authenticates and distributes all orders of a nonoperational nature;

Since the cuts were made of the charts that illustrate this article, there have been a few minor changes in the three battery organizations. To avoid the expense of having new cuts made, these changes are given in type under the respective charts.—Ed.

handles correspondence, files, and records; supervises personnel and morale activities.

2. *Battalion Motor Officer* (Captain). Technical adviser to battalion commander in all matters pertaining to motor operation, maintenance, and training. Transferred from service battery and promoted from Lieutenant to Captain.
3. *Communication Officer* (Captain). Adviser to the commander on all matters pertaining to communication. Supervises installation, operation, and maintenance of battalion wire and radio communication. Now a separate staff officer and relieves the headquarters battery commander of communication responsibility. Does not command headquarters battery.
4. *Countermortar Liaison Officer* (Captain). Represents direct-support field artillery battalion commander at CP of supported infantry regiment. Effects exchange of countermortar information, and plans supporting artillery fires.
5. *Radar Officer* (Lieutenant). Adviser and technician on all matters pertaining to installation and operation of radar and training of radar personnel. Locates enemy

mortars.

6. *Air Officers* (2 Lieutenants). Pilot liaison airplanes; supervise ground crew in maintenance of planes and allied equipment. Transferred from headquarters battery to battalion staff.
7. *Personnel Adjutant* (Warrant Officer). Assistant to S-1. Transferred from headquarters battery to battalion staff.

### CHANGES TO EXISTING STAFF

1. *Reconnaissance and Survey Officer* (Lieutenant). No longer known as Asst S-2. Now a separate staff officer, and primary duty is survey.

## HEADQUARTERS BATTERY

(See Chart No. 2)

### BATTERY OFFICERS

1. *Battery Commander* (Captain). Commands battery. Is *not* the battalion communication officer.
2. *Battalion Assistant Communication Officer* (Lieutenant). Assists the battalion communication officer in installing and maintaining communication for the battalion.
3. *Battery Motor Officer* (Lieutenant). Supervises operation of battery maintenance section to include motors, mess, and supply.
4. *Unit Administrator* (Warrant Officer). Supervises all battery paper work. (Added to battery by DA Circular #78, 1 June 1949.)

### ENLISTED PERSONNEL

1. Increased from 111 to 147. Principal increase is in the Radar Section and the Communication Platoon.
2. Ranks increased in furtherance of career guidance of enlisted personnel. For example, the battery now has six Master Sergeants. They are: First Sergeant; Sergeant Major; Operation Sergeant; Intelligence Sergeant; Communication Chief; and Radar Sergeant. (See SR 650-206-1, 29 April 1949.)

### EQUIPMENT

1. *Radios*. SCR-608. Increased from two, as allotted by 1944 T/O&E, to eleven as allotted by new T/O&E. This and similar changes designed

## FA BN STAFF

## 105 HOW INF DIV

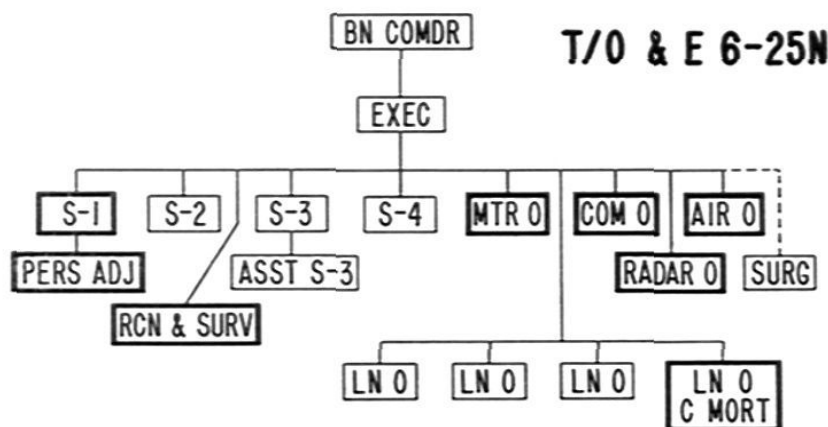


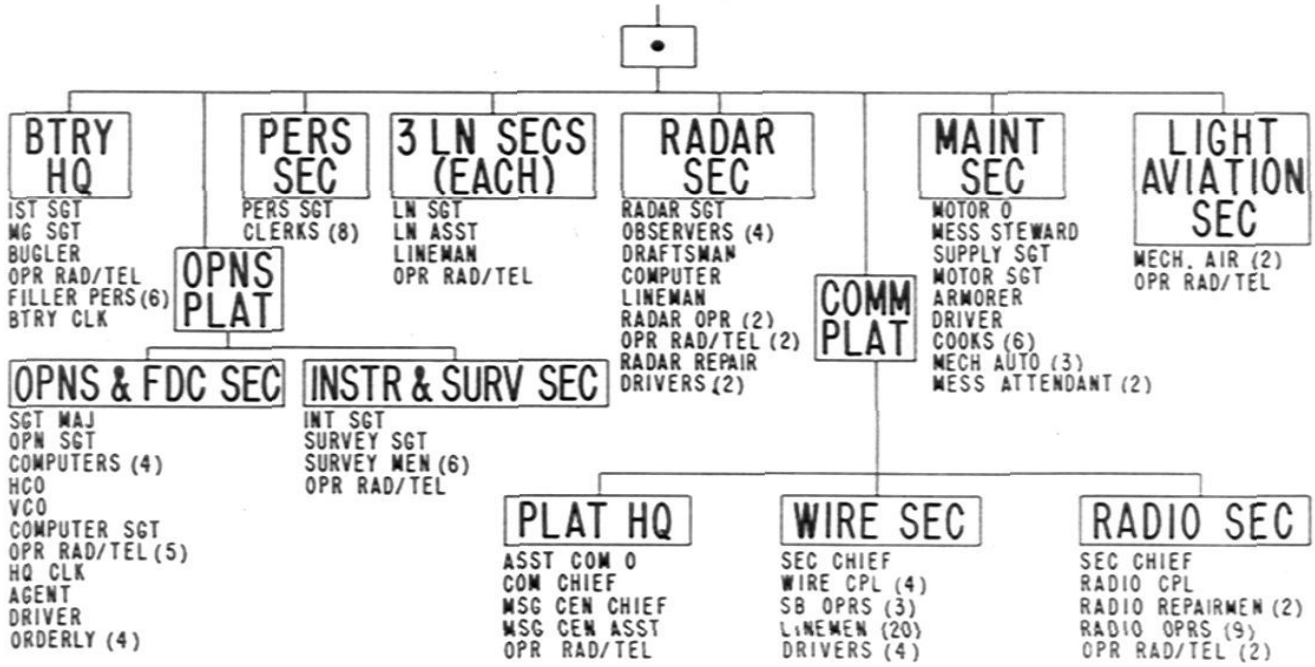
Chart No. 1—Changes shown in heavy blocks

# HEADQUARTERS BATTERY

## 105 MM HOW BN

### T/O & E 6-26N

#### BTRY COMDR (CAPT)



Add to BTRY HQ—"WO. Unit Administrator."

Chart No. 2

- to provide better radio communication within unit.
2. *Vehicles.*
    - 21 ¼-ton, 4 × 4 Trucks ("Jeeps").
    - 5 ¾-ton, 4 × 4 Command Weapons Carriers.
    - 6 ¾-ton, 4 × 4 Weapons Carriers.
    - 7 2½-ton, 6 × 6 Cargo Trucks.
- 39 Total (increase of 14 over 1944 T/O&E).

**SERVICE BATTERY**

(See Chart No. 3)

BATTERY OFFICERS

1. *Battery Commander* (Captain). Commands battery. Also battalion supply officer (S-4).
2. *Ammunition Train Commander* (Lieutenant). Commands ammunition train consisting of three sections. Each section composed of four 6 × 6 2½-ton trucks and four M-10 ammunition trailers.

3. *Battery Motor Officer* (Lieutenant). Supervises operation of battery maintenance section to include motors, mess, and supply.
4. *Assistant Supply Officer* (Warrant Officer). Supervises paper work pertaining to supply functions of S-4.
5. *Unit Administrator* (Warrant Officer). Supervises all battery paper work except battalion supply. (Added to battery by DA Circular #79, 1 June 1949.)

ENLISTED PERSONNEL

1. Increased from 69 to 81.
  2. General increase in rank in furtherance of career guidance.
- | Examples: | Title             | Grade |
|-----------|-------------------|-------|
|           | First Sgt         | I     |
|           | Bn Motor Sgt      | I     |
|           | Btry Mess Steward | II    |
|           | Bn Supply Sgt     | II    |
|           | Ammunition Sgt    | III   |
|           | Machine Gun Sgt   | III   |
|           | Btry Motor Sgt    | III   |

- |                  |     |
|------------------|-----|
| Btry Supply Sgt  | III |
| Btry Supply Asst | III |

EQUIPMENT

1. *Radios.* Two SCR-608's issued to battery in place of smaller SCR-610's in order to improve radio communication.
  2. *Vehicles.*
    - 2 ¼-ton, 4 × 4 Trucks ("Jeeps").
    - 1 ¾-ton, 4 × 4 Command Weapons Carrier.
    - 2 ¾-ton, 4 × 4 Weapons Carrier.
    - 19 2½-ton 6 × 6 Cargo Trucks.
    - 1 4-ton, 6 × 6 Wrecker.
- 25 Total (increase of 7 over 1945 T/O&E).

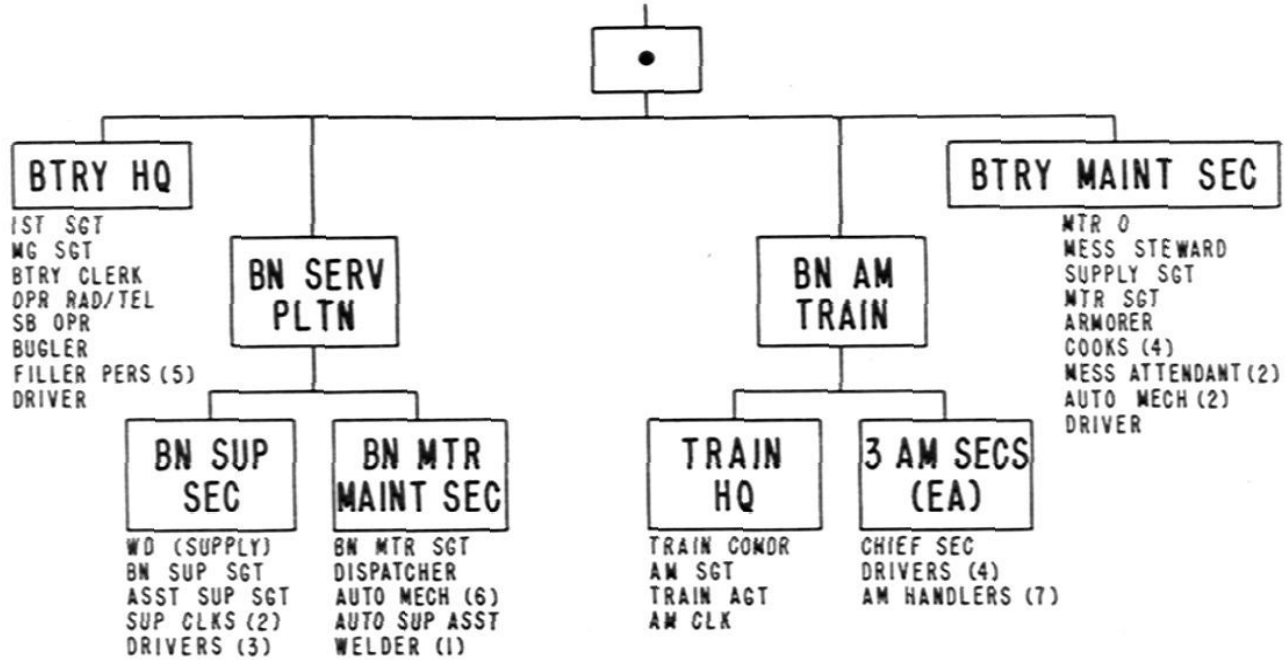
**HOWITZER BATTERY**

(See Chart No. 4)

BATTERY OFFICERS

Increased from five to eight commissioned officers and from zero to one

**SERVICE BATTERY  
105MM HOW BN  
T/O & E 6-29N  
BTRY COMDR (BN S-4) CAPT**



Add to BTRY HQ—"WO, Unit Administrator."

Chart No. 3

Warrant Officer. (WO added to battery by DA Circular #79, 1 June 1949.)

1. *Battery Commander* (Captain). Commands battery.
2. *Battery Executive Officer* (Lieutenant). Commands firing battery (howitzer sections and ammunition section) portion of the howitzer battery.
3. *Assistant Battery Executive Officers* (2 Lieutenants).
  - a. One of these Asst Ex O's is also the battery motor officer and supervises the operation of the battery maintenance section to include motors, mess, and supply.
  - b. The second Asst Ex O has been added to the T/O&E since the war to assist the Btry Ex O in handling a 6-gun battery. His secondary job is battery ammunition officer.
4. *Battery Reconnaissance Officer* (Lieutenant). Commands Battery Detail. Responsible for battery

reconnaissance, survey, observation, and communication.

5. *Forward Observers* (3 Lieutenants). Two of these forward observers have been added to the T/O&E since the war. The battalion now has nine forward observers — three in each howitzer battery. This increase was necessary as the supported infantry regiment has nine rifle companies. During combat each of these rifle companies requires one forward observer to be constantly with its committed elements in order to adjust close-in supporting field artillery fires.
6. *Unit Administrator* (Warrant Officer). Supervises all battery paper work. (Added to battery by DA Circular #79, 1 June 1949.)

ENLISTED PERSONNEL

1. Increased from 94 to 131. Principal increase is in the howitzer sections.

2. General increase in rank in furtherance of career guidance. Battery now has four master sergeants instead of one. Example:

Title	New Grade	Former Grade
1st Sgt (1)	I	I
Chiefs of Firing Btry (2)	*I	None
Chief of Detail (1)	*I	III
Chief of Section (7) (How & Am Sections)	*II	IV
Gunners (6)	*III	V
Assistant Gunners (6)	*IV	VI

\*See SR 650-206-1, 29 April 49

EQUIPMENT

1. *Radios*.
  - a. SCR-608. None in battery under old T/O&E. New T/O&E authorizes three to provide longer range and more flexible communication.
  - b. SCR-619. Battery retains the five combination vehicular and pack radios formerly authorized.



2. *Vehicles.*

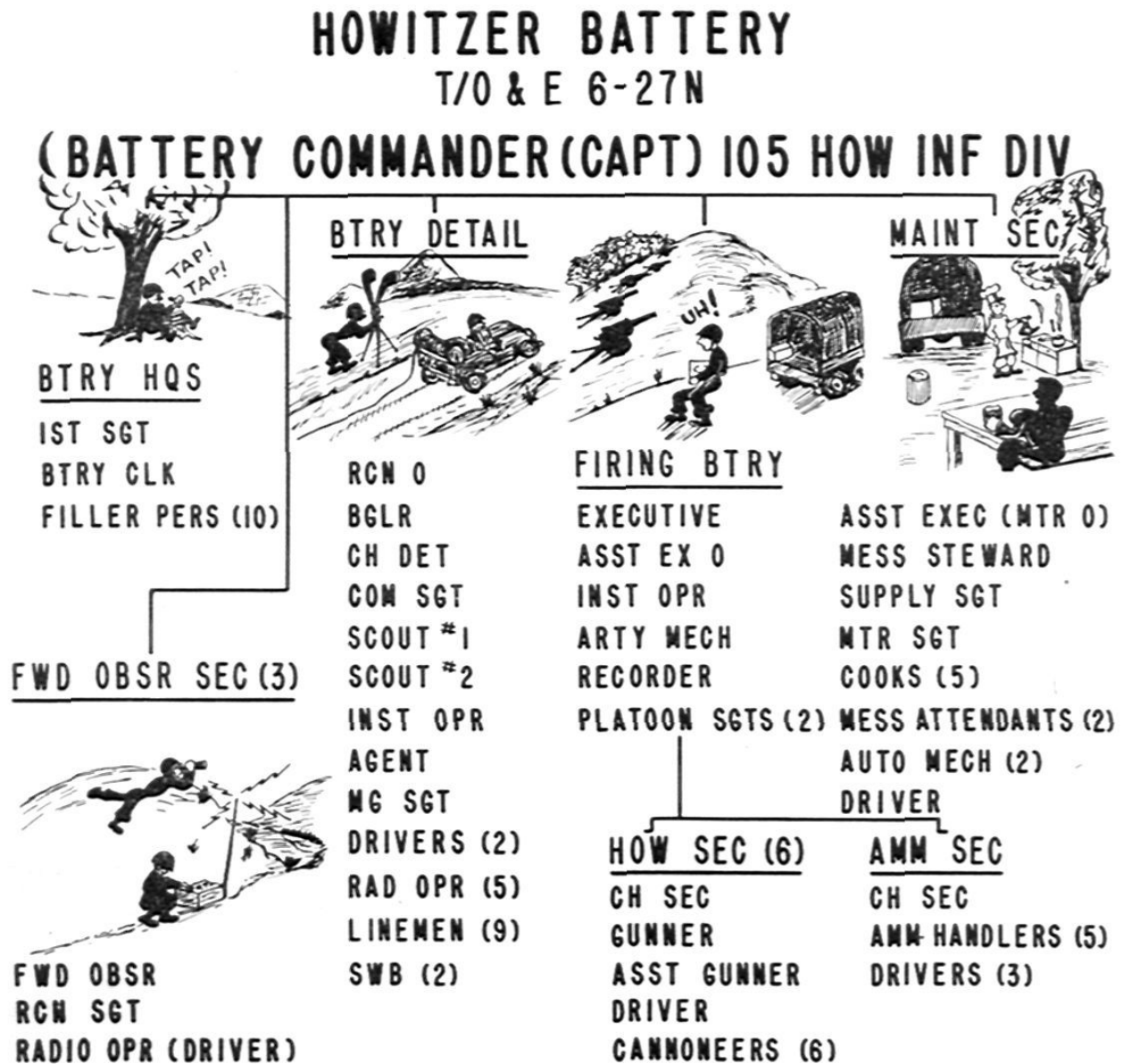
- 7 ¼-ton, 4 × 4 Trucks ("Jeeps").
- 1 ¾-ton, 4 × 4 Command Weapons Carrier.
- 4 ¾-ton, 4 × 4 Weapons Carriers.
- 12 2½-ton, 6 × 6 Cargo Trucks.
- 24 Total (increase of 9 over 1944 T/O&E).

3. *Howitzers.* Firepower increased by fifty percent. Each battery now has six 105mm howitzers, M2A1, on carriage, M2A2. Battalion total 18 as compared to former total of 12. Besides

**BATTALION TOTALS**

	Old T/O&E 6-25 27 Sep 44 Item	New T/O&E 6-25N 21 Apr 48	Increase
Officers .....	33	46	13
Warrant Officers .....	2	7	5*
Enlisted Men .....	462**	621**	159
Howitzers (105mm, M2A1) .....	12	18	6
SCR-608 Radios .....	2	22	20
Vehicles (¼-ton to 4-ton) .....	88	136	48

\*See DA Circular #79, 1 June 1949.  
\*\*Attached medics *not* included.



Add to BTRY HQ—"WO, Unit Administrator." Under FIRING BTRY—change "Platoon Sgts" to read "Chiefs of Firing Btry."

giving the supported infantry greater fire support, this increase insures more suitable fire support during displacement by echelon.

This new field artillery battalion, organic to the infantry division, if placed on the road with 100 yards between vehicles, will extend for eight miles from lead vehicle to tail vehicle.

Without overloading, this battalion can carry 4020 rounds of 105mm ammunition in its organic vehicles — 100 rounds in each ammunition truck, 40 rounds in each M-10 ammunition trailer, and 60 rounds in each prime mover.

It is not anticipated that this new organization will change the principles of tactical employment of the unit. It is anticipated that many of these changes will simplify the application of existing principles governing field artillery tactical employment.

### CHANGES IN OTHER FIELD ARTILLERY BATTALIONS

Have there been comparable changes in the organization of other field artillery battalions? Reference to the accompanying table will answer this question in the affirmative.

The table lists *light* field artillery battalions on lines 1 to 5, *medium* field artillery battalions on lines 7 to 11, and *heavy* field artillery battalions on lines 13 to 17.

#### FORWARD OBSERVERS

(Column 11)

1. All light battalions organic to divisions (Armored, Infantry, and Airborne) have 9 forward observers.
2. Separate light battalions (not organic to a division) have 3 forward observers.
3. Medium battalions (both those organic to divisions and those that are classified as separate battalions) have 2 forward observers on the battalion staff and none in the howitzer batteries.
4. Heavy battalions have no forward observers.

#### RADAR OFFICER

(Column 12)

1. All light battalions organic to divisions have a radar officer.
2. Separate light battalions have no radar officer.

3. Medium battalions have no radar officer.

4. Heavy battalions have no radar officer.

#### LIAISON OFFICERS

(Column 13)

1. All light battalions organic to divisions have 4 liaison officers. This includes the countermortar liaison officer.
2. All other field artillery battalions (separate lights, all mediums, and all heavies) have only 1 liaison officer.

#### AMMUNITION TRAIN COMMANDER

(Column 14)

1. All field artillery battalions have an ammunition train commander except the *towed* heavy units shown on lines 13, 14, and 15.

#### SERVICE BATTERY MOTOR OFFICER

(Column 15)

1. All light and medium battalions have a service battery motor officer.
2. The heavy battalions do not have a service battery motor officer.

#### S-1, ADJUTANT

(Column 16)

1. All light and medium battalions have an adjutant.
2. The heavy battalions have no adjutant.

#### CANNON

(Column 17)

1. All light and medium battalions have 18 cannon *except* the light and medium battalions organic to the airborne division.
2. The light and medium battalions organic to the airborne division have only 12 cannon. Reference to lines 3 and 11, column 2, will indicate that these battalions are the only ones operating under a *Proposed* (experimental) T/O&E. It is possible that future *approved* T/O&E's may authorize 18 cannon for the light battalions organic to the airborne division.
3. All heavy battalions have 12 cannon *except* the 240mm howitzer or 8" gun battalions listed on line 15. These latter two battalions have only six cannon.

#### PERSONNEL WARRANT OFFICER

(Column 18)

1. All light and medium battalions have a personnel warrant officer, carried as a member of the battalion staff.
2. The heavy battalions also have a personnel warrant officer, but he is carried as a member of headquarters battery.

#### FIRING BATTERY ASSISTANT EXECUTIVE OFFICERS (Column 19)

1. All light and medium battalions have two firing battery assistant executive officers per howitzer battery *except* the light and medium battalions organic to the airborne division.. These battalions have only four howitzers per battery and do not require two assistant firing battery executive officers.
2. The heavy battalions have only one assistant executive officer per howitzer battery.

#### BATTALION COMMUNICATION OFFICER

(Column 20)

1. All light and medium battalions have a battalion communication officer on the battalion staff. This officer does *not* command headquarters battery.
2. The heavy battalions utilize the headquarters battery commander as the battalion communication officer.

#### BATTALION MOTOR OFFICER

(Column 21)

1. The light and medium battalions have a battalion motor officer on the battalion staff.
2. The heavy battalions have a battalion motor officer in service battery.

#### BATTALION ASSISTANT MOTOR OFFICER

(Column 22)

1. All light and medium *self-propelled* battalions have a warrant officer as battalion assistant motor officer in service battery.
2. Light and medium battalions of the airborne division have a warrant officer as battery motor officer in headquarters and service batteries.

#### HQ BTRY MOTOR OFFICER

(Column 23)

1. Light and medium battalions of the airborne division have their headquarters battery Motor Officer replaced by the warrant officer referred to in Column 22.

