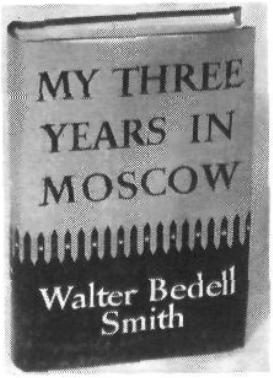
The FIELD ARTILLERY JOURNAL

JAN.-FEB. 1950

What is "Economy in Killing"?—Page 14

EAST vs WEST—RUSSIA

MY THREE YEARS IN MOSCOW



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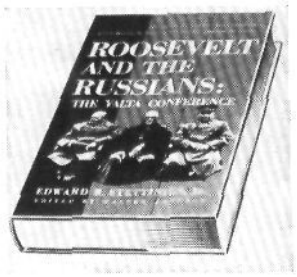

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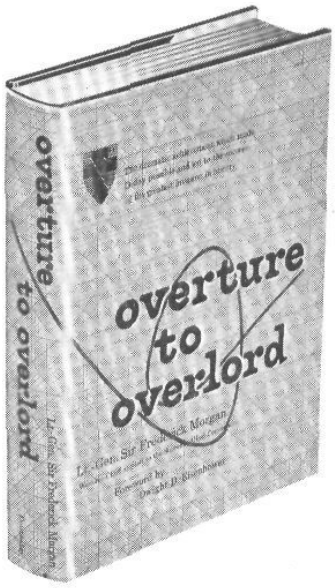

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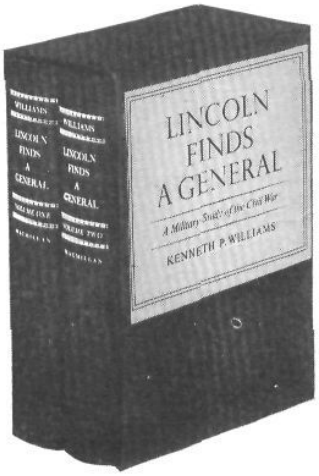

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IN HONOR OF ST. BARBARA

At the head table, from left to right, may be recognized Colonel Boles, St. Barbara, General Hibbs, General Bruce, General McIntyre, General Birkhead, and General Brown.

On 4 December 1949 a group of about one hundred Field Artillerymen, active and retired, of all three components, assembled at the Fourth Army Club, Ft. Sam Houston, Texas, for a Field Artillery dinner. The date selected is St. Barbara's Day—most appropriate, as she is the patron saint of the artillery. The dinner was arranged by a committee composed of Brig. Generals Augustine McIntyre (Chairman), Isaac Spalding, H. S. Clarkson, and C. R. Lehner, Col. Samuel White, Lt. Colonels E. A. Walker and H. E. Brooks, and Capt. A. L. Lerch, Jr. Colonel J. K. Boles acted as Master of Ceremonies. Among the honored guests were Major General Andrew D. Bruce, Deputy Commander of the Fourth Army; Master Sergeant Charles E. Kelly, retired, who served with the Field Artillery in the Spanish-American War, the Philippine Insurrection, and World War I; and "Pat," the famous retired 42-year-old Field Artillery horse whose picture and write-up appeared in the September-October 1948 JOURNAL, in full regalia. The hall was appropriately decorated with a statue of St. Barbara and various Field Artillery standards and guidons, furnished by The Artillery School Museum. With the assistance of a seven-piece orchestra, the evening was enlivened by music and intermittent singing. The assembly was addressed by General Bruce, Major General Claude V. Birkhead of the Texas NG, Major General Louis E. Hibbs, wartime Commander of the 63rd Infantry Division, and Colonel Perry W. Brown, 2nd Armored Divarty Commander. Messages were read from Lt. Gen. Leroy Lutes (CG Fourth Army), Lt. General Raymond S. McLain (Pres USFA Assn), Major Generals Upton Birnie and Robert M. Danford (former Chiefs of FA), Generals Eisenhower, Hodges, and Devers, and the Editor of the JOURNAL. At the conclusion of the dinner it was unanimously agreed that St. Barbara's Day should be celebrated annually in a similar successful manner.

The decorative cover of the menu is reproduced herewith—those who know him will readily recognize Brigadier General Rex Chandler's inimitable style.

★ ★ ★ ★ ★

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.

★

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The FIELD ARTILLERY JOURNAL

"Contributes to the Good of Our Country"

VOL. 40 JANUARY-FEBRUARY, 1950 No. 1

- Cover: Btry A, 77th FA Bn, in action near the base of Mt. Fujiyama.

ARTICLES

ARTILLERY NOTES

OTHER FEATURES

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BEHIND THE SCENE WITH THE TARGET GRID

(Conclusion)

By Major Robert S. Stafford, FA

THE first two articles in this series on the use of the target grid explained the detailed actions of the observer, the FDC, and battery, and included precision, area percussion, and area time missions. In each case, it was assumed that one observer fired the mission. This third and concluding article covers the actions of the observer, the FDC, and the battery when combined observation is used in conjunction with the target grid. An example of an area mission and one of a precision mission are included. As in the preceding articles, these examples may seem over-simplified to those conversant with all uses of the target grid, but it is hoped that the simplicity will be helpful to those just becoming familiar with the new system.

The principal value of combined observation using the target grid is early fire for effect. It is generally accepted that one good concentration fired accurately, without adjustment, is worth many times as much as one which requires adjustment. Following this line of reasoning, it becomes evident that any system which will reduce the number of, or eliminate, the adjusting rounds is of singular importance and value. This value would be reflected directly in increased enemy casualties and effect on materiel. The target grid, used in conjunction with combined observation, will not eliminate adjustment. It will, however, reduce the number of adjusting volleys in an area mission to one, when the angle of intersection is 500 mils or more. It will also normally reduce the number of adjusting volleys to two, even when the angle of intersection is as small as 200 mils. The advantage of this reduction is obvious. The principal reason more extensive use has not been made of combined observation in the past is that considerable survey was necessary to locate the two observers before they could function with maximum efficiency. Several methods of firing on observed targets have been tried which utilized two observers, location unknown. None of these has found widespread use for various reasons, usually because they took into account only GT-line direction. It is believed that the target grid offers a very satisfactory solution to this problem, as applied to either area or precision targets. At any rate, after reading the two examples the reader can judge for himself. Of course, it must be understood that the problem of identifying the same target to each of two separate observers exists for this system as for any system employing intersection as a means of location.

Example: Target, traffic jam of thin-skinned vehicles at a road intersection; mission, to cause casualties and to damage the vehicles. One observer has reported the target, and the S-3, deciding to use combined observation, has helped the other observer locate it. A checkpoint registration in the vicinity of the target has been made, and the two observers are approximately 3000 yards from the check point. (The observers could well be at different distances from the target area, in which case the procedure would be the same as in this example, except that each observer would use his own OT range to change mils to yards). The ground in the target area has not given richochets on previous missions.

OBSERVER No. 1: FIRE MISSION, AZIMUTH 1260, FROM CHECK POINT NO. 1 LEFT 250, ADD 400, PERSONNEL AND TRUCKS, WILL ADJUST.

OBSERVER No. 2: FIRE MISSION, AZIMUTH 1880, FROM CHECK POINT NO. 1 LEFT 350, DROP 200, PERSONNEL AND TRUCKS, WILL ADJUST.

FDC: The S-3 gives his fire order, including *Battalion, Baker, Three Volleys*. The HCO orients one target grid, marked "R," for the right observer, as for any mission. It is usually more convenient to center the grid over the point from which the observer shifts (Ck Pt 1 in this case). The azimuth used is the one announced by Observer No. 1, the right observer. He then places a second target grid, marked "L," for the left observer, so that it is superimposed on the "R" target grid, but oriented on the azimuth sent by Observer No. 2, the left observer. The HCO finds the desired location of the first round as follows: On the top grid (marked "L") he moves *perpendicular* to the arrow by the amount and in the direction of Observer No. 2's deviation to locate a line *parallel* to the arrow line. He draws this line lightly, making it parallel to the arrow by eye. Since the top grid is transparent he can proceed in a similar manner to locate a line parallel to the arrow of the bottom grid (marked "R"), using the deviation reported by Observer No. 1, but actually drawing the line on the top grid. The intersection of these two lines, each parallel to its respective arrow, is the desired location of the first round (Fig.1). (Practice will eliminate the necessity of drawing the line for the top grid. Range corrections normally are not plotted, but are considered as a check to assure that both observers are on the same target. This procedure enables teaching only one type of observed-fire sequence of corrections, rather than making this type of combined observation a special case.) The target pin is placed at this intersection. The HCO uses the range-deflection fan to determine the deflection and range to this plot, and announces, *Baker, Deflection* (*so much*), *Range* (*so much*). The *Baker* computer announces the deflection to the battery, and upon determining the elevation corresponding to the announced range, sends it to the battery. The method of fire in adjustment is normally BASE PIECE, ONE ROUND. While the adjusting computer is giving the commands to fire the first round in adjustment, the HCO gives data to the computers of the non-adjusting batteries. They use these data to determine fire commands, which are sent to their batteries.

BATTERY: *Baker* battery sets off the data in the initial commands and fires BASE PIECE, ONE ROUND. The non-adjusting batteries lay with the data sent by their respective computers.

OBSERVER No. 1: The observer notes the location of the round and sends the correction, LEFT 50, REPEAT RANGE.

OBSERVER No. 2: RIGHT 50, DROP 100.

FDC: The HCO plots this correction by determining the new line parallel to the arrow on the grid marked "L." It is 50 yards right of the line used for the initial plot. He then determines the new line parallel to the arrow on the grid marked "R". It is 50 yards left of the line used for the initial plot. The intersection of these two lines is plotted and the data to the plot is determined and announced. The S-3 notices that the corrections of both observers are very small, and announces, FIRE FOR EFFECT. The HCO announces new data to the non-adjusting batteries while *Baker* is firing BATTERY 3 ROUNDS for effect. The non-adjusting batteries fire for effect as rapidly as possible. The observers are notified that the battalion is firing for effect. After observing the fire for effect, the procedure is the same for the observers as if they were firing a one-observer mission. Depending upon whether or not the effect is satisfactory, they may send CEASE FIRING, END OF MISSION, or a new correction followed by REPEAT FIRE FOR EFFECT. In the latter case, the S-3 must decide what additional fire is necessary. If additional fire is given, the target plot is first corrected in the manner previously explained in this example, and the data for the guns changed accordingly.

The adjustment phase of a precision mission is conducted in exactly the same manner as in an area mission. The procedure in fire for effect is different, because of the results desired. Since an adjusted deflection and elevation obtained in a precision mission will be used to obtain corrections, or will be used in an attempt to hit the target, the final plot of the target must be more accurate than is required for an area mission. The following example covers combined observation, using the target grid, in precision fire.

Example: Target, disabled tank to be destroyed. Materiel, 155mm How.

OBSERVER No. 1: FIRE MISSION, AZIMUTH 1640, FROM BASE POINT RIGHT 900, REPEAT RANGE, STALLED TANK, DESTRUCTION, WILL ADJUST.

OBSERVER No. 2: FIRE MISSION, AZIMUTH 2160, FROM BASE POINT RIGHT 400, ADD 800, TANK, DESTRUCTION, WILL ADJUST.

FDC: The S-3 selects C Battery to fire this mission. The HCO plots the target by placing the target grid labeled "R" on the base point and orienting it on azimuth 1640. The target grid labeled "L" is then superimposed and oriented on azimuth 2160. The procedure is continued as in the first example until the initial plot is made at the intersection of the lines representing the observers' deviation corrections. These lines are always parallel to the arrow on the proper grid and are perpendicularly

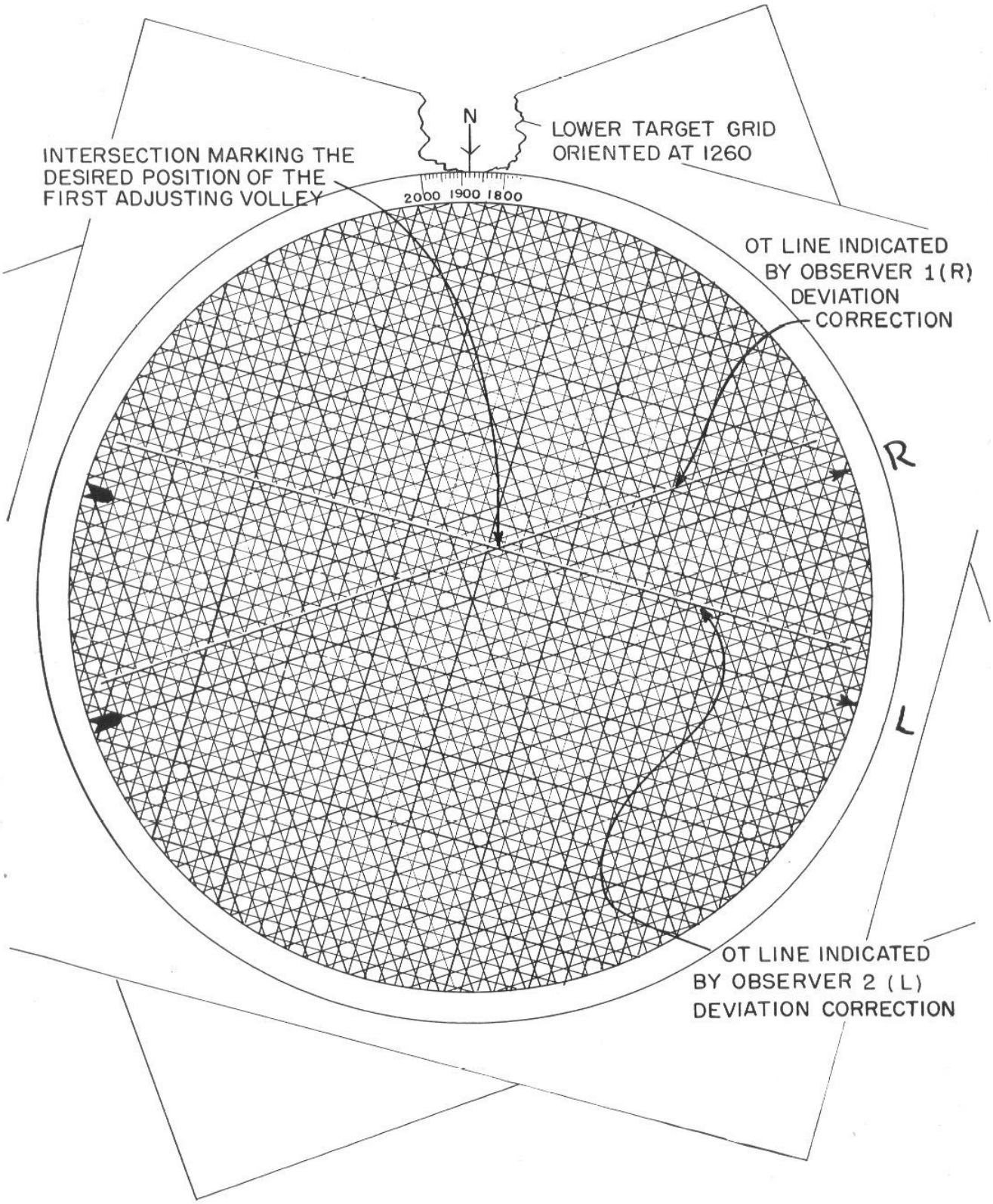
N
LOWER TARGET GRID
ORIENTED AT 1260
INTERSECTION MARKING THE
DESIRED POSITION OF THE
FIRST ADJUSTING VOLLEY
2000 1900 1800
OT LINE INDICATED
BY OBSERVER 1(R)
DEVIATION
CORRECTION
R
L
OT LINE INDICATED
BY OBSERVER 2 (L)
DEVIATION CORRECTION

Figure 1

distant from the arrow the number of yards in the appropriate observer's deviation correction. In this case, for grid "L" it is RIGHT 400; for grid "R," RIGHT 900.

The HCO then measures and announces the data to C Battery. The computer sends the appropriate fire commands including No. 3 (or other piece) ONE ROUND.

BATTERY: The battery sets off the data and fires No. 3 ONE ROUND.

OBSERVER No. 1: The observer notes the location of the burst and sends: ADD 200.

OBSERVER No. 2: LEFT 100, REPEAT RANGE.

FDC: The HCO plots the new location from the deviation corrections in the same manner as before. He then measures and announces the data to the new plot to the C Battery computer. The computer sends the appropriate commands to his battery.

BATTERY: The battery fires No. 3 ONE ROUND after setting off the new data.

OBSERVER No. 1: RIGHT 25, REPEAT RANGE.

OBSERVER No. 2: RIGHT 15, REPEAT RANGE.

FDC: The HCO plots the new location as before. Fire for effect is entered when the corrections indicate that the rounds are bursting within 50 *yards* of the target. Since the last corrections indicate this, the S-3 orders, 4 ROUNDS, FIRE FOR EFFECT. The observers are notified 4 ROUNDS, FIRE FOR EFFECT, REPORT DEVIATION IN YARDS. The computer sends the appropriate command, including No. 3 FOUR ROUNDS.

While No. 3 is firing these rounds, the HCO draws the gun-target line and a line perpendicular to it on the top target grid, so that they intersect over the last plot. This intersection is therefore assumed to be the target location.

OBSERVER No. 1: 10 LEFT, 25 LEFT, LINE, 20 LEFT (AVERAGE 14 LEFT).

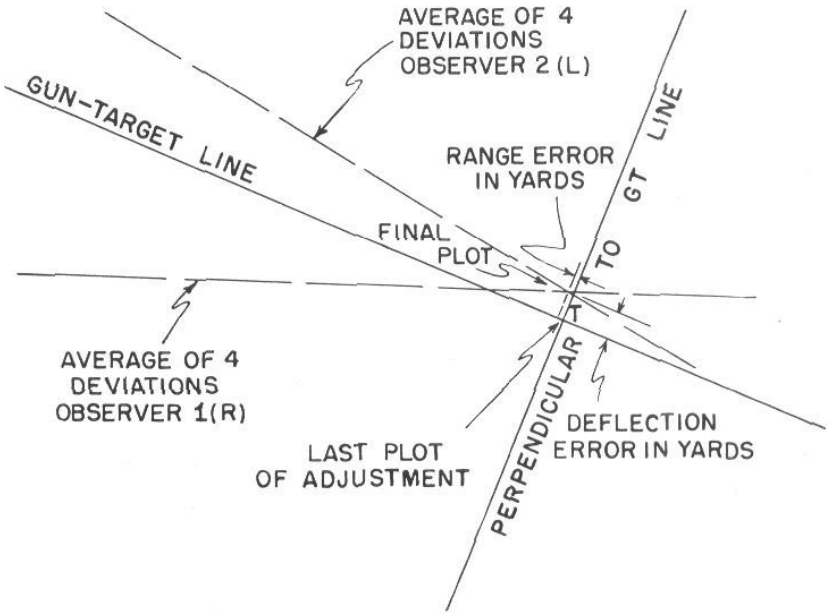

Figure 2

OBSERVER No. 2: 15 LEFT, LINE, 25 LEFT, 10 LEFT (AVERAGE 13 LEFT).

FDC (See Fig. 2): The HCO then plots the intersection on the two target grids from the average deviations as given by OBSERVER 1 and OBSERVER 2 above. In order to plot these small deviations accurately, he uses for this final plot a scale of 1/2500, which makes the smallest square on the target grid equal to 10 yards. Hence the line used for intersection on grid "L" would be constructed parallel to the arrow 1.3 squares to the left of the last plot. The line on the other grid ("R") would be constructed parallel to the arrow 1.4 squares left of the last plot. Where these two lines intersect is the final plot. Now he measures the perpendicular distance from this final plot to the gun-target line drawn through the last plot in adjustment. This is the deflection error in yards. The HCO divides this error by the range to the final plot and applies the result *as a correction* to the deflection fired in effect. The result is the adjusted deflection. He then measures the distance parallel to the GT line from the final plot to the line drawn perpendicular to the GT line. This is the range error. He divides this error by the yards per mil at the range to the final plot. This result is applied as a *correction* to the elevation fired in effect. The result is the adjusted elevation.

Fire for effect is continued with fuze delay until the mission is accomplished. Continuing in this manner, average deviations of the observers are used to improve the adjusted data after each group of 4 rounds.

If the mission is registration rather than destruction, the procedure is the same. Usually 4 rounds of fire for effect are sufficient. After the adjusted elevation and adjusted deflection are determined, a GFT setting can be made and the deflection correction determined as in any precision registration.

The flexibility of this type of combined observation, and the ease of employing it, should greatly increase the speed of attack of targets. The communication problem is somewhat more complicated then when using only one observer, but the results justify the additional training necessary to insure no loss of time for this reason. Properly employed, combined observation teamed with the target grid can be responsible for a quicker way to our ultimate objective: effective fire on the target.

Minutes of the Annual Meeting of the United States Field Artillery Association, 19 December 1949

IN ACCORDANCE with the call of the Executive Council, the fortieth annual meeting of the United States Field Artillery Association was held at the Army and Navy Club, Washington, D. C., at 5:30 P.M., 19 December 1949. Lieutenant General Raymond S. McLain, President of the Association, presided at the meeting.

A quorum was present for the transaction of business.

It was moved, seconded, and carried that the reading of the minutes of the 1948 annual meeting be dispensed with, since they had been previously printed in the January-February 1949 issue of the JOURNAL.

The President called upon the Secretary-Editor and Treasurer to present his report.

REPORT OF SECRETARY - EDITOR AND TREASURER

Membership Status. There has been a further slight decrease in subscribers. This we are trying to offset by new memberships from among the officers newly commissioned in the Field Artillery. The bulk order from the Army Exchange Service for shipment of JOURNALS to Japan (500 per issue in 1948, 400 in 1949) has been reduced to 40 for 1950. This represents more of a circulation loss than it does a financial loss, as these JOURNALS were paid for at a reduced rate and shipping costs were appreciable.

Report of the Auditing Committee. The Auditing Committee, consisting of Lt. Col. Charles H. White, Jr., and Maj. Michael F. Bavaro, reported as follows:

> "The cash-book and certain vouchers and cancelled checks of the Association have been examined and found to be correct and in accordance with the summary statement of the Treasurer for the period ending Nov. 30, 1949.
>
> "A spot check of the paid subscription list was made against the mailing list.
>
> "The attached statement of securities, held by the Washington Loan and Trust Company for the United States Field Artillery Association, was examined and found to be in accordance with the summary statement of the Treasurer."

Comments on Report. Our financial status is about the same as last year. The operating loss for the year appears as $455. The increases in Book Department profits and in interest on securities offset much of the loss in dues. An *increase* in net worth of the Association is shown as $258. This is the result mainly of the increase in market value of our securities, with some of it due to an inventory increase in books for resale and mailing supplies.

FINANCIAL REPORT

FOR YEAR ENDED NOVEMBER 30, 1949

ASSETS NOVEMBER 30, 1948			
Government appreciation bonds	$15,240.60		
All other bonds and securities	7,050.90	$22,291.50	
Checking balance Nov. 30, 1948		6,324.92	
Inventory: furniture and equipment		2,995.90	
Books for re-sale		.....	
Mailing supplies		119.00	$31,731.32
ASSETS NOVEMBER 30, 1949			
Government appreciation bonds	$15,653.00		
All other bonds and securities	7,312.03	$22,965.03	
Checking balance Nov. 30, 1949		5,869.85	
Inventory: furniture and equipment		2,894.97	
Books for re-sale		110.00	
Mailing supplies		150.00	31,989.85
Total increase in assets of Assn. for fiscal year 1949			$258.53
Cash value of securities 11/30/48	$22,291.50		
Cash value of securities 11/30/49	22,965.03		
Gain in value of securities for fiscal year 1949		$673.53	
Inventory: furniture and equipment, 11/30/48	$2,995.90		
Furniture and equipment, 11/30/49	2,894.97		
Loss in value of furniture and equipment, fiscal year 1949		(100.93)	
Inventory: books for re-sale 11/30/48 Books for re-sale 11/30/49	$110.00		
Gain in value of books for re-sale, fiscal year 1949		$110.00	
Inventory: mailing supplies 11/30/48	$119.00		
Mailing supplies 11/30/49	150.00		
Gain in value of mailing supplies for fiscal year 1949		31.00	
Excess of disbursements over receipts, fiscal year 1949		(455.07)	$258.53

COMPARATIVE STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR YEARS ENDED NOVEMBER 30, 1948 AND 1949

	1948	*1949*
Receipts		
Membership dues and subscriptions	$13,886.57	$12.394.88
Book Department sales	9,247.77	9,987.51
Proceeds from sale of securities	3,571.50	
Interest received on securities	747.16	841.87
Miscellaneous	82.33	34.88
	$27,535.33	$23,259.14
Disbursements		
Printing and mailing FA JOURNAL	$ 8,903.16	$ 7,761.81
Authors, Artists, and Photographers	1,115.00	1,197.00
Job printing	158.68	228.27
Office supplies	168.07	122.85
Postage	698.18	520.58
Book Department purchases	7,538.27	7,693.02
Salaries	3,462.00	3,494.32
Rent	1,500.00	1,500.00
Telephone	311.78	351.49
Refund on dues	28.00	59.00
Insurance and Taxes	2,433.60	43.12
Miscellaneous	1,187.46	742.75
	$29,094.29	$23,714.21

The President then invited discussion of or questions about the report. There followed a brief general discussion, after which it was moved, seconded, and carried that the report be accepted.

The President next called upon the Nominating Committee (Col. W. S. Nye and Lt. Col. H. E. Marr, Jr.) to present their slate, which was as follows:

Lt. Gen. Raymond S. McLain	vice Lt. Gen. R. S. McLain
Brig. Gen. Edward J. McGaw	vice Brig. Gen. Edw. J. McGaw
Brig. Gen. Henry C. Evans	vice Brig. Gen. Henry C. Evans
Col. Alva L. Fenn	vice Col. Jess Larson
Lt. Col. C. V. Clifton, Jr.	vice Lt. Col. Beverly E. Powell
Lt. Col. R. F. Cocklin	vice Lt. Col. R. F. Cocklin

After opportunity had been afforded for further nominations, a vote resulted in the unanimous election of the above slate.

The Secretary then, on request from the President, explained the present status of the proposed merger of the ground arms associations and journals, which was being presented in the November-December 1949 JOURNAL. Considerable general discussion followed, from which it was evident that the sentiment of the meeting was strongly in favor of a merger of suitable nature. The opinion appeared further that an eventual merger of the Field Artillery and Infantry Associations would be desirable regardless of the actions of the other two Associations concerned. The President then directed that, at a date to be announced after our members in the field had been given time to be heard from, a special meeting be called, to discuss in specific detail the terms of the merger and to decide finally on the action to be taken by the Association. This meeting is to include all available Association members, in addition to the Executive Council.

The meeting then adjourned.

Immediately after the general meeting the Executive Council met. The following officers were elected:
President — Lt. Gen. Raymond S. McLain
Vice-President — Major General Clift Andrus
Secretary-Editor and Treasurer — Colonel Breckinridge A. Day.

B. A. DAY
Col., FA
Secretary-Editor and Treasurer

Colonel Alva L. Fenn is a lawyer and a National Guard Officer from Hutchinson, Kansas. He enlisted in the 130th Field Artillery in July 1920 and commanded Battery "C" of that Regiment for 15 years prior to the mobilization of the 35th Division in December 1940. After the Division was

mobilized, he served in various command and staff capacities with the 60th Field Artillery Brigade and the 35th Division Artillery, including the Southern Sector, Western Defense Command. He attended Field Officers' Course No. 3 at Ft. Sill in 1941. In October 1943 he went to the European Theater with the 202nd Field Artillery Group (Third Army Artillery) as the Group Executive. Colonel Fenn's Group was loaned, with the VIII Corps, to the First Army during the early days of the Normandy invasion, reverting to the Third Army before moving the heavy artillery into position at St. Malo and Brest. The Group finished the war with the Ninth Army, in support of the XIII Corps. After the Group was dissolved in June 1945, Colonel Fenn served as commander of troops in the Metz area for five months before returning to the US. He has recently completed a three-year tour as a member of the General Staff, under Section V of the National Defense Act, as the advisor to the Director of Organization and Training, GSUSA, on matters pertaining to the National Guard, and has been granted the credit equivalent for the Command and General Staff College. He is at present assigned to the Office of the Secretary of Defense as the Director of the Research and Planning Staff of the newly formed Civilian Components Policy Board. Colonel and Mrs. Fenn and their daughter are living in Arlington.

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Lt. Col. Chester V. Clifton, Jr., graduated from the Military Academy in 1936, and was commissioned in the Field Artillery. From then until the end of 1943, he served in various capacities in the 1st Field Artillery, the 13th Field Artillery, and the 79th Field Artillery, commanded the 193rd FA Group, and was S-3 of the 22nd FA Brigade. From December 1943 until June 1945 he commanded the 698th FA Battalion (240-mm howitzer), serving with the Fifth Army in Italy and the Seventh Army in France. This battalion was one of the first two of this caliber to see action and had in all 375 days in combat.

He graduated from the C&GSC in 1945, and was AGF Chief of Public Relations until the end of 1946. He then attended the School of Journalism, University of Wisconsin, receiving an MA in Journalism in 1948. Following that he served a year in the OCS, and is now Assistant to the Chairman of the JCS. Colonel and Mrs. Clifton live in Alexandria.

THE ALTIMETER OBSERVED-FIRE CHART

By Major Thomas Taylor, FA

NECESSITY frequently mothers invention, and did so in the case of a new-type observed-fire chart.

Our firing range in Northern Honshu is the habitat of mountain goats and large angles of site. Our time-fuzed ammunition, as a result of some erratic firing, was condemned by Ordnance. Our 1-to-50,000 maps were not too good for vertical control where site from all gun positions ran from 40 to 110 mils. Problem: how to set up any sort of usable chart without complete survey every time we fire.

Fooling around with the two altimeters issued each FA Bn gave me an idea that proved pretty successful. Here is the way it was handled. I took both altimeters to the gun position and calibrated them comparatively by a simple turn of a screwdriver. I left one altimeter at the GP, and went forward by jeep with the other altimeter, a radio, and two AC's or two BC scopes, to an OP where I could set up a target base. On arrival at the OP, I radioed back my altimeter reading to the GP. This was simultaneously compared with the other altimeter there, giving us the difference in altitude between GP and OP, with an accuracy of 2 or 3 feet. I was now through with the altimeters.

I then selected and registered on a base point from the position (which I called O-1) where I took the altimeter reading. Before I started registration, I identified the base point to another instrument operator, and told him where to go to set up O-2. I selected this point as a result of estimation of OT and length of base needed. Before the instrument man left by jeep, I showed two tapemen where he was going. Then the tapemen either started taping to that point, or taped an auxiliary base to a point from which they could see the operator. The terrain dictated which procedure was faster.

I was now left at the OP (O-1) with a 619 radio, with which I registered; a 536 radio for communication with O-2, and an instrument to read the horizontal and vertical angles to the base point. As soon as the instrument operator read the horizontal angle to the base point, he gave me this over his 536, along with the length of the base, if the tapemen taped to O-2. If the tapeman put in an auxiliary base, the operator marked O-2 with a pole after reading his angle, and then went to the auxiliary-base end by jeep with his instrument, and gave me the angle there and the auxiliary base length.

By MSR I now obtained the OT distance, and the difference in altitude of O-1 and BP. When this was combined with the altimeter difference, I had the difference in altitude of gun and target as accurately as full survey could do. All I needed for my chart now was direction and range.

Direction was obtained from registration as usual. Range was obtained from adjusted quadrant elevation by a simple series of successive approximations on the GFT and GST, which I think can best be explained by a specific example.

Let us take the example all the way through numerically:

Altimeter data—O-1 is 48 yards above guns

Short-base data—BP is 110 yards above O-1

Therefore vertical interval = plus 158 yards

Adjusted data (106 Ch IV) = QE 416

For the first step in our series of successive approximations, we may use a range corresponding to the adjusted QE, or if we want to save an approximation, we can use a range corresponding to the Adj QE minus an estimated site. Let us take it using the range opposite QE.

QE 416 = range 5000.

Set hairline of GST on vert int (158) and under hairline set TAG initial range of 5000. This gives initial site and compsite of plus 40.

416 — 40 = 376 = initial elevation

El 376 = range 4660

From GST, using 4660, get next Si plus compsite of plus 41

Stripping 41 from QE gives 375

El 375 = Rn 4650

On GST using 4650, again gives plus 41.

As soon as there is no change, you know you have correct site and compsite, and hence a true adjusted range of 4650 on which to back-plot your battery.

Let us compare this with other types of observed-fire chart, as to accuracy, speed, ammunition expenditure, and general efficacy. Obviously such procedure is unnecessary if sites are known. If sites are unknown, this method will give a more accurate chart than using the adjusted QE, or an elevation obtained by stripping out an estimated site.

It is with the time-plot observed-fire chart that this method should really be compared. The time involved is slightly greater than for the time-plot chart, but not much so. It is believed the total time under average circumstances, with a trained team, should not exceed 40 or 50 minutes. Once the battery position is selected, if such a team were part of the reconnaissance party, there is no reason why the vertical interval could not be ready by the time the battery occupied position and registered. Obviously there is less ammunition expenditure. Although we don't have the fuze M 54 available for comparison as to accuracy, it is believed this chart is more accurate because of the fact that it contains only one K, whereas the time-plot contains two.

If old VE and Metro were available, it is felt this chart would compare favorably with the surveyed chart, as a basis for obtaining a time setting.

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U. S. Army: Cover, 9

CORPS AND ARMY ARTILLERY

By Major Paul E. Pigue, CAC

WHAT artillery has no overall artillery commander? The army artillery officer could answer that one easily, "Army Artillery."

What artillery has a commander but the commander seldom will know from operation to operation just what his command will be? The corps artillery commander could answer that one about as rapidly, "Corps Artillery."

Let us take up one command at a time and examine the answers above. Take the army artillery answer—artillery without an overall commander. Under the present T/O&Es the artillery section at army headquarters has neither the means to locate targets nor the personnel to direct artillery fire; therefore, *General Reserve Artillery* assigned or attached to an army is normally reattached to corps and divisions. Since this is so, just what does the artillery section at army do for a living? How is the artillery section organized?

The key word to our solution is the word "section." The army artillery officer is a special staff officer on the staff of the army commander. He is a brigadier general and is authorized, by T/O&E of Headquarters and Headquarters Company, Army, a section consisting of 18 officers, 1 warrant officer, and 40 enlisted men. The exact organization of the section is determined by the artillery officer. Usually the organization provides for all the normal staff sections. If field artillery is retained directly under army command, a headquarters (such as a group) is retained under the army command to do the actual commanding. The section itself is organized to assist the artillery officer in carrying out his functions as a special staff officer, which are, in general, functioning as a planner, coordinator, and adviser on all matters concerning artillery with the army, and acting as a "trouble shooter" and contact man at army level for this artillery.

To perform these functions efficiently the army artillery officer must organize his section into several subsections, each charged with specific functions. A possible organization is shown in Figure 1. In general, the staff functions are as described in FM 101-5. There are certain special requirements of artillery which make necessary some changes, such as the operation of the S-2 section. The S-2 is not primarily concerned in locating targets for immediate engagement. Rather, he can best serve by being a coordinating agency between the several echelons of the intelligence organization. For long-range planning he is concerned with the type targets expected along the axis of advance, in order to aid in the planning for future artillery requirements.

The S-3 at army artillery prepares plans for allocation of materiel and ammunition to subordinate units. For this purpose he may work closely with the S-4. The S-3 is charged with the overall supervision and inspection of training of the artillery with the army. He also is the staff member who coordinates signal communications of lower artillery echelons. To him falls the task of estimating and planning artillery requirements for future operations.

The S-4, as always, is responsible for the formulation and execution of supply plans that will keep artillery units at the peak of efficiency in so far as supply is concerned. As might be expected, his big job is artillery ammunition and other items peculiar to artillery. The operations are carried out through the army G-4.

There have been changes proposed in the army artillery to make it a command. The proposed changes are in line with the present trend to give special staff officers the command or operational control of troops of their branch of service retained directly under the headquarters concerned. For artillery, if present weapons only are considered, the weapons retained at army headquarters will consist mainly of a brigade or more of antiaircraft, with perhaps some long-range field artillery guns, but essentially the command would be that of antiaircraft. The proposed change, as shown in the type of field army, calls for a headquarters and headquarters *battery*, army artillery, with a strength of 15 officers, I warrant officer, and 62

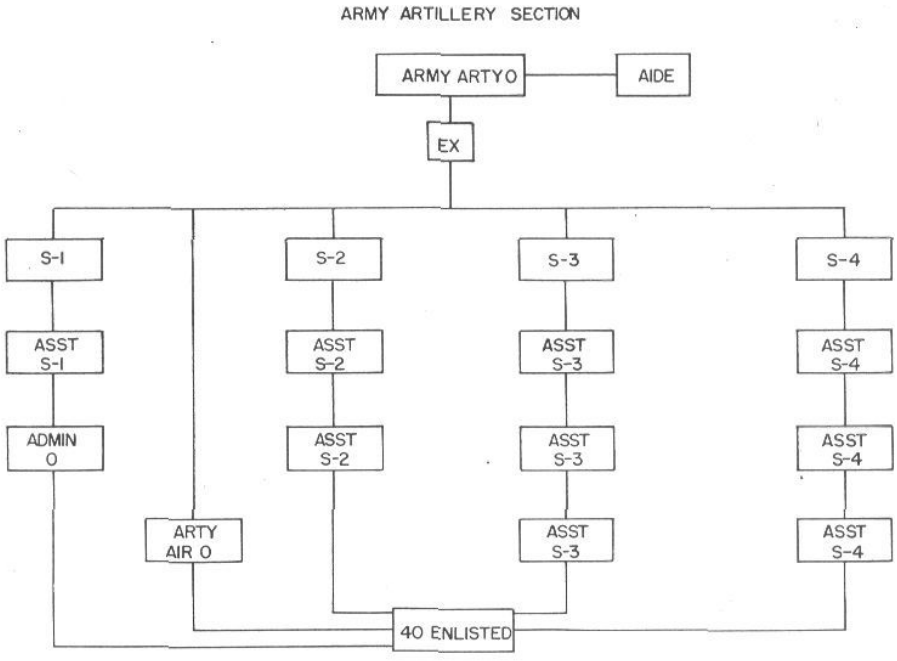

Figure 1

enlisted men. TO&Es setting up this unit have not been published to date. When published and authorized, the army artillery *officer* will become the army artillery *commander*, but with present weapons actual functions and duties will be little, if any, affected.

Concerning the proposed change in organization of army artillery, it might be well to note that FM 6-20 refers to the army artillery commander and to army artillery as a command. Such a reference might indicate early promulgation of the proposed change. The change looks forward to development of new weapons of great range and accuracy, such as guided missiles. Development of such weapons may give the army artillery commander a weapon or combination of weapons available directly to him with which he can influence the action. The use of surface-to-surface and surface-to-air guided missiles may lend itself to a unified control organization with a combined air-ground fire-direction center. Since there is no definite indication as to whether the missiles at army level will be tactical or strategic, we can only speculate as to how the use of the two may be coordinated. It is entirely possible that the antiaircraft missile will be the predominating weapon at army level, since targets in the army area are more likely to be attacked by airborne weapons. In such a case the army artillery commander would be more of a defensive commander, and that defense would again appear to be that of antiaircraft. Any statement as to the probable organization of the army artillery fire-direction center at this time would be pure speculation; however, it can be safely assumed that the tactics and technique of employment of the surface-to-surface and surface-to-air guided missiles will greatly influence the organization of his fire-control set-up.

Another possibility for the army artillery commander is that he may be charged with the operation of the Fire-Support Coordination Center, in which all long-range fire power employed in an operation, whether it is artillery, air support (including Tactical Air Force and Naval Air Forces), and Naval gunfire, is coordinated. The FSCC would also operate as the focal center for operations of the AAOR, TACC, NGO, in addition to actually operating the army artillery FDC controlling the new long-range weapons being developed.

The corps artillery officer has been and is in fact a commander of artillery. Although the organic corps artillery consists solely of the headquarters and headquarters battery, corps artillery, plus the field artillery observation battalion, corps artillery normally will have a number of groups and battalions attached on a semipermanent basis, and these subordinate organizations will be used to best assist the corps in the accomplishment of its mission. This use of attached artillery may take the form of control and fire direction from corps or by further attaching the units down to division artilleries. It might be well at this point to say that the field artillery group organization has been changed to call for permanently assigned battalions. In this respect, the group approaches the old regimental idea for artillery, except that the battalions of a group probably will not be of the same calibre and are capable of detachment from the parent group for the purpose of tactical reorganization for combat. The attachment of a group to a corps or division artillery gives that headquarters a wider selection of weapons to use, in addition to the simple addition of fire power.

Going back to corps artillery, consider for a moment the fact that in the past war the bulk of the artillery was used at corps and not at division level. The biggest job of corps artillery was counterbattery. In any future war the job of counterbattery may assume an even greater proportion of corps artillery attention. In addition to counterbattery, the corps artillery was, in effect, the corps commander's first reserve, for by great flexibility of control and fire direction a tremendous mass of fire could be brought to bear quickly at any point on the corps front. In addition to these strictly firing missions, the corps artillery commander is a special staff officer on the staff of the corps commander. As a special staff officer, he must continually make estimates of the artillery situation and submit recommendations to the corps commander for the employment of the artillery with the corps. Based on the corps commander's decision, the corps artillery commander must prepare the artillery plan for the operation and command the corps artillery during the operation. It appears that the commander is twins, serving at two places at once. To take care of this situation there is an assistant corps artillery commander to assist him, and the staff is divided into the corps artillery section in the corps headquarters and the corps artillery fire-direction center. These two parts may function together or widely separated. Basically, the section at corps headquarters deals with future operations while the section at FDC deals with the present. To efficiently perform these multitudinous tasks requires an efficient corps artillery headquarters organization. The corps artillery commander has this organization in his headquarters and headquarters battery, corps artillery, which is organized to supply the personnel and equipment to man the dual staff set-up and to handle necessary administrative details in what is essentially a tactical headquarters (Figure. 2).

A possible organization of corps artillery staff is shown in Figure 3. Functions of the several staff officers are generally those defined in FM 101-5, with necessary changes for artillery. Note that the S-1 and S-4 are the same officer. This points up the tactical organization of the headquarters, for the S-1 functions are primarily those for personnel of the corps artillery headquarters itself, and the S-4 functions have most to do with ammunition supply. The S-2 and S-3 have several assistants, to allow the corps artillery to function efficiently as a tactical headquarters.