YOUR NEW FIELD ARTILLERY ORGANIZATION

Line No.	Type Bn (War Org)	Number T/O&E	Bn Hq (Start)	Hq Btry (P)	Serv Btry (O)	Gun or How Btry (A)	Med Det	Total	VARIATION IN FIELD ARTILLERY BATTALION KEY PERSONNEL AND EQUIPMENT													
									(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	
1	105 How Bn - 1st Div	6-25N 21 Apr 48	O WO EM 16/1/0	O WO EM 3/1/147	O WO EM 3/2/81	O WO EM 8/1/131	O WO EM 1/0/11*	46/7/621	9(d)	1(a)	4(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	0	1(b)
2	105 How Bn - Armd Div	6-165N 5 Aug 48	16/1/0	3/1/140	3/3/100	8/1/127	1/0/11*	46/8/630	9(d)	1(a)	4(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	1(b)	1(b)
3	105 How Bn - Abn Div	Proposed	16/1/0	2/2/141	3/3/78	7/1/96	1/0/11*	42/9/507	9(d)	1(a)	4(a)	1(c)	1(c)	1(c)	1(a)	12(d)	1(a)	3(d)	1(a)	1(a)	1(c)	0
4	105 How Bn - Sep	6-25N 21 Apr 48	12/1/0	3/1/119	3/2/81	6/1/127	2/0/12	38/7/593	3(d)	0	1(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	0	1(b)
5	105 How Bn - 8P Sep	6-165N 5 Aug 48	12/1/0	3/1/117	3/3/100	6/1/123	2/0/11	38/8/597	3(d)	0	1(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	1(c)	1(b)
6																						
7	155 How Bn - 1st Div	6-335N 12 May 48	14/1/0	3/1/124	3/2/83	4/1/130	1/0/11*	35/7/624	2(a)	0	1(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	0	1(b)
8	155 How Bn - Sep	6-335N 12 May 48	14/1/0	3/1/124	3/2/83	4/1/130	2/0/12	37/7/636	2(a)	0	1(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	0	1(b)
9	155 How Bn - 8P Sep	6-165N 11 Aug 48	14/1/0	3/1/120	3/3/100	4/1/141	2/0/11*	37/8/660	2(a)	0	1(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	1(c)	1(b)
10	155 How Bn - Armd Div	6-165N 11 Aug 48	14/1/0	3/1/120	3/3/100	4/1/141	1/0/11*	35/8/649	2(a)	0	1(a)	1(c)	1(c)	1(c)	1(a)	18(d)	1(a)	6(d)	1(a)	1(a)	1(c)	1(b)
11	155 How Bn - Abn Div	Proposed	14/1/0	2/2/118	3/3/78	4/1/134	1/0/11*	31/9/400	2(a)	0	1(a)	1(c)	1(c)	1(c)	1(a)	7(d)	1(a)	3(d)	1(a)	1(a)	1(c)	0
12																						
13	8 <sup>th</sup> How Bn - Towed	6-365 31 Jan 46	9/0/0	3/2/112	2/2/31	4/1/135	1/0/11*	26/7/548	0	0	1(a)	0	0	0	0	12(d)	1(b)	3(d)	0	1(c)	0	1(b)
14	155 How Bn - Towed	6-355 31 Jan 46	9/0/0	3/2/112	2/2/31	4/1/126	1/0/11*	24/7/521	0	0	1(a)	0	0	0	0	12(d)	1(b)	3(d)	0	1(c)	0	1(b)
15	240 How or 8 <sup>th</sup> Gun Bn	6-395 31 Jan 46	9/0/0	3/2/112	2/2/31	4/1/108	1/0/11*	24/7/467	0	0	1(a)	0	0	0	0	6(d)	1(b)	3(d)	0	1(c)	0	1(b)
16	8 <sup>th</sup> How Bn - 8P	6-165 19 Sep 45	9/0/0	3/2/112	3/2/36	4/1/125	1/0/11*	27/7/523	0	0	1(a)	1(c)	1(c)	0	0	12(d)	1(b)	3(d)	0	1(c)	0	1(b)
17	155 How Bn - 8P	6-165 1 Sep 45	9/0/0	3/2/112	3/2/36	4/1/116	1/0/11*	27/7/496	0	0	1(a)	1(c)	1(c)	0	0	12(d)	1(b)	3(d)	0	1(c)	0	1(b)
18																						
19																						

NOTES-  
 (a) All T/O&E's as amended by DA Circular #79, 1 June '49.  
 (b) Officer total for all units included in this column always includes the Bn CO, Bn Ex O, S-2, S-3, Asst S-3, Bn Ren & Surv O, and 2 Ln Plots.  
 (c) For other officers and WO included in total refer to columns (11) to (23).  
 (d) Officer & WO total for all units listed in this column always include the Bn, Asst Com O, and WO (Unit Administrator). For other officers and WO included in total refer to columns (11) to (23).  
 (e) Officer & WO total for all units listed in this column always include the BG (Supply O), WO (Supply), and WO (Unit Administrator).  
 (f) For other officers and WO included in total refer to columns (11) to (23).  
 (g) Officer & WO total for all units listed in this column always include the BG, Btry Ex O, RO, and WO (Unit Administrator). For other officers and WO included in total refer to columns (11) to (23).  
 (h) Staff personnel.  
 (i) Hq Btry personnel.  
 (j) Serv Btry personnel.  
 (k) Plots, Btry, and equipment.  
 (l) Plots, Btry, personnel and equipment.  
 (m) Attached Medical Detachment (Not included in battalion totals).

# Operation Countermortar

By Major Paul E. Pigue, CAC

THE infantry mortar is a crude weapon when compared with the more specialized weapons of artillery. The mortar looks like a length of stove pipe sitting on a roaster lid supported by a couple of broomsticks, but, when one round is fired, the similarity disappears and a most efficient killer of the past war emerges. In at least one after-combat report the mortar, in a single operation, was credited with causing seventy percent of all casualties. Seventy percent, seven men out of ten killed or wounded, were killed or wounded by mortars—stovepipes on roaster lids held up by broomhandles. These figures may be the extreme, but in all theaters the efficient use of great quantities of mortars by all belligerents, and the failure of existing countermortar procedures, made necessary a reappraisal of the defense problem.

A study of the problem brought certain more or less evident facts to light. Most pertinent of these facts are:

a. Mortars, owing to their high trajectory, may be fired from positions of deep defilade affording maximum cover and concealment. Furthermore, their ease of handling and high mobility permits emplacement in the most advantageous firing locations and rapid change of firing positions.

b. An effective countermortar organization must provide means for the assembly, study, and dissemination of enemy mortar information, and for the prompt attack of hostile mortars with appropriate weapons.

c. An effective countermortar organization must be decentralized to the maximum practicable extent to take advantage of the rapid communication channels between the locating and counter-fire agencies.

Since mortars are relatively short-ranged, the division is the highest

headquarters directly concerned with their location and elimination. The countermortar organization took on the aspect of division counterbattery work, and today is a counterpart of corps counterbattery organization.

The coordination of all countermortar activities of the division was made a responsibility of the division artillery commander. He uses his staff to coordinate and supervise these activities. As indicated on Figure 1, the division artillery S-3 is the division countermortar officer (DCMO). The division artillery S-2 is the division countermortar intelligence officer. An assistant S-2, countermortar, is assigned to assist the S-2 in the coordination of all countermortar intelligence agencies within the division. He is also the division radar officer and is responsible for the coordination of the battalion countermortar radar sections. This assistant S-2 keeps the charts and records which enable the division artillery to function as the office of record for all hostile mortar information originating within the division.

As indicated in Figure 1, infantry regimental and battalion organization closely parallel that of the division artillery. Not shown on the diagram, but still an important element in the infantry picture, is the counterfire center. The counterfire center is operated by the counterfire platoon of the regiment, and functions as the central clearing house for all counterfire operations within the regiment. The counterfire officer is something of a combination S-3 and S-2, for he functions both in the location of targets and the conduct of counter operations. The artillery liaison officers work closely with the infantry in coordination of observation and exchange of reports concerning mortars. This function becomes very

important in the light that the information obtained thereby may expedite a fire mission and hasten the nemesis of a mortar.

The S-2 of the field artillery battalion is charged with locating targets. For location of mortars he has a radar-equipped observation station in addition to all other agencies normally available to him. His intelligence section functions in a normal manner, except that all information obtained concerning mortars is immediately passed on to the infantry and to division artillery. The radar set is operated by a countermortar radar section, which now is organic to all divisional light artillery battalions.

Radar is but one way to locate mortars. There are many others which are more or less familiar to all, such as visual observation, sound-flash, crater analysis, photo interpretation, and shelling or mortar reports—commonly called shellreps or mortreps. All of these are made to function together through the means of passing all reports along to a central office where the various bits of information are assembled and collated. The central office, at division artillery headquarters, then is able to quickly tie reports from several sources or areas into an overall division area and call for fire missions by the most appropriate division weapon, from artillery to infantry weapon. The office of record also keeps the entire division informed as to the enemy mortar situation by publishing marked photographs or maps, hostile mortar lists, and summaries and reports of enemy mortar action, including results of investigation of overrun positions. The functioning of the countermortar organization is directly dependent upon the receipt of reports from all possible agencies. The

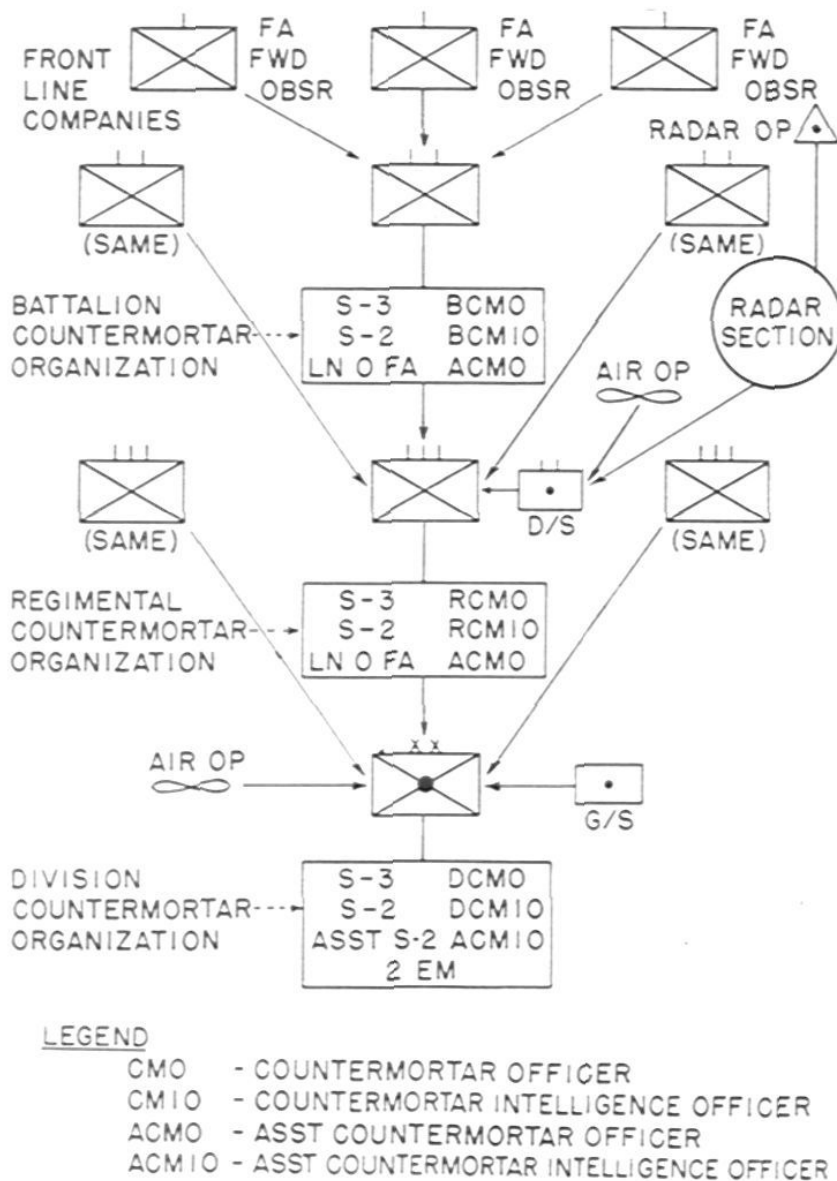


Figure 1.—Counter-mortar organizations

most difficult problem becomes the location of the position, or even the area, from which these weapons are firing. The organization exists to take action, but first there must be something located to take action against. The charts, overlays, and records are only as good as the information which goes into making them up. In addition to all the usual sources of information, there are the two specialized tools within the division which are especially designed for the location of mortars: First, the counter-mortar radar, which is organic to all light battalions in division artillery; and second, the sound locator, which is

organic to the counterfire platoon of each infantry regiment.

The counter-mortar radar set in use today is an interim set and should not be taken as the answer to the mortar-location problem. However, the proposed set should perform the assigned mission with a high degree of accuracy. The present set is the AN/TPQ-3 (see Figure 2) and employs the two-point trajectory-intercept method of location of mortars. In this method the projectile is ranged on twice, once on the up leg of its trajectory, and once on the down leg. By use of certain assumptions as to caliber of shell and

angle of elevation of the mortar, and by timing the interval between the two intercept points, the mortar position is determined. This method, while plagued with assumptions, gives an expected accuracy of one hundred yards. One of the advantages of radar ranging is that a pip will not appear unless there is a target, while in sound and flash ranging it is possible for the sounds and flashes to be simulated by the enemy, and false locations made. The proposed radar for light battalions in division artillery eliminates assumption and should greatly improve the accuracy of locations determined by radar, and thereby increase the efficiency of the division counter-mortar effort.

The interim radar authorized for issue to the observation battalion as a counterbattery radar will also locate mortars with a high degree of accuracy. This set is the SCR-784, and employs automatic tracking of the projectile, with location data recorded on an automatic plotter. The equipment is much heavier than the AN/TPQ-3 radar, weighing 13,000 pounds, and has about the same mobility as a 155 mm. howitzer.

The sound device organic to regimental counterfire sections is the GR-6. This device operates in the audible range of sound. It consists of two stations each of which has three microphones arranged in an array of definite and fixed pattern. By mechanical measurements of the time interval between receipt of sound at the microphones an azimuth from each array is obtained. The intersection of two azimuth rays locates the source of the sound (Figure 3). The counterfire section has three such sound-locating devices and is able to cover a regimental front efficiently out to a range of approximately two thousand yards. Since the GR-6 operates in the audible range, the source of any sound which can be heard may be ranged upon, and the *maximum* range depends directly upon the intensity of the sound. The close coordination of the GR-6 and the AN/TPQ-3 installations makes for the most efficient coverage of the division front by these auxiliary means of locating targets.

The most prolific source of mortar information is the mortrep. This report is all-inclusive in that it can be used by

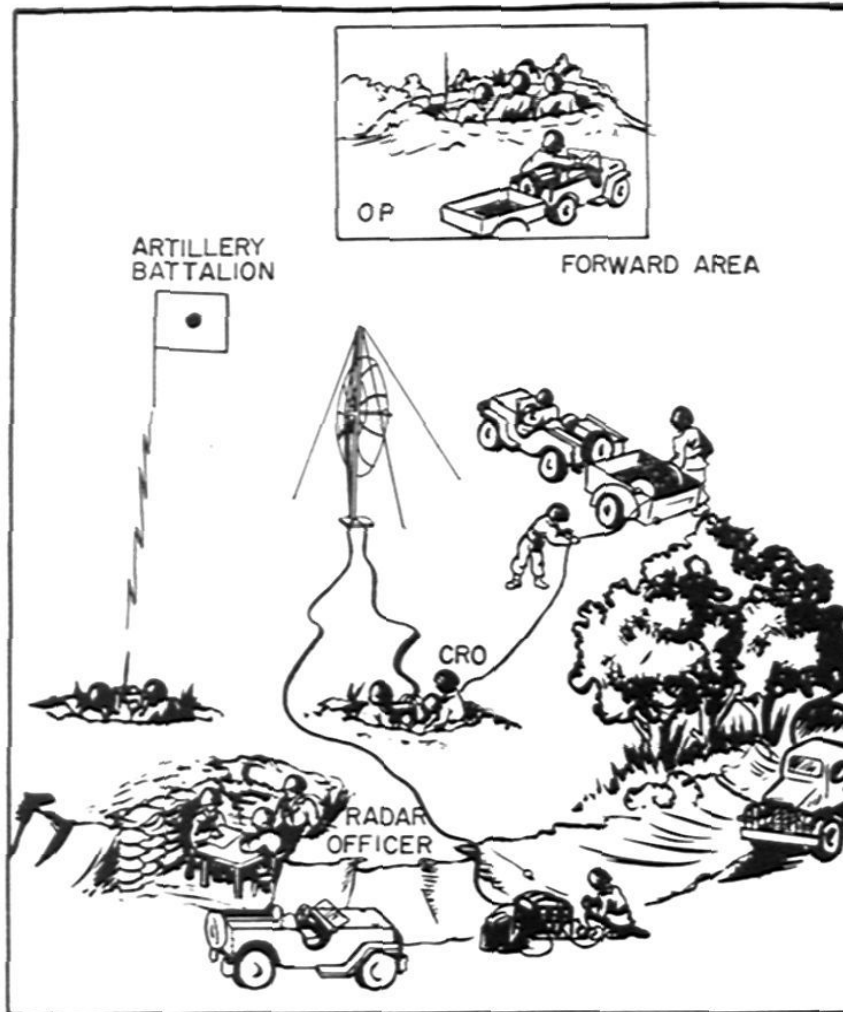


Figure 2.—Countermortar radar section

the radar or sound devices to report targets located and also can be used by individuals to report what they have seen, heard, or felt. A standard form has been adopted by the infantry and artillery to insure rapid transmission of all known data. This form is the standard counterbattery information form. The reports should be as complete as possible, but a fragmentary report properly rendered is valuable to the division artillery assistant S-2, who will plot the information on his mortrep overlay and tie it in with other reports received. This mortrep overlay is just one of the several records kept at division artillery. The total number of charts and records may vary with requirements, but certain records and charts are considered basic and necessary under all conditions for the proper recording, collation, and

dissemination of information. These are:

a. Hostile-mortar chart, which is a grid sheet or battle map on which are plotted the division and regimental boundaries, friendly front lines, and all confirmed hostile mortar locations.

b. Suspect-mortar overlay, which is an overlay to the hostile-mortar chart, on which all suspected locations are plotted.

c. Shellrep, or mortrep, overlay, which is an overlay to the hostile-mortar chart on which shelling reports are plotted as received.

d. Hostile-mortar file, which is a card file in which is kept a card for each hostile mortar position located. This file is kept in two parts, one for suspect mortars, the other for confirmed. The complete history of the mortar is recorded on this card.

e. Hostile-mortar list, which is a report published by division artillery to give widest dissemination to information concerning mortars. Confirmed and suspect locations are listed separately, and the report kept up to date by additions, deletions, and changes published as required.

Mortars are named as located, in the same manner as batteries are named by corps artillery. The one exception for mortars is that the name is preceded by an "M". Thus, the first mortar located would be named "MAA", the second "MAB", the twenty-seventh "MBA", and so forth. When a mortar location is confirmed, the name is given a suffix of "C", so when "MAA" is confirmed, the name becomes "MAAC".

The organization of the division countermortar effort is simple and effective. But, like any other organization, the efficiency is directly dependent upon the personnel who operate within it and upon the complete understanding and cooperation of all concerned. It produces only in proportion to what is put into it. If no reports are made, or only sketchy or fragmentary reports received, the efficiency will drop, but if all personnel are trained in the requirements of the organization, and realize that they, as individuals, have a direct responsibility to that organization, efficiency will soar and mortars will cease to be the killers of infantry. The life of an enemy mortar man will become worthless and use of mortars decrease to the point that those seven men in ten, that seventy percent, will be among those clamoring for redeployment to the States when the next war ends.

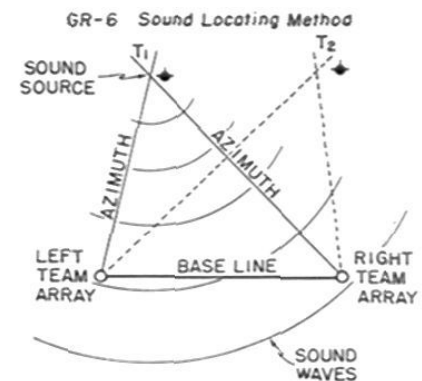


Figure 3.—Infantry countermortar operation

# STATION DATA (continued)

## European Command

IN THE European Command, Field Artillery officers are serving in practically every locality, with assignments to tactical Field Artillery units or to staff duty at various headquarters predominating.

Today occupation personnel find that, although minor inconveniences exist, their standard and manner of living is very much like that in the United States. Housing for occupation personnel ranges in quality from excellent to poor, although usually good. The quality varies somewhat with the location in Germany. Heating and utilities are provided with the quarters at no cost to the occupant. Firemen are provided for the maintenance of the heating systems. In Austria, domestic help is available at a very reasonable cost. In Germany, the same is true, except that one maid is provided for each family group, paid for by the German Government. With the exception of certain localities near the Bavarian Alps, the climate of Germany will be found to be very much like that of the northeastern United States, but with less snow. The summers are mild enough to permit the wearing of woolen uniforms the year round without much discomfort; khaki uniforms are authorized only as optional off-duty wear.

Grammar schools are established in almost every military community. High schools are established on regional bases, with billets and messing facilities available at the school at a nominal charge per student. In some cases, high school students attend schools in Switzerland or other countries for specific types of education. (For further details on Swiss schooling, interested parents may contact Mr. Fred C. Ott, Educational Advisory Service, 16 Buchser-strasse, Bern, Switzerland.)

There is an extensive chain of commissaries, carrying the variety of food items normally found in a medium-sized store in the United States, except that the variety of brands is not available. All foods, however, are purchased under Army standards and will be found to be of the best obtainable

quality. Post exchange facilities are available at all localities, providing a much more extensive stock than is normally found except in the largest post exchanges in the United States, and include cleaning and laundry services, car service facilities, including parts service, repairs, greasing, etc., and catalogue order services from Sears Roebuck and Montgomery Ward. Nearby countries, such as Luxembourg and Switzerland, also provide an easily accessible place in which to purchase many items.

Amusement and recreational facilities are quite extensive. In addition to local clubs and messes, there are movies, operas, swimming facilities, and excellent hunting and fishing. Tours sponsored by American Express and other travel agencies offer travelers an opportunity to see Europe at a surprisingly moderate cost. Within a single day's journey from almost any place in the United States Zone, the traveler can be inside the borders of another nation.

Although the cities are still gaunt ghosts of former days, much rebuilding is being done, and poverty, misery, or near-starvation of the people is no longer commonplace. The relations of the occupation personnel with the residents of Germany are gradually undergoing a change as the Germans assume governmental functions. The Military Government role is being gradually eliminated.

## Hawaii

*USARPAC.* Headquarters is at Ft. Shafter, practically in the city of Honolulu, on the island of Oahu. Posts where artillery officers are normally assigned are on that island. The climate is delightful, the temperature averaging from 70° in winter to 78° in summer, with about 80% of the days cloudless. Summer uniform is worn all year. There is a shortage of quarters at the various posts, necessitating a waiting list. Medical facilities are excellent. There are numerous post exchanges on the island, with all normal facilities. Five commissaries are available to army personnel. Cost of living is fairly high.

For recreation there are numerous golf courses, tennis courts, beaches, theaters, and rest camps, including Kilauea Military Camp, 4,000 feet up on Kilauea volcano. There is excellent deep-sea fishing and surf-casting. There are adequate schools for all ages, including the University of Hawaii.

## Japan

*Camp Hakata.* Located approximately 18 miles north of Fukuoka on Kysushu Island. The station of the 24th Infantry Division Artillery, which includes the 11th, 13th, 52nd, and 63rd FA Bns. The climate is temperate, cold and damp in winter, a rainy season in June and July, otherwise pleasant. There are quarters on the post, competely furnished, and Japanese servants are available and inexpensive. There are a commissary and a post exchange, both excellent, and cost of living is lower than the U.S. average. Recreation facilities are splendid, and include golf, swimming, bowling, riding, sailing, and a theater. The post dependents school covers first grade through high school. An automobile is almost a necessity.

*Koizumi.* About 50 miles northwest of Tokyo. The station of the 1st Cavalry Division Artillery, which includes the 61st, 77th, 82nd, and 99th FA Bns. The climate is temperate and rather humid, similar to that of the Ft. Bragg-Ft. Jackson area. The housing is adequate, with housing units in a Dependent Housing area, plus some renovated Japanese homes, all reasonably furnished. Japanese servants are available at reasonable prices. Cost of living is slightly lower than the U.S. average. Recreational facilities include bowling alleys, golf, swimming, and a theater, and the Nikko and Karuizawa resort areas are about 55 miles north and west, respectively. The dependents school includes grammar school; high school students have the Calvert System extension courses.

*Camp Younghans.* Located 15 miles north of Yamagata, in the picturesque Mogami River valley, in northeastern Honshu Island. The station of the 7th Infantry Division Artillery, which includes the 31st, 48th, 49th, and 57th FA Bns. The climate is comparable to that of Ohio or Indiana. Quarters, of

various sizes, are available for all families, and servants are available at relative low cost. There is a commissary and post exchange, and many families have gardens and grow a portion of their food. Cost of living is moderate. Recreation facilities include golf, tennis, bowling, swimming, a theater, and ski tow. The post dependents school includes eighth grade; high-school students must take correspondence courses.

*Nara.* Located 25 miles east of Osaka and 30 miles south of Kyoto, in west central Honshu Island. The station of the 25th Infantry Division Artillery, which includes the 8th, 64th, 90th, and 159th FA Bns. The climate is comparable to South Carolina or Georgia. There are housing facilities for 62 families in an American-type community, and 48 rehabilitated Japanese houses in Nara. Servants are available at low cost. There are a commissary and a post exchange, utilities are furnished without charge, and the cost of living compares favorably with the U.S. There are excellent dependents school facilities. The area is a center of art and culture, and there is opportunity to purchase objects d'art, ancient relics, and beautiful examples of lacquer, porcelain, and woodcarving.

Headquarters USARCARIB is now permanently located at Ft. Amador, Canal Zone.

**Telegram Received 15 November 1949**

**FROM CG SECOND ARMY TO EDITOR THE FIELD ARTILLERY JOURNAL ON BEHALF OF THE SECOND ARMY. I EXTEND SINCERE BEST WISHES TO THE OFFICERS, MEN, AND WOMEN OF THE FIELD ARTILLERY ON THE ONE HUNDRED AND SEVENTY-FOURTH ANNIVERSARY OF THE ORGANIZATION OF THE FIELD ARTILLERY. THE SECOND ARMY CONGRATULATES THE FIELD ARTILLERY ON ITS SPLENDID RECORD OF ACCOMPLISHMENTS. KEEP EM ROLLING.**

**GEROW**

**On behalf of the Field Artillery, we thank you, General Gerow and your SECOND ARMY.**

# The New Armored Division (continued)

By Lt. Col. Landon G. Cox, Cav., and  
Lt. Col. Harold G. Maynard, FA.

### ERRATUM

**In the first installment of this article, in the September-October 1949 JOURNAL, the first sentence of the third paragraph under "Tactical Formations" on page 219 should have read: "During the last war the armored infantry battalion had three rifle companies, and the tank battalion had three medium companies and a light tank company." Without this correction, the remainder of the paragraph is, to say the least, obscure.—Ed.**

### ARMORED DIVISION ARTILLERY

*Organization.* All artillery boards on organization in the last two years have been working with two ideas in mind. One, a perfect organization as seen through the eyes of combat veterans, adding those items necessary and deleting the non-essentials. Two, similarity. In the very near future, T/O&E's for artillery units of like caliber will be the same except where a difference in equipment calls for more

maintenance, communication, etc. The heavier the equipment the more maintenance personnel required.

The one great difference in the organization of the armored, airborne, and infantry division artilleries, and one that causes a lot of artillerymen gray hairs and could conceivably lose the better artillery commanders to the airborne and infantry division artilleries, is that the infantry and airborne division artilleries are commanded by brigadier generals while the armored division artillery is commanded by a colonel. This, of course, makes the executive of the airborne and infantry division artilleries a full colonel while the armor has a lieutenant colonel.

The reason for this is very evident. There are only a given number of grades and ratings allotted to all units. Each division is allotted the same number of brigadier generals. They are given the different commands in the different type divisions. In discussions as to this difference the reason has been advanced that the armored division artillery commander very seldom commands his artillery; it is normally attached to the combat commands. It has been stated that forces of the armored



Self-propelled 105mm howitzer carriage. M-37.



division are spread out so far that centralized control or command is impossible.

Centralized command in an armored division artillery is maintained whenever at all possible, as it is in all good artillery units. The armored division artillery commander may command more artillery and has a more dangerous command than the infantry division artillery commander. It is very unhealthy riding from one combat command column to the other, supervising all artillery support, when the armored

battalion, an AAA AW SP battalion, and a medical detachment.

One item of equipment that has been changed and that will affect the loading, comfort, and long life of the armored artilleryman is the replacing of the half-track by the M-44 armored utility vehicle—an armored carrier on a medium-tank chassis. It was made originally to carry 24 infantrymen into combat. Instead of the infantry riding on the tank, they would ride in the M-44 with the tanks, and, when needed, would dismount and support the tanks. The M-

vehicle will carry it, keeping the ammunition out of the weather. This means that the armored artillery battalion can carry those extra rounds that are needed when on exploitation and just how or when the ammunition resupply will arrive is problematical.

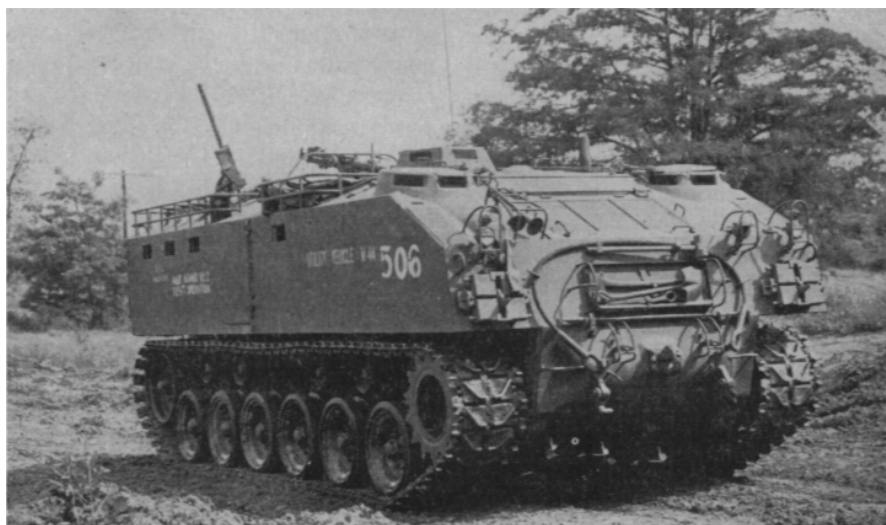
Present T/O&E's replace all half-tracks in the artillery with the M-44. They are not being produced in quantity at the present time. Tests are being conducted on a model, T-18, of like type, about half the size of the M-44. This vehicle would be unsatisfactory as a FDC vehicle, as it is too small. With a few changes, it would make a superior command and reconnaissance vehicle.

There has been talk of an FDC-vehicle project for some time. This is something that is needed badly, not only in the armored division but all others as well. A ¾-ton weapons carrier or any other similar thin-skinned vehicle is no good as an FDC vehicle except to haul equipment.

*Command.* Centralized command must be maintained whenever possible. This is true in all types of artillery and, if possible, more true in an armored division. An armored division on the mission of exploitation is at best nothing but from one to four or five columns of vehicles strung out in enemy territory, generally with enemy all around and in between the columns. Any and all artillery supporting the division must be in the best possible position to support any unit of the division, whether that unit is in front, on the flank, or in the rear.

Enemy forces strong enough to stop the division will try to do so. Those that are not will let the mass of tanks by and then attack the thinner-skinned equipment, the artillery, engineers, and the supply echelon.

Any armored column is vulnerable to a sudden tank-infantry attack. All artillery possible must be employed, emplaced in such a manner as to be able to mass the fire of all pieces on any attack, causing the enemy to deploy and seek defilade. This will give the tanks and infantry time to maneuver into position to take care of the threat. The lightest of artillery will cause tankers to "button-up," and can kill or disorganize the tankers, infantry, and thin-skinned support.



**Armored utility vehicle. M-44.**

division is on the role of exploitation.

During the last war it was normal for armored division artilleries to have from one to five light artillery battalions attached at all times, and some operated with an attached group. Artillery organic to the armored division in the last war, if the division was "heavy," was an artillery section in division headquarters and three 105mm howitzer M-7 battalions. There was no division artillery headquarters battery authorized. Nearly all divisions formed one by calling on each battalion for officers, men, and equipment. This, of course, made the battalions short of personnel and equipment. In most cases an AAA AW SP battalion was attached to and became a part of each division.

The present T/O&E's give the armored division artillery a division artillery headquarters and headquarters battery, three 105mm howitzer M-37 battalions, one 155mm howitzer M-41

44 is a utility vehicle and as such can be used for any number of jobs, litter carrier, cargo vehicle, command-post vehicle, etc. It is the answer to an artillery S-3's prayer. It is an armored dugout on tracks, can go nearly anywhere, has a cal. .50 and a cal. .30 machine gun on it, has plenty of room on the inside for two radios, plotting equipment, and fire-direction center personnel, and with a little work can be cooled, heated, and blacked out. This means that an S-3, and the nerve center of any artillery unit, the FDC, is relatively safe and comfortable at all times. He need not take time out to find or dig a hole, and he can place his FDC where he can get the best communication, and communication means control. The M-44 is the firing-battery ammunition vehicle and will haul 300 rounds of 105mm ammunition. The cubic measurements will allow 500 rounds, and on good roads or footing the

Armored artillery command is decentralized whenever the situation is such that one armored column is unable to influence the action of another. Combat commands are separated by a terrain feature or the road net is such that the combat forces of one command are unable to maneuver and assist the other.

**Communication.** There is very little difference between the communication systems or equipment of World War II and today in the armored and infantry division artilleries. More radio has been added to the infantry divisions, more wire to the armor. If the mission is such that wire can be employed, it will be used to maximum extent, but when division artilleries are on a pursuit or exploitation mission, where an artillery unit is moving fast, in and out of position several times a day, radio must be employed. It is generally understood that wire is used more often by the infantry division, while armor must use radio. It all depends upon the situation, time, place, and the mission.

**Liaison.** There are 16 liaison officers in an armored division artillery: two in the division artillery headquarters, four in each light battalion headquarters, one in the medium battalion headquarters, and one in the AAA AW battalion headquarters. One of the four liaison officers with the light battalion is the countermortar liaison officer.

In combat there must be a liaison officer with each combat-command headquarters (the countermortar liaison officer) and one with each reinforced

battalion team. If there are more teams than liaison officers, use any good available artilleryman.

During the last year there has been a lot of discussion as to the best method of placing and keeping liaison officers and forward observers with the proper unit at the proper time.

It is not unusual in combat for an armored infantry or tank company, or battalion, to be added to or taken away from a force. It is not unusual for a direct-support artillery battalion, in combat, to have its mission changed. When either of these situations takes place, it means trying to change liaison officers and forward observers in the heat of battle. Anyone knows that it is practically an impossibility. To surmount this difficulty the Combined Arms Department of The Artillery School is presenting, as one of many possible solutions, the plan shown in the accompanying chart. This plan of liaison and observation would be a part of the division artillery Standard Operating Procedure. When the division received a mission, the SOP would go into effect on day hour. At this time, and prior to moving to contact, the liaison officers and forward observers would report to and from the units as shown in the plan. These liaison officers and forward observers stay with those units until they are relieved by their parent headquarters. This means that there will always be a liaison officer and forward observer with the proper headquarters and companies.

The first question that comes to an

artillery battalion commander's mind is, "How am I going to employ liaison officers and forward observers of another battalion; how will they perform for me?" The only answer to that is strict supervision of the training of all liaison officers and forward observers by division artillery, so that all battalions have the same terminology and SOP.

To a general-support-artillery battalion commander receiving a direct-support mission, this means that liaison officers and forward observers are already with the headquarters and companies that he is to support. He must, of course, immediately establish command liaison with the supported-force commander. When he reports, he can check to see that a liaison officer is with the headquarters. The liaison officer must be informed that he is now the liaison officer for the reporting battalion commander. All that he has to do is push a button on his radio and he is on the frequency of the new battalion. This check must be made with each liaison officer and forward observer of the supported force. The liaison officers with the battalions can check the forward observers under their control.

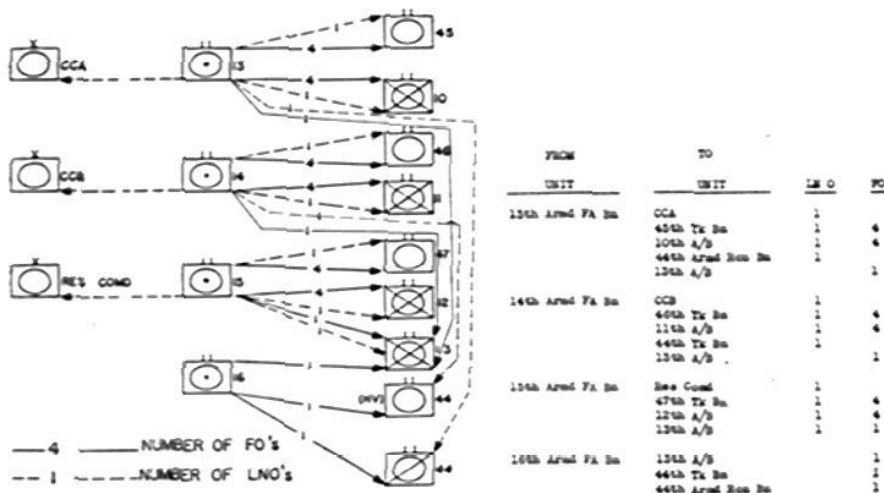
**Air Observation.** There have been ten liaison planes added to the armored division. These are all organic to division headquarters company.

The division artillery has the same number of planes as in the last war: two per division artillery headquarters battery and two per each battalion headquarters battery. There is no great change in the tested and proved methods of employment of these planes. The addition of the ten planes to division means that the artillery will be able to employ their planes to the maximum extent; they will seldom be called upon for air reconnaissance or control of other than artillery.

**Ground Observation.** The addition of six observers to each light artillery battalion is a much needed boost. There are now 29 observers organic to an armored division artillery, three in each firing battery of the light battalions and two in the medium battalion headquarters battery.

During the last war, artillery and tank units of the armored divisions agreed that it was best for the forward-observer

A PLAN OF LIAISON AND FORWARD OBSERVATION



tank to be organic to the artillery. The artillery has the same tank-maintenance crews as the tank companies and generally a better location to repair the tank. This will work fine as long as the chassis and motor are the same on the tank as on the artillery piece. After the war there was an artillery meeting of the minds at Fort Sill and of the armor at Fort Knox. They both agreed that the forward-observer tank should be organic to the field artillery.

Present T/O&E's place the forward-observer tank with the tank company. A tank will be set up for any forward observer ordered to support it. This set-up is fine in units that have been in combat for some time and the tankers know the true value of continuous artillery support. It will also assure the forward observer of having a vehicle like the supported unit. Especial significance is always attached to odd vehicles in combat and they are attacked first.

Each forward - observer tank will have a SCR-508 radio and two SCR-536's. SCR-508 radios have one transmitter and two receivers. Each transmitter and receiver has ten pre-set channels, each on a push button. One receiver of the SCR-508 will be on a fire-direction frequency of the supporting artillery battalion, the other on the supported tank company command net. The SCR-536's can be used to relay when the observer must leave his tank. The tank is given the observer only as a protection for the crew, and more especially for the communication with the artillery.

Basically, the infantry division artillery and the armored division artillery forward observers are equipped alike — a ¼-ton truck with trailer and a radio — the only difference being in the radio: SCR-619 for infantry, SCR-510 for armor.

Forward observers reporting to a tank company leave the ¼-ton truck and driver with the tank company command post and operate in the observer tank. Reporting to an infantry company, the observer will operate from the ¼-ton truck if the infantry is on the road; if they are dismounted, he may dismount the SCR-510, make it a SCR-509 pack set, and operate on foot; or he may use

his SCR-536's and relay through the ¼-ton truck. Leaving the set in the ¼-ton truck will give him better communication, more distance. Batteries for pack sets deteriorate very fast and have a habit of being at about half charge when received.

*Employment.* Basically, there is no difference in the employment of armored and infantry division artillery now or in the last war. All basic principles of tactical employment and gunnery were proved sound on the battlefield. The major difference in employment of the artillery is due to the difference in the mission that is generally given the armored and infantry divisions. The role for which the armored division is best suited is exploitation of the enemy rear areas. The role of the infantry division is generally understood to be that of fighting a hard, slow battle, taking limited objectives. When the infantry assumes the pursuit mission, and they did a lot of it and a fine job, the employment of the artillery will parallel that of the armored division.

Using common sense and applying certain basic principles, any artillery can support armored action. Whenever possible, place all artillery in support of the unit or units doing the fighting. This may be a platoon of tanks or a combat command. In mountainous terrain, armored divisions have been known to fight with one tank — all they could put on the road.

Artillery must be marched well forward. All direct-support and as much of the general-support artillery as possible should be well in range of the leading elements at all times. They must be in a position to support sudden tank thrusts. It is a command decision as to whether tanks, infantry, or artillery have road priority. Generally, armored units clear the enemy only as far as they can see from the route of advance. This means that the artillery must march with and in the combat column. The safest place in any armored column is where there are tanks in front, behind, and on both sides. This means keeping about 2,000 yards from the point of contact.

Artillery supporting armor on an exploitation mission should be armored and self-propelled. Armored artillery may occupy fifteen or twenty positions a

day, clearing their own position areas, clearing out snipers, being shot at by direct-fire weapons and machine guns from any woods or farmhouse. This means that the artillery needs armor protection and a large number of automatic weapons. The towed artillery has neither. To live in such action they must dig in, and it is physically impossible to dig in fifteen times a day and do any artillery supporting. In some terrain it is impossible to dig even one weapon in.

When an armored division is given a mission of exploitation, all non-organic (corps) artillery necessary to support it to the objective must be attached prior to leaving the friendly front lines.

The organic division artillery is the very minimum necessary. In the new-type field army it has been recommended that each corps have a 155mm gun battalion, SP, and a 105mm howitzer M-37 battalion, as the very minimum to be attached to the armored division when it is given a mission of exploitation.

Most armored divisions would like to have one light artillery battalion in direct support of each reinforced battalion in the line. This would generally mean two light artillery battalions in direct support of Combat Command "A" and/or "B." They would like two battalions of 155mm howitzers, SP, to be employed either as general-support artillery, or by attaching or placing one in direct support of CCA and CCB, depending upon the situation. Everyone likes to have an eight-inch howitzer battalion in general support. They are big enough to destroy heavy tanks, and their shells can be "dropped down a chimney."

## SUMMARY

Great improvement has been made in the organization and equipment of the armored division artillery. The adding of liaison officers and forward observers has filled a very great control need. Vast improvement is being made in communication. With the addition of artillery pieces, and more especially of the improved weapons that we hear about, the armored man need have no fear but that he will receive even better artillery support than that he bragged about in World War II.

# CANNON HOLD THE BREACH

By Major J. B. B. Trussell, Jr., CAC

WHEN, in 1814, four regiments of British infantry routed the American militia at Bladensburg and marched on to burn Washington, they won only an empty triumph. Washington might be the capital of the infant United States and as such possess some psychological value, but it was no more than a sprawling little village with no strategic value whatsoever.

The enemy's next objective, however, was an entirely different case. Baltimore, to which they turned, was a commercial center of considerable size for the time and place. It was rich and important. Most of all, its capture and destruction would help greatly to salve England's brutally outraged pride—and pocketbook—for its docks were home to many of the privateers, in large part owned and outfitted by Baltimore merchants and manned by Baltimore sailors, which had harried the United Kingdom into a state of virtual blockade. By the summer of 1814 they had sunk or seized a recorded total of over a thousand ships. The convoy system adopted by the British to foil the privateers failed when escorts were lured away in chase of one attacker only to have their charges ravaged by another which appeared as soon as they were over the horizon; coastal shipping ceased and its cargo was sent overland, with a consequent rise in prices; even the mail stood little chance of getting through unless carried in one of his majesty's ships of the line. Let Baltimore, then, look well to itself, for the redcoats were coming with blood in their eyes!

Baltimore would not be unprepared to defend itself, however. With what almost seems to be civic pride, the city's leaders decided that Baltimore must certainly be the enemy's goal as soon as he left the ruined capital. It was imperative, therefore, that steps be taken to put the city into a state of defense.

Some protection already existed in the form of Fort McHenry, a permanent

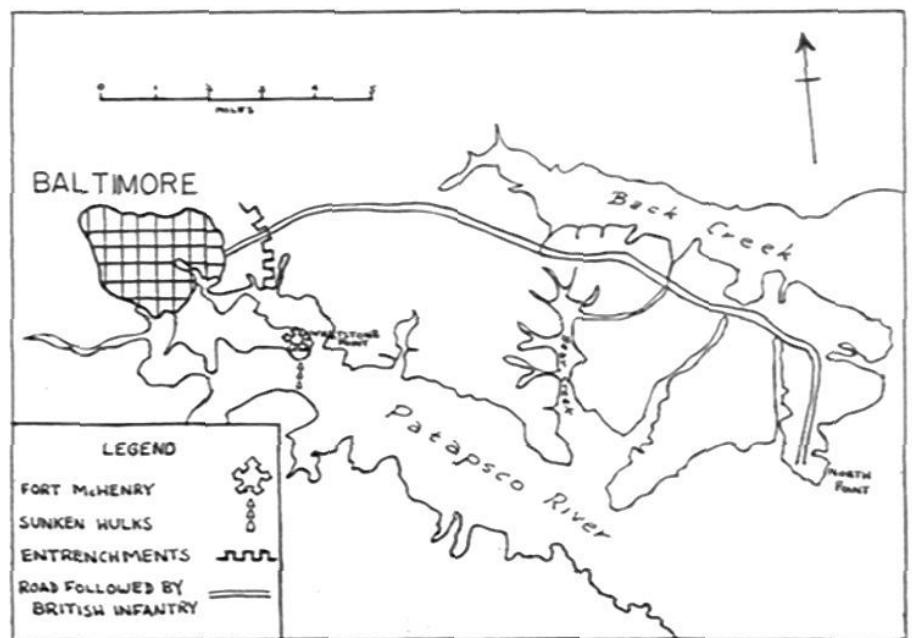
installation garrisoned by some two hundred Regulars commanded by Major George Armistead of the United States Artillery. Located on the tip of Whetstone Point, McHenry had been built in the conventional pattern, five bastions forming the arms of a star; behind a dry moat its masonry walls gave a false impression of solidity, for they were merely mounds of earth with a shell of brick before and behind and a granite coping on top. Guns were mounted in each of the bastions, but as they were on naval carriages they were to all intents and purposes, fixed in position.

To strengthen the defense, some work had already been done in the preparation of earthworks on the beach before the fort, and after Bladensburg efforts were intensified. The garrison of Whetstone Point was increased to a thousand men. Fort McHenry itself was made the innermost of three arcs of defense on the point; its twenty-one pieces were manned by a company of Regular artillery under Captain

Frederick Evans and by a militia company of seventy men, the Baltimore Fencibles, commanded by Judge Josh, Nicholson. The second of the arcs consisted of a series of trenches held by infantry. The outermost arc, also an earthwork, was sited just above the water-mark at high tide; here dirt walls protected a total of thirty-six pieces, fifteen of which were forty-two pounders (heavy, long-range weapons) and the remainder twenty-four pound and eighteen pound guns and howitzers. Two companies of United States Sea Fencibles (volunteers in the federal rather than the state service); the Washington Artillery under John Berry; the Independent Artillerists, commanded by Captain Charlie Pennington; and some naval militia under a Lieutenant Rodman—these units furnished the crews.

As a further deterrent against attack by water, the approach was blocked by hulks sunk in a line from Whetstone Point to the Lazaretto lighthouse.

So much for an amphibious attack.



There was, however, a natural avenue of approach up the little peninsula formed by Back Creek and the Patapsco River. To counter any attack from this quarter, the heights to the east of the city were made formidable with entrenchments and garrisoned with infantry and some field batteries. Altogether, the troops concentrated for the defense of Baltimore, though almost entirely militia, made up a total which has been estimated at from five to seven thousand men.

The defense was the plan of a militia general with the unprepossessing name of Sam Smith. His reasoning was completely upheld by events, for when the British attack came it followed the exact course which he had anticipated and prepared against.

But in spite of their careful preparations, the citizens who manned the defenses must have felt far from secure when the first reports of the enemy approach started coming in. The naval task force which hove to and anchored off the Patapsco's mouth on September 11, 1914, consisted of fifty-six vessels, among which were the eighty-gun *Tonnant*; the seventy-four *Dragon*, *Royal Oak*, and *Albion*; five of the Royal Navy's eight bomb ketches; its only rocket ship; as well as several frigates and numerous transports. This was an imposing array of naval strength. Aboard the transports was a correspondingly formidable military force — between three and five thousand British Troops, with the smoke of their Spanish victories still fresh upon them.

Led ashore at daylight on September 12 by General Robert Ross, the British landed on North Point without opposition and by eight o'clock that morning had taken up their march westward toward the city.

To halt this movement, something over three thousand militia under General John Stricker pushed eastward from the city's defenses. About six miles out, General Stricker established a line across the narrowest point on the peninsula, from the northern end of Bear Creek to the banks of Back Creek. Some distance to the front a line of skirmishers was posted.

As the British approached, they were taken under fire by the outposts. General Ross, mortally wounded, was one of the

first to fall. Recoiling at first, the British angrily recovered and drove the skirmishers back.

The main line of resistance was held by many of the same men who had fled so shamefully from Bladensburg a month before, but this time they stood firm. The battle lasted between two and three hours, but eventually the enemy succeeded in turning the American left flank. The field was theirs, but they had lost considerable time and the shadows were already lengthening over the battle ground. Colonel Brooke, who had succeeded General Ross in command, ordered his four regiments to bivouac where they were.

An interesting if grisly sidelight upon this engagement is the fact that no quarter was granted to Americans whom the British found perched in trees. Apparently, sniping was considered dishonorable or a man in a tree was gaining unfair advantage by failing to take his chances in an exchange of volleys between two lines of infantrymen, or both. In any case, the Americans, being considered as having violated the rules of warfare then prevailing, were therefore not granted treatment as prisoners of war and were shot out of hand.