Corps artillery S-2 is interested in many things besides counterbattery. An assistant S-2, counterbattery intelligence officer, does the bookkeeping and keeps the necessary charts for counterbattery, while the S-2 is busy at the FDC handling all intelligence which comes to him, actively supervising work of the intelligence section to assure rapid action of all information and intelligence, incoming and *outgoing*. (Please note *outgoing*. Many S-2's have from time to time taken the attitude that it is more blessed to receive than to give. In S-2 work, information which is hoarded is

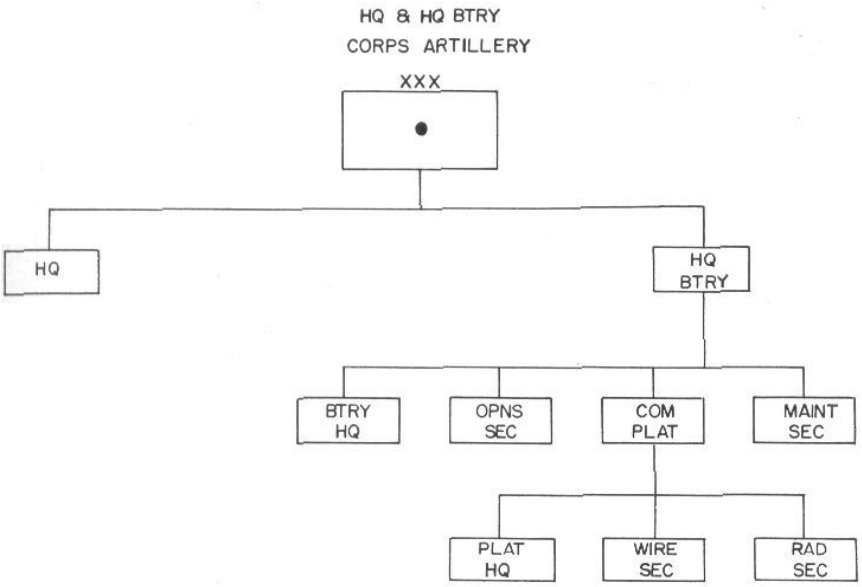

Figure 2

often useless when, and if, finally disseminated.) The S-2 may act as relief for the S-3 when the FDC is operating 24 hours a day.

Corps artillery S-3 supervises his section in the preparation of fire plans, conduct of fire missions, and preparation of operations orders. He also supervises the operations and training of subordinate artillery units. Assisting him he has one assistant at FDC and three assistants, liaison officers, at adjacent corps or at division artilleries.

The one battalion organic to corps artillery is the observation battalion. This battalion is specially equipped for three missions—survey, intelligence, and conduct of fire. The battalion consists of a headquarters battery and three lettered observation batteries.

In addition to normal headquarters operations, headquarters battery of the observation battalion has personnel and equipment for topographic and meteorological functions. The battalion commander is the corps artillery survey officer. The amount of initial survey to be executed by the battalion is dependent on the urgency of other missions. Normally, it is expected that control will be carried forward to corps artillery battalions and to division artilleries. This survey is tied in to the engineer topographic survey whenever possible. Metro data are recorded and disseminated as required for the efficient operation of artillery with the corps.

The three observation batteries are organized for sound, flash, and radar observation of artillery fire. The equipment may be used to assist the corps artillery in the adjustment, observation, and massing of friendly fires, as well as to locate enemy artillery positions. Counterbattery intelligence and other information obtained by the battalion agencies are transmitted to the corps artillery FDC.

The employment of the observation battalion should be focused towards those areas where enemy artillery is most probably located and where the inherent capabilities for coordinated long-range observation can best be realized.

Under present tables of organization, the army artillery officer does not command, even though the artillery with the army makes up the greatest fire power of the army. The proposed change—to make him the army artillery commander in actual command of the artillery—may materially influence the use of artillery in any future operation, but until weapons are developed with much greater ranges, army artillery will remain essentially an antiaircraft command. The probabilities all point to the continued use of the mass of field artillery at the corps level, with the amount of artillery with the corps changing as necessary to conform to the operations of that corps. The highest artillery commander likely to actually command large amounts of field artillery directly remains the corps artillery commander, and he will continue to pass control of fire on down to division and those commands where the capabilities of the artillery can best be realized.

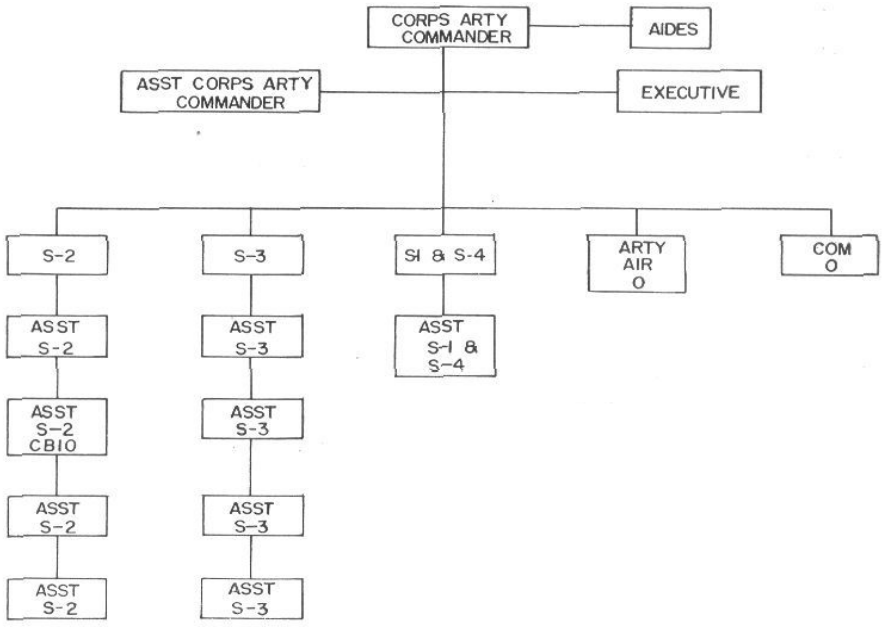

Figure 3

What is "Economy in Killing"?

Prepared in the Dept. of Gunnery, The Artillery School

By Lt. Col. Paul D. Phillips, FA

THE ideas expressed, arguments put forth, and conclusions drawn in the article "Economy in Killing," which appeared in the Sept.-Oct. issue of THE FIELD ARTILLERY JOURNAL, are so subtly convincing, and at the same time so faulty, as to merit further discussion.

Close reading of the above-mentioned article indicates that the author's conclusions, based on a development of his definition of "adequate close support" and a number of erroneous and misleading comparisons between the 4.2″ chemical mortar and the 105-mm howitzer are these: First, of all present weapons available, the 4.2″ chemical mortar is best suited to fulfill the direct-support mission now accomplished by the 105-mm howitzer. Second, the great fire power of the mortar and economy of manpower and natural resources required to produce and man it, along with its ability to accomplish "adequate close-fire support," are sufficient reasons to use it for the organic light artillery of the division to the exclusion of the present 105-mm howitzer. Third, that a possible organization for division artillery could be nine batteries of 155-mm howitzers and three batteries of 4.2″ mortars, plus necessary headquarters and service units.

Before considering the first two conclusions in detail, let us examine this proposed TO&E to see just what we are forced into by accepting this so-called economical weapon which requires "... a minimum of effort and resources." To quote the author "... the division artillery to contain three battalions, each battalion to consist of headquarters battery, three 155-mm howitzer batteries, a 4.2″ mortar battery, and a service battery." Written another way, a division artillery would consist of the equivalent of one battalion of 4.2″ mortars and three battalions of 155-mm howitzers, instead of the present division artillery of three battalions of 105-mm howitzers and one battalion of 155-mm howitzers. Is it necessary to point out that this is *NOT* ". . . the least possible expenditure of effort and resources . . ."? Certainly a substitution for any present piece of equipment in any branch should not be made if such a substitution results in complicating the procurement of mutually dependent items of equipment. The proposed organization would necessitate junking all 105-mm howitzers and substituting 4.2″ chemical mortars for 1/3 of them, and providing 155-mm howitzers for the other 2/3, plus all the necessary additional heavier transport required for prime movers and ammunition hauling. In addition to the lack of economy, we have provided no general-support artillery, and within the battalions we have grouped dissimilar weapons. Before leaving the subject of organization, it should be noted that the infantry already has a heavy mortar *company* of twelve 4.2″ mortars. It would be odd that a *battery* of twelve 4.2″ mortars be added for direct support.

The above discussion strongly points out the unfeasibility of any plan to substitute mortars for light artillery from the standpoint of economy. It should be noted that the extremely short range of the mortar is the primary defect which forces the adoption of such an uneconomical organization for division artillery. Before making any weapon comparisons of our own, however, with regard to range, fire-power, area covered, rate of fire, etc., as between the mortar and 105-mm howitzer, we should like to take exception to the author's concept of "adequate close support." He states that it is ". . . that fire delivered immediately in front of the supported arm against targets whose elimination (destruction) is within the capabilities of the weapon." We do not agree that the proper definition of adequate close support should consider "the capabilities of the weapon," for this shows that we are limiting close support to make it fit the capabilities of a particular weapon rather than designing a weapon to fulfill the mission of close support. We do not agree that the words "immediately in front of" can ever be divorced from the concept of range. Our argument, and that of those artillerymen and infantrymen who drew up the military characteristics for the light artillery piece, is that "immediately in front of" may mean any distance from 0-10,000 yards or so in front of the MLR. Depending on the terrain, weather, visibility, and tactical situation, the same type targets will appear at different ranges, and a weapon of suitable range capabilities must be available to attack them. Note, too, that proximity to our MLR does not necessarily determine the relative danger to the mission of the supported unit. Certainly, even if mortars in position on the MLR could be supplied with sufficient ammunition, their range of 4400 yards is insufficient for "adequate close support."

We have reached the point now where a comparison of the weapons and their ammunition is in order. It will be shown that many comparisons in the original article which favored the mortar are invalid and misleading; also, that the following characteristics constitute serious handicaps of the mortar:

(1) Inability to fire in close defense of its position or as an anti-tank weapon.

(2) Short range.

(3) Narrow traverse.

(4) Inability to fire air bursts except at short ranges.

RANGE. Since we have considered range in our discussion of close support, it may be well to make the first comparison here. We should consider

usable range only, and for the sake of our argument we will accept the figures used in the original article for the location of our position areas, i.e., 2000 to 2500 yards in rear of the MLR. These distances are perfectly acceptable *IF* trucks can get this far forward to supply ammunition to the mortar. We will assume that this is possible. Our usable ranges for the mortar then vary from 2400 to 1900 yards; for the howitzer, from 10,000 to 9,500 yards. This is an advantage of more than 4 to 1 in favor of the howitzer. Perhaps this ratio means little until we stop to think that artillery support must be continuous. As troops move forward, so must the artillery. In short, the mortars must be moved four times for every single move of the howitzers. This means four times as much survey and reconnaissance, and four times as many communication set-ups. The objectives of fire direction (continuity, flexibility, prompt massing, etc.) can be effected only if we have communications, reconnaissance, and survey. Our present tactical doctrine teaches that in the attack we should displace no later than the time our leading elements reach ¾ the maximum range of our howitzers. Applied to the mortars, we would go into position 2000 yards in rear of the MLR, fire until our elements were 1300 yards in front of the MLR, and then be required to displace.

Even if the above were possible, the support given would be inadequate owing to the range limitation from any one position. Another serious handicap to short maximum range is lack of choice in selection of position areas. Whether on attack or defense the proposed close-support artillery must go into position at about the same distance behind the MLR. Any enemy breakthrough quickly over-runs the direct-support artillery with disastrous results. We have said a great deal about maximum range. Frequently, as for close-in defense of the position area or for antimechanized work, minimum range is critical. The mortar has a minimum range of 579 yards, and of course cannot defend itself against any kind of attack within that range.

TRAVERSE. "Traverse, or field of fire, with present known equipment favors the guns and howitzers, but only to a slight degree." The traverse of the mortar is 250‴ total without moving the standard. By moving the standard (but not the base plate) 700 mils total can be obtained. TM 3-320, par. 3, states this is not desirable, however, because of danger of breakage at the longer ranges. With the mortar 2000-2500 yards behind the front lines we must fire only at the longer ranges and must accept the smaller figure. Thus, the howitzer with a traverse of 816‴ has more than 3 times the field of fire of the mortar.

SECTOR COVERED. Combining range and traverse into area covered shows us that, in any one position, without shifting trails on the howitzer or changing the mortar position, we can cover 24 times as much area with the howitzer, as indicated:

$$\frac{\text{Howitzer}}{\text{Mortar}} = \frac{\frac{800\pi}{6400} \times 12{,}205^2}{\frac{250\pi}{6400} \times 4400^2} = 24 +$$

It must be stated, in furtherance of this argument, that the mortar takes 6-8 minutes to emplace (or re-emplace) whereas the howitzer takes only 1 minute. It is this attribute of the howitzer which permits the flexibility (ability to fire and mass on widely dispersed targets) of fire direction, fire power, and fire support as we now know it. It is the lack of this attribute which makes the mortar unsuitable.

RATE OF FIRE. "Rate of fire of the gun and howitzer leads to the immediate selection of the mortar as the better weapon." ". . . mortars in any given area will be capable of delivering more metal on the enemy than our present 105-mm howitzer battalion." The table appearing in the original article is reproduced (Figure 1).

Bn	No. of Pieces	Rds per Min	Wt of Metal Fired per Min	TNT Filler per Min	Wt of Projectile Delivered to guns	Wt of Rd not Delivered on Enemy per Min
Mortar	36	720	17,280	6,120	17,340	54
105-mm How	18	72	2,376	346	3,106	730

Figure 1

This is quite convincing until we stop to realize that wars are not won in one minute by firing at maximum rate of fire. If this were true there would be an excellent argument for doing away with rifles, cutting the infantry company to 1/10th its size, and furnishing the remaining men with machine guns. Then all firing at maximum rate could more than equal the fire power of the full-strength company. It is well known that the maximum rate of fire for any weapon in a tight situation is that speed at which it can be loaded, laid, and fired. For the 105-mm howitzer with an average crew this can easily be 12 to 15 rounds per minute. It is even more well known that almost *never* is "rate of fire" the critical factor in determining the amount of metal or TNT we can place on the enemy. The controlling element is ammunition supply—supply *at or near the gun position*.

More realistic figures than those shown in Figure 1 can be obtained if we consider the permissible rate of fire in rounds per hour, i.e., the rate at which each weapon can fire hour after hour without damage to the weapon. These figures are 100 rounds per hour for the howitzer and 300 rounds per hour for the mortar. At this rate one battalion of howitzers can fire 43,200 rounds a day. Obviously then, supply and *not* rate of fire is critical.

Also note that a 3-to-1 advantage on the hourly basis is considerably less than the 5-to-1 (720 rounds for 36 mortars versus 72 rounds for 18 howitzers) advantage on the "maximum rate" or "first minute" basis. It is true that each round from the mortars delivers more TNT on the enemy. It cannot be disputed that the excessive blast action of the mortar is effective on certain types of targets, and that it will make large craters; however, it is well known that blast is effective against personnel in the open for relatively small distances which, in every case, are considerably less than those at which a casualty is certain to be caused by fragments. Of course, rate of fire alone is not a sound

basis on which to determine the relative usefulness of a weapon for close support. We know that place and time are each equally as important as density, for, to be effective, fire must strike the proper place, at the proper time, with the proper volume. Assuming that our timing with either weapon is the same, and combining sector covered with rate of fire, we find that one mortar is ⅛ as effective as a single howitzer (1/24 × 3). Obviously then, we cannot replace 4.9 howitzers with 1 mortar as claimed in the original article, and this fact makes all the rest of the arguments fall apart. A regiment cannot possibly be supported with 12 mortars since their combined effectiveness is equal to that of about 1½ howitzers.

Before leaving this subject, we must point out that any time two or more artillery weapons are replaced by one the ability to attack targets simultaneously is lost, and equally important, the shock and casualty effect of large masses of surprise fire are lost. Assuming for argument that 4 mortars can replace 18 howitzers in the support of a regiment, as claimed, a 4-round TOT still leaves something to be desired. In addition, 4 mortars obviously cannot successfully attack more than one area target at a time.

POSITIONS. It is believed that the conclusions drawn from Figure 3 in the original article are invalid. Figure 3 is reproduced herewith (Figure 2). It shows a 5000-yard regimental front divided into thirds (1666 yards each), each third supported by four mortars. The problem as stated is to determine how far behind the MLR the mortars can be placed and still have 1000 yards of range in front of the MLR. As you see this distance is indicated at 3330. Actually, the critical factor which must be considered is not the range but the limits of traverse. Since maximum traverse right or left is 125 mils at the longer ranges we proceed as shown in Figure 3.

1. We must cover 833 yards of front right and left.
2. 833/X = tan 125; X = 833/tan 125 = 6750 yards.

Thus, it is impossible to support 1666 yards of front from one mortar position even along the MLR. 3330 yards behind the MLR the mortar can cover only 814 (2 × (3300 × tan 125)) yards of front, not 1666. Notice, too, that as the position is moved forward to get more range, the sector covered diminishes. At 2000 yards from the MLR only 493 yards of front can be covered. There is *no* acceptable mortar position for close support. If it is close enough to utilize some of its range, it is too close to cover even a narrow sector, and too close to supply with ammunition. On the other hand, if it is far enough back to cover a reasonable front, it cannot reach the MLR.

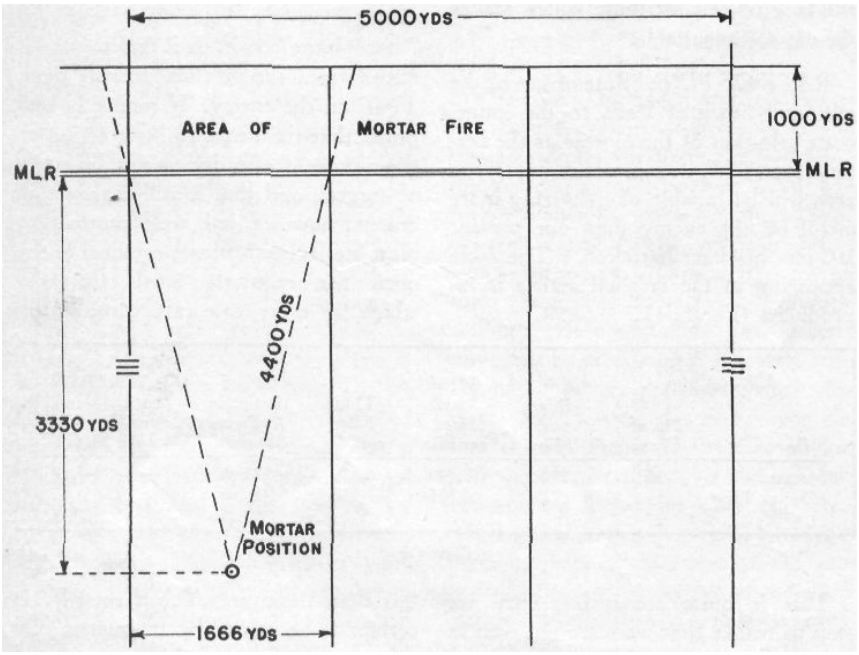

Figure 2

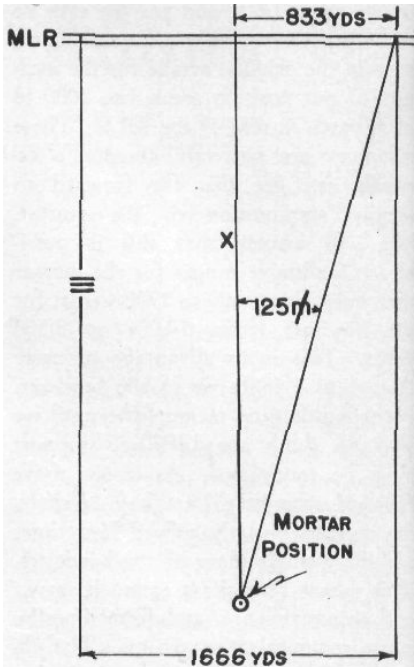

Figure 3

TECHNIQUE OF FIRE CONTROL. "Our doctrine of massed fire requires that all weapons within range of given targets be capable of rapid massing upon that target." This is a true statement, but because of range and traverse limitations it is almost meaningless when applied to mortars. Here we refer to an earlier statement that a mortar can cover only 1/24 (4.2%) of the area covered by a howitzer. So even if techniques can be developed to mass mortar fire through fire direction centers, it is questionable whether or not the results warrant the effort. Adjacent mortar platoons and companies must be very close together physically to be able to superimpose their fires. Thus, it appears, massed mortar fire can be delivered only by massing mortars. This is *not* the doctrine of flexible, massed fire power as we know it. "The range limitation in massing mortar fire can be offset to a large extent by the higher rate of fire of the mortar and . . . by the fact that the mortars in any given area will be capable of delivering more metal on the enemy than our present 105-mm howitzer battalion." This has been disproved under RATE OF FIRE above.

". . . given a fair trial and adequate communication equipment, the massing of mortar fire can be developed to at least the same degree as the gun or howitzer." Direct-support artillery must render continuous and accurate fire support through all conditions of terrain, weather, and visibility. This means ability to mass unobserved fires as well as observed fires. The problems of massing unobserved fires with mortars are all those met in firing high-angle howitzer transfers, plus many more. In the words of the original article ". . . high angle fire (is) at best, a tedious procedure." Other problems will be brought out by a discussion of certain cardinal characteristics of all mortars which tend to make them unsuitable for accurate transfers. The propellant consists of many small increments (28 charges), each of which produces a different muzzle velocity, and each of which covers only a small range (100-600 yards). Standard adjustment procedures normally require that several charges be used on each mission. This holds true on registrations as well. At the completion of a registration we have probably fired with 3 charges and it is possible that the limits of our fire-for-effect bracket were fired with 2 different charges. For what charge have we determined corrections? If we get a metro message along with our registration and compute a VE, which charge is it good for? Either? Within what limits are our registration corrections valid? Obviously a K determined with a charge having a MV of 600 f/s is not valid 400 yards away with a charge having a MV of 649 f/s. Certainly the K will improve initial rounds on an *observed* fire mission, but would you apply it within 200 yards of our own front lines on a transfer at night? Would you fire 105-mm howitzer high-angle transfers within 200 yards of our front lines?