Taking up their march again early on September 13, the British found their road barred by fallen trees, and night had almost fallen by the time the main body at last came in sight of the fortified hill which blocked their entry into Baltimore.

In the meantime, the Royal Navy had begun to discharge its part of the scheme of maneuver. Its task was to destroy the harbor batteries—Fort McHenry and the earthwork gun positions around it. Because the channel of the Patapsco was shallow, the vessels of deeper draught could not approach within range, but such a situation was made to order for the bomb ketches and the rocket ship. Accordingly, the *Volcano*, *Meteor*, *Devastation*, *Aetna*, and *Terror* (bomb ketches), together with the rocket vessel *Erebus*, were sent up the river to form the first of two lines of floating artillery. The second line contained ten vessels, four of them frigates — *Euryalus*, *Havannah*, *Hebrus*, and *Severn*, the last of these serving as Admiral Cochrane's flagship for the engagement.

The bomb ketches were, for their time, awe-inspiring engines of destruction. They mounted two mortars each—one thirteen-inch and one ten-inch mortar or two thirteen-inchers — and their explosive projectiles, weighing two hundred pounds, were accurate even at ranges in excess of two and a half miles. Their explosive force and their steep angle of fall made them ideal for the bombardment of fortifications. It is no great wonder that Admiral Cochrane had confidently predicted that, under their attack, the American fort would yield in a few hours.

Moving forward at dawn on the 13th, the ships opened fire soon afterward, while they were still beyond the range of such few of the American pieces as could be brought to bear upon them—more than half of the guns of the fort, semi-fixed as they were and with no traversing mechanism, could not fire down the river at all. Nonetheless, an attempt was made to shell the British, but despite the use of dangerously heavy powder charges, the American shots still sent up their splashes far short of the enemy ships. The only result was that, while there were no breech bursts, three of the American guns were put out of action: recoil was normally absorbed by a backward roll of the carriages, but with the barrels of the cannon elevated to obtain maximum range the thrust of the recoil was downward rather than backward, making it impossible for the carriages to dissipate the force by rolling; the force of such abnormally heavy charges was more than the small, cast-iron wheels could take and they gave way, dismounting the pieces.

Secure in their position, the British calmly pounded away. The Americans sweltered in their trenches or in the bastions of Fort McHenry. Considering all the factors, it is amazing that the works did not become a bloody shambles, for the mortar shells dropped with maddening regularity, one per minute, and the angle of their fall was such that none of the walls afforded much protection against them. There were some desperate moments as it was—one of the shells struck the roof of the fort's powder magazine and embedded itself in that considerably less than bombproof structure. Happily, the shell was a dud,

but Major Armistead hastily set details to work to move the powder and shell out of the fort altogether, back into the city. Then, at about two o'clock in the afternoon, one of the shells exploded in McHenry's southwest bastion; the force of the blast broke the iron straps holding the trunnions of one gun to its carriages and flung the barrel onto the ground. A lieutenant and a sergeant were killed and another sergeant and five privates wounded.

Admiral Cochrane, watching through his glass from the quarterdeck of the *Severn*, saw men rushing about in what he thought was a frantic manner. Actually, they were carrying the wounded to medical aid and replacing the cannon on its mount. But Cochrane considered that the defense was crumbling and, seizing his apparent advantage, ordered the flags to be hoisted to signal an advance to shorter range.

As the British ships moved toward them the Americans on Whetstone Point readied themselves to put match to touch-hole, exulting in the prospect of finally striking back in repayment for the brutal pounding which they had already withstood for eight hours. Every piece which could be trained on the river was loaded. Slowly, the enemy inched forward for the kill. After an eternity, it seemed, the American gun commanders shouted their order to fire and the whole of the point broke instantly into flame. Smoke clouded the emplacements and blinded the gunners, but they served their cannon all the more furiously, finding relief from the bitter frustration which had oppressed them since dawn.

The storm of iron which broke upon the ships was not at all what Admiral Cochrane had expected, but disregarding the bombardment and in their best tradition the British closed in, attempting to smother their opponents with an increased volume of fire. Two of the bomb ketches were hit and Cochrane, quickly realizing that this was no time for a *coup de grâce*, hoisted signals to order a withdrawal.

Resuming their former position, the ships once more began lobbing shells and rockets into the defenses. All that the American gunners could do now was endure with what fortitude they could muster.

Meanwhile, Colonel Brooke had surveyed the defenses facing him and had reached the conclusion that, to make a successful assault, he must have a heavy artillery preparation. Sending a messenger to Cochrane, he asked for a naval bombardment on the heights. In order to comply with this request the ships would have to draw close into McHenry once more, for the range was too great from their present position. With the afternoon's holocaust fresh in his memory, the British admiral knew that to do this was to have his vessels shattered and sunk. It is to his credit, however, that he was determined to render what aid he could.

It was at Cochrane's direction, therefore, that under cover of darkness that night a landing party in small boats rowed under the very muzzles of the American guns, intending to land behind the fort and attack it from the rear. It is possible that, in the inevitable confusion accompanying a night attack, the British might have succeeded in this effort despite the infantry in the trenches on Whetstone Point; however, they were sighted by some of the gunners and immediately taken under a heavy fire from all the artillery in the position. Without ever having got close enough to land, they were driven off, not without some loss. Cochrane had no alternative but to send word to Brooke that he had done his utmost and that it had not been enough. While the navy continued to pound Fort McHenry, Brooke concluded that the whole attack was a failure. According to his report,

**Under these circumstances, . . . it was agreed between the Vice-admiral and myself that the capture of the town would not have been a sufficient equivalent to the loss which might probably be sustained in storming the heights.**

He lost no time in completing his withdrawal, and by noon on September 14 he was at Bear Creek. On the following day the redcoats re-embarked upon their transports.

After a full twenty-four hours, the navy's bombardment was broken off at seven o'clock on the morning of the 14th. This marked the last time that the east coast was to be subjected to attack by the Royal Navy.

The defense of Baltimore does not sparkle with military brilliance. In the less than thirty minutes during which they actually engaged the enemy the American artillerymen achieved no startling feats of accurate gunnery. Nevertheless, although their losses were actually very small—four killed and twenty-four wounded—the endurance of twenty-four hours of steady bombardment, particularly by men who had no previous battle experience to inure them, is worthy of considerable admiration. The fact that they withstood the fire for hours and yet were able to return it with telling fire of their own is greatly to their credit. By holding fast, they constituted a threat too dangerous for the British to disregard. Had the bomb ketches been able to reach the flank of the entrenchments on the heights with their fire, there can be little doubt that the militiamen, confronted on their right flank with an attack from naval artillery and on their front with a co-ordinated assault by Brooke's veteran, disciplined infantry, charging (as the British love to do) with the bayonet—there can be little doubt that they would have broken and left the city an easy prey to the enemy. The steadfastness of the gunners on Whetstone Point was the rock on which the British battering ram was splintered.

At the time that the unsuccessful enemy attempt to capture Baltimore was made, the peace commissioners were already conferring in Ghent. The British, made arrogant by the almost completely uniform success of their army in America, were demanding terms which would permanently have crippled American expansion. News of the battle at Baltimore put a completely new face on the situation, so that while the United States gained none of the concessions for which it had gone to war, it did manage to avoid any territorial losses and to maintain the pre-war *status quo*, leaving open the way to the development of our great continental empire and the attainment of a position as one of the foremost powers of the world. Had not the men of the garrison of Fort McHenry gritted their teeth and stood firm by their guns despite the hell that burst around them, history might tell a very different story.

# What's Different About the New FM 6-40?

Prepared in the Department of Gunnery, The Artillery School

By Lt. Col. Joseph H. Harrison, FA

A NEW edition of an old, familiar field manual is about to be presented. Field Manual 6-40, "Field Artillery Gunnery," which is probably more familiar to all Field Artillerymen than any of the other field manuals, has received its first major revision since World War II. The methods of gunnery technique in the new manual reflect the continuous trend of recent years whereby the adjustment of fire by the observer is simplified and a greater responsibility is carried by the fire-direction center. Gunnery is a big subject and still demands the careful study and exact performance that it always has demanded. But, because of improved procedures, a better performance than that attained in the past can be expected of today's Field Artillery units.

Now, you say, "What's new about this book?"

To begin with, certain changes have been made in the book's organization, which look like this when listed side-by-side:

OLD BOOK	NEW BOOK
<i>Part</i> 1. General. 2. The Firing Battery. 3. Observed Fires. 4. Survey. 5. Map Data and Corrections. 6. Fire Direction; Massing of Fires. Appendices.	<i>Part</i> 1. General. 2. Observer Procedure. 3. Map Data and Corrections. 4. Fire Direction. 5. Survey. Appendices.

The deletion of "The Firing Battery" from the new book is apparent at once, and in answer to the query, "Why," its omission has been deliberate in order to avoid a duplication between the contents of FM 6-40 and of FM 6-140 (The Artillery Battery), which is also being published in a new edition and which covers in complete detail the duties of the Battery Executive as well as an explanation of initial and subsequent commands. It is also apparent, from the list above, that the sequence in which major subjects are presented in the new

book has been changed. The new arrangement allows a progressive study of the subject matter so that, as the reader progresses from section to section, the material is presented in a logical sequence. This arrangement obviates the necessity for forward references. Also, each section of the book contains subject matter which is grouped by function, so that all material pertaining to any one function, such as "observer procedure" or "fire direction," is contained so far as possible in a single section. Within each section the common and most-used procedures are emphasized by being presented first; the unusual and less-frequently used procedures follow.

Except for the omission of the part on the Firing Battery, the scope of the new book is the same as the old.

Part One of the new book has been changed very little from that of the old book. It still is composed of a general discussion of ballistics, probability, and ammunition. A much more complete discussion of artillery ammunition is presented in the new book, including a complete description of the components of a round, the nature, effect, and use of all types of fuzes, ammunition lots, and considerations affecting the choice of ammunition in the attack of various type targets. This material on ammunition is useful to all artillerymen, but particularly to those who are new to the game and who need this basic knowledge.

Part Two of the old book, entitled "The Firing Battery" has been deleted from the new book. A point of major change along this line between the old and the new book is the artilleryman's old friend, "Base Deflection." Since the time that most of us can remember, a firing battery was habitually laid on or parallel to the base line, referred to aiming posts at a convenient deflection, and thus laid on what was called "Base Deflection." Base deflection was used as an origin for shifting the battery so as to establish its line of fire in the desired direction. This old standby has become

the victim of progress, and nowhere in the new book will the reader find the term "Base Deflection." Under the new procedure, the firing battery is laid on or parallel to the base-point line, and all pieces are referred to aiming posts at a *common* deflection. Thereafter, no shifts are commanded. Instead, a new deflection setting for each round of every mission is sent from fire-direction center in order to establish the line of fire in the desired direction.

A major portion of the changes made in the old book have been in Part Three, "Observed Fires." Since this subject has been quite thoroughly covered in previous articles in THE FIELD ARTILLERY JOURNAL, only a few of the most interesting points will be mentioned. The first of these is the preparation of initial data by the observer. The old book devoted considerable attention to this as it was difficult, involving the measured angle (M), the target offset (T), and the aiming point or base point offset (P), and the application of these to the measured angle in order to obtain a firing angle or shift. In the new book, the procedure for determining initial data has been simplified since all data is measured and announced with relation to the OT line—just the way the observer sees it. He uses no factors and makes no conversions to the GT line. He must be able to do three things:

1. Measure an angle in mils.
2. Estimate a distance fairly accurately.
3. Apply the mil relation.

The observer's difficulties of factors, offsets, and conversion of OT-line measurements to GT data are a thing of the past. Some matters involving the new procedure, as covered in previous articles, are repeated here very briefly in the nature of a review:

1. The observer now adjusts on the OT line, uses no factors, and is unaffected in his procedure by the size of the target offset. He brings off-line bursts to the OT line by application of the mil relation. Bursts are kept on the OT line by the fire-direction center, where a target grid is used which graphically converts the observer's OT-line corrections to GT-line corrections in both range and deflection. This FDC procedure does not concern the observer.

2. Ranging rounds are not used in the new procedure and are therefore not included in the new book.

3. Range and Deflection Bracketing are obsolete procedures and have been omitted from the new book.

4. No sensings by rule are made by the observer. In a precision mission requiring precise corrections, the observer's sensings on the OT line are converted to sensings on the GT line by the fire-direction center.

5. Determination of the adjusted elevation is a function of the S-3, based on *his* sensings, which he has obtained by converting the observer's OT-line sensings to GT-line sensings.

6. In a time registration, the observer does nothing but report whether the round is "Air" or "Graze." Fire-direction center does all the rest.

7. The necessity for verification of a precision mission is decided by the S-3. No verification of elevation is necessary unless all six rounds in effect in a precision registration are in the same sense.

8. Air observation using high-performance aircraft is discussed in detail in the new book. It was not included in the old book.

9. High-angle fire is no different for the observer now than any other type of fire; the same procedure is used by the observer in all missions. Its usefulness and its effect are discussed in the new book.

10. Combined observation, using the target grid, as a means of adjusting either precision or area fire on a target is fully described in the new book.

Part Four of the old FM 6-40 covered the subject of "Survey." The principles of surveying have not changed since publication of the old book, and neither has there been any change in equipment, planning, or procedure. However, some minor improvements in terminology and certain editorial changes have been made in the new book which improve the clarity and completeness of this section. Some changes which are of considerable importance are noted below:

1. The new book is more complete and detailed than the old in its discussion of the preparation of firing charts from photo strips, by both the radial-line method and the

reconnaissance method of plotting. Both methods result in an accurate and practical use of aerial photos and are fully described for that reason.

2. Resection by the tracing-paper method and the back-azimuth method was discussed in the old book. These are still discussed in the new book, as well as a computed 3-point resection, and the use of astronomic azimuths in resection.

3. The old "A-S" base with one end called "Point A," and the other called "Point S" is now referred to only as a target-area base. Its ends are called O-1 and O-2, neither being habitually at a particular end of the base.

4. Formerly, all survey computations were made using azimuths. The new book advocates the use of bearings instead, as they are easier, and also facilitate computations made on a military slide rule.

5. "Shooting Polaris" has long been a Field Artilleryman's means of establishing accurate direction. Because Polaris cannot be observed during daylight, however, and because its observation at night makes our procedure dependent on being able to see a single star, the new book includes a detailed discussion of the "altitude method" of determining the true azimuth of the sun or any star at any instant. Appropriate charts and tables are included.

6. The polygon method of determining base angles was stressed in the old book. Of course this method still works and is still accurate. It has been omitted from the new book, however, as being less practical than the comparison of azimuth between the base-point line and the orienting line, which is the method advocated in the new book.

7. Two changes in terminology have been made. The first is to the old term "Chosen Point," which has been deleted as being unnecessary. All points in a traverse, including what used to be called the "Chosen Point," are now simply called "Traverse Stations." The second term to be changed was that of "Place Mark." As this conflicted with other service terminology, it was replaced by the term "Orienting Station."

The subject of "Map Data and Corrections" comprises a complete part of the new FM 6-40, just as it did in the 1945 edition. The scope of the one is

about equal to that of the other, but owing to changes in technique and methods there are a number of differences between the new book and the old book, the more important of which are discussed in the following paragraphs.

1. Map shifts were measured from the chart and sent to the battery as such. With the new method, however, deflections are sent to the battery; therefore, deflections rather than shifts must be obtained from the chart. To do this it is necessary to mark the top of the range-deflection fan with deflections as described in previous articles, so that when the fan is placed against the plotting pin, the deflection for the battery to fire at that point may be read directly from the top of the fan.

2. In plotting the position of a battery on a firing chart, the position of the base piece has always been plotted and all map data measured therefrom. Now, however, this has been changed so that the battery center (*i.e.*, the geographic center of the battery position) is plotted, thereby eliminating the necessity of constantly applying a correction for centering the sheaf, because chart measurements are always made with respect to the battery center.

3. The deflection index has been described adequately in previous issues of THE FIELD ARTILLERY JOURNAL and won't be discussed in detail here. Suffice it to say, to refresh the reader's memory, that it is constructed to correspond to the adjusted deflection following an initial registration, or if metro corrections must be used, it is constructed corresponding to the deflection correction obtained from solution of the metro message. Thereafter, all deflections are read from the deflection index rather than from the base-point line extension.

4. A "Base Line" has been an old standby among Field Artillerymen and was known as the line passing through the base piece and the base point. This has not been changed much, but, because the battery center is now plotted rather than the base piece, the definition must be altered accordingly. It now is defined as "a line connecting the base point and the battery center." In order to avoid confusion with the Engineer's term by which they mean the "base



line" of a triangulation system, we have changed our term slightly and now call it a "Base-point Line." The new term is used throughout the new book.

5. In the old book, barrages were classified in several ways; for example, rolling barrages, normal barrages, and emergency barrages. The new doctrine calls for one type of barrage only. A discussion is given in the new book regarding the most effective widths and offers the artillerymen's old friend, sweeping fire, as a solution in those cases where the width of the barrage is too great for coverage by an open sheaf.

6. Deflection corrections determined from registration are still computed by comparing map data with adjusted data, but because the deflection index is constructed following the registration, the major portion of the deflection correction is absorbed by that means. Following an initial registration, the deflection correction on a deflection-correction scale is always zero at the range to the point registered on. Any subsequent registrations resulting in a change in the adjusted deflection will cause a deflection correction at the range to the point registered on equal to the difference between the two adjusted deflections. In the case of a deflection correction determined from a metro message, a deflection index is constructed as described in 3 above and a deflection-correction scale is used with a correction of zero at the range to the metro check point.

7. The argument for entering the firing tables in the solution of a metro message has been the elevation corresponding to the map range taken to the nearest 100 yards, or the adjusted elevation if one has been obtained. This procedure was designed to produce the greatest possible accuracy, but it complicated unobserved-fire preparation, without definitely contributing any more accuracy than could be obtained by simply entering the tables at the map range to the nearest 100 yards. In order to simplify the procedure, therefore, the new book provides that metro messages will be solved at the map range of the metro check point, taken to the nearest 100 yards.

8. The determination and application of a VE Change is omitted from the new book because it was

difficult for many students to understand. The same correction is obtained more simply by averaging an old VE and any new VE computed in the same position. The new book provides for this average VE to be used in the computation of subsequent metro messages.

9. The deflection-correction change was another trouble-maker that has been eliminated in the new book. The matter is not ignored, of course, as it must still be considered and applied, but the new method calls for a comparison to be made of the deflection corrections from (1) a metro message taken at the time of a concurrent registration, and (2) the latest metro message when forced to use metro data. The difference is, of course, the difference caused by a weather change and is applied to the deflection correction from the registration which has been in use up to this time. The new procedure does not require any constant corrections for inclusion in the solution of subsequent metro messages.

That part of the 1945 edition of FM entitled "Fire Direction; Massing of Fires" has been expanded greatly in the new book. In addition to a much more detailed explanation of fire-direction-center procedure, the scope of this part has been broadened to include a careful discussion of the function and operation of fire-direction centers at division, group, and corps artillery levels. Likewise, a full discussion is given of the characteristics and use of ammunition and of the principles of attacking targets of various types. Certain functions of the members of the fire-direction center have been changed. Of these, the more important are outlined below:

1. The sequence of the S-3 order has been changed to get those things needed most by the battery to them as quickly as possible. The sequence of fire commands has also been changed to conform to the sequence of the S-3's order so that the battery is alerted, knows which pieces are to fire, knows the type of ammunition and fuze to be used, and can be getting these things done while the HCO and VCO are determining their data. For example, from four elements announced in an S-3 order of "(1) Battalion Baker, (2) Shell HE, (3) Charge 5, (4) Fuze Time . . ." the computers can send to their batteries all elements of

their fire commands except deflection, site, and elevation, which are then sent when determined. Speed is gained because the battery is not sitting idly by while needed information which is known by fire-direction center is being withheld from them because of a poor sequence. Instead, this information is given to them as early as possible so that they can be working.

2. Formerly, the HCO measured and announced initial data only. Data for subsequent rounds were calculated by the battery computers. Now, however, the deflection and range for every round in an adjustment are measured and announced by the HCO. He plots all observer corrections and measures and announces data following each plot.

3. Placing and orienting the target grid, and preparing the range-deflection fan so that deflections may be read directly therefrom, are two new duties of the HCO that are not found in the old book.

4. The VCO formerly included 20/R in his initial site which he announced to the computers for a time-fire mission. The new book provides for him to deal in ground sites only. Any additional site for height of burst in a mission employing time fire is added by the computers.

5. Following the adjustment phase of a fire mission, it has formerly been proper procedure for the adjusting computer to announce corrections to the non-adjusting computers covering direction, fuze, site, and range or elevation. These were used in their fire for effect. Under the new procedure, however, corrections for fuze and site only are announced, because the HCO measures and announces adjusted deflection and range for the non-adjusting batteries.

6. On an observed mission, the computer seldom applies any deflection correction to the deflection as announced to him by the HCO. It is an unjustified refinement which only complicates the computer's procedure, because the fire is adjusted onto the target by an observer. This deflection correction must be stripped from the adjusted deflection, however, before that target can be replotted in its proper location. Likewise, it is always applied on any unobserved fire mission.

7. Formerly, when batteries were widely separated, or large corrections resulted from an adjustment, it was necessary to replot a target before determining data for the non-adjusting batteries' use in fire for effect. Now, because the target-grid system results in a new plot for each round fired, this is never necessary. "Adjusted data" is always obtained.

8. Previous articles have described FDC procedure in a precision mission, consequently this article will not attempt to discuss this in detail. In general, the change is one from the old system, whereby the observer retained control over such a mission throughout, to the new procedure where control of a precision mission passes to the fire-direction center at the commencement of fire for effect. From this point on, the observer ceases to send corrections, and reports sensings on the OT line, which are converted to sensings with respect to the GT line at fire-direction center. The precise adjustment of elevation and deflection is accomplished by the S-3, who gives commands to the guns, based on the observer's sensings. New S-3 activities in this connection are:

- a. Keeping a detailed record of each precision mission.
- b. Converting OT-line sensings to GT-line sensings.
- c. Adjusting deflections.
- d. Adjusting elevations.
- e. Adjusting fuze time settings.
- f. Verifying invalid registrations.

All of these matters were formerly taken care of by the observer. He has now been relieved of this responsibility, however, and the load is placed on the shoulders of the S-3 and his fire-direction center.

9. While high-angle fire presents no new problem to the observer, FDC procedure now includes a different manner of determining and applying corrections for drift, and change in drift due to change in charge. The new book gives a clear and complete description of this procedure.

The appendices which have been included in the new book are:

- Adjustment of Naval Gunfire
- Field Artillery Rockets

- ½S Table
- Calibration
- Service Practice
- Common Mistakes and Their Prevention or Detection
- Star Charts and Tables.

The appendix on the use of field glasses and that on methods of mil-gridding oblique photographs, both of which were included in the old book, have been omitted from the new edition. Neither of these subjects was considered to be appropriate to a text on Field Artillery gunnery. Conversely, there are three appendices listed above which are new to FM 6-40, the first of which is that on Field Artillery rockets. Continuing development in this field has made this subject one with which all Field Artillerymen should be familiar. The second appendix which has been added to the book is that on the ½S Table. Formerly, the value of S was found from the firing tables. The new observed-fire procedure requires a new concept of the factor "S" because fire is now adjusted on the OT line rather than on the GT line. "S" is now the deflection shift at the guns between two line shots, 100 yards apart on the OT line, rather than on the GT line. New values have been tabulated, and since ½S is required in the new procedure, the table shows these values rather than the full value of S. The third appendix which has been added is that on Star Charts and Tables. These tables show the declination and location of the stars, and the sun's declination. As these charts contain data which is correct for one year only, appropriate charts for future years will be made available.

The points brought out in this article do not include all the changes in the new book from the contents of the 1945 edition, but those which have not been mentioned are of minor importance. The new book represents a great deal of thought on the part of many Field Artillery officers who are experienced both in training and fighting Field Artillery units and who are also experienced instructors in the Department of Gunnery at The Artillery School. An adequate distribution of this manual, which is one of the most important for the Field Artilleryman,

should reach all components of the Army at an early date.

## General Forrest's Navy

By Jerome Kearful

In the years before our modern age of mechanized and armored vehicles, mounted cavalry was an important and versatile instrument of war. But versatility on the part of mounted men reached its peak when cavalry captured a gunboat and formed its own navy! This surprising event was one of the remarkable episodes in the stirring military career of Nathan Bedford Forrest, Confederate General of Cavalry.

When he enlisted as a private in the Southern forces at the age of forty, Forrest had received little schooling and no military training. Yet his natural gifts for leadership and his innate military sagacity were such that, before the end of the Civil War, he had risen to the rank of Lieutenant General and was the idol of the South and the feared and respected adversary of the North. Sir Douglas Haig expressed the British opinion that "Forrest was perhaps the greatest cavalry commander of all time."

The capture of the Federal gunboat by Forrest's cavalry took place in late October, 1864, in the closing months of the war. Never one to wait for an attack by the enemy, Forrest planned the moves in this expedition with his usual boldness and brilliant conception. His immediate purpose was to harass and interrupt Sherman's lines of communication up the Tennessee River.

Union forces had established landing facilities on the Tennessee at a point called Johnsonville. Here supplies for Sherman were unloaded and sent by rail to Nashville, whence they were forwarded to the Union forces in Georgia. Forrest planned to destroy as much of this river traffic beyond Johnsonville as possible.

On October 28, Forrest's men emplaced

batteries of field artillery and two twenty-pounders specially brought up for the purpose at two points on the Tennessee River near the Tennessee-Kentucky border. At Fort Heiman and Paris Landing, about five miles apart, they effectually controlled the river. Their operations were unobserved, and Forrest's cavalry, turned river blockaders, quietly waited for prizes to appear!

On October 29, the Union ship *Mazepa*, loaded with 700 tons of cargo for Sherman, unsuspectingly steamed directly under the Confederate guns. Three rounds brought her surrender.

The following day, the steamer *Anna* and the gunboat *Undine* came into range. The *Anna* escaped by pretending to surrender and then breaking away, but the *Undine* tried to fight it out. After an engagement of about an hour, the Union gunboat was severely damaged and sought safety halfway between the two Confederate batteries.

Repairs to the *Undine* were well under way when another unit of Forrest's men arrived. Stealthily reconnoitering, they found a way to bring their guns directly to bear upon the gunboat!

In the meanwhile another Federal transport, the *Venus*, had sought the protection of the *Undine's* guns. But in less than an hour, Forrest and his cavalrymen had captured them both! The field artillery that had been brought up was too much for the *Undine*, while the *Venus* surrendered to rifle fire alone.

For several days thereafter, in the early part of November, 1864, Nathan Bedford Forrest, General of Cavalry, manned and operated his "Navy of the Tennessee," made up of the ships he had captured! But the cavalry's amphibious project was shortly abandoned when Forrest received orders to ride southward to assist General Hood. The "navy" was blown up, in the face of overwhelming odds. But, before going south, Forrest destroyed the Johnsonville landings and mountains of supplies for Sherman. Four gunboats, fourteen steamboats, and seventeen barges were sunk by Forrest's ten pieces of field artillery. The loss was estimated at \$6,700,000.

## Orders are Not for Pigeonholes!

By Jerome Kearful

SARATOGA has often been called one of the decisive battles in world history. As the conclusion of this engagement of mid-October, 1777, General Burgoyne surrendered what remained of his army of 12,000 men to the Americans under General Gates, the power of the British in New York was broken, and France threw in her lot with the young United States. Yet none of these things might have happened and the fate of the young republic might have turned out very differently, had not an order been left unsigned in a pigeonhole in London.

In preparation for the campaigns of 1777, the British had two large forces in the field, one in Canada under Burgoyne and another in New York under Howe. In contrast to the well-equipped British troops, Washington's meager 8,000 Continentals, driven into New Jersey, suffered from a shortage of supplies of all kinds. The American Commander-in-Chief realized that, were the British armies to unite and attack him relentlessly, all would be as good as over.

This, seemingly, was the very plan finally adopted by the English authorities in London. A juncture was to be made in New York State between General Burgoyne, moving south, and General Howe, moving north. Major decisions of this rank were reserved for the King and his counsellors, and orders must necessarily be sent across the Atlantic.

Two such orders were prepared, one for Burgoyne in Canada, and another for Howe in New York. In accordance with the policy of the English government, these orders required the approval of Lord North, the able but vacillating minister for George III. History records that Lord North affixed his signature to one of these orders, the one directing Burgoyne to move southward, but that the other, addressed to Howe, was somehow pigeonholed and left unsigned,

only to turn up years later in the British army archives!

Consequently, in the summer of 1777, Burgoyne, with an excellent force of regular troops, crossed from Canada into New York State and began his march to Albany. He continued past Fort Edward in upper New York to the portage from Lake George to the Hudson. Here a major transportation problem arose, and it required five weeks to haul a hundred and eighty boats and the British army to the river.

Burgoyne crossed the Hudson on the thirteenth of September. From then until his final surrender on October 17 on the field at Saratoga, the British suffered a series of checks from the spirited and rapidly growing American army. In like circumstances, a retreat to a stronger position would have saved the day, but Burgoyne, vainly hoping for assistance from General Howe to the south, persisted in his advance. Only when it was too late did he finally withdraw to Saratoga, the scene of the destruction of British hopes to unite forces and cut New York in half. Howe never came!

Weakened by hunger, encumbered with the increasing number of sick and wounded, and running short of ammunition, Burgoyne's army made its last stand at Saratoga October tenth, eleventh, and twelfth. By the end of that time, the British were in a trap out of which they could not wriggle. On the thirteenth, Burgoyne and his staff decided on surrender, and the articles were completed on the seventeenth.

News of Saratoga revived American spirits, flagging after a series of setbacks elsewhere. In France, Benjamin Franklin was able to proceed successfully with negotiations for an alliance. The effect of Saratoga on the outcome of the American Revolution was immeasurable. Such were the results of an order lost in British official red tape!

# EXTRACTS FROM THE FIRST ARMY ARTILLERY INFORMATION SERVICE (WWII)

By Brigadier General Chas. E. Hart, USA

## EXTRACTS FROM AIS NO. 3, PUBLISHED IN APRIL 1944

### *Organization and Operation of the II Corps Counterbattery Section (Artillery Observer, First Army)*

The operation of this particular section is described, since it was considered to be the most experienced and is normally the most active counterbattery section on the front.

*Organization.* The CB section consists of six officers and six enlisted men, as follows:

- 1 Counterbattery Officer
- 1 Operations Officer
- 1 Assistant Operations Officer
- 1 Intelligence Officer
- 1 Assistant Intelligence Officer
- 1 Photographic Interpretation Officer
- 3 Draftsmen
- 2 Typists
- 1 Clerk

*Operation.* Photo locations of enemy guns are considered to be the foundation of all counterbattery operation. All other sources of information are considered to supplement photo locations. Photographic coverage and interpretation are obtained from the army photo reconnaissance unit located at a landing field in the army rear area. This unit organically has six photo interpreters; however, since they must meet many demands for information other than from the artillery, a trained artillery officer and one enlisted clerk are attached to the unit to look after the artillery interests. This officer relays requests for photo locations from the artillery to the organically assigned interpreters and collects all photographic intelligence for transmission to the interested units. He assists in interpreting the latest photos received and thus is the most up-to-date source of information for the artillery. He transmits copies of prints to the corps counterbattery section as soon as they are processed and marked.

The most useful sources of information concerning the location of enemy guns are listed in order of accuracy as follows:

1. Photographic Interpretation
2. Flash Locations
3. Adjusted Coordinates (obtained from firing)
4. Sound Locations
5. Other Sources (such as Tactical Air Reconnaissance, Prisoners of War, Civilians, etc.)

The stimulus that sets the counterbattery section in operation to place fire on an enemy battery is normally received from a Shelling Report ("SHELLREP"). All units of all branches are encouraged to turn in "Shellreps." Artillery liaison officers and forward observers constantly remind the troops of the necessity of turning in reports of enemy shelling. Small leaflets, describing the information desired, are handed the individual soldier. A typical quotation from one of these leaflets follows:

### ALL SOLDIERS

**If you see enemy artillery shells falling, call your Headquarters and turn in a "Shellrep," giving them as much of the following as possible:**

**Where shells landed, when, and how many.**

**Direction shells came from; or, if you can see the gun, where it is located, and the number of seconds from muzzle flash to sound of gun firing.**

**Type of gun—light, medium, or heavy.**

**THIS INFORMATION WILL HELP YOUR OWN ARTILLERY KNOCK OUT THE ENEMY ARTILLERY.**

Every unit in the corps is given a supply of "Shelling Report Forms." These tend to serve as a reminder as to what data is required by the

counterbattery section, and also provide a convenient means of recording information later included in unit journals, intelligence reports, etc. When the unit reports, it refers to each column on the form by letter designation.

As shelling reports reach the counterbattery section, they are recorded on consecutively numbered telephone message slips. Each slip is divided into two sections: An upper section in which is entered the significant data concerning enemy shelling, and a lower section in which is entered data concerning *observed* enemy batteries. These slips take the place of a log; slip numbers are entered under the "log number column" in the Hostile Battery Historical File.

The telephone slip is now taken to the operations map. On this may be plotted the locations of all enemy batteries, with information designating the source of the location, whether from photos, sound, flash, direct observation, etc. Over the map is placed an overlay on which the draftsman plots the location of the observer who has just sent in the report, the area shelled, and a ray showing the direction of the enemy guns; this last taken from the azimuth of the sound, flash, or furrow. (Note: The overlay is left on the map for a period of twelve hours and is then filed in the S-2 files. It gives a good indication of where the enemy is active and where he is located. It also is used in preparing reports to the Corps G-2 and in preparing the weekly Counterbattery Report). The location of the observer, the ray, and the plot of the area shelled are all marked with the telephone slip number. This serves to connect the report, the plot, and later the Hostile Battery Historical File.

The Counterbattery Officer must now attempt to locate the active enemy guns. No formula can be given which will guarantee his success. No two situations are alike, since the amount, type, and accuracy of information vary from case to case. The CBO must consult his evidence and all his sources of information until he has built up a case against the most likely enemy location. In general he proceeds as follows:

The course of the ray is examined and all enemy locations through which it passes become suspect. The original report may contain information that will eliminate a number of these suspect

locations. For instance, if the caliber of the enemy weapon has been accurately estimated or has been positively determined by identification of shell fragments, then only locations of this particular caliber are considered. It may happen that within the next few minutes another report may come in, from a different unit, which, when plotted, shows a ray intersecting with the first line over a likely enemy battery. In this event, circumstantial evidence is considered to be very strong, and, if the original plot *on the map* was obtained from an accurate source, counterbattery fire may be ordered without further delay.

If only one shelling report is received, the CBO must search further. The observation battalion may report a sound or flash location which was determined *at the same time* that the enemy shell fire was falling. If the estimated accuracy of this location is *less than two hundred yards*, and falls along the ray, then the evidence is considered to be conclusive.

If only one isolated instance of enemy shelling is reported, the CBO may elect to drop the case, and merely record the instance in his files. If, however, this shelling persists, and is causing damage, the CBO must continue his attempts to locate the hostile guns.

The Hostile Battery Historical File may next be consulted. This file consists of a number of cards on which is recorded all information concerning enemy guns that are known to be located with an accuracy of at least two hundred yards. Each card is designated in three different ways; i.e., it bears a two-letter PI (Photographic Interpretation) "name," a two-letter Hostile Battery "name," and is also designated by listing the coordinate square in which the location falls. A cross-reference list of all cards is maintained, so that a card can be found by consulting any one of the three headings under which it is listed. The CBO examines the list so that he can select cards from the file that refer to locations within the immediate vicinity of the suspect location. By studying these cards the CBO is able to select those locations that are most likely to be causing the trouble.

Other courses of action open to the CBO are as follows:

a. The file of photos may be checked for occupied locations.

b. The observation battalion may be requested to institute surveillance of the suspect area.

c. The Corps Artillery Officer's Radio Net (SCR 193) may be used to direct the attention of artillery forward observers into the suspect area.

d. Air OP's may be asked to examine the area.

e. Coordinates of the area may be sent to the corps photo interpreters or to the photo reconnaissance unit, with a request that the most recent prints be examined for active battery locations.

The telephone message slip is next taken to the intelligence desk, where the information is plotted in the Intelligence Journal. Two sheets are used simultaneously in the Journal. On one, information extracted from shellreps is entered; on the other, all reports of gun locations are entered. Entries are made according to the exact time the action took place, so that, by comparing one sheet with the other, a report of shelling being received can be tied in with a sound, or other, location made at the same time.

The duties of the Intelligence Officer are as follows:

1. Assists in the process of locating enemy guns by studying the Intelligence Journal, the Hostile Battery Historical File, and the file of twelve-hour overlays which are kept in his possession.

2. Makes detailed studies of enemy positions and groups of positions.

3. Studies duds and shell fragments, and tabulates all data used in identification thereof.

4. Assists in preparing the Counterbattery report.

5. Assists in compiling the Hostile Battery List.

6. Prepares and submits Intelligence Reports to the Corps Intelligence Officer.

If, at any time in the process described above, the CBO feels that he has located the offending enemy battery with sufficient accuracy, he passes the telephone message slip, together with the coordinates of the location, to the

Operations Officer. The Operations Officer now consults his fire-possibilities chart, on which are plotted the locations of all the artillery units with the corps, their sectors of fire, maximum range lines, OP's, etc. The Operations Officer determines which unit can best fire the mission and assigns it accordingly. At this time he makes a record of the unit taking the mission, so that this can be checked against the "Returns of the Day" and will not be overlooked when units report counterbattery firing.

When a unit fires a counterbattery mission, it makes out a "CB Target Registration Report" and phones this data in to the CBO, who uses a similar form to record the information. This information is also entered in the operation journal and later in the proper place in the Hostile Battery Historical File.

The Operations Journal is similar to any other operations journal; i.e., herein is recorded all section activity, visitors' names, notes of moves, etc.

In addition to the duties mentioned above, the Operations Officer assists in making up the "CB Preparation List," which is compiled before any large-scale operation. This list shows all active enemy locations that must be neutralized prior to the start of the attack. He also obtains clearance from the divisions on "Safe to Fire" questions, keeps a record of all "No Fire Lines," maintains contact with CBO's of adjacent corps, takes over the operation of the section during the absence of the CBO, etc.

Other significant points concerning counterbattery operation are listed below.

The best information as to the azimuth of enemy shell trajectories is obtained from shell furrows or paths through vegetation. They should always be sought. The best method of determining an azimuth is to stake in the furrow and use an aiming circle. Sound azimuths, determined by ear, are not dependable.

OP's able to see flashes of enemy guns should set aiming circles or BC scopes on a known direction so that at night the true direction to the flash can be determined.

In addition to the daily "Counterbattery

Report," a list of the most accurate hostile battery locations is put out as an "Enemy Battery List." This list is published at indefinite intervals.

When close-support bombing missions are assigned, Air Support Command and the CB section are coordinated so that fire is placed on all of the known AA positions that may cause interference with the mission. All OP's are instructed to place fire on any AA battery they may pick up. The observation battalion may also be required to report the center of impact of the bombs.

It was felt that the CB section should not be charged with obtaining any general intelligence information; this should be the function of the Corps Artillery S-2.

#### *Harassing Fires (Artillery Officer, II Corps)*

From the corps viewpoint, harassing fires originated daily at the morning meeting of representatives of Chief of Staff, G-2, G-3, Air Support Section, and Artillery Section. Here long-range planning, broad tactical intent, artillery capabilities and ammunition restrictions, and Air Corps capabilities were all discussed and evaluated, and decisions for artillery harassing, both night and large scale, were made.

The enemy area in front of the II Corps sector was divided proportionately by the Corps Artillery Officer into suitable harassing areas for the artillery of the divisions and for the corps artillery.

By 1500 hours daily, missions as determined at the corps meeting, plus those occasionally called for by Fifth Army, were assigned to units according to the units' effective areas. Division artillery commanders added to their assignments the missions which were dictated by the necessity of their own divisions, and also passed back to the corps artillery section, for assignment to other units, those profitable missions which they themselves could not handle. Corps artillery brigades and groups in the same way determined profitable additional missions, handled those within their possibilities, and passed back to the corps artillery section those which came properly within the capabilities of division artillery units.

Throughout, the corps artillery section acted as a clearing house.

During daylight, when poor visibility prevented observed-fire missions, all units executed harassing missions on previously registered points along lines of communication within their zones of action.

#### *Lessons Learned (Artillery Officer, II Corps)*

Certain conclusions regarding manner and extent of photographic usage have been formed as a result of field experiences.

1. Field artillery units down to battalions need large-scale photo coverage to supplement maps and mosaics.

2. Issue of large-scale photos to echelons below the divisions and corps artillery brigades should be limited to the minimum number that will give cover of the area desired. Large numbers of photos or repeat sorties simply complicate filing methods, reduce familiarity with the material, and generally result in less frequent and less effective use of photo data.

3. Standardization within corps is necessary in regard to basic photo coverage and common templates to be used by all artillery units within the corps when working with or transmitting data to other units.

4. Coordination by higher headquarters is necessary in the selection, procuring, and issuing of standard cover and materials to lower units.

5. Establishment of means to obtain true coordinates at division artilleries and brigades, while only recently established, is believed to have been proved practicable and worthwhile. Trained operators at these headquarters have been able to give accurate and prompt information to lower units in the organization.

6. Stereoscopic cover is necessary only for those headquarters which have personnel specially trained in photo interpretation.

7. A trained photo interpreter assigned to corps artillery and located within easy reach of all battalions would be a great asset to artillery operations.

#### *Gridded Oblique Photography (Artillery Officer, First Army)*

Gridded oblique photographs are no longer in the experimental stage in this theater. Many units have used them in service practice and now swear by their value as a means of obtaining accurate initial data. In many cases only one round is needed in adjustment before going into fire for effect. Observation battalions report that gridded obliques are useful as a rapid means of indicating flash to all OP's. Easily annotated with grease pencil, they make an excellent planning aid for study of the terrain in relation to a map. The Air OP's find that gridded obliques permit the rapid location of targets as far as 8,000 yards in range, whereas with a vertical photograph or map, because of the change in perspective, it is only with great difficulty that targets can be located by inspection at this distance.

A series of indoctrination courses has been held at the Royal School of Artillery, Larkhill. Here, key survey officers of major field artillery units have taken an intensive 4½-day course on the subject and returned to their respective units as qualified instructors to teach observers and fire-direction personnel the necessary procedure.

It has been through the splendid cooperation of the IX Air Support Command and 67th Tac/R Group that these photographs have been obtained. With a high-speed P-51 Mustang equipped with a K-24 camera on special mount, pilots are able to fly the requested missions as long as the ceiling is at least 3,000 feet. Air Force photographic personnel grid the pictures and turn them over to the First Army Topo Engineers for determination of the necessary control. Delivery is made by army liaison aircraft or courier from the airfield to the corps originating the request. Further distribution to the using units is made by the corps artillery commander. In the case of army artillery units, distribution will be made by the army artillery officer. When issued to troops, they are in complete strips, with the list of coordinates and necessary control printed on a slip of paper on one end and an acetate trace for orientation on a map attached to the other end.



# PERIMETERS in PARAGRAPHS



By Col. Conrad H. Lanza, Ret.

## THE COLD WAR

Prepared by a widely-known military scholar and writer, PERIMETERS IN PARAGRAPHS is a recurring feature dealing with the military, political and economic realities in world affairs. Whereas an understanding of these realities is deemed essential to the American soldier, it is emphasized that PERIMETERS IN PARAGRAPHS reflects the opinions of the author, alone. This installment covers the period 1 September - 31 October 1949.

### ATOMIC WEAPONS

As early as January, 1949, reports from British agents indicated that Russia would have her first atomic bomb by June. More definite news appeared in a directive issued by the Cominform on 16 July and sent to heads of Communist parties outside of Russia. Again it was a British agent who either saw this letter during August or had it explained to him. The directive stated that information should be conveyed very confidentially to leading communists that the experimental stage of atomic bombs in Russia had ended and that production was now beginning.

In the meantime the French press on 30 July published a report that Russia had exploded several atomic bombs on 10 July before a distinguished gathering which included Marshal Stalin. As there was no explanation as to how this information had been secured, the report was at the time given little attention. It is now known that this report came from Russian deserters, including a major, who had reached the French lines. As these individuals had left Russian territory during June, they could not possibly have known what happened on 10 July, but they may have known that it was intended to have the demonstration on 10 July.

President Truman announced, on 23 September, "We have evidence that within recent weeks an atomic explosion occurred in Russia." On the same day the French Minister of Defense declared that France had previously registered atomic explosions in Russia.

On 17 October, Russian Foreign Minister Vishinsky, in an interview at New York, stated that Russia had had the atomic bomb ever since his predecessor, Vyacheslav Molotov, had on 6 November, 1947, claimed that for Russia the atomic secret no longer existed.

On 27 October, a Franco-British Committee of Foreign and Defense Ministers filed a report at London and Paris, reading in part:

**"The USSR is not only interested in the production of the atomic bomb, but is also in research leading to the use of atomic weapons under the form of atomic clouds.**

**"This information indicates that the USSR is contemplating the use of atomic weapons not only for the destruction of industrial centers and ports, but also against troops in the field, a purpose for which the atomic bomb cannot be effectively used.**

**"It is technically possible to produce atomic clouds by allowing different kinds of gas to pass through atomic piles and by concentrating them afterwards by pressure. Production of such clouds does not give rise to explosions. Therefore we would be unaware of their production, as they would not be registered by our seismographs, as has been the case of the atomic explosions which have occurred in the USSR."**

The statements of Russian deserters, as published by France, appear to be

based upon hearsay. They may have an element of truth, and include:

**1. The Proving Grounds for atomic weapons is in Ust Urt—a desert area between the Caspian and Aral Seas. Planes, known not to be Russian, but unidentified, have been frequently observed flying over this area at great heights. Russians have assumed that these are American planes on photographic reconnaissance, and probably based on either Iran or Arabia.**

**2. Russia has two types of atomic bombs. One of uranium and plutonium, approximately the same as American ones. Production is 2 per month. The other type is a thorium bomb and has materially less explosive force; its production rate is unknown. Both types of bombs have been demonstrated.**

**3. Russia has three atomic piles in Siberia, but their location was unknown.**

*Comment.* The Cominform directive of 16 July, stating that the production of atomic bombs had commenced, is probably correct. Atomic bombs may have been made earlier, but these seem to have been expended for tests and demonstrations.

### ROCKET BATTERIES

Reports compiled in Berlin indicate that Russia has established a line of emplacements for rocket batteries stretching from the Baltic to the Black Sea. A long-range type of rocket has been in development. The goal is a range of 3,000 miles, with reasonable accuracy. There is no information as to whether the goal has been reached.

### FORCED IMMIGRATIONS

Between 13 and 15 June, and without previous notice, Russia suddenly moved some 17,000 citizens of original Greek origin out of Caucasia to Kazakstan (east of the Caspian Sea) under conditions of extreme hardship. These people had lived in Caucasia for centuries, possibly since before the time of Christ, and had never been in Greece. Greece, after she learned about it, sent a letter to Moscow offering to receive these poor people. No answer was ever given.

*Perimeters* has previously reported that an atomic pile is suspected of being located in Caucasia. Fear of having people speaking a strange language near such an important plant may be the explanation of the Russian move.

Latvian refugees report that about 150,000 natives have been moved to Komi, in the extreme north of Russia. The object here seems to be to replace the Balt natives with Russians.

Polish reports state about 400,000 Jews have been moved out of the Ukraine and White Russia to East Siberia, where Jews are being collected. The satellite countries have received instructions to make a census of their Jews, and submit appropriate recommendations as to how many should be deported for alleged disloyalty to Communism.

Forced immigrations afford opportunities to confiscate the homes and property of the evacuated minorities.

### RUSSIAN PERSECUTION OF RELIGION

Matters appear to not be going too well within Russia. Opposition to the Polit Bureau rule is growing. So it is also among the satellite states. This resulted in the Cominform being convened at Bucuresti, Romania, about 1 September, to act upon a letter from Marshal Stalin. Stalin expressed his utter displeasure of conditions in Poland, Czechoslovakia, and Hungary, which he attributed to the stubborn resistance of the Catholic Church, of which a majority of the people of those states are members. He wrote that **"a bulwark has been created between the Communist Parties and the masses of the people,"** with consequent loss of communist

prestige. Necessary action was to be taken.

According to Underground reports a hot discussion followed. The Foreign Ministers of Romania (Mme. Anna Pauker) and of Hungary (Matyas Rakosi) proposed stern measures. Czechoslovakia and Poland favored moderate ones. No agreement was arrived at, except that the Mis-Information Section was directed to submit a study with recommendation. What that section submitted has not been ascertained. It is probable that what soon after occurred was the result of a new plan.

Religious persecution has been centered in Czechoslovakia, which is 1/3 Protestant, instead of in Poland, which is practically all Catholic. The new plan is being tried out and has not yet been applied to other satellites.

The new plan seeks to divide the Catholics by false representations that the majority of Catholics wish to adopt communism under a People's Democracy. The Mis-Information section furnishes trained fake priests for which positions are to be assigned by the state instead of by the Bishops. Other clergymen who are dissatisfied with their superiors have been added. Basis of the state-desired instruction is that the People's Democracy should have precedence over any devotion to a church. From that premise it follows that the Church is solely an adjunct of the state. The state therefore assumes the duty of supporting the clergy, and in turn prescribes the sermons to be delivered. So far state sermons have been limited to praise of Marxian Communism, and to denouncing the United States as the enemy. Clergy not willing to obey state instructions are gradually being removed by disappearance without explanation. It is too early to determine the result of this new plan. It has been previously tried in the Baltic States, of which two were Protestant and one Catholic. In none of the three states has the plan worked.