The range limits of each charge present this unique situation when applying metro to map data. If we enter the firing tables at map range to determine the line number, solve the metro, and apply the range corrections to chart range, we find that frequently the corrected range must be fired with a different charge, and the line number opposite the corrected range is different than that used to solve the metro. We can say, as we do now for standard artillery, map data corrected by metro *probably* is better than uncorrected map data.

PROJECTILES. The 105-mm H.E. shell has a relatively heavy case and light filler, whereas the mortar has a thin-walled shell case and a heavy filler. As might be expected, the mortar shell explodes with a terrific blast and breaks into many small fragments of high velocity. This results in many casualty-producing fragments near the point of impact, but relatively fewer further out. The table below is self-explanatory and indicates that the effectiveness of the two projectiles is approximately the same. Tests at Fort Bragg indicate that the mortar and howitzer produce comparable results on prone and standing targets if both fire HE shell with super-quick fuze which lands with the same angle of impact.

FRAGMENT DAMAGE TABLE (CASUALTIES)

	MORTAR			105-mm HOWITZER		
Distance from burst (yds)	7	25	50	7	25	50
Effective fragments per square foot	.283	.0146	.0021	.201	.0137	.00272
Total number effective fragments	1420	967	605	1010	917	768

"The mortar projectile-fragmentation pattern gives a full coverage around the point of burst while the 105-mm howitzer projectile gives a butterfly-shaped fragmentation pattern with the wings approximately perpendicular to the line of fire." As a matter of fact, a comparison of fragmentation patterns for impact bursts would show that, for comparable angles of impact, both the mortar and howitzer produce patterns which are roughly similar. Width and depth of burst for each are almost equal, but the mortar shell has a slight advantage in density of fragments within 7 yards of the point of impact. For air bursts, a comparison of fragmentation patterns for comparable angles of impact and height of burst strongly favors the howitzer shell. Not only is the area covered about 1/3 greater but part of the pattern for the 105-mm shell (equal in area to about 1/3 the entire mortar pattern) is covered with more than twice the density of any part of the mortar pattern.

The importance of air bursts cannot be overemphasized and will be discussed later. Remember which of the two projectiles is more effective for time fire and by how much.

Before leaving projectiles it may be well to compare fillers for other than HE shell. The mortar has no HEAT, since it is incapable of low-angle fire against tanks. To quote the extracts from the Seventh Army AIS in the article by Brig Gen Charles E. Hart, which also appeared in the Sept-Oct issue of the JOURNAL, "Light artillery must site for antitank defense where an enemy penetration is possible." The mortar cannot defend against tanks.

For most chemical-filled shell, the mortar has about a 2-to-1 weight advantage (7.5 lb. to 4.61 lb.). However, the HC smoke shell (base ejection) of the howitzer commonly used for screening has 7.5 lb. of filler, exactly equal to the heaviest chemical filler for the mortar.

TRAJECTORIES. "The projectile trajectories favor the mortar in that all defiladed areas can be fired into with ease, while with 105-mm howitzer we must resort to high-angle fire, at best a tedious procedure." It is no more difficult to fire high-angle fire with howitzers than it is with mortars. The trouble comes when we attempt to *mass* high-angle fire; then, as has been pointed out, the mortars face even more problems than the howitzers. The very fact that the mortar cannot fire low-angle fire is a tremendous disadvantage, making it incapable of defending itself.

TRANSPORTATION AND MOBILITY. ". . . (these) considerations favor the mortar. Various types of terrain such as swamps, jungles, forests, mountains, and normal terrain favor the mortar." If trucks cannot get into position areas to deliver the bulk ammunition required by the mortar, the mortar's ability to get into difficult positions

is worthless. On the other hand, if ammunition vehicles can get in, so can a howitzer.

FUZES. "Both the artillery and mortar are provided with quick, super-quick, delay, and time fuzes." It should be added that the howitzer also has VT, non-delay, and concrete-piercing fuzes. Of course, since the mortar cannot deliver low-angle fire, it has no use for the HE antitank projectile which uses the non-delay fuze. At present there is no standard VT fuze available for the mortar. There is no reason to believe that one will not soon be available. When it is available and usable for all mortar ranges, much of the argument on fuzes which follows will no longer be a valid argument against the mortar. However, if we are considering replacing howitzers with mortars today we should discuss only today's capabilities.

It is a well-known fact that any time troops are dug in, or, in fact, any time they are other than standing in the open, they *must* be attacked with air bursts. Experience tables show that if men are prone, up to 4 times as much ammunition is required to produce the same effect as when they are standing.

Let us see just how useful the time fuze is when used with the mortar. We have already noted the differences in air-burst effectiveness between the two projectiles. We shall confine ourselves here to useful ranges. Remember our mortars are in position 2000 to 2500 yards in rear of the MLR. Firing tables show that time fuze can be used at ranges from 1220 yards to 2474 yards; from 2500 to 2677; from 2750 to 2869; from 3000 to 3050; from 3200 to 3222; and at 3386. Notice that if the mortars are 2500 yards back we can cover only 5 small portions of range totaling 359 yards. Notice too, that there are huge gaps in which time fire cannot be used. All of these ranges can be reached only by fuze settings in excess of 21 seconds, where one height of burst probable error is about 30 yards. When we consider that 2 PE's are not excessive, we can see that air bursts are practically out of the question. The limited ranges for time fuze further detract from their use in observed fires. It is manifest that use of delay fuze for ricochet fire with the mortar except under extraordinary conditions is impossible.

MISCELLANEOUS. From the foregoing the answers to some of the arguments for the mortar not already proved false may be deduced:

Manpower and training. It is true that fewer men are required to operate a mortar and their training time is less. (Ten men for the howitzer, seven for the mortar.) This disparity is more than overcome by the additional men required for the six additional batteries of 155mm howitzers proposed for the division artillery.

Maintenance. A single mortar requires less maintenance than a single 105-mm howitzer, but the present division artillery requires less maintenance than the proposed division artillery, since there are 18 additional weapons in the latter, and since six 105-mm howitzer batteries are replaced by an equal number of medium batteries.

Camouflage and concealment. It is easier to conceal a 105-mm howitzer than a 155-mm howitzer. An understanding of the proposed division artillery shows why it is more difficult to conceal than our present organization.

In conclusion, we should like to answer some of the questions asked at the end of the original article.

"Why is so much emphasis placed on the location of enemy mortars?" Because they kill so many people.

"What hostile weapon caused the most casualties to the infantry in World War II?" Probably the mortar, if we are referring to American infantry. This may be attributed to the failure of our enemies to use field artillery properly and in mass. We should ask, "What weapon caused the most casualties to the enemy infantry?"

"How effective would the mortar be as compared to 105-mm howitzer battalion, in support of airborne operations?" The mortar has a substantial weight advantage, but early phases of an airborne operation make it essential that any direct-support weapon must be capable of antitank fire and of close-in defense of its position. Here again, lack of suitable traverse, range, speed of emplacement, and, at the present time, fuzes, are cardinal disadvantages.

"Do the three light divisional field artillery battalions (2,007 men) offer a greater killing potential per man than can be gained from a similar number of mortar battalions (1,978 men)?" Emphatically *YES*.

Battery Fire-Direction Centers

By Captain David E. Ott, FA

The necessity for a firing battery to set up and maintain a battery fire-direction center has increased with the adoption of the target-grid method of conduct of observed fires. Under previous systems for the conduct of observed fires, either the firing data were computed by the observer (old BC methods) or by the battery executive with the aid of a graphical firing table. The target grid requires that each of the observer's corrections be plotted and that firing data be measured from the firing chart.

The battery FDC required to perform this operation poses several problems and questions. This paper will present a discussion of the personnel in a battery FDC; the conditions under which a battery FDC must be used; the conditions under which it may be used; and finally some of the techniques recommended in the operation of a battery FDC.

The latest table of organization for a direct-support 105mm howitzer battery* lists an "instrument operator (computer)" who is the only person thus designated as a member of the battery fire-direction center. Other personnel available to the battery commander for the FDC are:

Executive,
Reconnaissance Officer,
Assistant Executive,
Scout Corporals,
Chief of Detail,
Chiefs of Firing Battery,
Instrument Corporal,
Recorder.

The selection of personnel to be trained in FDC technique remains largely a

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matter of the personalities and capabilities of the available personnel. There are two master sergeants now assigned as chiefs of firing battery. A possible assignment of duty might be one of these to assist the executive in supervision of the piece sections; the other to act as chart operator, a position which requires both intelligence and experience. The computer and recorder positions can easily be handled by one person. Under the present procedure of using a common deflection for the pieces, the problem of keeping a record of the deflections of six pieces has largely disappeared. The recorder's and computer's forms contain almost identical information. When a mission is handled by the battalion FDC, the recorder's form is used; when handled by the battery FDC, the computer's form is used. Under extreme conditions it may be necessary to operate the FDC 24 hours a day, and sufficient personnel should be trained to meet this situation. The battery FDC personnel will be trained partly with the battalion FDC group and partly with the firing battery.

The most desirable battery FDC consists of three individuals; a chart operator (combined HCO and VCO), a computer, and a supervisor who performs the functions of the S-3 in a battalion FDC.

In a situation where a battery is detached from battalion and the battery FDC is charged with the complete processing of fire missions, the functions of the supervisior are extremely important. These functions should then be performed by the battery executive, the assistant executive, or the battery commander, and will include the decision as to whether or not to fire, the method of attack, and the type of ammunition to be used. Subsequent corrections can be plotted and the resulting fire commands determined by the two-man FDC without direct supervision.

In an emergency a battery FDC can operate with one person—a chart operator. In this case the chart operator will call off deflections and ranges for each round and the executive with the aid of a GFT will determine the fire commands. Although such a one-man FDC is not recommended, it can operate fairly efficiently and it constitutes the minimum effective battery FDC.

For a mission handled entirely by the battery FDC, the chart operator could wear a head and chest set connected to the observer through the battery switchboard, while the computer could wear a head and chest set connected to the gun sections through the executive's telephone. This would reduce the number of communication personnel required and increase the speed of the firing.

A battery of field artillery must operate a battery FDC under any conditions that make it impossible to receive fire commands from the battalion FDC. Examples of this situation are: when the battery is detached from the battalion; when the battery has no communications with the battalion FDC, owing to displacement or enemy action; or when the battalion FDC is not operational, again owing to displacement or enemy action. It is not intended to imply that a displacement will always remove the battery from control by battalion FDC, but, if it does, the battery must have its own FDC if it is to deliver fire effectively.

In addition to the above situations requiring a battery FDC, there are many other situations in which a battery FDC may be used. The decision as to whether or not a mission will be turned over to the battery FDC rests with the battalion commander or the S-3, or perhaps is contained in a battalion SOP. A discussion of the major advantages and disadvantages of turning over a mission to a battery FDC will help the battalion commander in his decision concerning such action.

The principal advantages are:

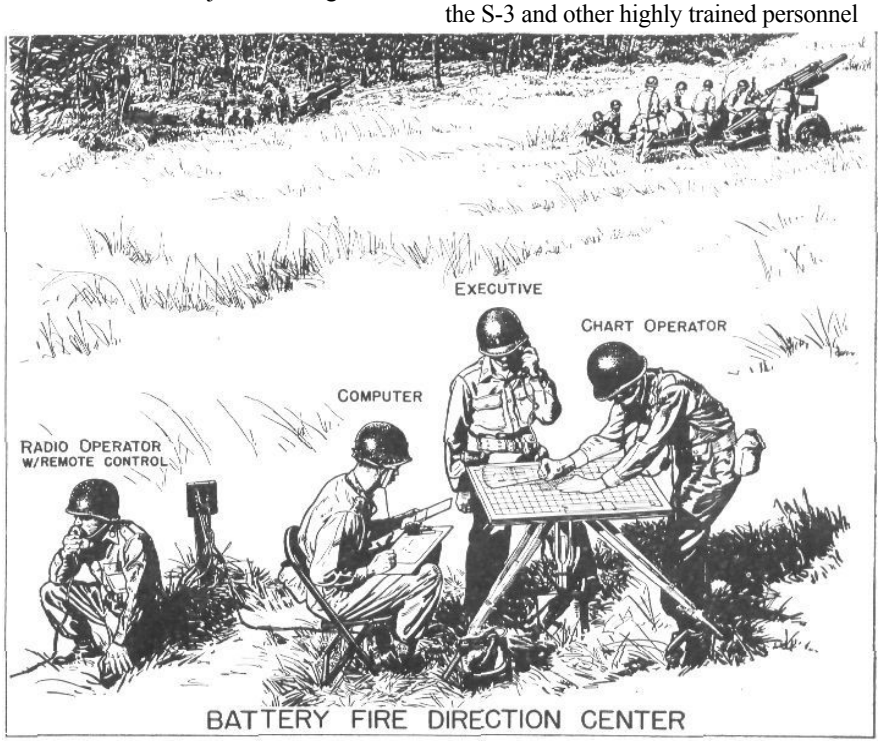
1. If a fire mission is of such a nature that the S-3 desires to fire one battery (or one gun) in fire for effect, the mission can be turned over to one of the battery FDC's, thereby removing the noise of following the mission from the battalion FDC. This, of course, also leaves the battalion FDC personnel free to perform other duties.

2. If one or more missions are being handled by the battalion FDC, and one battery is not engaged, any new missions coming in may be turned over to the battery FDC, thereby eliminating the chances for confusion resulting from concurrent missions in the battalion FDC. If missions are being conducted by the battalion FDC, it may be necessary to turn a new mission over to one of the batteries because of a shortage of battalion FDC personnel or available firing charts.

The disadvantages are:

1. The most obvious disadvantage is the loss of control of the battalion's firing, as a result of decentralization.

2. Another important disadvantage is that the knowledge and experience of the S-3 and other highly trained personnel



are not readily available in the event anything out of the ordinary should occur during the conduct of a mission.

3. The problem of bringing in additional fire, should it become necessary, is somewhat more difficult and requires more time.

4. Replotting the concentration on the battalion firing chart is more cumbersome.

5. Battery FDC personnel are generally not as well trained and will therefore be more liable to make mistakes, and will probably be slower than battalion personnel.

In spite of the apparent disadvantages, a battalion commander should not overlook the advantages of turning some missions over to battery FDC's. In the following discussion of how to operate a battery FDC, techniques will be suggested to minimize some of these disadvantages connected with decentralization.

The technique used in a battery FDC, like that in a battalion FDC, will depend largely on the situation. The most important variable, of course, will be the type of firing chart in use. A battery FDC may use a surveyed firing chart on a battle map in one situation, and a crude form of observed-fire chart on a grid sheet, or even on a plain piece of paper, in another. This discussion of battery firing charts will be broken down into the various situations from a rapid occupation to an extended stalemate.

The battery FDC in a rapid occupation of position is important, since this is a situation in which the battalion FDC may not be in position to process fire missions. This is especially true in the case of an armored battery or a parachute battery. This rapid-occupation situation is further complicated by the frequent necessity for immediate delivery of fire and the general lack of knowledge as to the direction of fire.

If the battery FDC has a battle map or photo map available for a firing chart, and a rapid occupation of position is taking place, the chart operator (or battery executive) should place a pin in the inspected location of the battery position and draw an index, for reading deflections from this point, in the direction of the compass on which the executive is laying the battery. Then a fire mission coming in can be quickly plotted and firing data scaled from the chart. The target grid can be placed over any grid intersection in the general sector of fire and the observer's azimuth set off on the Y grid line. Such a firing chart can be constructed in less time than it takes to lay the battery, and is the most satisfactory type of rapidly constructed chart, since target locations may be sent by coordinates. Changes in the chart may easily be made if they become desirable after firing or after any survey information is available.

If the battery does not have a battle map or photo map available, or if the approximate location of the battery position is not known, a grid sheet should be used for the firing chart. The simplest method of setting up this grid-sheet chart is to place a pin in a grid intersection near one end of the grid sheet with the long axis of the grid sheet in the general direction of fire. An index for reading deflections is drawn from this pin in the direction of the compass on which the battery is laid. Once again the target grid may be placed on any grid intersection in the sector of fire and the observer's azimuth set off on a Y grid line.

This type of grid-sheet firing chart is excellent for the conduct of battery observed-fire missions, but the fact that target locations cannot be plotted from coordinates limits its use. The two firing charts just described are specifically designed to meet the situation of a rapid occupation of position where immediate delivery of fire is required. In addition, a standard percussion- or time-plot observed-fire chart may be used with a grid intersection or actual map location of the base point established; the relative position of the battery determined from firing and back plotting from the base point. This last type is suitable under circumstances not requiring immediate delivery of fire. However, when used for a single battery there is no particular advantage in this firing chart over the ones previously described, except when the base point can be accurately located on the firing chart and the battery positions cannot be determined by inspection.

A surveyed firing chart should be used by the battery FDC when available, and any data resulting from previous firing on an observed-firing chart should be plotted on the surveyed firing chart.

Since a surveyed firing chart is normally available only after a deliberate occupation of position or after a position has been occupied long enough for a survey to be made, the construction and use of observed-fire charts should be thoroughly understood by battery FDC personnel.

The battery firing chart should be made as close a replica of the battalion firing chart as possible. With the ever-present danger of enemy action disrupting the battalion FDC, it is essential that each battery maintain a firing chart from which it can fire, and, if necessary, from which the battalion can be fired.

On some occasions when the battalion FDC is in operation, the S-3 may desire to let one of the batteries handle a fire mission directly. As has been previously pointed out, this decentralization of fire control has several disadvantages, but initial processing of the mission by the battalion FDC and teamwork between battalion and battery FDC's can reduce some of these disadvantages. Thus, when a fire mission is received in the battalion FDC it is plotted on the battalion charts and the S-3 gives his order. The computer for the battery designed to fire the mission completes initial fire commands to his battery and in addition gives the observer's azimuth and the method of fire to be used in fire for effect. The battery executive will fire the initial volley as soon as possible and stand by to receive subsequent commands from the battery FDC. The battery chart operator will set off the observer's azimuth on his target grid and plot the first round fired at the deflection and range corresponding to elevation fired. Subsequent corrections sent in by the observer are plotted on the battery firing chart and firing data determined and fired. When the mission is completed the battery FDC will let the battalion FDC know the adjusted firing data plus any changes in fuze or charge. The data for the non-adjusting batteries can be scaled off the battalion chart after replot, or taken from the battery chart.

Study of the capabilities of battery FDC's by the battalion CO and the S-3, and adequate training of these FDC's, will greatly improve the fire-support potential of a battalion of field artillery.

Operation Amphibious

By Lt. Col. R. C. Williams, Jr., nf.

Part I: "In The Beginning . . ."

INTRODUCTION

During WW II amphibious operations became a usual rather than an unusual assignment, not only for the Marine Corps, but also for the entire Army Ground Forces. It is true that we were forced to use the sea as a highway initially, but before the war had progressed very far it became apparent to everyone that there were certain definite advantages inherent in attacking a ground enemy from the sea.

As a result, an amphibious operation prefaced every large-scale undertaking by the armed forces of our country. General Eisenhower began in North Africa, went to Sicily, then to Italy across the beaches of Salerno, and penetrated Fortress Europe by landings in Normandy and Southern France. In the Pacific, the Japs were first cleared from Attu and Kiska in the Aleutian chain, and then, while General MacArthur began his move from Australia to Luzon by making landing after landing, Admiral Nimitz pushed westward through the Gilberts and Marshalls, the Palaus, Mariannas, Iwo Jima, and finally Okinawa by the same medium. Indeed, the final dagger-thrusts into the heart of the Japanese Empire, the Kyushu and Honshu operations, were to be initiated by the largest amphibious operations in the history of warfare.

Amphibious landings require a great deal of expert planning. They demand much in specialized equipment, not only in ships and landing craft but also in machinery for supporting the assaults. They call for well-organized and well-executed Ground-Air-Sea teamwork. Intelligence, Logistics, Replacements, Evacuation, all these problems, as well as a host of others, are invariably multiplied many fold when considered in the light of amphibious operations.

It might be well, therefore, to see what history had provided us with in the way of lessons from previous undertakings of this type, in order to ascertain just what our commanders had to work with in 1939 when we began amphibious training in earnest.

THE DARDANELLES

Napoleon is quoted as having said that in order to become proficient in the Art of War one must diligently study Military History. But the Marine, Navy, or Army officer who attempted to follow this advice in 1939, by searching through the pages of military history for amphibious operations which he might study, found only one, the ill-fated Gallipoli Campaign of World War I, which provided suitable lessons in landing on a hostile shore. Thus it was, in 1939-1940, that the 1st Marine Division and the 1st and 3d Army Divisions had only Gallipoli upon which to base their amphibious ideas. Let us review that campaign and see what was planned, then how these plans were executed, and finally, what lessons were provided by that operation.

But before plunging into a description of the campaign at the Dardanelles, it might be profitable to review briefly the events which preceded that operation.

Germany, with her fine army, her splendid von Schlieffen Plan, and her not-so-splendid von Kluck, had failed in her gigantic "Race to the Sea" in the West, and was engaged in maintaining an impressive defense wall which extended from the Swiss border to the Atlantic. Over on the Eastern Front, von Hindenburg had banished forever any ideas which the Russians may have had regarding an invasion of Silesia. The "Winter Battle" had all but shaken the huge and clumsy Russian Imperial Army apart and the Czar was frantically endeavoring to secure immediate military assistance from the British. Thus the outlook at the end of the year 1914 was neither optimistic nor pessimistic.

It was this growing call for aid that caused Winston Churchill, at that time First Lord of the Admiralty, to suggest that an attempt be made to force the Dardanelles. Success in this undertaking would not only open the Straits to the Black Sea, but it would also enable the British to send some help to the hard-pressed Russians, take out some of their wheat, and, finally, act as a vital protection against any possible attack toward the Suez Canal. However, Churchill was warned against such an attempt by General Caldwell of the British Imperial Staff, and so it was not until Turkey entered the War on the side of Germany in October 1914, that he persisted in his idea that it was imperative for the Allies to control the Dardanelles. Throughout, Churchill was of the opinion that the Straits could be forced by naval forces alone, believing that the rewards of success would more than justify any losses. This idea took concrete form when, at a meeting of the War Council on 13 January 1915, it was decided that the Admiralty should make the necessary plans for bombarding, assaulting, and seizing the Gallipoli Peninsula in February. However, as the days passed it soon became apparent to the planners that a large military force was a prerequisite to success in the contemplated operation. Nevertheless, Churchill prevailed and the military force was omitted. So much then, for the picture in London. Next, let us briefly examine the geographical aspects of the Dardanelles venture.

The Straits, as we know, connect the Black Sea and the Mediterranean, with the Gallipoli Peninsula jutting out on the northwestern side and the great city of Constantinople situated on the eastern approach. The route to Asia Minor by land was split by this water link. The pet project of the German Kaiser, the Berlin-to-Bagdad Railroad, crossed here. The Dardanelles are dangerously close to Egypt, with its Suez Canal and its lifeline to the East. A closer scrutiny discloses that the approach to the Straits is dotted with several islands which were destined to play an important part in the operations around the Dardanelles, even though all the actual military operations were fought on the Peninsula of Gallipoli. Tenedos, Mytilene, Imbros, Lemnos, and Skyros all were used by the British, obtained either by outright seizure or by negotiating with the wily Greek leader, Venizelos. Lemnos, with its fine large harbor at Mudros

Bay, was especially important owing to its proximity to the Dardanelles.

The Gallipoli Pensinsula, a mass of rocky ridges, steep hills, and narrow valleys, is approximately fifty miles in length and from two to twelve miles in width. It reaches over 900 feet above sea level. The terrain is unwatered and covered with thick scrub. The roads are few in number and poor in condition. Most of the coastline is composed of cliffs which seem to fall into the sea. The beaches are narrow and scarce. Across the Straits from the tip of the Peninsula is Orkanie Point, dry and desert-like.

The Turkish plan of defense in this area against naval attack included permanent fortifications on both sides of the Narrows. Five fourteen-inch guns, three thirteen-inch guns, and 70 rapid-fire guns of medium calibre were within these forts. Minefields were laid and searchlights kept the field well illuminated during the hours of darkness. Alternate gun positions were constructed. Mobile howitzers and dummy gun positions dotted the shores toward the entrance to the Straits. At Cape Helles and across the strait at Orkanie four fourteen-inch guns and twenty guns of smaller calibre were installed. Torpedo tubes were placed so as to be capable of firing into the straits from shore. Dummy battery positions aided in the concealment of the real guns. An excellent fire-control system was installed. Finally, patrols covered the entire coast from the Gulf of Xeros to Bashika Bay. Thus, it can easily be understood that when, in addition to these defensive installations, six divisions were also defending the area, the Dardanelles were described as one of the most strongly fortified positions in the world.

The plan to break up these Turkish defenses by the use of naval forces alone met with failure. The mines, hidden shore batteries, and torpedo tubes proved too much for the British and they were forced to withdraw. Sixteen capital ships steamed majestically into the Dardanelles and three soon were at the bottom of the sea as a result of mines, three were severely damaged by torpedoes, and only a battered remnant of the pride of the Royal Navy returned to Mudros Bay.

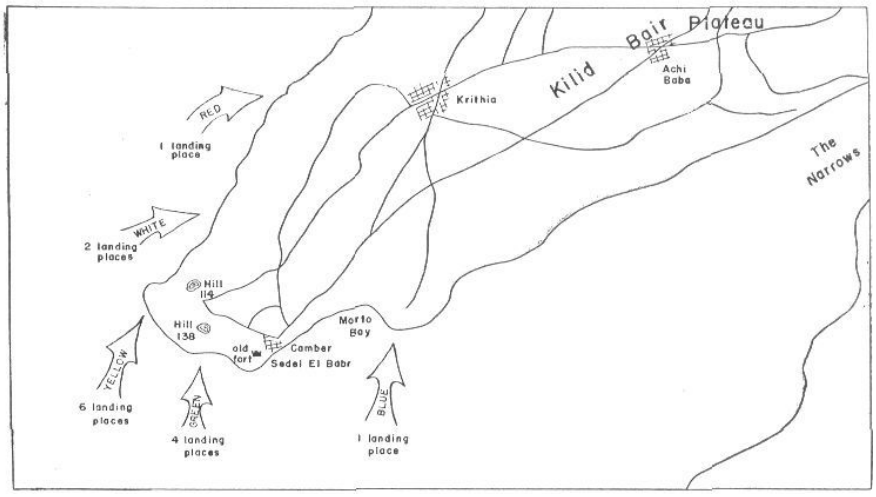
The second attempt included amphibious landings by army units with the Royal Navy acting as the supply service and artillery support. The forces available, totalling 78,000 men, were concentrated at Mudros Bay. The mission assigned General Hamilton, the commander of all Allied forces around Gallipoli, was to see the Navy through the Dardanelles.

Mudros Bay was to be the base from which the three task forces—the Anzac Corps, the 29th Division, and the French Division—were to deploy. The General Staff had previously made all the necessary detailed arrangements.

General Hamilton had no planes at his disposal. His intelligence people were unable to furnish him with the accurate strength of the Turks occupying the southern end of the Peninsula. Since he could not expect to obtain surprise, Hamilton sought to confuse the German commander of the Turkish forces, General von Sanders, by making demonstrations in Bashika Bay and the Gulf of Xeros, as well as by landing in three separate localities. The French were to contain the Turks on the Asiatic Coast, the Anzac Corps was to make the secondary attack, and the 29th Division was to make the main assault, with the Kilid Bair Plateau as its objective and Achi Baba, overlooking the entire assault area, as its immediate goal. Control of this high ground would give the Navy direct observation for directing fire upon the remaining Straits fortifications.

Owing to the restricted beaches, the strong current, and the fear of hidden reefs, the Navy had vetoed a night operation at Helles, and the landings were to take place by day. The landing was to be made by employing tows, that is steamboats, each of which were to pull four life-boats to shore. When the lifeboats were close to the beach the lines were to be cast off and sailors were to row the troop-laden craft to the beach. The Navy had agreed to a thirty-minute bombardment prior to the landings. A collier and some cross-channel cargo boats were to bring in the remainder of the main-attack covering force.

This, then, was the plan which was put in operation at dawn on 25 April, 1915. Its execution left much to be desired. The Anzacs got ashore by late afternoon, were counterattacked and all but driven into the sea. The French Division accomplished its mission. But the main attack collapsed, for several reasons.



CAPE HELLES, Five points where 29th Division landed in the Main Attack.

First, the ships were not combat-loaded and this error had to be rectified at the last minute. Secondly, the Navy miscalculated the current along the shore, missed the exact landing points in many instances, mixed up tactical units in the disembarkation, and thus made for a loss of control at a crucial stage of the operation. Third, the Naval bombardment did not accomplish what was expected of it. Assault troops had to make their way under heavy fire to the shore, and struggle through underwater obstacles, land mines, and tactical wire. The naval guns were expected to eliminate both the enemy guns and the obstacles. Fourth, communications were

poor. In fact, most of the messages which did reach the commanders were optimistic, but misleading as to facts. Too many subordinate leaders were either killed or wounded early in the fight.

However, probably the most discussed reason for the failure of the operation had to do with a Colonel Matthews who commanded the two battalions in the main attack over Red Beach.

Colonel Matthews' orders, which were all oral, were to the effect that his first task was to advance some little distance inland, capture a Turkish gun thought to be in the vicinity, and, by attracting Turkish reserves to himself, to interfere with the reinforcement of Helles and Sedd El Bahr by the enemy. He was at the same time to gain contact with the troops landing at White Beach, and, later in the day when the main portion of the covering force came up on line with his position, he was to join them in the attack toward Achi Baba ridge. The action to be taken in the event this advance from the south did not materialize was not mentioned nor apparently considered.

Since the steep, high cliffs near the shore at Red Beach made it an unlikely landing place, Matthews' force got ashore unopposed and was soon established on top of the cliffs about 300 yards inland. In fact, Colonel Matthews and his adjutant walked unaccompanied to within 500 yards of Krithia without incident. He failed to capitalize on his discovery, however, contenting himself with returning and entrenching his force in a position on top of the cliffs. That night his unit was counterattacked and, owing to the night fighting, lack of experience, and loss of contact with their units, a number of men began to wander toward the beach the next morning. A salvo from a British ship landed within the British lines and increased the confusion. When small boats began to take off the wounded, the men on the cliffs thought that evacuation had begun and they too started for the beach. The Colonel, upon learning how far the evacuation had progressed, decided to let it continue and soon the entire force had left Red Beach.

Thus the first day's fighting found the task of the 29th Division far from acomplished. Instead of the Achi Baba Ridge the British held only a narrow fringe of the Peninsula.

In analyzing this landing operation, it should be constantly remembered that the Army task was secondary to the Navy's mission of forcing the Dardanelles. The Army was to take the high ground at Kilid Bair in order to furnish the Navy with the observation points necessary so that the latter could fire properly on the fortifications along the Narrows, and destroy them. If the mission of the Army is kept in mind, it is apparent that the sites selected for the landings were the only ones available.

The various beaches were connected on 27 April and, although the attack was pressed toward Krithia, Turkish reenforcements arrived constantly, and they pushed the Allies back. The final line covered the tip of the Gallipoli Peninsula, where the British remained for the next three months. They suffered severely from ammunition shortages, lack of replacements, and disease. Dysentery plagued the entire force.

Later on in the year reenforcements finally arrived and operations were resumed. A main attack was launched from the Anzac bridgehead, a secondary attack from Suvla Bay, and a holding attack executed at the tip of the Peninsula. It failed, not only because of Turkish strength, but because British bravery could not compensate for the vital time lost and wasted by the Allies. The British evacuation took place on the night of 19/20 December, without casualties, and thus ended the historically ill-fated attempt to capture and control the Dardanelles.

What lessons did the Dardanelles landing provide for those of us who were commencing amphibious operations with the Navy on both the East and West coasts of the United States in 1939-1940?

The first lesson shown by the British experience was that an amphibious operation was of necessity a joint operation, and that Winston Churchill was quite wrong in his idea that the Dardanelles could be taken by the Navy alone.

Then, too, it was apparent that improvisation, as far as ships and landing craft were concerned, was not feasible and that our Armed Forces would need suitable ships and craft for this specialized type of warfare.

The necessity for adequate communications in order to maintain control is obvious. It is true that the British did land successfully and push inland, but lack of control, more than lack of foresight on the part of Colonel Matthews, forced them back.

The presence of tactical wire and other obstacles on the Gallipoli beaches pointed out to our amphibious beginners that something would have to be worked out to solve the problem of overcoming such obstacles.

Lessons which showed the need for detailed written orders, for a definite chain of command, for a logistic support plan which would be workable, for a medical plan, an evacuation plan, a replacement plan, a naval gunfire-support plan, and many other important plans to take care of any eventuality, were provided by this single campaign.

In fact, the Dardanelles experience formed the basis for the prevalent idea—which may be found in many of our military and naval textbooks written prior to Pearl Harbor—that an amphibious operation is a very difficult operation, fraught with great hazards and immense difficulties, and therefore should be avoided whenever possible.

THE COMMANDOS

Someone once said that "Necessity is the mother of invention" and the organization of the British Commandos is added proof of the validity of this statement.

The German offensives early in World War II forced the British to avoid large-scale fighting until a new army could be assembled and trained. With practically none of the equipment which goes into the making of an effective army left after the Dunkirk withdrawal in 1940, it was realized by the British Imperial Staff that several years would be required before any thought of an offensive could be entertained. Therefore, the General Staff directed that a Special Service Brigade be organized, trained, and equipped to carry out raids against the enemy in the interim. In July 1940, Admiral of the Fleet Sir Roger Keyes, who had had World War I experience in this type of operations, was appointed Director of Combined Operations and given command

of the Brigade. Under his command the Brigade, or "Commandos" as they were called, executed several small raids along the coast of France and a larger one against the Lofoten Islands of Norway. Later, Captain Lord Louis Mountbatten became the commander and ordered the raids on Vaagso, St. Nazaire, against Rommel's headquarters in North Africa, and Dieppe, the largest and most costly of them all.

Lord Louis was given the ranks of Lieutenant-General in the Army, Vice-Admiral in the Royal Navy, and Air Marshal in the Royal Air Force, in order that the three Services would have equal recognition in the planning and execution of combined operations.

The mission of the Commandos was to carry out raids and to that end they were organized, well equipped, and rigorously trained. Initially their task was to destory enemy installations and to secure information, but gradually they became elite shock troops and were assigned the most difficult and important tasks in large-scale operations. They were so used in Sicily, Salerno, and Normandy.

The organization of the Commandos was based on the troop: sixty-two men, a captain, and two lieutenants. These troops could be loaded on two standard assault landing craft. Six of them made up a Commando, which was led by a lieutenant colonel. A headquarters was added to the six troops to provide for administration, intelligence, communications, transport, medical care, and ordnance problems.

All personnel in the Commandos were volunteers, chosen for physical fitness, youth, intelligence, self-reliance, ability to swim, and immunity to seasickness, but one of the requirements was that each volunteer must have been a fully trained soldier.

Commando organization and control contained some novel and radical changes from the time-honored rules and regulations of the British Army. For example, discipline and control was based upon the principle that leadership, rather than command or rank, made the unit a good fighting machine. Guerrilla tactics, Army traditions, and the idea that the daring, intelligence, and physical perfection of the individual made him a special fighting man—all of these were blended together in the Commandos.

The training of the Commandos emphasized the development of individual fighting initiative. The soldier had the words "offensive combat" drilled into him in all his training. He underwent training in street fighting, hand-to-hand combat, shooting, wall climbing, endurance marching, swimming, obstacle removal, night operations, demolitions—in short he was indoctrinated with the idea that no task, no operation was unusual, and that he should be properly prepared to execute any assigned mission.

The Commandos trained in Scotland with the Royal Navy in handling landing craft on difficult beach landings, learning the elements of assault landings by day and by night under conditions which were as realistic as possible. In the effort to create battle conditions during training exercises there were, of course, some casualties. It was believed, however, that these losses were more than compensated for when the units went on a mission, as the training certainly cut down the number of battle casualties.

Thus it was the Commando units, containing men from every British Regiment, from Canadian Regiments, and from the Royal Marines, who were to carry out the first landing operations of World War II and bring back vital lessons for the people who were already working on plans for a large-scale amphibious landing on the coast of Europe.

The first lessons came back when the Commandos successfully struck at Vaagso, Norway, on 27 December, 1941. The purpose of this raid on the military and economic objectives in the vicinity of Vaagso Island was to harass the coastal defenses of southwest Norway and to divert the attention of the German Naval and Air Forces from another operation. Any shipping found was to be destroyed.

Vaagso Island is separated from the mainland by a body of water called the Ulvesund, and in these sheltered waters the British expected to find several enemy merchant ships awaiting good weather before proceeding along the coast.

In order to protect this shipping haven, the Germans had fortified Maaloy defenses in the southern end of the Ulvesund and also South Vaagso town. The Maaloy defenses included field guns, antiaircraft batteries, and machine guns. An island four miles south of Maaloy, Rugsundo, also was fortified with heavy coastal defense guns which were capable of covering the southern entrance to the Ulvesund.

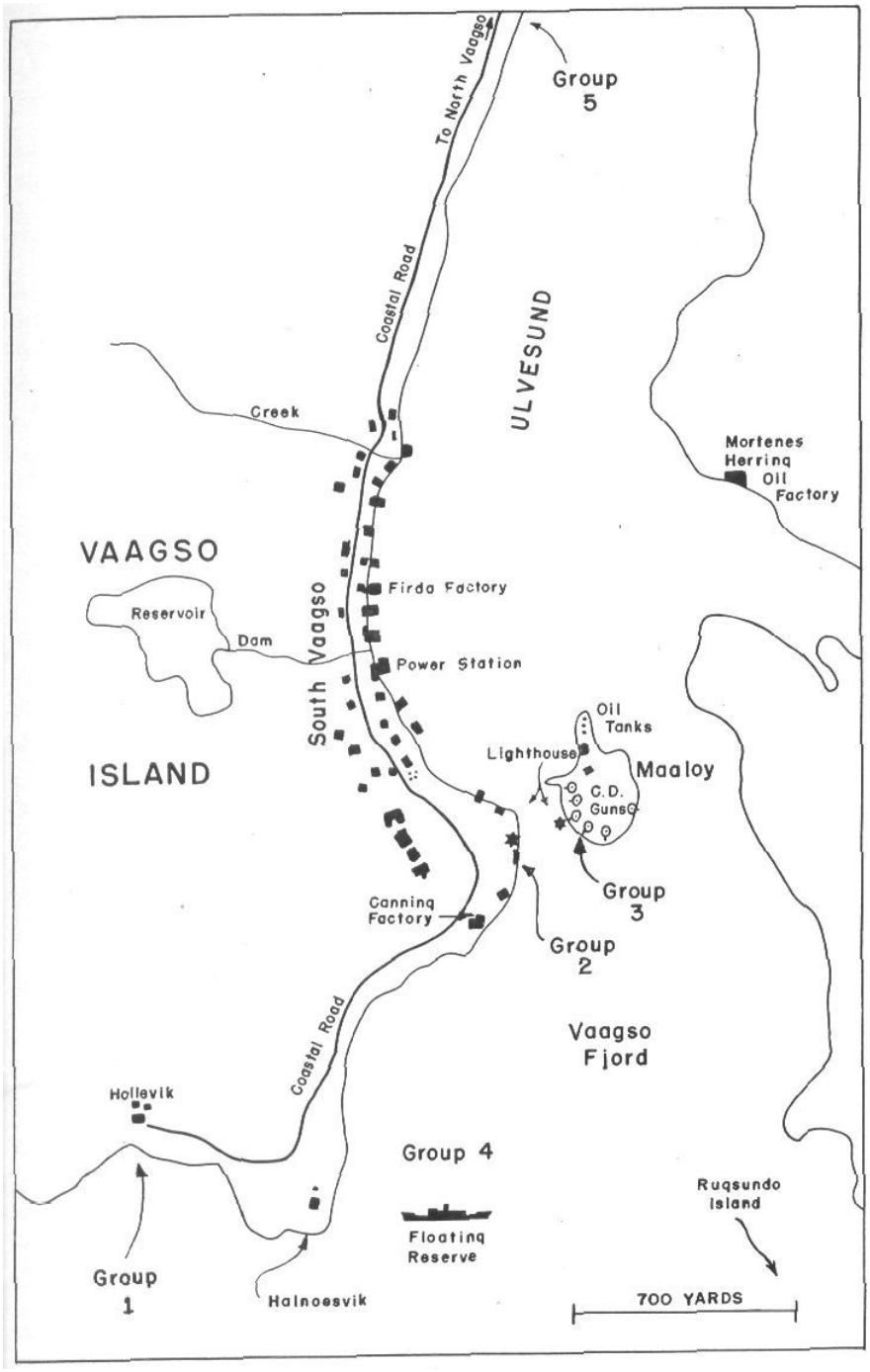
The Naval Force consisted of a heavy cruiser, four destroyers, and two Infantry Assault Ships. The Military Force included eight Commando troops, some Royal Norwegian Army Troops, and detachments from the Medical Corps and Engineers. It totalled fifty one officers and 525 enlisted men. The RAF was to provide ten Hampdens for smoke missions and for bombing, the necessary number of Blenheims to furnish air support, Beaufighters to protect the Task Force, and 18 additional Blenheims for a diversionary bombing attack.

The plan of attack envisaged an approach up Vaagso Fjord, guiding on the lighthouses at Hovdenoes and Bergsholmene. When the Force had passed up the Fjord to a point south of Hollevik, the landing craft were to be lowered, troops loaded, and the assault landings executed, under the protection of a naval barrage and a smoke screen to be laid by aircraft.

The Military Force was to be divided into five groups. Group I was to land near Hollevik, move up to Halnoesvik, and destroy a German costal gun reported there. Then it was to proceed to South Vaagso and become the reserve for Group 2. Group 2 was to land just south of South Vaagso, move up into the town, destroy the canning factory, oil factories, and other economic and military objectives. Group 3 was to capture Maaloy Island and destroy the coastal defense guns there. Group 4 was to be the Force floating reserve. Group 5, aboard a destroyer, was to land between South and North Vaagso and cut the communication lines between the two towns.

The force was assembled and the military units embarked by 15 December. On the 17th the first rehearsal was carried out with a "dry run" bombardment by the Navy and a smoke screen laid by the Hampdens on a small island

THE VAAGSO RAID



which resembled Maaloy. Because the necessary communications equipment and personnel had not arrived in time to participate in this rehearsal it was decided to hold another on 22 December, so that revisions in the plan deemed necessary after the first rehearsal could be tested, as well as the communications. Weather prevented the full execution of the second rehearsal scheduled and so on the 24th the Force put to sea. Bad weather necessitated the postponement of the assault for twenty-four hours. The final date set was the 27th.

The move to Vaagso was without incident. The passage began in bad weather, but upon arrival off the Norwegian coast the weather was perfect. In moving, the Kenya, the heavy cruiser, was in the lead, followed in line by a destroyer, the two assault ships, and the remaining destroyers. The landfall was made at the correct position and on time.

The Royal Air Force also arrived at the right place and on time and, during the crucial time when landing craft were being lowered and loaded, the Air Force kept the attention of the Germans away from the landing forces.

At 8:42 A.M. the first assault ship reported that its landing craft were on the way. Six minutes later the cruiser fired star shells over Maaloy Island and the naval bombardment began.