The Cominform's Mis-Information Section is unusually secret. It has its own agents wherever there are Communist Parties outside of Russia. Their identity is not revealed even to communist leaders in the countries where the agents operate.

### YUGOSLAVIA

The conflict with Russia has intensified. Yugoslavia has not abandoned Marxian Communism, and has not sought to join the Western Powers, although it has expressed a willingness to obtain war material and supplies from them, especially if they need not be paid for. Yugoslavia charges that it is the Polit Bureau which has failed to comply with Marxian rules and regulations, which are strictly enforced within Yugoslavia territory, including persecution of the Orthodox Church, to which a majority of the citizens used to belong, and which has been state sponsored.

*Military and Political Operations.* Following its meeting at Bucuresti about 1 September, the Cominform on 2 September announced that orders had been issued to organize a 5th Column within Yugoslavia. It stated that it did not desire war, but that

**"Tito and his Fascists clique are doomed, because the Yugoslavia working class will soon have power to overthrow them."**

There is dissatisfaction within Yugoslavia against its dictator, Marshal Tito. Owing to the censorship, just how serious this is is uncertain. The ruling class in Yugoslavia, who form more than half the total population, are the Serbs, who occupy the south section. The north section is Croatia and Slovenia. These have been anti-Serb, and in 1941 joined Germany. In the west there is a Mohamedan minority, which is believed to be anti-Serb. There seems to be material for organizing a 5th Column. Secret armed parties against the government have been normal in Yugoslavia for centuries. The appearance of 5th Column activities would not be unusual.

In view of the Cominform's open declaration, and the presence of an increased number of Russian divisions along the boundary (see preceding installment of PERIMETERS) Yugoslavia on 4 September advised its people that war threatened. However, a few days later three Russian armored divisions which had suddenly appeared at the end of August opposite Yugoslavia were withdrawn, leaving seven infantry divisions in line, in Austria,



Hungary, and Romania. This number of divisions has been normal.

On 11 September, a Russian General Order issued in Moscow called for special vigilance by the armored forces, "as the dark forces of reaction headed by the Anglo-American Imperialists are feverishly preparing for a new war."

About this time the communists discovered a "plot" between Yugoslavia and the United States to overthrow the government of Hungary as a preliminary operation to oust the communists from other satellite states. A "trial" was held of the alleged conspirators, of whom the most important was Laslo Rajk. This official had been the Foreign Minister, and since before World War II had been a leading communist. It was now claimed that for at least three years he had been plotting for an invasion of his own country by American and Yugoslavia forces. On 16 September, as usual in communist trials, Rajk "confessed" in open court that he was guilty as charged. No other proof of the alleged "plot", such as witnesses to overt acts or documents relating thereto, were offered in evidence, which was limited exclusively to "confessions". As explained previously, the Hungarian court of appeals has ruled that opposition to the state is a capital offence. The law doesn't state *forceful* opposition, and the court pointed out that *peaceful* opposition was equally worthy of punishment. If the accused "confessed" opposition to the state, no other evidence was necessary, and usually there isn't any. Rajk was duly executed a few days later, for what appears to have been a purely imaginary crime.

This trial furnished a new base for Russian propaganda. Colonel General Enver Hoxha, Premier of Albania, in a speech on 16 September, charged that the United States was seeking to crush Albanian independence and divide that state between Yugoslavia and Greece, both of whom, he stated, had become American satellites. The press of Moscow commenced a series of articles against the United States. It charged that the Hungarian trial had fully proved that the United States had decided to return to the former war plan of the then Prime Minister Churchill of invading the Balkans from the Mediterranean and

detaching them from Russia. It was charged that the American Office of Strategic Services was in charge of this mission and was its active agent in Hungary.\*

On 28 September, Russia denounced its treaty of friendship with Yugoslavia of 11 April, 1945, on the ground that the trial of Rajk had conclusively shown that Yugoslavia was guilty of hostile and disruptive work against Russia and that it was itself merely an agent of foreign imperialist circles.

At the beginning of October, Yugoslavia G-2 made a revised estimate of the situation. He saw no danger of war. Seven Russian divisions along the border were insufficient to overcome the superior Yugoslavia Army. He made no allowance for Hungarian and Romanian divisions, for these had inferior equipment, were poorly trained, and had insufficient officers. They were not anxious to fight for Russia and feared the fierce Yugoslav divisions. Satellite organizations were far from being attack units. It was probable that there would be 5th Column activities to include sending guerrillas across the frontier in raids. If that should happen, Yugoslavia was prepared to retaliate in kind. On 3 October Marshal Tito at a banquet stated that war was threatening but he would fight it out.

The first raid reported occurred during the night 20/21 October. An estimated force of 500 men with two tanks and one armored car penetrated into Yugoslavia about 6 miles, until stopped by artillery fire before Vel Kikinda (an important RR junction in the NE sector). Yugoslavia claimed a victory, for Vel Kikinda had been successfully defended. It is more probable that the raiders were seeking only to obtain identifications, as to which they reported 30 POWs. Romania reported that the raiders were all Yugoslavs. That might have been the case, but they couldn't have jumped off from Romanian soil without that country's aid.

Next incident was during the night 27/28 October. Hungary and Yugoslavia each charged that the other had crossed

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\*The OSS was discontinued at the end of 1945, and hasn't been operating anywhere since that date.

the border and attacked, with the mission of cutting barbed wire. Examination of available reports indicate that neither side attacked, but that both sides, thinking the other was attacking fired most of the night. It was poor firing. After 7 hours there was no casualty.

*Comments.* Yugoslav mobilization strength is uncertain, but is between 25 and 32 divisions, which is ample to withstand an attack from the Russian border troops. Mobilization in the past has been slow, and in 1941 had not been completed when German troops invaded the country. In case of war Yugoslavia would have a central position as against attacks from Hungary, Romania, Bulgaria, and Albania. However, communications are not very good and in 1941 it was impracticable to transport troops from one sector to another in time. The central position turned out to be a defect, as attackers coming from all directions bored towards the center and smashed the defending troops by attacks from unexpected directions.

Yugoslavia has Russian arms. It doesn't manufacture either spare parts or ammunition, and Russia isn't furnishing anything. It is questionable as to how long existing stocks would last during an active campaign.

Russian troops in the Balkans comprise the 3rd Army Group, which has had 45 divisions, exclusive of satellite ones. Yugoslavia is probably correct in estimating that the Russian satellite divisions are not dependable for attack, but they might be of use as L/C troops. Yet even this is doubtful. During October reports from Germany were that substantial numbers of German MPs had left for the Balkans, and these may be prospective L/C guards.

Reports from Austria and Hungary show no unusual Russian concentrations, and reports from Bulgaria that no Russian combat troops are in that state. From Romania no reports have come in for several months from direct observers. There is apparently a close black-out on news. It should therefore be presumed that Russian troop concentrations may exist there. It is a central position, normally raises surplus food, and has good Ls/C to the Yugoslav border.

Reports from Russian satellites are that the Russian Balkan army received,

towards the end of October, one infantry division and three armored divisions. These may be replacements or they may be reinforcements. If the latter, there would be at least six armored divisions in the Balkans, as three had previously appeared opposite Yugoslavia at the end of August.

Allowing for several divisions being left in Austria and Hungary, Russia seems to have between 40 and 50

divisions close to Yugoslavia, without counting satellite divisions. The seven divisions along the frontier are covering troops to prevent information reaching Yugoslavia as to what is going on in rear of them. At the end of August, the three Russian armored divisions were able to reach the frontier areas before their presence was discovered by Yugoslavia. It was a test, and presumably showed what improvements if any were required

on roads and railroads leading to the front.

The general impression is that Russia is well concentrated in the Balkans, and could launch an offensive if orders to that effect are issued. Yet it is not desired to risk a third World War. As long as this danger exists, troops will remain in readiness, prepared to strike swiftly as soon as a favorable opportunity presents itself.

## THE NORTH ATLANTIC ALLIANCE

### GENERAL SITUATION

In West Europe the allies have the equivalent of 13 divisions north of the Alps, and six to the south thereof. To withstand a serious attack long enough to enable reinforcements to arrive, there should be 40 divisions north of the Alps and 30 to the south. If Italy is not defended, but the Franco-Italian border is, 18 divisions south of the Alps might suffice. Switzerland has the equivalent of 17 divisions, not counted above on the expectation that it will not be attacked, and will remain neutral.

The divisions needed to defend West Europe could be raised among the European members of the Alliance, provided money at the rate of \$250,000,000 per division is made available, and provided there will be time to carry out such a plan.

Nobody knows how much time will be available, nor whether the United States could, and/or should, furnish the vast sum of money involved. Weapons, munitions, and equipment are being shipped by the United States, but it will take a long time to complete the program under the best circumstances, unless the European members do better than they have been doing to equip themselves.

### ORGANIZATION OF THE ALLIANCE

Major changes have occurred as a result of the erection by the Western Powers of a West German state, and by Russia of an East German state.

On 7 September West Germany organized a Parliament of two houses as

In compliance with the Agreement of 2 April, 1949, the Foreign Ministers of the North Atlantic Allies convened at Washington on 17 September and organized themselves into a Council. It is to meet annually, and normally at the same place and time as the United Nations. Chairman of the Council will be rotated in alphabetical order of states.

The Council set up a Defense Committee whose members are the Defense Ministers of each of the Allies. Its mission was designated as to "immediately take requisite steps to have drawn up unified defense plans for the North Atlantic Area." Its chairman is rotated as for the Council, commencing with the United States, and it reported on 5 October that its organization was complete.

The Defense Committee in turn created a Military Committee, consisting of the Chiefs of Staff of the Allies, with its CP at Washington. It is to advise the Defense Committee on military plans and policies. It was organized on 6 October, with General Omar N. Bradley, USA, as chairman.

The Military Committee organized a Standing Group, consisting of one representative each from France, Great Britain, and the United States, to originate plans which it believes should be adopted, and a Military Support and

Production Board to consider logistical matters. This Board is to organize in London during December. Regional Groups for planning purposes, and presumably for command if war comes, were set up as follows:

North Europe—Great Britain, Denmark and Norway. The US has agreed to participate.

West Europe—Great Britain, France, Belgium, Netherlands and Luxembourg. The US and Canada have agreed to aid.

South Europe—Great Britain, France and Italy. The US has agreed to participate.

Canada-US—Canada and the US.

North Atlantic—All the Allies, less Luxembourg.

CPs for the Regional Groups have not been selected.

On 6 October, the Mutual Defense Assistance Act was signed by the President. It appropriates \$1,314,000,000 for military aid to allies.

*Comment.* The North Atlantic Alliance is now working. The Standing Group seems to be the important unit for planning. It reports to the Military Committee, which reports to the Defense Committee, which reports to the Defense Council, which reports to the heads of state. This seems to be a complicated arrangement which in case of emergency might cause dangerous delays.

## GERMANY

prescribed in the Basic Law of 8 May (See PERIMETERS for July-Aug.). On the 12th it elected Theodor Heuss as President of West Germany, the official name of which is Federal Republic of Germany. Konrad Adenauer was

appointed Chancellor (German equivalent for Prime Minister). In his initial speech of the 20th he declared that there would be no peace in Europe unless East and West Germany were reunited. He denounced the Russian policy

in East Germany. Supported by the entire Parliament he requested for West Germany that the Western Powers stop dismantling German industries and admit West Germany into a new Council of Europe. From the East he demanded the return from Russia and Yugoslavia of German POWs still held in confinement for slave labor.

West Germany operates under an Allied High Commission with CP at Bonn. This became operational on 21 September, with three High Commissioners—one each American (John J. McCloy), British, and French, representing the three Occupied Zones which together form the new state.

The sectors of Berlin held by the West are not included in the new state. All of Berlin was supposed to be governed by a 4-Power Council, which had resumed control effective on cessation of the Russian ground blockade and Allied air lift in June. The Council lasted until 28 September when it was discontinued. The Allied communique stated:

**"We are not prepared to continue with discussions on the normalization of life in Berlin until we can be confident that agreements freely negotiated will be honored by the Soviet authorities. We have warned them repeatedly and have tried twice to have 4-Power meetings on the subject. The Soviets always managed to evade them."**

Speaking for the West, the French commanding general, General Jean Ganeval, said, "the Soviet authorities have never stopped violating the promises they gave." Russia made no formal objection to the discontinuance of the 4-Power Berlin Council. She may have desired it. But on 2 October Russia, by letter to each of the Western Powers, violently objected to the new West German state. In part this read: **"Formation of a separate Government for the Western Zones of Germany can only be considered as the culmination of a policy of splitting Germany which has been pursued by the United States, Britain, and France during the last few years, in violation of the Potsdam Agreement under which these states, jointly with the Soviet Union, undertook the obligation to regard Germany as a**

**whole and assist in transforming it into a democratic peace-loving state . . . the three Powers have also violated decisions adopted at the Paris session of the Council of Foreign Ministers . . . to continue efforts to restore political and economic unity to Germany.**

**"The Bonn Constitution was worked out under direct pressures of the Western Occupation Authorities, who practically dictated its chief articles. In that way the German people had imposed on them a federate structure with which the majority of Germans are not in agreement."**

The letter then charges that West Germany is merely a puppet state of the West, and ends that a new situation has thus been brought about.

Then on 7 October Russia counteracted by erecting an East Germany out of its Occupied one. Its organization differs from West Germany. In the latter state the Western Powers had required the forming of several German political parties, but avoiding any one major party, and excluding a Communist Party. In East Germany Russia had permitted only the Socialist Unity Party, which represents German communism and whose mission had heretofore been to convert all Germans to communism. That had failed, although there is a Communist Party which may represent 10 to 15% of the population. A Parliament for the new East Germany was formed by transforming the Socialist Unity People's Council into a People's Parliament and declaring a Constitution was in force.

The new state took the name of the German Democratic Republic, with Wilhelm Pieck as President and Otto Grotewohl as Chancellor. The very day it was organized the new Government adopted a resolution calling upon the Big-4 Powers to unite Germany, fulfill the Potsdam Agreement, and cease dismantling German industries.

Three days later, the Allied High Commission at Bonn defended West Germany as a duly elected government while East Germany had been organized by order without any election or electoral mandate. For that reason it considered East Germany as devoid of

any legal standing and without right or title to represent the East Germans.

The Russian C-in-C in East Germany on 10 October announced that the Russian Military Administration would cease administration, leaving that to the Germans, but would remain, redesignated as a Control Commission, to supervise the former Russian Zone now liberated.

On 12 October, the East German Chancellor stated his country would adhere strictly to the foreign policy of Russia. On the 14th, Marshal Stalin replied in a congratulatory letter, unusual for him, addressed to East Germany, reading:

**"There is no doubt that the existence of a peace-loving, democratic Germany, along with the existence of a peace-loving Soviet Union, will exclude the possibility of new wars in Europe, make an end to European bloodshed, and make impossible the servitude of European countries under world imperialism."**

This message appears to be a bid for a united Germany, allied to Russia, to rule all of Europe. It was so understood by Germans. In the West they immediately began to talk about the Western Allies decreasing the authority of the Allied High Commission and increasing that of the German state. On the 16th Russia announced that she would grant diplomatic recognition to East Germany and exchange ambassadors. The Russian satellites and communist China undertook to do the same. When West Germans began to talk about diplomatic recognition for their state, which is not permitted by the Allied High Commission, the American Commission on 18 October announced that the United States would not undertake to match Russian moves in East Germany.

*Comments.* East and West Germany are both puppet states. East Germany has more liberty on local administration, and can secure action on other matters rather quickly by reference to the Russian C-in-C, General Vassily I. Chuikov, who follows a definite policy prescribed by the Polit Bureau in Moscow, which knows what it wants.

West Germany has less liberty. It can not count on quick action from the Allied High Commission, which does

not have a policy, but whose members represent policies of three Allies whose interests are not identical. French policy is to keep Germany indefinitely disarmed. British policy has not been officially announced; its actions bear out a general interpretation that it is desired to prevent Germany from again becoming a trade competitor in the international market. Britain and France are agreed that certain German resources, especially the Ruhr mines and industries, shall be exploited largely for the benefit of their own countries and their allies. The United States has been a mediator without having made any decision as to what is to become of Germany. The one important case which the Allied High Commission has had to

consider since its organization has been the devaluation of German currency to meet British devaluation of the pound. It took two weeks to arrive at a decision, and that appears to have been a compromise of divergent opinions.

The Germans have noted the difference between East and West Germany, and are discussing it. They fully realize that these are puppet states, but they consider them as transient. All Germans—East and West—are united in desiring but one country; they wish the withdrawal of occupation forces and the restoration of their independence. The problem is whether to follow the Russian lead or that of the Allies. The majority of Germans appear to prefer the Western Powers, but if the West does not offer

them what they consider a fair deal, they are likely to consider bids from the East.

After World War I the victors required Germany to evict her Emperor and satellite kings and princes. To obtain peace and food the Germans acquiesced. After World War II the victors, having split among themselves, have required those parts of Germany under their respective occupation forces to erect separate states on plans prescribed by the conquerors. In neither of these cases has German acceptance meant approval. It meant no more than that to obtain food they have provisionally agreed to conditions imposed by superior force.

The German problem has not been solved. Until it is, no permanent peace is in sight.

## GREECE

On 1 September, the main forces of the Greek Army held the frontier of Albania, with a secondary force opposite Bulgaria. The enemy—communists—within Albania formed their 8th Division, which was reorganizing in the vicinity of Elbasani, practically at the center of Albania, with an estimated combat strength of 8,000. A detachment was posted to the north at Pogradetz, opposite where Greece, Yugoslavia, and Albania come together, while 1,000 more communists were in Bulgaria. Communist C-in-C was Demetrius Partsalides; Greek C-in-C General Alexander Papagos.

Within Greece were an additional 5,000 communists, more or less, scattered and in process of being hunted down. On the 4th a band of 1,000 communists seeking to gain Albania was intercepted south of Mt. Grammos. The communists succeeded in breaking through, but left 210 killed and 174 POWs in Greek hands. This is the only engagement of any size reported during the period reported on.

On 16 October the Communist CP in Albania broadcast:

**"The Anglo-American Imperialists and their agents the monarcho-Fascists have brought untold misery to the Greek people since they pushed**

**them into civil war 3½ years ago. In order to avoid the total destruction of Greece our operations will now cease."**

Nothing was said about disbanding the communist forces. They haven't disbanded, but have been rapidly re-equipping and vigorously training. Why? On 7 September, Rusisa started a press and radio campaign alleging that Greece and Yugoslavia, aided by the United States, had conspired to attack Albania and divide that small state among themselves. In view of this alleged danger, the communist 8th Division appears to have been combined with two weak Albanian divisions, with a probable view of engaging in operations against Yugoslavia at a date not yet announced. Or they may threaten Greece with another invasion should Greek troops go to the aid of Yugoslavia. Best information indicates that the Albanians are not anxious to invade or fight with any other country. However, the current situation requires Greece to maintain a containing force towards Albania.

*Comments.* Discontinuance of operations against Greece by the communists in Albania is probably the result of orders from the Cominform.

Since Yugoslavia left the Russian fold, the line of communications by land from Russia to Greece has been cut. Sea communication is open, but this is slow and inadequate and could not be maintained should war come. Curtailment of operations has been necessary to conserve supplies. In the meantime, the troops are being trained for a mission not yet disclosed. Their location at Elbasani, with advance guard at Pogradetz, points to Yugoslavia.

The railroad and road extending north from Salonika into Yugoslavia has been reopened. It passes close to the Bulgar frontier, and its operation in war can not be counted on.

If Yugoslavia it attacked it should be expected that Greece will go to her aid. Not to do so would be to invite her own defeat by a subsequent operation, as happened in 1941. There is a possibility that Greece may attack Albania. No love exists between these countries. Greece would like to annex at least a part of Albania. She is waiting for a suitable occasion.

Should Greece and/or Yugoslavia become involved in war no one can foretell what complications will follow. The Western Powers have stated that they have a plan for such a contingency. For obvious reasons this is secret.

## CHINA

### MILITARY OPERATIONS

The war between the Kuomintang (National) and Communist Governments continues with very little fighting. Since the United States ceased to furnish large sums of money and supplies to the Kuomintang, that organization has made no effort to seriously oppose the enemy. They explain their inability to do so as due to lack of money, weapons, and ammunition. They do not explain how the enemy is reported as fully equipped with American weapons, munitions, and uniforms, originally furnished to the Kuomintang, but which were partially captured in "battles" or corruptly sold.

On 1 September the communist armies, pushing down from the north, had their main force on the line Chenhsien (excl) and Kanhsien (incl), advancing on Canton, with a flank guard to the east along the Chin River headed for Amoy, 45 miles to the south. The Kuomintang C-in-C was General Pai Chung-hsi, whose CP was at Hengyang. He had no intention of fighting, although he claimed to have several hundred thousand troops. Instead, his standing orders offered a money remuneration to all members of the enemy who surrendered with arms. In Chinese silver, sums prescribed were \$10 for one infantryman with a rifle, \$15 for one man with a tommy gun, and \$100 if he had a machine gun. A captain bringing in a 4-gun battery was promised \$2,000, while a colonel with a regiment would receive \$100,000. The general claimed that these sums had within a month increased his forces by the equivalent of several divisions. How much the enemy paid for desertions has not been ascertained. Buying off the enemy is the usual practice in China, and always has been. With the deflation of currency, prices have increased. Before World War II, \$100,000 was the customary price for a division commander surrendering, but now a colonel receives this amount for only a regiment.

Always remembering that there was no intention of fighting, the Kuomintang plan was to withdraw gradually, abandoning Kwangtung and Kwangsi. Ground troops, except those on the

coast, were to withdraw west. Szechwan, Kweichow, and Yunnan were to be defended on the west, and Formosa, Hainan, and the Chusan Islands on the east. The communists were to hold the mainland between the two Kuomintang forces. The Kuomintang had an air force, which was highly inefficient, and a navy of doubtful loyalty. Between them they proposed to blockade the communist-held coast, and did so sufficiently to cause a noticeable lack of foreign goods in communist territory, which has resulted in the closing down of some industries for lack of raw material, coal, etc. Communists have neither an air force nor a navy.

Early in September, General Lu Han, commanding in Yunnan, made it known that so much of the Kuomintang plan as included his state's remaining within the Kuomintang lines had not been approved by him. He intimated that a consideration was due. Thereupon Generalissimo Chiang Kaishek, who is in real command of the Kuomintang, flew to Yunnan. After a conference a communique was issued on 9 September announcing complete agreement, with General Lu engaged to support the Kuomintang. Other terms of agreement were not published.

Late in September the communist armies moved south toward Canton and Amoy. Movement was deliberate and ample opportunity was allowed the Kuomintang to withdraw. Canton was occupied by the Communists on 15 October, Amoy two days later. The Kuomintang Navy on the same dates established a blockade of those ports. For the West sector, Kuomintang opened a capital at Chungking; for the east sector, the capital is at the Generalissimo's CP on Formosa.

Elsewhere in China the communists have made large gains. On 3 September they occupied without resistance, Sining, capital of Tsinghai. This is a Moslem province but the Moslem generals deserted to the enemy. The commanding general, General Ma Pu-fang, reputed to be a fierce fighter, fled and was last reported in safety in Hong Kong. His son, General Ma Chi-yuan, succeeded to the command.

On 20 September General Tung Chi-wu, commanding in Suiyuan, changed to the communists. This province was outside of theaters of operation during all of this year and no military operations were pending.

On the 24th, Ninghsia Kuomintang garrisons generally announced that they had decided to join the communists. Four days later, on 28 September, the authorities in Sinkiang formally announced their adherence to communist China. In this province a pro-communist Turk Government in the northwest section has been in power for some time, and is in close liaison with adjacent Siberia.

### POLITICAL

The first public acknowledgment from communist China that it had received military aid from Russia appears in a resolution passed by a convention at Dairen at the end of May which states that it "attributed the outstanding successes of the Party during the past three years to the active assistance of the Soviet Army." The campaign in Manchuria lasted through 1946 to 1948, and was fully reported in PERIMETERS. The culmination of the campaign came in 1948, by which time the communist armies had been organized, trained, and equipped at Russian training centers. They then attacked superior Kuomintang forces which were scattered and which limited themselves to defending "strategic" cities. By concentrating successively against one after the other, the Kuomintang was crushed. Russian leadership probably was of decisive importance.

Communist propaganda is bitter against the United States and Great Britain—the same line as in Russia. The press gives the present communist mission as to continue on after the consolidation of China to the occupation of all of Southeast Asia as far as Singapore. In view of that threat, a movement has started, led by the Philippines, to organize a common defense for all the nations in Southeast Asia.