The Rugsundo battery, despite the RAF bombing, opened fire on the cruiser. Less than two minutes later the landing force sent the "Cease fire" signal, so the cruiser contented itself with silencing the Rugsundo Battery in two and one-half minutes.

At 8:58 A.M. seven Hampdens dropped smoke bombs on Maaloy and as a result Group 3 made their landing without opposition. As there was no wind the screen was ideal.

However, the smoke bombs dropped at South Vaagso did not hit the desired point of impact. One struck an assault landing craft, burning some twenty men. The rest of the bombs, fifty yards off the selected point, did enable the remainder of Group 2 to land under cover, and so probably prevented the Germans from inflicting casualties while the assault troops were still in their landing craft.

The landings were executed with precision. It took three minutes to load the landing craft after they were lowered. In less than six minutes Group I was ashore at Halnoesvik and Groups 2 and 3 were moving past Halnoesvik Town. These two Groups approached within 100 yards of their landing places before sending the "Cease Fire" message. Group 2 was the only group which had to land under fire. Both landed almost at the same time.

Halnoesvik Village and Maaloy Island were soon taken. Group 2 had to do some bitter street-fighting before its mission was accomplished, and when its radios were damaged Group Headquarters could not determine the true situation in North Vaagso. However, Group 4, the reserve, was sent forward

and the task completed in short order.

During the fighting the landing craft were employed in evacuating the wounded, prisoners, and some loyal Norwegians back to the ships.

At 12:50 the commanders of the Naval and Army Forces decided to begin the withdrawal, which was executed without any opposition. All troops had left shore, were reembarked, and their craft hoisted by 2:33 P.M. The destroyers moved out and formed a screen, and the Task Force started the homeward journey. Except for three ineffective attacks by German Heinkels, the move back to the British base was without incident.

Aside from the fact that over 150 Germans were killed, many collaborationists seized, and all the demolition tasks successfully accomplished, all the Services brought back much information of great value pertaining to joint operations.

Several friendly aircraft were lost and it was felt that these losses would have been lighter if efficient radio communication had been maintained with the aircraft by the Headquarters ship and if the RAF officers had been aboard the ship to control the air phases.

Another lesson had to do with the weather factor. Inasmuch as the successful execution of the plan depends upon exact navigation by the Navy, as well as correct timing for both ships and planes, close attention should be devoted to the weather conditions apt to be encountered at the target area during the assault date. Postponement plans, as well as alternate plans, are necessary.

Then, too, it was apparent that there would be times when the weather permitted the Navy to go ahead, but at the same time prevented the Air Force from taking off. If air support is to be cancelled, all agreed that notice should be given in sufficient time so that the naval forces could withdraw unobserved.

The Navy discovered at Vaagso that any attempts to capture enemy ships are likely to result in failure and possibly in unnecessary casualties. They decided that sinking was the quickest, most efficient, and easiest solution to the problem.

The necessity for a floating reserve was proven at Vaagso.

The benefits derived from the proper use of smoke in operations taking place after dawn must be given due consideration.

The Commandos had Bren guns mounted to their assault landing craft at Vaagso, and as a result of their experience it was recommended that more protective armor be placed on the craft.

However, the principal lessons brought back had to do with communications and the necessity for improving them. Adequate provisions should be made to supplement visual signalling whenever smoke is used. Then, too, in terrain such as Vaagso, radio sets of the "line-of-sight" type cannot always be relied upon. When communications break down on a headquarters ship, because of the ship's maneuvering, the force commanders must be notified. It is interesting to note that, as the development of amphibious operations is traced, the communications problems are always the toughest, and the lessons learned, in most cases, are not new but merely are a repetition of previous operational experiences.

Vaagso furnished the experience, confidence, and technique for much larger-scale operations which the Commandos carried out on the coast of France, the next on their list being St. Nazaire.

(To be continued)

Captain Hamilton of the Artillery

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

After a year of rebellion, the struggling American colonists had gained new hope. Lexington and Concord were mere skirmishes, and while they were followed by Bunker Hill, that was a moral victory at best. However, at last General Washington had executed a stroke which finally yielded a real success: emplacing artillery in a ring around Boston, he left the British no alternative to destruction except evacuation of the city.

The colonies rang with rejoicing as Sir William Howe boarded the ship which was to take him to Halifax. If, in the minds of the patriots, his choice of a destination was most appropriate, his choice of March 17 as his date of departure was particularly if unconsciously suitable for the edification of future generations of Bostonians. George Washington was to share with Saint Patrick the honors of the day.

In spite of the clamor of congratulations, Washington was confident that he had not seen the last of his old opponent. New York was far too attractive for Howe long to resist its lure, so Washington promptly moved his army to Manhattan, arriving on April 13, 1776. The city's elders received him with a celebration suitable to the welcome of a triumphant hero. At the banquet, it is chronicled, the toasts numbered no fewer than thirty-one!

Washington did not allow himself to be completely occupied with civic banquets. To begin with, his position was ambiguous with regard to command. Both he and the troops he had brought with him were in the service of the Continental Congress. New York, on the other hand, thronged with provincial militia units and it was only a question of time before some militia officer would challenge Washington's authority. His was the course of wisdom, therefore, in obtaining permission to incorporate all local militia units into the Continental service, effective August 9.

One of the units affected by this change was Captain Hamilton's battery of artillery. Its formation had been authorized by the New York Provincial Congress on January 6, 1776, and Hamilton had been one of the first to apply to command it. As he was

barely nineteen years old, the Congress showed an understandable reluctance to approve his application out of hand. First, they ruled, he must pass an examination in gunnery and ballistics. Probably to everyone's surprise (for, in modern terms, his most serious activity up to that time had been as a "campus radical"), young Hamilton passed with flying colors, and without appreciable delay he was awarded the command, his commission being dated March 14, 1776.

He was a captain with four guns and authority to raise a battery, but that was all. Under the system of the day it was then up to him to enlist, uniform, and equip his men; when he had a substantial cadre (but only then) his battery could be mustered into the service and start drawing pay. Accepting a command entailed, accordingly, a substantial financial obligation, particularly in view of the bounty system which was already in vogue, and in fact the whole of Hamilton's last remittance from relatives in the West Indies went to enlist and equip his troops. His recruiting was so energetic that it was not long before he had obtained thirty men. Spending his money shrewdly —not for nothing had his father been a Scot—he could take pride in the fact that ". . .no other local company presented as smart or lavish appearance as his." In time, the battery grew to a total of sixty-three men and four subordinate officers, all older than their captain.

Hamilton began unit training in a spirit of deadly earnest, with discipline strictly enforced. Undoubtedly, he would have encountered some difficulty in maintaining his authority if only because of his youth, but his high standards were in such marked contrast to the easy ways of other militia captains that his troubles were exaggerated. The records show that on April 20 two sergeants, one corporal, and a private were punished for attempting to desert, and there are entries to show that others among the ranks succeeded in deserting. At the same time, Hamilton was no martinet; it was only that he realized, perhaps far better than his brother officers, the seriousness of the business at hand. As a good officer, he worked conscientiously for the welfare of his men. His demands for promotion of deserving soldiers of his battery and his successful agitation to have the pay scale of enlisted militiamen raised to that of the Continental army are matters of record, and even his abnormal strictness was to prove of future benefit to his gunners.

It was not long before Captain Hamilton's efficiency—which, comparably at least, was high—or his friends (who were numerous) brought his name to the attention of the top echelon and he was offered an appointment as brigade-major on the staff of Lord Stirling. But Hamilton was ambitious for more spectacular glory than that which could be gained on the staff, and politely, if evasively, declined.

In his first action this ambition was certainly thwarted. Sir William Howe's army of some thirty thousand men, convoyed by a fleet under the general's brother, Admiral Lord Howe, had appeared from Halifax on July 2. As part of the guard against a British landing, Hamilton's battery was stationed at the tip of Manhattan. By July 12 nothing had happened, so Hamilton tried to engage two of the enemy vessels; although the British traded solid shot with the battery, neither opponent did the other any harm. However, one of Hamilton's guns burst, killing two of his men, so it may be considered that he came out of the match the loser on points.

From Washington's position, the defense problem was clearly defined, though the solution was not. Both Brooklyn and New York had to be defended. Washington, therefore, tried to garrison both. Of course, he thus exposed himself to a defeat in detail, but the skill of Nathanael Greene, commanding in Brooklyn, might have been enough to offset the risks. Greene had built fortifications around the landward side of the town, and was counting on the enemy being channeled by the four passes which were the only gaps through the line of hills just east of the fortifications.

Part of the Brooklyn garrison was Scott's brigade, to which Hamilton's battery was attached. The youthful captain "recognized" at once that Brooklyn was indefensible, and such was the naïveté of that army that he generously gave the benefit of his military wisdom to Washington by writing him a note to advise immediate evacuation of the army!

As bad luck would have it, Greene was delirious with malaria when the British finally began to move and Washington replaced him by assigning Generals Putnam and Sullivan to a sort of joint command, further dividing the force.

Howe commenced his attack on August 28. Leaving a force to divert the Americans' attention and to draw as many of them as possible out of the Brooklyn lines, he marched with three divisions around to the east, found the most northeasterly of the passes quite unguarded and took in rear the American units which had been lured outside the fortifications. Simultaneously, the diversion force assaulted the front. A very nicely coordinated maneuver had been capably carried out, the only failure being the inability of the fleet (owing to adverse winds) to sail up the river and supplement the attack by a bombardment. Even so, the Americans were slaughtered in droves. Many of them, untrained militia that they were, threw away their muskets and stood, offering no resistance, waiting to be taken prisoner. But in the heat of battle the British frequently did not stop to distinguish between those who were surrendering and those few who were not. Most ferocious of all were the Hessians, for they believed that Americans scalped their prisoners; they spared no one, mercilessly putting the unresisting rebels to the bayonet.

A few of the Americans were too stubborn or too stout-hearted to flee, and the dramatic story of one of these is worth noting in passing. The man in question was an artilleryman named John Callender. At Bunker Hill he had been a captain; there, during the first enemy onslaught, he had turned his guns around and shamelessly ordered his battery to the rear. Stopped by General Putnam, he had explained that he was out of ammunition; but that old Indian-fighter, skeptical of so pat an excuse, had inspected the ammunition chests, found them full and marched him back to his position with the muzzle of a pistol in his back. Callender, still craven, had seized the

first opportunity to abandon his post again.

With all the flogging and field punishment which characterized 18th Century discipline for relatively minor offenses, it is an odd inconsistency that the really heinous military crimes were so often lightly punished, at least in the American army. Hamilton's mutineers got off with a flogging and confinement, and Callender was merely dismissed the service.

Perhaps this disgrace changed him. In any case, he enlisted as a private and ultimately fought at Brooklyn. When the crew of his gun were dead or fleeing and the battery's officers had all been killed, he still worked the piece furiously, despite the onrushing enemy. In a short time he was surrounded, but because of his courageous fight he was taken alive instead of being butchered like the rest of the captives. During the year he spent in prison before he was exchanged he must often have regretted that the British spared his life—such was the condition of military prisons of that time—but on his return, General Washington personally commended him and restored his commission.

Callender's mad resistance was one of the few bright episodes in a generally tragic and shameful day. Because of Lord Stirling's desperate rear guard action some of the troops were able to gain the protection of Brooklyn's defenses, but only Howe's lethargy and a convenient rainstorm (which gave him an excuse for delay) saved the Americans. Thus Washington, who had come over from New York, was granted time to lead his army back across the East River, by stealth and under cover of darkness and bad weather. Although the rebellion was not crushed, the battle of Long Island was a thumping defeat for the colonists. They had lost almost three thousand men, while British casualties totaled only 367.

Back from Brooklyn, Scott's brigade moved into a small fort. No further action occurred until September 15, when British cavalry raided Manhattan and scattered Washington's men like frightened geese, cutting them down as they ran. The main body of the army retreated north to Harlem Heights, where Washington, beside himself, was finally able to halt them. Trying to stem the rout, he beat the terrified men with the flat of his sword with grand indifference to rank; it is told that one of those who felt the weight of the commander-in-chief's blade was no less a personage than a brigadier general!

Not quite all of the troops fled. Scott, joined by Henry Knox and the brigade he was temporarily commanding, stood firm in his little fort. Knox, at least, was loudly determined to die fighting bravely, futile though his stand might be. Happily, this sacrifice was rendered unnecessary by the arrival of Putnam's young aide, Major Aaron Burr. As the enemy was now about to cut off all retreat to Harlem, Burr offered to lead the garrison to safety. Already enamored of his fancied role as a tragic but heroic figure, Knox refused to abandon the fort, whereupon young Burr cast discipline to the winds and appealed directly to the troops. Whatever the ideas of their general, they had no intention of becoming martyred heroes and they promptly followed Burr. Fortunately for the mental peace of both Hamilton and Burr, the irony of the situation was hidden. Hamilton had quite enough to worry about in the loss of all his baggage and another of his three remaining cannon. It would not be until years later, after the war, that political rivalry would give birth to an enmity between Hamilton and Burr which would end only on the duelling ground.

Howe's characteristic dilatoriness saved Washington again, and he was given time to retreat once more, this time to White Plains. His position here was a strong one, and with reasonably trained troops could probably have been held against any attack which the British might have launched. Washington placed his men along the crests of two elevations, the one on the left known as Chatterton's Hill. At the bases of the hills ran the Bronx River, which normally would have added little to the defensive strength of the line because it was easily fordable. By October 28, however, when Howe's attack came, it was so swollen from the autumn rains that it constituted a serious obstacle. Of course, enemy engineers could be expected to throw bridges across the stream, so Washington placed his artillery to play on the approaches to the farther bank.

In this organization of the ground Hamilton was sited on the left slope of Chatterton's Hill. From his position, he watched the enemy's approach. He saw the enemy column move forward tentatively — Colonel Johann Rall's Hessian regiment, it was—a mounted officer in front to look over the situation. Then there was a cluster of brilliant-hued uniforms as the enemy commander consulted with his staff. When the group broke up some of the officers went back to the main body of Hessians, which could soon be seen to be moving forward into an area which, though in range, was defiladed.

Other officers from the group joined a second detachment of troops. By the equipment they carried these must be engineers. Almost immediately they came forward to the river and began building a rough bridge. They presented a fine target but they were protected from fire by the edge of the crest on which Hamilton stood. The young captain barked rapid orders and his men manhandled their two cannon forward until they could be depressed to bear upon the bridge. There was little time. Indeed, just as the pieces were in their new positions and the gun-pointers sighted along the line of metal, the first of the Hessian infantry started across the bridge at the double.

Hamilton's initial rounds killed several of the engineers and drove the infantry back across the bridge. The little battery, it was obvious, would bar any approach from that direction. But an English regiment, having found a ford downstream, appeared on the scene. Taking the situation in at a glance, its colonel immediately ordered a charge up the other slope of the hill, to take the battery by storm. Heaving the trails around to traverse the cannon to bear on this new menace, the gunners ripped great gaps in the scarlet line as soon as it came in range. American infantry higher up the slope behind them added to the effect of the artillery with small arms fire. This hail of lead was too much even for disciplined soldiers and the English troops, their ranks broken, were driven back in disorder.

At the bottom of the hill they met the Hessians, and joined with them to charge the hill again.

Hamilton's gunners loaded their cannon, standing ready to put match to touch-hole and hurl the enemy back again, but the sight of the dense mass of redcoats behind a shimmering hedge of fixed bayonets was too much for the American infantry, which ignominiously turned tail, leaving the brave little battery unsupported but undaunted. Only the arrival of orders to get out at once caused Hamilton to save his guns. Thus Chatterton's Hill, although furiously defended by Hamilton's battery, was lost. With it was lost the battle.

This time Washington withdrew to North Castle, but he was soon driven away. November became a month of constant retreat and disaster. Casualties and illness and desertion pared away the army until it numbered barely three thousand. Winter set in, adding physical to mental agony. All that could be accomplished was to keep one jump ahead of the enemy. In the attainment of this mission Hamilton and the artillery were of incalculable help. As part of covering forces, as the backbone of rear guards, they repeatedly held off the British while the ragged Continentals limped away to one more day of safety. During this harrowing period the battery was worn down to twenty-five enlisted men and three officers, but from all accounts its captain still maintained the smartness and discipline which had been his standards from the beginning.

Repeated withdrawals led from Princeton to Trenton and thence, on December 8, across the Delaware, where the army collected all the boats in that part of the river as it went. When the British arrived—almost immediately—they were halted. Their easiest course seemed to be to wait for the river to freeze over, making a natural bridge to the other shore.

The force which settled down to wait in Trenton was a brigade under Colonel Rall, composed of Rall's own regiment (the Rall Grenadiers), the von Knyphausen Grenadiers, and the von Lossberg Fusiliers, supported by Hessian artillery and British dragoons. Rall was too old a soldier to go into garrison in enemy country without making some dispositions for defense, but he had been made overconfident by the constant retreats of the rebels. As a result, he defied the orders of his superiors and made only the most superficial preparations. The possibility of attack was one which he could not take seriously.

Through his spies, Washington was well aware of the situation in the enemy camp. He knew what he was doing when, on the night of December 25-26, he put his army back across the Delaware. If Washington himself was not so dramatically heroic as he appears in the famous painting, his men must have been at least as miserable as the artist portrays them. Nevertheless, by four o'clock in the morning the entire force had crossed the river, assembled, and taken up the march.

Moving downstream, they reached Birmingham. There they divided, Sullivan's division continuing along the river road to come into Trenton from the south and Greene's, including Hamilton's battery and accompanied by Washington and his staff, maching away from the river to take the Pennington road into Trenton from the northwest.

As Washington had expected, the Hessians were sleeping off the effects of a monumental celebration. It was just getting light when the Americans reached the edge of the village. The garrison's first warning was the sound of scattered firing as the Americans drove in the Hessian pickets.

One of Rall's immediate reactions was to order out a battery to halt Greene's column. Young Hamilton, spotting the move, quickly opened on the two enemy pieces and with his first few shots brought down eight of the Hessian gunners. Even so, the enemy got off six rounds while Hamilton's shells took deadly toll. Finally, the only survivors—a gunner and his lieutenant—fired one more round and fled.

In the rest of the town confusion reigned as Hessian regiments collided with each other and officers tried to form their units under fire. Gun crews were decimated as soon as they tried to man their pieces. Infantry constantly closed the ranks to fill gaps torn by American bullets. One regiment was caught by an American battery in a narrow street and was shattered. Trying to launch a counterattack, Rall himself was mortally wounded, and shortly afterward the defense collapsed, the remaining troops surrendering.

Tallying up, the Americans found that their total casualties were two officers and two enlisted men wounded. They had captured six guns, fifteen colors, twenty-three officers, and 886 enlisted men. The enemy's casualties amounted to 106.

The next American objective was Princeton. In a remarkable little action of barely twenty minutes Washington defeated the 17th, 40th, and 55th Regiments of Foot. Hamilton's participation is noteworthy only because it was his last action as an artilleryman. He fired, in fact, just two rounds, when a part of the enemy force had taken refuge in Nassau Hall on the college grounds. Both his shots were more symbolic than useful: the first went through the head of a portrait of George II hanging inside the building and the second, ricocheting off a wall, killed a horse, narrowly missing the rider. Perhaps Hamilton did his country and the army a disservice in hitting that horse and missing its rider—the near-victim was a Major James Wilkinson who, with Hamilton's nemesis, Burr, was to play so sinister a part in the future of the United States.

It was soon after the battle at Princeton that Washington offered Hamilton an appointment as aide-de-camp, with the rank of lieutenant colonel. The young artilleryman hesitated for a little while, but no doubt the urge for glory in combat was somewhat sated after many months of rigorous campaigning, and he accepted. He was confirmed in his new rank by orders dated March 1, 1777. Hamilton's place in American history is still clouded by the controversy over his post-war career as a politician and economist. As the father of one of the still-current schools of political thought, he is exalted or despised according to the political leanings of the individual. But his standing as a gallant, capable, and devoted officer of artillery is beyond question, and his record in combat, under adverse conditions, adds luster to the history of the arm he served so creditably.

Battle Report: 1755

By D. I. Naughton

THE French and Indian War was a decisive struggle between France and Britain for control of a great, green empire in the new world. It was waged at a varied pace through the bloody years 1754 to 1763 before the English finally emerged victorious. As a conflict it was composed of a series of widely separated major battles, minor skirmishes, and lonely engagements deep in the wilderness.

In late August of 1755, Major General Sir William Johnson, with a force of 3,000 troops—colonial militia and Indians from the Six Nations—probed cautiously through the lower Adirondack region of New York State; their ultimate goal was Crown Point, a French stronghold located about ten miles north of Ticonderoga.

On September 8th, the American militiamen came into contact and closed with a mixed French force numbering about 2,000 in all. The Battle of Lake George resulted. At the conclusion of this engagement, General Johnson submitted the following report to his superiors, the governors of the several Colonies.

Camp at Lake George, Septr. 9. 1755
Gentlemen,

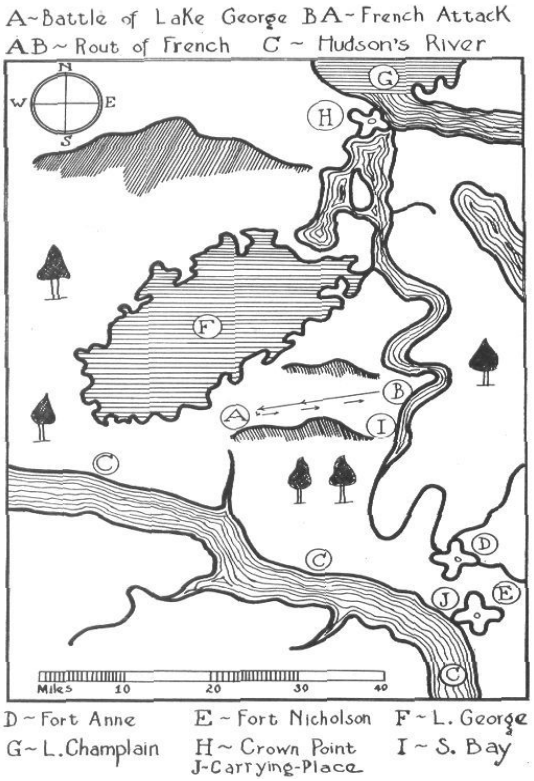
Sunday evening the 7th instant I received intelligence from some Indian scouts I had sent out, that they had discovered three large roads about the South Bay, and were confident a very considerable number of the enemy were marched or on their march towards our encampment at the Carrying-place, where we posted about 250 of the New Hampshire troops, and five companies of the New York regiment. I got one Adams, a waggoner, who voluntarily and bravely consented to ride express with my orders to colonel Blanchard of the New Hampshire regiment, commanding officer there. I acquainted him with my intelligence, and directed him to withdraw all the troops there within the works thrown up. About half an hour, or near an hour after this, I got two Indians and two soldiers to go on foot with another letter to the same purpose.

About twelve o'clock that night the Indians and soldiers returned with a waggoner who had stole from the camp. This waggoner says they heard and saw the enemy about four miles from this side the Carrying-place. They heard a gun fire, and a man call upon heaven for mercy, which he judged to be Adams. The next morning I called a council of war, who gave it as their opinion, and in which the Indians were extremely urgent that 1000 men should be detached, and a number of their people would go with them, in order to catch the enemy in their retreat from the other camp, either as victors, or defeated in their design. The 1000 men were detached under the command of colonel Williams, of one of the Boston regiments, with upwards of 200 Indians. They marched between eight and nine o'clock. In about an hour and half afterwards we heard a heavy firing, and all the marks of a warm engagement, which we judged was about three or four miles from us; we beat to arms, and got our men all in readiness. The fire approached nearer, upon which I judged our people were retreating, and detached lieutenant colonel Cole, with about 300 men to cover their retreat. About ten o'clock some of our ment in the rear, and some Indians of the said party, came running into camp, and acquainted us, that our men were retreating, that the enemy was too strong for them. The whole party that escaped returned to us in large bodies.

As we had thrown up a breastwork of trees round our encampment, and planted some field-pieces to defend the same, we immediately hauled some heavy cannon up there to strengthen our front, took possession of some eminences on our left flank, and got one field-piece there in a very advantageous situation. The breastwork was manned throughout by our people, and the best disposition made through our whole encampment, which time and circumstances would permit. About half an hour after eleven, the enemy appeared in sight, and marched along the road in very regular order directly upon our center. They made a small halt about 150 yards from our breast-work, when the regular troops (whom we judged to be such by their bright and fixed bayonets) made the grand and center attack. The Canadians and Indians squatted and dispersed on our flanks. The enemy's fire we received first from their regulars in platoons, but it did no great execution, being at too great a distance, and our men defended by the breast-work. Our artillery then began to play on them, and was served, under the direction of Captain Eyre, during the whole engagement, in a manner very advantageous to his character, and those concerned in the management of it. The engagement now became general on both sides. The French regulars kept their ground and order for some time with great resolution and good conduct, but the warm and constant fire from our artillery and troops put them into disorder; their fire became more scattered and unequal, and the enemy's fire on our left grew very faint. They moved then to the right of our encampment, and attacked colonel Ruggles, colonel Williams, and colonel Titcomb's regiment, where they maintained a very warm fire for near an hour, still keeping up their fire in the other parts of our line, tho' not very strong. The three regiments on the right supported the attack very resolutely, and kept a constant and strong fire upon the enemy. This attack failing, and the artillery still playing along the line,we found their fire very weak, with considerable intervals. This was about four o'clock, when our men and the Indians jumped over the breastwork, pursued the enemy, slaughtered numbers, and took several prisoners, amongst whom was the baron de Dieskau, the French general of all the regular forces lately arrived from Europe, who was brought to my tent about six o'clock, just as a wound I received was dressed. The whole engagement and pursuit ended about seven o'clock.

I do not know whether I can get the returns of the slain and wounded on our side to transmit herewith; but more of that by and by.

The greatest loss we have sustained was in the party commanded by colonel Williams in the morning, who was attacked, and the men gave way, before colonel Whiting, who brought up the rear, could come to his assistance. The enemy, who were more numerous, endeavoured to surround them; upon which the officers found they had no way to save the troops but by retreating; which they did as fast as they could. In this engagement we suffered our greatest loss; colonel Williams, major Ashley, captain Ingersal, and captain Puter, of the same regiment; captain Farrell, brother-in-law to the general, who commanded a party of Indians, say near forty of their people, who fought like lions, were all slain. Old Hendrick, the great Mohawk Sachem, we fear is killed. We have abundant reason to think we killed a great number of the enemy, amongst whom is Mons. St. Pierre, who commanded all the Indians. The exact number on either side I cannot obtain; for tho' I sent a party to bury our dead this afternoon, it being a running



scattered engagement, we can neither find all our dead, nor give an exact account. As fast as these troops joined us they formed with the rest in the main battle of the day; so that the killed and wounded, in both engagements, officers excepted, must stand upon one return.

About eight o'clock last night a party of 120 of the New Hampshire regiment, and 90 of the New York regiment, who were detached to our assistance, under the command of captain M'Ginnes from the camp at the Carrying place, to reinforce us, were attacked by a party of Indians and Canadians, at the place where colonel Williams was attacked in the morning; their engagement began between four and five o'clock. This party who our people say were between 3 and 400 had fled from the engagement here, and gone to scalp our people killed in the morning. Our brave men fought them for near two hours, and made considerable slaughter among them. Of this brave party two were killed and eleven wounded, and five missing. Captain M'Ginnes, who behaved with utmost calmness and resolution, was brought on a horse here, and, I fear his wounds, will prove mortal. Ensign Falsam, of the New Hampshire regiment, wounded thro' the shoulder.

I have this morning called a council of war, a copy of the minutes of which I send you herewith.

Monsieur le baron de Dieskau, the French general, is badly wounded in the leg, and thro' both his hips, and the surgeon very much fears his life. He is an elderly gentleman, an experienced officer, and a man of high consideration in France. From his papers, I find he brought under his command to Canada, in the men of war lately arrived at Quebec, 3171 regular troops, who were partly in garrison at Crown-Point, and encamped at Ticonderoga, and other advantageous passes, between this and Crown-Point. He tells me he had with him yesterday morning 200 grenadiers, 800 Canadians, and 700 Indians of different nations. His aid de camp says, (they being separately asked) their whole force was about 2000. Several of the prisoners say, about 2300. The baron says, his major-general was killed, and his aid de camp says, the greater part of the chief officers also. He thinks by the morning and afternoon actions they have lost near 1000 men, but I can get no regular accounts. Most of our people think from 5 to 600. We have about 30 prisoners, most of them badly wounded. The Indians scalped of their dead already near 70, and were employed after the battle last night, and all this afternoon, in bringing in scalps; and great numbers of French and Indians yet left unscalped. They carried off numbers of their dead and secreted them. Our men have suffered so much fatigue for three days past, and are constantly standing upon their arms by day, half the whole upon guard every night, and the rest lay down armed and accoutred, that both officers and men are almost wore out. The enemy may rally, and we judge they have considerable reinforcements near at hand; so that I think it necessary we be upon our guard, and be watchful to maintain the advantages we have gained. For these reasons I do not think it either prudent or safe to be sending out parties in search of the dead.

I do not hear of any officers killed at our camp but colonel Titcomb, and none wounded but myself, and Major Nichols of colonel Titcomb's. I cannot yet get certain returns of our dead and wounded; but from the best accounts I can obtain, we have lost about 130 who are killed, about 60 wounded, and several missing from the morning and afternoon's engagement.

I think we expect very shortly another and more formidable attack, and that the enemy will then come with artillery. The late colonel Williams had the ground cleared for building a stockaded fort. Our men are so harassed, and obliged to be so constantly upon watchful duty, that I think it would be both unreasonable, and I fear in vain, to set them at work upon the designed fort.

I design to order the New Hampshire regiment up here to reinforce us, and I hope some of the designed reinforcements will be with us in a few days. When these fresh troops arrive, I shall immediately set about building a fort.

My wound is in my thigh, is very painful. The ball is lodged, and cannot be got out; by which means I am, to my mortification, confined to my tent.

10th

This letter was begun, and should have been dispatched yesterday; but we had two alarms, and neither time nor prudence would permit it. I hope, gentlemen, you will place the incorrectness hereof to the account of the situation. I am, gentlemen, most respectfully,

Your most obedient servant,

William Johnson.

This letter and the accompanying map are reproduced—the letter verbatim—from Vol. III of THE DOCUMENTARY HISTORY OF THE STATE OF NEW YORK, published in 1849 in Albany by Weed, Parsons & Co. by order of the New York State Legislature.

PERIMETERS in PARAGRAPHS

By Col. Conrad H. Lanza, Ret.

REVIEW OF 1949

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 November - 31 December 1949.

Military and political developments throughout the year were dominated by the Cold War between the Western Powers and Russia. It became more intensive, with both sides having losses and gains.

Strategically the Western Powers have been on the offensive in the West Theater of Operations—Europe—and on the defensive in the East Theater of Operations — the Far East. Russia reversed these roles, being on the strategical offensive in the East and on the defensive in the West. Both sides made gains where they were on the offensive — Russia in the Far East, and the Western Powers in Europe. Both sides had losses; Russia in the West and the Western Powers in the East.

Notable gains were made by the Western Powers in Europe. The communist invasion of Greece was driven back into Albania, where it decided to withdraw to Bulgaria, thus ending that small war. Rearmament of Turkey made substantial progress. But those were minor events. The major one was the formation in April of the North Atlantic Alliance. For the first time in its history the United States in time of peace entered into an alliance. It is true the peace was not what it used to be, for the Cold War made it practically an armistice, but it was officially a year of peace.

By this Alliance the three English-speaking nations of Canada, Great Britain, and the United States have joined nine European nations in a treaty which declares that an attack upon one of the twelve will be considered an attack upon all. They have agreed to go to each other's aid, if and as necessary. The nine nations are: Iceland, Norway, Denmark, Netherlands, Belgium, Luxemburg, France, Italy, and Portugal.

The North Atlantic Allies are split by the Atlantic Ocean into two groups not within rapid tactical support of each other. A certain length of time will be required before substantial numbers of ground forces could be sent across the Atlantic, from one side to the other. The American side appears safe from invasion at this time, but the European side is wide open to invasion by ground and air forces coming from the East. To enable the American Allies to send reinforcements across to Europe in case of war, it will be necessary for West European Allies to defend themselves until this can be done. West Europe needs to become an advanced fortified bastion and beach head, capable of holding against both ground and air attacks. Plans and preparations for this are being pushed with vigor (see section on North Atlantic Alliance), but it will take several years to complete them. Meanwhile the West European position is weak.

The American Allies, covered by wide oceans, are immune to ground attacks. They are not immune to air invasions, but these are not yet probable; may become so within a few years. The Americas are nearly self supporting as to food and raw materials. They need to import so little that it is possible to stock pile the few items not obtainable within their own territories, prior to an outbreak of war. With this advantage they have built up an unrivaled industrial organization which greatly surpasses that of Russia and its present satellites.

The West European Allies are not self supporting, either as to food or industries, although their industrial capacity is large and important. To obtain food and raw materials, and many manufactured articles, they need to import. This in return requires sea transportation, which is under control of the English-speaking Allies, who together have naval forces superior by far to anything that Russia could have for a long time to come. These naval forces are essential to the independent existence of West Europe.

West European forces are split into groups, unavoidable due to geographical reasons. The weakest group consists of Norway and Denmark, with a combined population of 7,300,000. They have no land connection with their other Allies, and form a north salient difficult to defend.

Great Britain, with a population of 50,000,000, is an insular state which can not be invaded by ground forces without preparations which would require seizure of continental bases. This would certainly take considerable time. Great Britain is almost ideally situated as an immense air base, from which aid by air can be rapidly sent to any point in West Europe north of the Mediterranean.

France and the Benelux states of Netherlands, Belgium, and Luxemburg form a solid central bloc with a population of 59,000,000. They are open to invasion from the east across the wide plains of north Germany — the classical invasion line, both ways, for over twenty centuries. Upon these states would fall the brunt of any sudden attack, and it is there that the North

Atlantic Alliance, while not neglecting other sections, must make its initial primary dispositions.

Italy is another detached area. Its population of 46,100,000 should be sufficient to defend their country; it can not be invaded by land except across important mountain ranges. Owing to peace treaty limitations, Italian military forces can not yet be built up to a degree commensurate with defence requirements. Italy remains a weak element.

Portugal, with a population of 8,400,000, is the West European Ally least likely to be invaded. Provided the sea is open, Portugal could send several divisions to France, as she did during World War I. Her greatest value to the Allies lies in the ownership of mid-Atlantic island groups needed for air and sea bases, and in her colonial possessions, which furnish valuable tropical products.

Iceland, the last of the Allies to be considered, with a population of only 133,000, furnishes an important military position. From its air and naval bases the North Atlantic sea routes are covered, and air invasions from Europe to the Americas may be intercepted. For the latter mission, Greenland, owned by Denmark, supplements Iceland.

The North Atlantic Alliance is strategically weak owing to separated positions not yet consolidated for defense. This opens the possibility of some of the positions being overwhelmed separately, before help can reach them. Taken together they have a combined population of about 335,000,000, of which 164,000,000 are west of the Atlantic and 171,000,000 east thereof. The man power available is superior to that of Russia and its satellites, and its industrial resources are many times greater. Complete control of the sea enables the Alliance to draw at will upon the resources, and possibly the man power, of Latin America and Africa. All that is needed to insure final preponderance is the time required to prepare West Europe for defense. Currently this is a major weakness.

Russia, during 1949, made no gains in the West Theater of Operations. It abandoned the communist invasion of Greece; saw the apparently permanent loss of Yugoslavia; and was unable to prevent the formation of the North Atlantic Alliance by its threats and propaganda. Against these serious losses, in the East Theater of Operations it aided the Chinese communists to occupy practically all of that immense country, and entered into close relations, amounting to an alliance, with the new China. This must be considered from now on as the newest Russian satellite.

Russia has an estimated population of 195,000,000. Its European satellites have another 70,000,000. Together they have 265,000,000 people — 77.8% of that of the North Atlantic Allies. But Russia has an unrivalled central position, in a single bloc, between the West and East Theaters of Operation. There lies its great strength. Its major weakness is in inferior industrial production. Strenuous measures are being taken to increase this (see section on Russia). A lesser weakness is that its geographical position affords no series of possibilities for naval bases comparable to that of the North Atlantic Allies. It seems improbable that Russia will be able to challenge the present control of the seas for long years to come. But its ground forces are superior to that of all other nations combined, and its air forces are large. Whether they exceed, are less than, or are about equal to those of the North Atlantic Allies is unknown.

No allowance has been made for the military possibilities of China, which has an estimated population of 457,000,000. China's industries are negligible, but can be built up, and Russia has taken the initial steps to accomplish this. The man power of China, if made available, would give Russia an enormous superiority over the North Atlantic Allies. Lines of communication to the West Theater of Operations are limited, and restrict the possibilities of Chinese military forces becoming available in the West Theater of Operations. Yet the capacities of these lines should not be overlooked. Russia in 1903 and 1904 sent and supplied over a million troops in Manchuria, and duplicated this within about three months in 1945. The converse of sending the same number of Chinese troops west is certainly practicable, and must be taken into account in military calculations.

Russian ground and air forces in the West Theater of Operations do not appear to need reinforcing from China during 1950. It seems likely that Chinese troops will be reorganized and trained according to Russian standards, and employed against Southeast Asia. The Chinese leader has officially announced that the "liberation" of Southeast Asia is the next objective. Active operations in that direction should be expected.

To quickly remedy its industrial inferiority, Russia would much like to secure Germany as an ally. This is a major mission. Germany has an estimated total population of nearly 66,000,000. They are a fighting race; have extensive mineral resources and great capacity for industrial production. Nothing will be left undone to induce the Germans to turn towards Russia. Should Russia succeed in this, her military superiority in continental Europe is assured. The psychological condition of the peoples of France, Italy, and the Benelux states is such that against a combined Russia and Germany, resistance might be judged useless.

The Germans understand well that although they are presently disarmed they are an important and possibly decisive factor in the balance of power in Europe. It can be expected that they will take full advantage of this situation by obtaining concessions in West Germany from the North Atlantic Allies, and in East Germany from Russia. Not until they have obtained all possible concessions are they likely to come to a decision as to what they will do. Here lies a first-class problem in diplomacy which will profoundly affect the fate of the World. (But see section on Germany.)

Pending developments, Russia has two major strategical plans before her. First: she may continue to wait for a considerable time, until she has consolidated her position within satellite countries, and has developed and integrated their man power and industrial possibilities. This does not preclude military advances into Southeast Asia or other areas which will not involve a major war. On the contrary, this should be presumed as probable. If not

interfered with, and provided that the Polit Bureau can maintain its authority over numerous unwilling subjects, this plan, if successful, will eventually give Russia control over a majority of the population of the World, and a majority of its resources.

Second: Russia may decide to attack the North Atlantic Allies in West Europe before they complete organization of a strong military position which it might be difficult or impossible to overcome. There will be at least two years, possibly three, in which to think this over. Russian propaganda, official speeches, and press are constantly reiterating that the North Atlantic Allies are preparing to launch an attack against Russia as soon as the West European states are rearmed, with a view to breaking up the Russian empire before it becomes too strong. A sudden Russian attack must therefore be presumed as possible.

Nobody knows what Russia will do. She may not have decided this herself.

The year 1950 begins in a period of uncertainty and deep concern. There is fear for the future. Under the current circumstances no nation can afford to be off guard.

Eternal vigilance, and the will to fight, is the price of liberty.

THE NORTH ATLANTIC ALLIANCE

The Benelux states were shaken by the visit of Secretary of State Acheson to Germany and his promise expressed on 14 November, that the United States would do all it could to aid that country. Within 48 hours the press expressed grave concern that although the Secretary had not mentioned rearming Germany, that was in the offing; possibly covered by some secret agreement, or if not to be brought forward at an early date. France also had suspicions, but reported it felt reassured after American representations had been made that rearming Germany was not contemplated.

Probably to reassure these European countries, the Vatican on 17 November issued a statement, rare for it, announcing that the United States' program for rearming West Europe was, under present circumstances, the most effective weapon to preserve peace. It stated: "The law, however wise, can hardly hope to prevail — so weak or perverse is human nature — unless it has the backing of a reasonable force . . . Fear of war is worse than war itself. Yet that fear will never be absent as long as within the great family of nations there is even one member which, rejecting the moral sense of inalienable human rights, uses sheer force to reduce its citizens to a condition of chattels dependent on a state that recognizes no power above or beyond itself."

France and the Benelux countries, less Netherlands, are predominantly Catholic. The Vatican statement was expected to strengthen those states to follow the American program.

Comment: Prior to 1870, France and its Allies had dominated Germany for over 300 years, invading and occupying it at will. During Napoleon's reign all of Germany was so occupied. A return to this condition is everywhere desired throughout France for its own safety and to ensure predominance of French culture and political authority in West Europe. Naturally the Germans see no justice in this. The French and German wars, since 1870 inclusive, have been caused primarily by the desire of Germany to be free from French control, and of France to ensure that her former power shall be restored and maintained. Antagonism between France and Germany is a major factor in the military situation.

An American military delegation has visited Norway and Denmark to discuss military aid. After this visit, Norway on 1 December announced that a 6-year Plan for its military forces had been adopted. This plan is based upon the hypothesis that, if war comes, an invasion of Norway may come by air or land without notice, as happened in 1940, and that if that occurs Norway's Allies can not possibly arrive immediately. The problem then is:

1. Rapid mobilization to be completed within hours.

2. Ability of own forces to maintain themselves until help arrives from the Allies.

Norway and Denmark have advised that American military missions to their countries be as small as possible. They are close to Russia and difficult to defend against sudden attack, especially air invasions. Unnecessary provocation of Russia was not desired. This request seems to have been brought about by Russian press, which closely followed the movements of the American military mission to Scandinavia and alleged that the United States was preparing for a war to be launched against Russia.

On 17 December, the Defense Plan for North Europe — Great Britain, Norway, and Denmark — was reported as well advanced.

The North Atlantic Defense Council (the Foreign Ministers) on 18 November set up a Finance and Economic Committee to keep expenses in line with the financial abilities of the twelve member nations. The new Committee is to maintain direct liaison with the Defense Committee (Defense Ministers) and cooperate with it.

The Defense Committee then convened at Paris on 28 November. So did the Military Committee (Chiefs of Staff). They adjourned on 1 December after issuing a non-committal communiquè that they were in unanimous agreement as to what should be done.

It appears, however, that France was warned to reorganize its military command and to create by 1 March, 1950, an efficient task force capable of jumping off on short notice. During December, the French High Command was reorganized. Recognition by the Government was given to the Viet Nam state in Indo-China, with the hope that this might lead to peace in that distant country, and release part of 140,000 French troops, who are much needed for the defense of West Europe (see section on Southeast Asia).

The United States, Great Britain, and Canada have worked out a plan for mutual study of new weapons, standardization of military supplies, and mutual interchange of military information regarding existing weapons.

The organization of the North Atlantic Alliance is making rapid and substantial progress. Provided there be no war for several years, the accomplishment of its mission — to ensure the defense of the respective states — should be accomplished.

GERMANY

West Germany. A poll conducted by the US High Commission showed that, as of 1 September, the German people were uninterested in politics or their present government, and had no desire to participate in political affairs. Only about half of those interviewed could tell what the last election was about, or who had been elected. Other studies indicated a German preference for former Nazi officials.