The communist plan is further explained in an article by Mao Tze-tung,

communist leader, published on 1 July. He wrote:

**"The rulers of the United States and Great Britain are still imperialists. Will they extend aid to a People's state? If we do business with them, and if they should be willing to lend us money, what would be the benefit in that? It would benefit the capitalists of those countries who wish to make money and the bankers who wish to earn interest to relieve their own difficulties. It would be of no aid to the Chinese people.**

**"Travel the road of Russia—that is our conclusion. Internationally we belong to the anti-imperialist front. . . . Let us unite all forces at home and abroad to smash domestic and foreign reactionaries. There will [then] be business and an opportunity to establish diplomatic relations with all foreign countries on a basis of equality, mutual benefits, and mutual respect of territorial sovereignty."**

On 7 July the communist C-in-C, General Chu Teh, in a speech stated:

**"We must strengthen the alliance between China and the Soviet Union, for that alliance is the most important weapon needed to resist the new aggressive fronts in the Far East."**

On 21 September, a People's Republic was proclaimed at Peiping. A Council of 89 members was organized to rule China. Addressing it on the 26th, number 2 communist Chou En-lai said:

**"China will stand at the side of Soviet Russia and other new democratic countries and will recognize that there is no neutral ground between the international peace camp and the imperial aggression camp."** On the 28th Mao Tze-tung was unanimously elected President. General Chu Teh, C-in-C, became one of six Vice-Presidents. The new state became operational on 1 October. Russia recognized it on the 3rd and at the same time severed diplomatic relations with the Kuomintang Government, which it claimed no longer represented the Chinese people.

Within a few days Russian officials in considerable numbers commenced to report at Peiping. Presumably they will direct Chinese policy, which internationally is not entirely agreed upon among the Chinese. One section,

led by Chou En-lai, while agreeing to support Russia, desires peace and reasonable trade relations with the Western Powers. Another section desires strong liaison with Russia and opposition to and no trade with the United States and Great Britain. This section's leader is Liu Shaochi, deputy chief of the Chinese Polit Bureau. He makes frequent trips to Moscow, writes for the Russian paper *Pravda*, and has been spokesman for President Mao Tze-tung.

A first act of the communist state was its decree of 6 October that press correspondents from countries which had not granted diplomatic recognition were prohibited from sending press reports. The communists control all information, press, radio, schools, etc., and the decree acts to prevent any news being sent out of China other than communist hand-outs.

The communists have remedied some local abuses. They seek to equalize wages, punish the wealthy as imperialists, and reward party devotion. Propaganda is well organized. Taxation has been reasonable. For a time this secured some adherents with the hope that corruption had disappeared. That was a wrong assumption, for corruption has just taken another form. Commanding generals and governors issue circulars announcing that those wishing to offer *presents* may deliver them at designated CPs on stated dates and hours. *Presents* are reported as voluntary and spontaneous, but a failure to make one, or one of adequate value, is an invitation to confiscation of property or liquidation of the individual concerned.

## COMMENTS

*The Kuomintang Government.* There has been urging and propaganda in the United States, some of it on a high level, in favor of donating funds and munitions to the dwindling government of Generalissimo Chiang Kai-shek, to enable it to resist the communist advance. It is represented that the Kuomintang still has several hundred thousand troops in south China, and that for just \$200,000,000 these could be effectively armed.

This sounds good, and, were it true, it might well be worth \$200,000,000 to the United States to stop the communists. The facts are that during a period of over ten years, the United States has regularly furnished funds, weapons, and supplies to arm and equip the Kuomintang armies. But there has been very little fighting. The American arms and equipment have gradually been transferred to the communists. According to American observers, the communist troops who crossed the Yang-tze River this year were almost entirely outfitted with American weapons, equipage, and clothing. Although inferior in numbers, the communists were not opposed by the superior Kuomintang forces, who have since either surrendered, deserted, or withdrawn to distant areas. It hasn't been the Japanese arms which fell into communist hands which has enabled them to win the civil war. It was largely due to the Chinese customs for land warfare, which permit commanders to sell out to the enemy. This has been previously explained in PERIMETERS, but attention is again invited to the rule that battles should never be fought to a conclusion, nor the enemy prevented from withdrawing in order to reorganize with a view of renewing hostilities later. Selling arms and ammunition to the enemy, or others, has been frequent and American arms are now being illicitly sold throughout Southeast Asia.

*Corruption.* Believe it or not, there isn't any law in China against an official embezzling public funds, or selling government property and appropriating the proceeds to his own use and benefit. Never has there been any such law. There is a Chinese presumption that an official is an officer and a gentleman. That presumption is a bar to trial, for an officer and gentleman never commits a wrong. No Chinese official makes any report on public moneys received, nor on how he disbursed them. His books are never inspected nor audited. So far as known no Chinese official has ever been tried for corruption. Public opinion favors grafting by public officials, and always has favored it.

How does a situation so strange to Americans arise? Chinese officials are

appointed to the lowest grade by examination. Exams are open to all. A son of a beggar has an equal chance with a son of a rich man. Opportunities for graft increase as rank is gained. This has been an immemorial custom. Chinese writers estimate that in the past 2,000 years about 10% of their officials have been honest and faithful public servants, 90% have been corrupt.

Patriotism in China is primarily to the family. Fighting for the country, and much less dying for it, or for the flag, for the constitution (hasn't been any and it is not wanted), or for religion, etc., makes no sense to a Chinese. Provided there is peace and order, he considers it immaterial who governs the country and is perfectly willing that his officials should graft.

Officials from time to time have an opportunity to benefit their families. This may well involve selling arms, surrendering to the enemy for cash, or appropriating government funds. Since almost everybody does it, public opinion favors it, and there isn't any law against it, failure to take advantage of such a favorable situation would result in the official being rated as a fool. So he does it.

Any one having to do business with China, military or otherwise, needs to allow for Chinese corruption. Standard practice for thousands of years, it can not be changed by order. Further buying off of Nationalist generals, to include "capture" of Formosa unless prevented by the Western Powers, is to be expected.

*Results of the Present China Situation.* Communist China has made so many declarations on its intention to go along with Russia, and that it considers the Americans and British as imperialist aggressors, that it would be dangerous to neglect such warnings.

If China did nothing more than to express her dislike for the Western Powers and her love for Russia, that situation might be disagreeable but it might be tolerated. But communist China has repeatedly announced her intent to undertake to "liberate" Southeast Asia as soon as China is consolidated. The winter campaign of 1941-42 proved that China divisions could move into Burma and be maintained there. It would be less difficult to invade Thailand (redesignation for Siam) or Indo-China. The threat is a real one. It is easy to see that if Southeast Asia falls to communism, the next move might be either against India, Indonesia, the Philippines, or Japan.

As this account closes the United States and the British Empire are reported to be reviewing their policy regarding Japan, while the Philippines is seeking to create an alliance of all noncommunist states in south and southeast Asia. Events in Asia are moving with considerable rapidity, and a definite Western plan is much needed.

*General Impression.* The Chinese want peace, and are not willing to fight the communists unless some Foreign Power pays the expense, and furnishes the means. Since American support

stopped there has been no real fighting. The American explanation that a great part of funds and supplies which were furnished for years were squandered corruptly means little in China, since as explained, corruption is normal, and the Chinese expect that allowance ought to be made for what is customary in their country.

Cessation of American support has resulted in a profound change of opinion among Chinese relating to the United States. The intellectual class has concluded that American support of China during the past has not been based upon a desire to maintain an independent China. They point out that immediately after the surrender of Japan, Lend/Lease was cut off; that General Marshall spent 13 months in China trying to arrange a semi-Red government; that the United States secretly gave away Mongolia to Russia, with valuable rights in Manchuria, at the Yalta Conference. Does that mean that the United States was seeking the welfare of China? Against that record, the same Chinese intellectuals point out that Russia was wholeheartedly supporting the China communists. With that help, China might get somewhere.

The revolution in China is similar to that in Russia in 1917. Both are the seizure of power by a communist minority. In 1917, the World did not think the Russian revolution was a danger to other countries. That was an error. The same error should not again be made.

## SOUTHEAST ASIA

### BURMA

The people of Burma (except the communists) are in fear of a Chinese communist invasion. People remember the Chinese divisions who arrived during the winter of 1941-42 to save their country from the Japanese. It is not a happy memory. The people think the remedy was worse than the disease; they dislike the Chinese and do not want them back. The Government is doing nothing about this, claiming that the danger is remote.

Fighting between the Government forces, two kinds of communists, Karens,

and Republicans, each being at war with the others, continues in a desultory fashion. As no party has a large number of troops, bands travel around so that areas are alternately in possession of one or another party. Principal forces are those of the Government and of the Karens. The latter have their capital at Taunggyi (East Central area). The Karens on 11 September raided a government air field 24 miles west from Taunggyi at Heho, but failed to capture it. In retaliation the Government on 5 October bombed Taunggyi, with, so far as can be ascertained, no particular damage.

With so many parties against the Government, which is also in financial difficulties, it is not very practicable for it to establish a frontier guard along the China border. The British used to have such a guard, which was efficient, but that no longer exists and the frontier is practically wide open. For the moment, the friendly Kuomintang controls that part of China adjacent to Burma. How long this situation will last is doubtful.

### MALAYA

The communist rebellion continues as a sabotage campaign by small bands of

Chinese communists. There are large numbers of Chinese in Malaya, and in Singapore they are in a majority. The natives are Mohammedan Malays, and dislike both communism and Chinese. If the present Chinese rebels are not supported from the exterior, it seems probable that the British will gradually eliminate them through minor warfare now in progress.

### INDONESIA

The war between the Dutch and natives has been officially ended by the signing of a statute at The Hague on 2 November, setting up a Republic of the US of Indonesia, and a Union between the new state and the Netherlands.

The new Republic is to become operational at a date to be agreed upon, but which will be around 1 January, 1950. It will include all of the former Netherlands East Indies, less New Guinea, and will be divided into 16 states. Boundaries between these constituent units are in most cases to be arranged later among themselves.

The Dutch Army, about three divisions, is to withdraw and complete the movement by 1 July, 1950. As these three divisions are good troops, they will be welcomed in West Europe. Those members of the Army who are natives and who wish to transfer to the Republican Army are to be permitted to do so.

The naval base at Soerabaja is to be maintained under joint Dutch and Indonesian management. The United States is interested in this base to the extent that the Western Powers do not want it to fall into hostile hands.

### INDO-CHINA

The newly organized Viet Nam Government under former Emperor Bao Dai is not making headway in pacifying the country against the armed opposition

of the communist-controlled Viet Minh.

As the communists in China are approaching the north boundary of Indo-China, a large part of the French Army, equivalent to about three divisions, has been concentrated along the China frontier. Their mission is the same as that which the Greek Army has had—keep communists who are outside of the country from getting in, and keep those inside from getting out before being disarmed. The French Chief of Staff has completed an inspection of troops and, having returned to France, has issued orders for 10 additional battalions of French infantry to leave for Indo-China. These battalions are to number about 1,000 men each, and will bring the total French strength in Indo-China up to about 120,000, exclusive of some native troops.

Recent fighting has been limited to patrol actions.

### PHILIPPINES

The Hukbalahap revolt is slowly spreading. There are reports that the Constabulary is not too enthusiastic about suppressing this movement. Some evidence has appeared that there is collaboration in places.

It is alleged, but not proved, that the Hukbalahaps are in liaison with Moscow, and receive arms and munitions via submarines which deliver them on the east Luzon coast. This may be true, but the same allegation has been made at intervals during the past forty years, except as to the origin of the arms, which changes with the situation. It used to be Japan, and now is Russia. The central and northern portions of the east coast are but slightly inhabited and have coves and bays where arms could be disembarked in small quantities at a time and escape immediate detection.

There are indications that arms are being landed in the Philippines secretly. At least some of this traffic has been in American arms, corruptly sold in China. This illegal traffic is certainly not all for use against the Philippine Government. There is considerable evidence that the arms surreptitiously brought in are resold throughout Southeast Asia to any one who has the price. Some of these American arms have been located in Indonesia and Thailand.

### COMMENTS

The communists have large armed forces in Indo-China, and lesser ones in Burma, Malaya, and the Philippines. There is an active communist party in Indonesia.

If the Western Powers grant recognition to communist China, such action will be interpreted throughout Southeast Asia as a major defeat of the West by communism. It will raise the morale of the communists and strengthen their hold in their respective countries. The probability of Southeast Asia's being conquered by, and absorbed into, communism, at a date which is likely to be not far distant, will be materially increased.

#### SOCIETY OF THE FIRST DIVISION EXPANDS MEMBERSHIP

The Society of the First Division, at present composed of combat veterans who served with the First Division in World War I and with the First Infantry Division in World War II, amended its constitution at the 31st annual reunion, in August 1949, to make eligible for active membership in the Society all individuals who served with the Division at any time.

Over 150,000 men passed through the ranks of the Division between World Wars I and II, and this number, added to the 125,000 men who served with the Division in combat, increases the potential membership in the Society to 275,000, which far exceeds that of other similar organizations.

Every man who served with the Division at any time, in any capacity, is urged to write to Col. C. M. Eymer, Executive Secretary of the Association, Box D, Ocean Beach Station, San Diego, California, and secure a copy of the Society's quarterly magazine *Bridgehead Sentinel*, which is issued free to all active members of the Society.

#### ILLUSTRATION CREDITS

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**U. S. Army: 254, 255**

**Jackie Martin, PARADE Mag.: Cover**



"May the blessings be upon the head of Cadmus or the Phoenicians, or whoever invented books!—An art that carries the voice of man to the extremities of the earth, and to the latest generation."

—THOMAS CARLYLE



### Compromise or Appeasement

*ROOSEVELT AND THE RUSSIANS: THE YALTA CONFERENCE.* By Edward R. Stettinius, Jr. Edited by Walter Johnson, 367 pp. Doubleday. \$4.00.

By Dr. R. A. Winnacker

With the publication of this volume by our former Secretary of State, the debate about Yalta will be entering a new phase. Critics and defenders of Yalta will now be able to quote chapter and verse for their opinions and both sides will find plenty of ammunition in this volume for their respective points of view.

Mr. Stettinius gives a blow by blow account of the events that took place in the Crimea from February 4 to 11, 1943, relating fully the arguments between Roosevelt, Churchill, and Stalin at the plenary sessions as well as the discussions at the meetings of the foreign secretaries. The reader will learn how the Allied leaders felt in the spring of 1945 about many of the basic problems that are still haunting us in 1949, such as the veto in the United Nations, German frontiers and reparations, the future of China, Yugoslavia, and Poland, and many smaller issues. Though the Hopkins papers and Mr. Byrnes had already shed some light on this most important Allied conference of World War II, none had spelled out the story in as great detail.

Written with an "unshaken faith in the rightness of President Roosevelt's foreign policy," Mr. Stettinius seeks to demonstrate that Yalta was a symbol "not of appeasement, but of a wise and courageous attempt by President Roosevelt and Prime Minister Churchill to set the world on the road of lasting peace." The reviewer shares with the

author the belief that Yalta has been unjustifiably berated and that any of the alternative courses possible at the time would have led to worse consequences than the agreements reached at Yalta; still he feels that Mr. Stettinius weakens his case unnecessarily by appearing as the defending lawyer rather than the impartial narrator. To attempt to prove that "the Soviet Union made greater concessions at Yalta to the United States and Great Britain than were made to the Soviets" represents an impossible task, unless the author is fully familiar with the innermost secrets of the Kremlin. Is a labor union which asks for an hourly wage increase of 25 cents and accepts 15 cents making a concession? It might have been better if the author, instead of insisting on the presence of major Soviet concessions and thus cheering our Soviet apologists, had demonstrated fully that the Western Allies yielded nothing at Yalta that they could have withheld by force with the possible exception of the Kurile Islands and some parts of central Germany.

Despite such drawbacks as these, *Roosevelt and the Russians* is an invaluable account which no reader interested in the current world situation can afford to overlook. The author's opinion that "it is not Yalta that is the trouble with the world today but subsequent failures to adhere to the policies that Yalta stood for" will be contested for many years to come, but none of the debaters will be able to ignore Mr. Stettinius' book, which gives not only the atmosphere at Yalta but also the reactions of one of the main participants.



### Science, Weapons and Democracy

*MODERN ARMS AND FREE MEN.* By Dr. Vannevar Bush. 262 pages. Simon & Schuster. \$3.50.

By Lt. Col. H. E. Marr, Jr.

In this important book, Dr. Vannevar Bush, wartime Director of the Office of Scientific Research and Development, traces the progress of scientific achievements in the realm of modern warfare. After briefly "estimating the science of destruction situation" of World War I, he presents an excellent summary of the development and utilization of the weapons of World War II. His discussion is an authoritative description from a scientist's viewpoint of the capabilities and limitations of the military arsenal. It is likely that his candid approach and frank conclusions will surprise the interested layman, and the individual with a professional interest will discover many revelations to stimulate his thinking. Whereas the offensive weapons of World War II have been widely publicized and have received popular approbation, Dr. Bush indicates that the defensive cycle is recurring and is rapidly closing temporary gaps in the efficacy of the two. He also urges appreciation of the fact that a World War III may employ the improved weapons of World War II at the start, but strategic planning must take into strong consideration the near future probabilities of scientific development.

Less than half the book is devoted to the technical phase of science in war. In later chapters Dr. Bush discusses total war, subversive war, totalitarianism and dictatorship, and democracy. Throughout, the thread of scientific progress serves as a linking basis for development. His personal experience in wartime coordinating activities at the



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highest level have fitted him with ample background upon which to base his reassuring faith in our democratic system. Unfortunately, in reiterating previously publicized deficiencies, his criticisms do not offer constructive solutions.

In a section devoted to military planning the author reveals intense personal feelings. His views in this chapter are specific and untrammelled. The reader with a professional stake in our military organization may be offended by some elements of the criticism. Undoubtedly much is deserved, and his suggestions for improvement merit serious consideration. However, the psychology of the individual, a vital influence on the structure of an organization for national defense and the consequent implications of policies, receives scant acknowledgment.

In conclusion, Dr. Bush leaves the impression that World War III is not a certainty, but the burden of preparedness is an expensive necessity which must be maintained. Moreover, there is vast room for improvement in the National Military Establishment, including the intelligence organization. As an encouraging note he feels assured that a democracy with unfettered science as a full-fledged partner of the military will endure in the world of tomorrow and that this may best be accomplished by education of the individual in the responsibilities of man to man.

### **Southwest Pacific Air War**

*GENERAL KENNEY REPORTS.* By George C. Kenney. 606 pages. Duell, Sloan & Pearce. \$4.50.

By Mark S Watson

When Gen. George C. Kenney flew to Australia in late July 1942 to become head of the Allied Air Forces under Douglas MacArthur, the reality in the Southwest Pacific was no darker than the prospect. The DSM citation for Kenney's work through August 1943 credits him with revitalizing the air arm in that theater, with large responsibility for blocking the Japanese from Port Moresby, with taking command of the air from the enemy, and thus creating a situation which permitted the mighty Allied offensive which followed. Of that first uneasy year of reorganizing and building up, and of the two following

years of mounting triumphs leading to VJ day, General Kenney's public "report" now tells in a detailed and highly personalized narrative, as lively and outspoken and free from formality as is the normal conversation of this bold and energetic flyer who now commands the Air University at Maxwell Field. If the book pays deserved tribute to the Fifth Air Force and to other arms (notably the Seventh Australian Division), it also records unbounded admiration for General MacArthur as the influence chiefly responsible for the superb cooperation of all fighting forces in the theater.

Before there could be any successful assault on the great Japanese base at Rabaul, or even on the enemy shipping, General Kenney recognized that he must gain control of the air over nearby New Guinea, and to do so without hope of heavy reinforcement from America in that period of many shortages. Many of the faults in organization and local operation he corrected by rapid shifts of personnel, here referred to with an unfortunate brusqueness, in grave charges extremely difficult to justify. Many of his equipment shortages he solved by his own demon energy. It was time someone did, for in one light bombardment group of 4 squadrons, he writes, one squadron had divebombers whose range was too short to reach any New Guinea objective, another had adequate range but no guns or bombracks, another had only one forward gun, and the fourth had no planes at all. He put Australian metalworkers on 10,000 droppable 150-gallon tanks. He put his own men on gun mounting. He speeded up the repair and reequipment of planes. (Two which had been totally wrecked in the distant brush were spotted; a "flying air depot" flew to that perilous spot, cut up the wrecks, loaded the pieces in their DC-3, and flew back to base, providing parts which quickly restored 8 other much needed planes to duty.) He had his mechanics equip planes with racks for the parachute bombs he himself had invented years before and now put to use. He had his B-25s reshaped for skipbombing. He sawed trucks in two in Australia, flew them to New Guinea and rewelded them.

Out of this sort of effort, plus the slowly increasing flow of new planes from America, came the Fifth Air

Force's great early smashes at Japanese shipping and air power in the Southwest, such as the total elimination of a whole convoy in the Bismarck Sea fight of March 1943, and the "black day" (for Japan) at Wewak airdrome in the following August. Then followed air successes so numerous and so overwhelming (if Air Force data on enemy losses are accepted) that even in General Kenney's recital they would be monotonous, were they not accompanied by his rapid fire of illustrative stories. The Allied Air Force commander did not have much respect for Japanese military sagacity.

This adds one more to the personal narrations of the war by outstanding principals. In particular it provides in popular form an account of operations not previously treated in any such detail.

#### Search for a Leader

*LINCOLN FINDS A GENERAL. 2 vols. By Kenneth P. Williams. Macmillan. Illustrated. Maps. Index. Bibliography. \$12.50.*

By Lt. Colonel Robert F. Cocklin

This is a splendid two-volume study of the top Federal Generals during the Civil War. Very ably, it traces the difficulties encountered by President Lincoln in finding a capable leader for the Army of the Potomac that would carry the fight to the enemy.

These volumes immediately argue comparison with Freeman's *Lee's Lieutenants*. In many respects, *Lincoln Finds a General* is the better work. The difference between the two is most notable in the matter of construction. While these are primarily character studies of the Union generals, Williams maintains the actual continuity of the war as the frame upon which to build his characterizations. This tends to make it much easier for the reader to assess the principals in the proper perspective. It should be noted that over and above the excellent individual portraits, *Lincoln Finds a General* is a fine study of the strategy and tactics in the Virginia-Maryland-Pennsylvania theater.

Clear, simple maps and well-selected quotes from official records, correspondence and previous writings on the Civil War document the books. The volumes are well-indexed, there are an abundance of footnotes (happily placed at the back of each volume) and a

bibliography that will delight students of this period.

Mr. Williams has done a thorough job in an interesting and highly readable manner. It is difficult to pick out examples for illustration, although to this reviewer, the devastating case which the author has built against McClellan compares very favorably with any good legal case you may care to choose. The evidence is clearly and firmly brought out and is well established.

Those who share Freeman's viewpoint that the South had a corner on the outstanding military leadership will not be happy with this presentation. Mr. Williams does much to deflate the legendary genius of Lee and Jackson and capably substantiates his arguments in many instances.

President Lincoln and his War Secretary Stanton have previously been much abused for their direct interference in the military operations of the war. As Williams clearly indicates, they had no choice. Even when Halleck was made General in Chief, Williams presents many instances where his direction was vacillating and anything but aggressive. Williams believes that during Halleck's regime in particular, Lincoln and Stanton made a determined effort to let him run the show but had to step in when things bogged down. The reader will feel keenly the frustrating position of the President and Stanton in their endeavors to obtain an aggressive fighting leader for the Army of the Potomac. Certainly, the disappointments that attended that task were numerous. On the other side of the ledger, students of the military can rightfully question Lincoln's judgment in several of the appointments when he had just reasons for doubting the capabilities of several of the candidates even before he actually gave them the commands. His letter to Hooker upon his appointment certainly did not exude the confidence that he should have had in the man he wanted as commander of his largest army.

There is still another feature of this book that soldiers will particularly enjoy. The author has given detailed treatment to some of the major staff problems and their solutions, particularly in the field of supply, that existed in most of the major moves. Quartermaster Meigs emerges as an officer who

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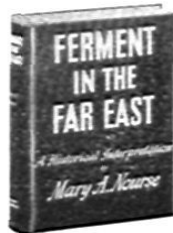
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would be most welcome in any present day army.

*Lincoln Finds a General* is a fine piece of writing. The author's approach is scholarly without being stuffy. Certainly these volumes will be well received by all devotees of Civil War lore, but they are deserving of a much wider audience. Few historical works are more interestingly presented.

### Official War History

*GUADALCANAL: THE FIRST OFFENSIVE.* By Dr. John Miller, Jr. Government Printing Office. \$4.00.

By Major General R. H. Pepper, USMC

Our very survival in the Pacific was threatened! To stem the tide of the long string of Japanese successes, in any way practicable, and at once, was the problem. The "limited offensive" ordered by the Joint U. S. Chiefs of Staff on July 2, 1942, was designed to halt the Japanese thrust toward the slim American supply line to Australia, to wrest the initiative from the enemy, and finally to provide an additional base for the Allied push against Rabaul.

Allied planning answered this directive with plans worked out on the basis of a risk that had to be taken even at great cost—yes, and without experience in large-scale amphibious warfare, without adequately trained fighting forces, without sufficient troops, planes, weapons, ships and supplies, allied troops were committed against a relatively unknown enemy in an unknown territory with attendant unknown diseases.

General A. A. Vandegrift's First Marine Division made the initial amphibious landing, seized its objective and tenaciously held it without benefit of adequate supplies, support and replacements. The Division felt the full brunt of superior enemy air, naval and artillery attack. It was confronted with numerous enemy counterattacks which came perilously close to being successful. It was frustrated in pursuing the offensive due to lack of sufficient troops. Shortage of ammunition, gasoline and planes, exasperated the defenders of the sorely needed airstrip.

Valiant naval and air support saved the day on several occasions. As its strength was increased it materially aided the change of balance of strength.

The battle-worn, disease-ridden First Marine Division was augmented and then relieved by troops of the Americal, 25th Army Division and the Second Marine Division.

General A. M. Patch's newly organized XIV Corps resumed the offensive in December 1942 to extend the perimeter around Lunga Point and deny the enemy the use of Mount Austen as an observation post.

With more land-based aircraft and assault troops on hand the XIV Corps' January 1943 offensives saw the enemy driven from the ground east of the Matanikau River. The advance was continued to Kokumbona and the final push to the Poha River was made.

These offensives entailed bitter fighting against a fanatical enemy in poorly mapped, densely vegetated jungle. Troops experienced great hardships caused by lack of water, intense heat and rugged terrain over which they had to fight.

This campaign gave the allies more than just an island. It set the pattern for future jungle fighting throughout the remainder of the South Pacific and in the Central Pacific. Our tactical doctrines in both the offense and defense were tested and found to be sound. Shortcomings in weapons and equipment came to light. Reliability of certain small-arms weapons was firmly established. Of special interest to artillerymen is the treatment given to artillery throughout the narrative—its indispensability, the shortcomings of light calibers as counterbattery weapons, problems of supply and the effectiveness of TOT firing.

Dr. Miller has given us a thoroughly reliable history of a sparsely documented campaign. His painstaking research in widely scattered documents, in heretofore unpublished secret documents and interviews with participants produced a wealth of factual background material. His keen sense of judgment has separated the facts from fiction. This I can discern from those incidents concerning that part of the operation in which I participated. Therefore, I can accept the remainder in the same light.

The volume is objectively written throughout and may serve as a substantial interim history, both timely and accurate, of the Allied efforts in this

campaign. Dr. Miller shows laudable restraint in not editorializing interservice differences both in the planning and execution phases of the campaign.

I feel that this volume portrays the drama and the urgency of the situation during the Guadalcanal campaign and that the reader will be adequately compensated for his time whether "he was there" or not. Most certainly "those who were there" can gainfully employ their time by refreshing their memories. The officer who wishes to extend his professional reading should have *Guadalcanal: The First Offensive* included in his present or future library.

### Navy in Support of Ground Troops

*THE STRUGGLE FOR GUADALCANAL.* By Samuel Eliot Morison. Atlantic-Little, Brown. 389 pages, maps, illustrations, index. \$6.00.

By Richard Cordon McCloskey

On the 8th of August 1942, the American public, still shamed over the disgrace at Pearl Harbor, brightened when they read in their morning papers that the Marines had landed at Guadalcanal and Tulagi. Just where these islands were nobody was very sure. During the next six months the American public, and their armed forces, learned only too well where the Solomons were.

The United States Navy fought six major engagements in the waters adjacent to Guadalcanal—Savo Island and the Eastern Solomons in August; Cape Esperance and Santa Cruz Islands in October; and Guadalcanal and Tassafaronga in November. These battles were more bitter and bloody than any our Navy had fought since 1814. Four of them were night gunfire actions of a type we may never see again. Two were carrier-air battles of the type set at the Coral Sea in May of 1942. In addition there were fifty some ship-to-ship and air-sea fights which in a normal war would have been considered major engagements, yet in Ironbottom Sound — between Guadalcanal, Savo and Florida Islands—they were almost as common as patrol actions on Guadalcanal itself.

This stupendous effort by our Naval forces had one object only: to keep the Marines on Guadalcanal, and to

reinforce them with Army troops. The Marines and Army troops fought almost constantly on that stinking island in a type of combat which has been epitomized by a rude epitaph for Private First Class Cameron, U.S.M.C., buried in the Lunga Point Cemetery:

*And when he goes to Heaven*

*To Saint Peter he will tell:*

*Another Marine reporting, Sir;*

*I've served my time in hell!*

The Battles of the Tenaru River, the Matanikau River, the Bloody Ridge, Henderson Field, Point Cruz, the Gifu and the Galloping Horse will stand apart in any military history. Of the 60,000 American ground troops committed, 1592 were killed in action. The naval losses, never fully compiled, must have exceeded that. But the Japanese were known to have lost 14,800 killed in action out of 36,000 troops. Another 9,000 died of disease, and countless thousands were blasted in transports, barges and naval vessels.

Morison classifies Guadalcanal as "unique for variety and multiplicity of weapons employed and for coordination between sea power, ground power and air power." Tactically Guadalcanal was a "profitable lesson book. The recommendations of Guadalcanal commanders became doctrine for Allied fighting men the world over. And it was the veteran from the 'Canal who went back to man the new ship or form the cornerstone for the new regiment." Strategically, "Guadalcanal was worth every ship, plane and life that it cost. The enemy was stopped in his many-taloned reach for the Antipodes." There were also "more subtle implications to Guadalcanal. The lordly Samurai, with his nose rubbed in the mud and his sword rusted by the salt of Ironbottom Sound, was forced to revise his theory of invincibility."

This most recent volume of Morison's projected fourteen volume work stands up well in comparison with the others. In fact, the sustained high quality of the narrative and the consistent historical verity of the books so far published are remarkable in a series of this kind. The photographs are excellent, the maps most useful. Although primarily a naval story, the ground operations are not skimmed. All in all, this is a fine and absorbing book. It is military history at its best.

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**Wakening Giant?**

*CHINA SHAKES THE WORLD.* By Jack Belden. 513 pp. Harper. \$5.00.

By Charles F. Romanus

Completely unable to stomach the academic arguments and the mask of censorship and propaganda that obscured the reasons why there was no peace in China, the adventurous Jack Belden returned to Tientsin in late 1946 to tap the rice roots of the Chinese Revolution. Smuggled behind the bamboo curtain as an UNRRA representative, he travelled the North China Border Regions and Manchuria to poll the armed dissenters in Red China. From an old Commissar, a beggar poet, a former Kuomintang tax collector, an aged Professor, a dreamy student, a toiling farmer, a guerrilla girl, a heart-broken mother, a commando leader, and a turncoat general, Belden gathered indicents of the social order of Chiang Kaishek which he wove into a fast moving examination of why *China Shakes the World*.

In his many summarizing sentences, Belden chooses to class the upheaval as a broad, popular revolution rather than a narrow communistic movement. To Belden, this revolt embraces the democratic egalitarianism of the French struggle, the German attainment of a national state in the 19th Century, and the agrarian reforms of the Soviet Communists. He points out that the Chinese revolutionists want all three objectives at once. Over a third of the book describes the reactionary rule of Chiang Kai-shek's government and army as the cause of the civil war in China. In fact, Belden delights in analyzing the character of "Unmovable Stone" (Chiang Kai-shek) throughout the book, drawing heavily on General Stilwell's diary entries to support his appraisal of the Generalissimo. Nor do the Kuomintang's last ditch "do-gooders" in the United States escape sweeping reminders that their last minute efforts are futile.

For this reviewer, however, the author fails to justify his thesis that China shakes the world. Instead, the reader is left to determine whether the rebellious Chinese have shaken themselves into a longing simply to end the Kuomintang corruption and to return to their never-never land of age-old sleep or to achieve a merited position in the family of nations.

**Europe and Our Military Strategy**

*THE STATE OF EUROPE.* By Howard K. Smith. 421 pages. Alfred A. Knopf. \$3.75.

*OPERATION SURVIVAL.* By William H. Hessler. 282 pages, charts. Prentice-Hall, Inc. \$3.00.

By Richard Cordon McCloskey

These books in many ways compliment each other. Smith, in *The State of Europe*, gives the situation as it is today. Hessler in *Operation Survival* tells how we should deal with the situation if we are to survive the peace.

*The State of Europe* is an up-to-date history, country by country, of the past four years. Enough background material is worked into the historical narrative to make the current scenes understandable. Smith draws on personal experiences, hearsay and gossip, but his book is definitely not like John Gunther's *Inside Europe*. It would be difficult to summarize even briefly the material that Smith has collected and analyzed. He

deals at considerable length with Belgium, Bulgaria, Czechoslovakia, France, the Scandinavian countries, Germany, Great Britain, Hungary, Ireland, Italy, Spain, Switzerland, the USSR and Yugoslavia. Fifteen other countries get briefer treatment.

To single out one country is difficult, but Smith's treatment of Yugoslavia is typical of his treatment of the rest. Pointing out that for fifty generations no Yugoslav had lived his span without seeing foreign invaders, he adds that the Communists had a happy hunting ground there. It is important to note that it was a purely *home grown* communism, frequently off the party line. On one occasion Moscow had to send a special emissary to give it a caustic purge. The emissary was a certain Comrade Walter, alias Tomanec, alias—Tito. Apparently Tito fell for the home grown variety of Communism, and is now the outstanding exponent of this peculiar Yugoslav brand.

After the war, with her allotted share of UNRRA goods, the outstanding quality of the new Yugoslavia was a boisterous spirit—almost the sole raw material with which the amazing reconstruction was carried out. After tilting with the west—remember when our planes were shot down near Trieste?—Tito began talking back to Stalin, who so far has had to take it.

Yugoslavia plays a leading role in the Cold War, for, as Smith points out, the current Cold War is distinguished from past tensions by a curious feature: America has nothing Russia needs for survival; Russia has nothing America cannot happily do without. The Cold War is based entirely on psychological factors: mutual fears and suspicions, and ideologies. The Tito rebellion now presents the possibility of removing at least one basis of suspicion by breaking up the Soviet imperial bloc and putting an end to the aspect of Communism as a Great Russian conspiracy. If the Moscow satellites were to follow Tito's example and declare their independence, it would not be absurd to convey the possibility of a long period of mutual sufferance between communism and capitalism, and of peace. Whether he intended it thus or not, Marshal Tito seems to be carrying a torch.

Smith is convinced that both the American and the Russian policies are mistaken. He believes that Europe must

have full social reforms and political liberty, and the Russians are accomplishing the first at the expense of the second, while the United States promotes political liberty at the expense of reform. Agree with this thesis or not; Smith defends it ably. His book makes easy reading, and it also has the virtue of making sense.

Hessler's book is concerned with American foreign policy and the military strategy necessary to back it. He assumes a continuous, conscientious support of the United Nations and an unremitting effort to strengthen it. He does not believe that the atom bomb can win a one-shot war, nor that area bombing of the WW II type is much use. Air-Sea Power is Hessler's proposal as the best defense for America. "It would be a comfort to think that strategic bombardment could win the war we fear may come. But to think that is to embrace a misconception of the true nature of the struggle. It also involves a misreading of the record of World War II . . . we shall have to put troops into Europe." It is the sea-air power of our carrier forces, Hessler believes, which provides the logical answer to a stubborn, inescapable challenge—how to attain tactical air superiority in the area of supreme strategic importance.

Hessler's book is not too well reasoned, and he has a tendency to shout, but he presents the Navy's position creditably. His book is stimulating and easy to read.

### Grass Roots View of Communism

*A COMMUNIST PARTY IN ACTION.*

By A. Rossi. Translated and edited, with an introduction, by Willmoore Kendall. Yale University Press. 267 pp., plus notes and index. \$4.00.

By Alan L. Otten

This is an abridged translation of *Physiologic du Parti Communiste Français*—a careful, scientific dissection of the workings of the French Communist Party during the 1940's, written by an Italian-French former Communist leader, now a newspaperman in Paris. It is a valuable and vital book for two reasons—its facts and its thesis.

The page-by-page contents constitute a gold-mine of well-documented information on how a Communist Party

operates—how discipline is maintained, finances, propaganda, recruiting, getting instructions, work in trade unions, special appeals to youth and intellectuals, flexibility of the party line. And as Mr. Kendall points out in his illuminating introduction, Mr. Rossi bucks prevailing opinion which stresses the economic roots of communism. While he admits their existence and importance, he goes along with Ortega y Gasset, Richard Weaver and others who lay chief stress on the appearance of Communism in morally bankrupt societies. "Communist movements," he writes, "thrive in societies whose members no longer are held together by any shared moral principles and purpose." His implied solution: even more important in combatting communism than economic recovery is providing a counter-cause and counter-ideals, making counter-demands on the minds and energies of the people. Good stuff, if badly written and organized.

### Over There—1st Generation

*UNITED STATES ARMY IN THE WORLD WAR, 1917-1919. Vol. I: Organization; Vol. II: Policies; Vol. III: Training; Vol. IV: Operations. By The Historical Division, Dept. of the Army. Maps, Photographs, Index, Bibliography. Gov't Printing Office. Per volume: \$3.00, \$4.00, \$3.75, \$3.75 respectively.*

Recent publication of the Army's fourth volume of official history of World War I comes many months after its fourth volume on World War II, with the remaining 13 volumes of the series anticipated at 6-week intervals. In final work, as in timing, the World War I volumes form a striking contrast to those of World War II's historical program, which was organized during the war with personnel on most of the active battlefields. With the exception of an excellent 55-page narrative summary of our part in the combat—contained in Volume I—the 1917-1919 studies consist of original documents, carefully selected, excerpted and arranged to tell their own story. As such, the series is of high value to the military historian or for special study by the professional officer who may well face similar problems of command with national allies of sharply

differing degrees of combat potential and readiness.

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### Fun and Facts From the Past

*PAUL REVERE'S HORSE. By Colonel A. C. M. Azoy. 256 pages. Doubleday. \$2.50.*

In a bright, humorous style Colonel Azoy explores the forgotten fact and embroidered fancies which festoon many of our military heroes and legendary actions. His diverting vignettes on such items as the Regular Army and Rough Riders at San Juan Hill, Molly Pitcher, our first hilarious amphibian attack on Cuba and the real message to Garcia are like those Stewart Holbrook has done for oddities of general Americana. A strain of hard reality, as in his short tales of the *Maine* explosion and Custer's massacre, tempers his irony, to make an informative and pleasing potion for anyone interested in the tradition of American arms.

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## BOOKS IN COLUMN

By MAJOR NELSON L. DRUMMOND, JR.

For those who wish to give Christmas pleasure in the form of unusually handsome books, the following selection is suggested. Each in its special field is outstanding in text and is splendidly illustrated.

*Year 1949* by the publishing organization of the same name (\$5.00) is a lap-size volume which combines the best features of *Life* and *Time* magazines for a graphic permanent record of the past crowded year. 700 outstanding photographs, culled from files of the world's greatest news services, and 70,000 words of text are well selected and splendidly arranged to tell the story of developments in each field of national and international activity—from the rise and fall of states down to movies and sports events. *Not So Long Ago* by Lloyd Morris (Random House—\$5.00) is another photo-text combination of more specialized appeal, which goes back to the earliest days of movies, radio and the automobile, tracing each one's development to this present day that the three so largely shaped. It has nostalgia, humor and social study in pleasing proportions.

For your sporting friends, there are three fine candidates. *Hounds, Horses and Hunting* (Scribner's — \$15.00) by the English nature-writer and master-of-hounds, Frances Pitt, is a thorough treatment of fox hunting and the life associated with it, told with charm and enthusiasm, with the superb support of eight full-color plates and 19 pencil sketches. William Atkin, considered America's foremost designer of small yachts, presents the boat-minded with *Of Yachts and Men*, an autogiography of designing, building and sailing a thousand small ships, with the story and detailed construction plans of a dozen. A classic, but only for those deeply interested. *Wildfowling in the Mississippi Flyway* (Van Nostrand — \$12.00) collects stories by nineteen men who know duck hunting from the water up and successfully contributed to an editorial plan of Eugene V. Connett to cover every aspect of the sport from old days of unlimited hunting to the present.

Probably the most unusual and beautiful publication of this year is *In Our Image* (Oxford — \$10.00), twenty-six narratives from the Old Testament selected by Houston Harte, Texas newspaper publisher, and a panel of prominent clergymen, illustrated by 32 full-color portraits by *Time* cover-artist Guy Rowe. The stories were chosen for their

richness of human drama, using King James version text with minor deletions of unessential material; the magnificent, almost over-powerful illustrations will be a revelation and delight to those who have tired of the languid unreality of most medieval religious art. *History of World Art* (Oxford—\$6.00) by Columbia University's E. M. Upjohn, P. S. Wingert, and J. G. Mahler interestingly traces the architecture, sculpture and painting of every era, in lucid and effective non-technical prose, with over 600 photographs.

With today's grave developments of Communist power in China and the serious question whether their propaganda and armed forces will sweep through all southeastern Asia, *Ferment in the Far East* by Mary A. Nourse (Bobbs-Merrill—\$3.75) helps to fill an important need. It is a sound and thoughtful study, presenting a short, readable summary of historical developments, with emphasis on their effects today, in Japan, the Philippines, the East Indian Islands, China, Korea and the Southeast Asian states. The author furnishes no new or startling material but has done unique and valuable work by combining in one short volume clear-cut treatments of the cultural, economic, political and militaristic trends and relationships within and among all these nations, succinctly leading to a careful consideration of each one's place in the world today. Her main theses: peoples of the Far East have been dominated always, first by Chinese power and ideas, then by European military and technological superiority, while poverty has prevented growth of any strong independent middle class; so they might well fall under Soviet domination. Yet the inexperienced, aggressive young Far Eastern republics want neither Soviet control nor European imperialism and with intelligent help from us they will not succumb to the lure of Communism but develop national independence within the cooperative world framework of an effective United Nations.

*Adam to Atom*, by Dr. Robert Shaw (Am. Mil. Engr. — \$1.50) ably though summarily traces mankind's military affairs from earliest recorded time to the present. The excellent content of this 59-page paperback volume appeared originally as a series of articles in *The Military Engineer*. Dr. Shaw, long noted as a contributor of

military articles to national magazines, has chosen his material well, renders sound and often provocative judgments, and writes with colorful gusto. Here is a short, enjoyable means of sharpening your memory and filling in neglected gaps in the world's march of Mars.

A. B. Guthrie, Jr.'s novel of the Oregon trail in 1845, *The Way West* (Sloane—\$3.50), should soon reach last year's top-best-seller position of his *The Big Sky*. This book deals with the pioneer wagons which followed in the wake of the mountain hunters and fur trappers, to settle the far west and bring it under our flag. Big Lije Evans, hardworking Missouri farmer, succumbed finally to the westward dream and threw in his family's lot with a few dozen others led by the driving ambition of organizer Tadlock. Luckily for Evans and the entire party, his neighbor, Dick Summers, former mountain man of *The Big Sky*, agreed to pilot them. Gradually conflict builds between easy-going Evans and wagon-captain Tadlock, as violence, deaths, reorganization and final breakup occur along the seemingly endless miles. Evans learns trail lore from Summers, takes over the leadership, and these two finally bring part of the company safely into Oregon.

For Dick Summers the trip is a strange return to the vast unspoiled lands of his youth, whose lonely grandeur is now marked by increasing human traffic, and haunted by ghosts of the almost vanished mountain men with whom he had shared the long wanderings, fights and frolics of years before. In Summers and Evans, the author epitomizes the merging of one great era of the west into another more prosaic and permanent, with a deftly portrayed, realistic balance between the strength and weakness of each. The westward tide of early settlers he recreates understandingly and vividly, as his first book caught the untrammelled mountain men. Adventure and romance leaven the dust and sweat of the trail in completely believable detail and proportion. The men, women and children of Guthrie's wagon train form an effective and appealing cross-section; in their hardships, excitements, tragedies and triumphs, he brings his reader a dramatic share in one of the greatest adventures of the American epic.

Three outstanding humor books should gladden the holidays. *Chips Off the Old Benchley* (Harper — \$3.00) is a collection of Robert Benchley's early pieces, mainly from the '20's and early '30's, not before published in book form. Since the charmingly urbane humorist is no longer here to beguile us in weekly magazines, it seems only



basic common sense to keep on hand at least one book of his wise and wonderful nonsense. This is Benchley at his best, as usual. Robert L. Taylor, top humorist in his own right (*Adrift in a Boneyard*, etc.) has done a biography of America's great comedian, *W. C. Fields: His Follies and For-Tunes* (Doubleday — \$3.50) which brings to life the curious blend of outraged spurious dignity, undercover efficiency, cynical distrust and warmhearted bombast of the stage and movie roles that brought him acclaim. His former followers will find this story of Fields' battling with all comers on his strange, unhappy road to success a synthesis of his public roles—a kind of farewell appearance and, of course, a howling success. *The Autobiography of Will Rogers* (Houghton - Mifflin — \$3.00), edited by Donald Day, gathers the best of Will Rogers' invariably good writing from 1922 until his tragic death in 1935. As autobiography it leaves a lot unsaid about the great political-humorist but its humor-riddled pages develop a keenly amusing informal picture of the world he observed so closely and clearly. His casually-tossed rope of shrewd simplicity daily jerked the props from under pretense, injustice and hypocrisy, his running commentary on the main figures and events of the time has lost little of its spark with the years, and his deceptively sharp-edged drawl sounds surprisingly timely and prophetic today.

Two unusual books, of particular value to the many servicemen and women who brought back swords and objects of art from the Far East, are *The Japanese Sword* by Inami Takusui (Cosmo, Tokyo — \$3.50) and *The Story of Jade* by H. P. Whitlock and M. L. Ehrman (Sheridan House—\$12.50). The former is a detailed and rather engaging account of the historical development of Japanese swords, their construction and proper care, and how to discern an individual blade's background and worth—with dozens of illustrations. Whitlock and Ehrman have done a general treatment of jade carving, its technique, cultural significance, and outstanding periods, illustrated by superb black and white and full-color photographs.

The series of regional Americana books on Rivers of America has a recent addition in *The Ohio* by R. E. Banta (Rinehart—\$5.00). There are now forty volumes, by different authors according to each one's independent plan, treating the life which flowed across the surface or developed along the banks of each waterway from the earliest geologic age to the present. Since our rivers were for centuries the main routes of travel, a rich mosaic of American history

results. The Ohio furnishes its author unusually varied and important fare owing to its great role in the British-French colonial struggles, the American Revolution, the opening of the middle west and its continuing prominence in commerce and industry.

Artillerymen (or their friends) who traveled the Pacific a few years ago under less than ideal conditions of leisure and independence can enjoy both in a revisit through the pages of *The Spell of the Pacific* (Macmillan — \$6.50), an anthology of outstanding literature dealing with the ocean, its islands and their peoples. Editors Stroven and Day present a varied collection, arranged according to the main island groups, from well-known writers and interesting travel pieces of the earliest explorers, from Captain Cook down to Somerset Maugham and wartime servicemen.

The fall season has been rich in fine volumes of collected shorts. Outstanding in international news value is *Men Who Make Your World* by the Overseas Press Club of America (Dutton — \$3.50), twenty - five revealing and sharply etched profiles of today's men of destiny in political and some other fields—each by a top-journalist in his particular specialty. In *The Aspirin Age* (Simon & Schuster — \$3.95) Isabel Leighton gathers articles for the most part written expressly for this volume by twenty-two distinguished writers on the most typical or fantastic main events in American life in our turbulent period between the two World Wars. An unusual collection of subtle literary flavor is *The Ghostly Tales of Henry James*, edited by Leon Edel (Rutgers U. Press—\$5.00), whose ghosts live in the psychological horror of the mind's darker labyrinths. *55 Short Stories from the New Yorker* (Simon & Schuster—\$4.00) contains the best fiction of that magazine's last decade, selected by its editors. Style and quality of its work need no further comment here. *A Night at the Airport* (Scribner's—\$3.75) includes seven short stories of Mark Aldonov, unrelated except in their high quality, sensitive observation and casually powerful projection of character and mood. The greatest pieces of English and American journalism from the sixteenth century to the present make up *A Treasury of Great Reporting* (Simon & Schuster—\$5.00) edited by L. L. Snyder and R. B. Morris, which combines history and literature by masters of the art of on-the-spot accuracy, human interest and drama—under pressure. 784 pages, with contemporary illustrations.

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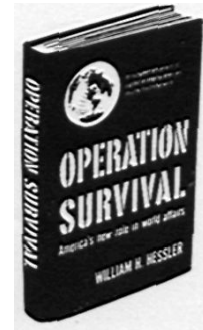
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