On 11 November the Foreign Ministers of the United States, Great Britain, and France completed a conference at Paris. They issued a communiquè. After charging that both World Wars "sprang from a militaristic spirit from within Germany" they stated that they had given much time to discussing what to do with Germany. They did not state what conclusion, if any, they had come to. From what later developed, it seems that it had been decided to negotiate with West Germany.

In accordance with that idea, Secretary Acheson made an official visit to the West German Government at Bonn on 13 November. He was most cordial; assured the Germans of "every assistance" possible from the United States. Next day, at Berlin, his speech discussed world problems provoked by a group of Powers led by Russia. His solution was that "thrusts have to be met where they occur." What arrangements he made with the Germans he did not speak about.

However, on 15 November, Chancellor Adenauer of West Germany announced that the Western Powers had agreed to slow down the dismantling of factories, and that no more dismantling for reparations would be exacted—only that needed to insure no revival of war production. Authorization to reestablish the German consular service had been granted; participation by Germany in certain international organizations would be authorized. A German request for a formal ending of the war had been disapproved as involving too many complications, but it had been agreed that as many technical difficulties as possible, resulting from the assumed continuance of war, would be removed. In return for these concessions, West Germany had agreed to cooperate with the Military Security Board (North Atlantic Alliance), and to accept the international control of the Ruhr prescribed by the Ruhr Statute.

On the 24th, our State Department supplemented the foregoing by its own announcement that there would be no German armed forces. The Western Powers were agreed to eradicate all Nazism, prevent totalitarianism, and proscribe monopolies. Certain restrictions on German shipping were removed; they could construct vessels up to 7,200 tons.

German President Theodor Neuss on the 24th rejected the idea of the collective guilt of Germans for Nazi atrocities; admitted that Germans were ashamed of what some Germans had done.

On the 27th, the Allied High Commission reduced the number of offenses triable only in Allied courts. This was the present limit of German concessions, but only for a short time.

On 3 December it was decided that about 300,000 tons of German plants already dismantled and intended for Russia would instead be divided pro rata among 19 nations friendly to the Western Powers. On the 15th the Allied High Commission, acting for West Germany, received diplomatic missions from members of the North Atlantic Alliance, plus Sweden, Switzerland, Spain, India, and South Africa, thus facilitating cooperation between Germany and the North Atlantic members.

Meanwhile, on the 9th, Chancellor Adenauer in a speech stated that the Western Powers must now choose between their fears of Russia and German participation in a West Europe army. On the 20th he inquired of the Allied High Commission as to what plans, if any, were being made by the North Atlantic Alliance to defend Germany. Particularly, would the defense be made on the east boundary (Elbe River) or in the west (Rhine River)? Germans had noted that the bridges reconstructed over the Rhine had been prepared for demolition, which led to an assumption that in case of war the Allies would withdraw to west of that river, abandoning practically all of Germany to the invaders.

For obvious reasons the plans of the North Atlantic Alliance were not divulged. The Germans were advised not to draw conclusions from preparations of bridges for demolition; this was in these days standard practice and general throughout a large part of Europe.

East Germany. On 12 November, Russia followed the Western example by replacing its military government in its sector of Berlin by a German one.

On the 23rd it was announced that East Germany would convert its National Police into an army of 6 divisions by April 1950. Present strength is sufficient to organize such a force, provided units are at about 40% of war strength. It is expected that the balance of men required will be obtained by conscription during the spring of 1950. Former Nazis appear to be eligible for appointment as officers in the new forces.

Comments. Since 1945, the primary Allied policies have been to: (1) prevent Germany rearming; (2) change Germany into a peace-loving democratic state; (3) prevent Russia from absorbing Germany.

The first and last of these objectives have been accomplished. Latest information indicates that the Germans will remain peaceful and/or democratic only as long as military forces prevent them from reacquiring their independence.

Germans believe that in a conflict between Russia and the Western Powers Germany will have a probably decisive role. To win them to their respective sides, both sets of Occupying Powers during 1949 granted local self government. Russia has permitted partial rearming and full diplomatic rights. The West have refused to permit rearming and have granted only partial diplomatic rights. Other concessions have been made, and Germans believe that more will be conceded as German aid is more intensively sought.

What is the German objective? Independence first of all; but there are other objectives. East and West Germany together have an area of 143,000 square miles, a population of

66,000,000, and a density of 460 persons per square mile. These figures do not include displaced refugees who have arrived since 1946, and who are estimated to number several millions. It is impossible to produce enough food for this number of people on present territory. More land is needed. To the east is Poland, with 120,000 square miles, a population of 25,000,000, and density of 207. A large part of Poland is land seized from Germany and still underpopulated. Germany wants this back; also territory taken by Russia. Most of this lost territory had been German for 1,000 years. Besides its capacity for producing food, it contains valuable mineral resources and an extensive industrial production. The Germans expelled from those areas can find no employment. Unemployment has been intensified by dismantling of factories, and prohibitions as to what may be manufactured. It is certain that if Germany were independent she would go to war to recover the lost territories as soon as an appropriate opportunity presented itself. Russia knows this. She also knows that while Germans detest all the Occupying Powers Russia is the most detested. For the Western Powers have not seized vast German areas, nor did their troops commit atrocities in Germany as the Russians did.

Notwithstanding, the Germans are a practical people. They are willing to bargain. They prefer the Western Powers. But if they align themselves back of the West their lost territories can be recovered only by war. The Germans would fight for reoccupation of their country provided they can do so as an independent ally. They are not willing to fight for the West if the latter proposes to curtail their independence.

Now Russia is in a position to grant the Germans their dearest wish without war. It may dismember, or partly dismember, Poland. This has been done five times in the past. Russia has just taken over the Polish army, where key positions are filled with Russians or trained Poles. If Poland is again partly dismembered, Germany might be returned her lost areas. In this case Poland might in turn be given the territory taken from her by Russia in 1939 and 1945, and be changed into a Soviet Republic to be admitted as a new state into the Soviet Union. With its army no longer under its control, could Poland do otherwise than register a vote "unanimous" for the new order? Such action would certainly be contingent upon the Germans becoming a full-fledged ally of Russia. For that stake Russia will play high.

Balanced against the foregoing possibility, the Germans consider what the Western Powers can offer them. They detest them less than Russians; British most, Americans next, and French least. France doesn't interfere much with German administration. No effort has been made to change the German into a peace-loving democratic citizen. Germans are not peace loving, and they prefer a totalitarian government. The French believe that Germans always will be Germans, and that attempting to change them has about as much chance of success as trying to change the spots on a leopard. France has consequently not sought to accomplish what she thinks is impossible, and has in that regard avoided antagonizing the Germans.

Germany has recovered its morale. It is disarmed and temporarily at the mercy of the four Occupying Powers. Owing to a serious Cold War between the Occupying Powers, Germany has acquired a good bargaining position. It is ready to take full advantage of that situation. It prefers the Western Powers, but will consider all bids submitted. Russia has an opportunity to overcome its handicap of being the most detested of the Occupying Powers by agreeing to German terms. Should she make such an offer no one can foresee the results.

RUSSIA

Speeches by leading Russian officials, and the press, represent that the danger of war is increasing because of the alleged plans of the United States to conquer the World. To avoid being included with the conquered, and in order to save humanity from the American imperialists, war is approaching. To meet this alleged emergency extensive planning and organization of military and economic resources of Russia and all satellites is under way, under direct supervision of the Polit Bureau, which is composed of very able and unscrupulous men.

Russia realizes that industrial production is possibly the major factor in a World War. Russian production is at present inferior to that of the Western Powers, but is being increased rapidly. On 25 January, 1949, a Secret Protocol was signed between Russia and its satellites (less Albania) for the integration and standardization of the industrial production of the satellites with Russia. A permanent CP for this is at Moscow. The satellites are "bound to accept and comply with" its advice. The Moscow CP is charged with originating and distributing plans. It is provided with an Inspection Service to insure that its plans are carried out as ordered.

As this account is being written, China appears as a new Russian satellite, with its President Mao Tze-tung at Moscow negotiating a treaty. This had not been completed as 1949 closed, but advance information is that it will provide for a great increase of Chinese industrial production rather than of increase of military forces. In the mean-time, greater numbers of Chinese are reported as arriving on Russian territory to work in industrial establishments.

The Prime Minister of Outer Mongolia has announced that the Russian railroad system has been extended 225 miles from the Siberian border at Naushk to his capital, Ulan Bator (Urga on some maps). This has no special military importance at this time, but it will have if the new railroad is extended some 625 miles to a junction at Kalgan with the China RR to Peiping. It would then be the short line from Moscow to Peiping and all China south thereof.

Military Items. On 20 November, Artillery Day was celebrated. It was announced that the Russian artillery was the strongest in the World. This

is believed to be correct.

Russian reports claim that their Arctic Force, with its bases and auxiliary services, is the finest in the World. This cannot be confirmed.

Other Russian reports, relating to their navy, claim that a great increase of long - distance submarines is under way. It is expected that by 1953 more than 750, and possibly 1,000, of these will be operational. Some at least are to be able to fire guided missiles, including atomic shells.

There is no dearth of reports from Russia. About 2,500 refugees and deserters, on an average, arrive within the lines of the Western Powers each month. All are screened. Most of these know nothing of military importance. Some are likely to be agents sent expressly to distribute misleading information. Russia itself gives out alleged information. How much of this is exaggerated, true, or false is hard to verify. Until disproved, prudence requires that measures be taken to offset the claimed Russian program.

Reports generally agree that the various Russian programs are to be completed by 1952/53. The possibility that this date is being promulgated to lead the Western Powers to believe that there will be no war earlier than that date should be considered.

Propaganda. On 6 November, Georgi M. Malenkov, of the Polit Bureau, delivered a key speech. He was pleased that Russia in Europe was encircled by most friendly states (the satellites), and in Asia by Mongolia, long a friend, and now by Korea, and that China was free after a hard war and now ready to cooperate with Russia. These states were all closely knit together for eternal friendship in a single peace camp. He continued:

"Precisely in connection with the successes of the peace camp the warmongers are becoming more and more infuriated. With every day that passes the program of the main opponent of the peace becomes more obvious. It proposes the creation, by violence and new wars, of an American World Empire, which in scale is to surpass all the World empires of conquerors that ever existed. It is nothing more or less than converting the whole world into a colony of American imperialists, of reducing sovereign peoples to a position of slavery . . . The aggressive program of the instigators of a new war surpasses the plans of their German and Japanese predecessor together. Is it not true that the origin of preparations for a new war is in the notorious Marshall Plan? . . . One of the main functions of the Marshall Plan consists, indeed, in the forced militarization of West European economy. It is perfectly clear that precisely for these aims the North Atlantic Pact was created in 1949. This is a weapon for the direct, immediate preparation for a new imperialistic war."

Next day, a General Order published to the Military Forces stated that Russia was fully aware of **"the danger of a new war, the preparation for which is openly conducted by imperialists in the United States and Great Britain."**

Immediately after the Paris Conference of 11 November, the Russian press charged that its real, secret mission was to rearm Germany and use German industries for military production for the Western Powers. This was alleged to have been devised by General Omar Bradley, USA Chief of Staff, who it was represented desired to change West Germany into an American state with the east boundary on the Elbe.

About 15 November the Cominform held a secret conference in Hungary, to plan for 1950. It decided to plan for war because:

"If ever we hoped for peace, that hope can be abandoned now. Cleavage between the Socialist bloc led by Russia and the imperialist bloc led by the United States has never been sharper. The imperialists seek to rule the world . . . The British and American Air Forces think they can bomb Russian cities into dust without fear of retaliation . . . The United States overestimates its own strength, and underestimates that of Russia. The balance of power has shifted to the latter. Still, it would be an error to underestimate the danger of a new war under preparation by the imperialists."

On 20 December a major conference convened at Moscow. All satellites, including China, sent high-ranking delegations to attend. As 1949 ended, this conference was continuing.

The Satellites. POLAND. On 7 November, Russian Marshal Konstantin K. Rokossovsky was appointed Defense Minister and C-in-C of the Polish Army, vice Polish Marshal Michal Roga - Zymierski, relieved. The new C-in-C was born in Poland prior to World War I, when that state was part of Russia. He elected to serve in the Russian Army, and was in command opposite Warsaw in 1944. He did nothing to help the Poles within the city who were fighting the Germans, nor to aid the American and British Air Forces who made many flights to support the fighting Poles.

Marshal Rokossovsky's mission appears to be to prepare the Polish Army for war. There are believed to be 14 divisions, mainly in cadre form. These are to be expanded, and are reported as to be ready for line duty by April 1950. That would require quick work, but is not impossible. Besides those troops, the MP Force exceeds 100,000 men.

On 14 November a purge started. First victims were the Asst. Defense Minister and two Ministers, charged with having knowingly and wilfully appointed unreliable individuals to government positions. Next day the purge was extended to foreigners alleged to be anti-communists, who were in the country as journalists, students, etc. Presumably, practically all foreigners might be classed as anti-communists. To facilitate and explain this action a "plot" was "discovered" on 21 November of an alleged French spy ring. A number of French citizens were arrested and several of them have been "tried" and convicted, being sentenced to confinement. France attempted to effect the release of its unfortunate citizens, in part by expelling Polish citizens from France. The imprisoned French were not released. Two American citizens "disappeared"; also a British citizen. Diplomatic efforts to secure their release have been ignored. Numerous Polish citizens were caught in the purge, and have been sentenced.

CZECHOSLOVAKIA. Best information is that Slovakia detests the Czechs and wants to be an independent state. The conflict with the Catholic Church continues but has not been

acute. There is general dissatisfaction with the communist government. Nevertheless, the latter are in power and cannot be ousted by peaceful means.

A purge started on 23 November, by the "trial" of 20 Czechs, charged with being spies for the United States G-2 in West Germany. The only evidence was alleged "confessions." On 18 December, the expulsion of 12 American Mormon missionaries was ordered on the pretext that they were "a threat to the peace and security of the state."

HUNGARY. A purge was started on 22 November with the arrest of an American and a British citizen, together with 20 Hungarians, all charged with being spies for the United States. Protests by the United States and Great Britain as regards their nationals have been disregarded, on the ground that they were guilty as charged, although no facts to support the charge have appeared.

There has been no mention of the Premier — Rakosi — for some time. He was absent from the Cominform conference on 15 November; explanation — absent on leave, but where cannot be ascertained. Failure to mention prominent persons is a sign, behind the Iron Curtain, that that individual has been, or is about to be, liquidated. Maybe he was caught in the purge.

ROMANIA. Its Foreign Minister, Ana Pauker, was also absent from the Cominform conference; explanation absent sick, but where not stated. It is probable she also has been purged. News from Romania is conspicuously lacking, and leads to the suspicion that there is a special reason for it.

BULGARIA. Purge started about 1 December, and included the Deputy Prime Minister Kostov and other Bulgarians, all charged with being American spies. Kostov pleaded not guilty, but was found guilty and hanged within 48 hours. Ten others who "confessed" were sentenced to imprisonment. This may be commuted after a time has elapsed judged sufficient to impress the people as to the wickedness of the United States. The American Minister, Mr. D. R. Heath, requested an opportunity to testify in this case to deny American spy activities. This was not permitted — "confessions," not evidence, was what was wanted. Regarding Mr. Heath, the Bulgar Foreign Minister on 8 December stated:

"No decision has been made by the Government regarding Mr. Heath and other American and British diplomats mentioned in the trial. But I personally feel it desirable that the countries and persons concerned in the trial, in conformity with good diplomatic traditions, draw their own conclusions and act accordingly."

ALBANIA. Russia has halted military work, except at Saseno and two reservations near Elbasan, which are all off-limits for Albanians. Until the Yugoslav problem is solved, a new Russian policy is to be in effect. Military aid and supplies will be reduced because the direct line of communications is blocked and sea transportation is difficult. There is the added danger that in case of war Greece and/or the Western Powers could overrun Albania before Russian help arrived. Any great stock of arms and munitions would then fall to the invaders.

Economic conditions are bad, and getting worse. Food is scarce; troops lack basic equipment. The Communist Party, a minority in power, is divided as to whether to link up with Tito or Stalin. They prefer the latter because he is further away and believed to be less likely to interfere. As no one knows which of these two communists is going to eventually win out, tendency is to postpone action pending developments.

Colonel General Enver Hoxha, local leader, has made two long visits to Moscow, presumably to secure help. Results are not yet known.

Comment. The mission adopted for 1950 by the Cominform at its conference on 15 November is stated, in its communiqué, as to plan for war. The exact meaning of this depends upon whether accent is placed on the word *plan* or on *war*. Whichever it is, this announcement calls for vigilance.

The initial step taken as the result of the Cominform conference was the starting of the purges in satellite states. They all commenced at the same time, about a week after the conference. Their objective appears to be to tighten the Iron Curtain by forcing foreigners, and particularly Americans, out of Russian-controlled territory. Secondary objective is to convince local peoples that the United States is actively preparing to launch an attack against Russia and, as stated in the communiqué, hope for peace has been abandoned.

All evidence indicates that Russia is preparing for war, and that, at a date which it is yet impossible to determine, will attack westward into West Europe. To aid in this, assistance is expected from local communist parties. These need not be a majority of the population — Russian training pamphlets distributed in the United States stated that 10% would be sufficient to overthrow any Government and seize power. Past events in Europe indicate that this figure may be about correct.

Versus this danger is the North Atlantic Alliance. At present this is only a promise to organize a defense of West Europe. It will not be effective until troops are raised, trained, equipped, and posted. If war comes before this can be done, the Alliance may go down in history as just one more scrap of paper. Intentions good, but too late.

Time is fleeting and in this case may decisively affect the fate of the World.

ATOMIC WEAPONS

The atomic situation appears to be:

Great Britain—has an atomic pile and can produce bombs, has made progress on other atomic weapons. May agree to concentrate on the latter and obtain its atomic bombs from the United States.

France—in December 1948, published photographs of its first atomic pile. Claims that this is solely for non-military purposes.

Norway—on 28 May, 1949, reported that completion of an atomic pile was being rushed. Norway was one of the first countries to produce heavy water (H_3O), which is used in atomic bombs.

Sweden—reports that an atomic pile is under construction.

Russia is believed to be producing atomic bombs at the rate of 4 per month. This rate of production may be

speeded. A stock pile suitable for war is expected to be available, and to be larger than any that the United States could have, not later than 1953, possibly by 1952. It is impossible to verify this, but it may be correct and should be allowed for.

The Russian pre-World War II Encyclopedia gives a list of areas where uranium can be found within Russian territories, as of 1938. The post-World War edition is silent on this question, but there is no reason to believe that the earlier edition was incorrect. According to that source, large quantities of uranium ore are located eastward from Samarkand (excl) to Fergana (incl) and Osh, Kirgiz (incl). This is precisely the area where late reports indicate Russian atomic development is going on. A new Russian source of uranium is reported as being mined in the vicinity of Ukhta, in northeast European Russia.

YUGOSLAVIA

Relations with Russia. Each country continues to denounce the other in more or less violent language. This may be for popular consumption, for direct negotiations between the two countries have not been broken. Russian emissaries are reported as having arrived secretly by air at Belgrade on 27 September and on or about 6 December. In both cases the emissaries were conducted in closed cars direct to the CP of Marshal Tito and there had conferences with him lasting several hours. Upon completion of each conference, the emissaries were conducted back to the airport in their closed cars, and flew away. What was discussed at these meetings has not been ascertained. The official Yugoslav viewpoint is that war is possible, but not probable.

Military Deployments. The Yugoslav troops are distributed with the foregoing viewpoint in mind. Nine, and possibly more, divisions are deployed along the frontiers of Hungary and Bulgaria. Troops have been withdrawn from Croatia. An important body of troops is reported in the Sarajevo area. Large numbers of men are being inducted, and the total ground and air forces are reported as around 600,000.

Russian forces have been identified, as of 1 November, as follows:

2nd AB Guards Division (new identification) has appeared in Bulgaria. This is believed to be a first - class division.

Greek Communist Division, previously in line against Greece in Albania, is being transferred to Bulgaria, where part of it has arrived. Movement is by sea, and is slow, owing to lack of marine transportation. This is a good division, with recent battle experience.

17th Russian Motorized Division, last reported in Astrakhan, has appeared in the Szombathely area, from where good roads extend north to Vienna, west through Graz and Leoben to Italy, and south to Zagreb (Agram on some maps). British reports state that this division has been issued maps of Zagreb and approaches thereto, and onwards to Novi Sad. This route lies through Slovenia, whose inhabitants are incorporated into Yugoslavia without their consent, and who are none too friendly. This is an attack division.

81st Russian Tank Division has appeared in the area north of Lake Balaton. This is an army division, normally intended to reinforce attack divisions. It is about 40 miles from Szombathely.

1st Hungarian Para Division is in the Pápa area. At this place a new airfield has been completed with 8,000-ft. runways. About 120 fighters are based at this field.

The three last-listed divisions are so closely grouped together as to indicate that they are a Task Force (no corps in the Russian Army).

Two other Russian divisions, not identified, are reported elsewhere in Hungary, and are presumably in army reserve. The three armored Russian divisions which had been temporarily in line early in September have not been reported, but are believed to be in Romania.

New Russian airfields have been opened — two near Budapest and one south of Lake Balaton. They are for heavy bombers. Their closeness to the Yugoslav frontier indicates that an attack from that direction is not expected. They may be intended to support military activities directed westward toward Italy, or up the Danube valley. The possibility that the Russo-Yugoslav disagreement is a feint to mislead the Western Powers should not be disregarded.

The high ground northeast of Budapest in the Mátra Mountains has been occupied by Russian troops, and declared off the limits for Hungarians. This location points to the possibility that emplacements for rocket batteries are under construction, extending the line previously mentioned by PERIMETERS.

Yugoslav reports of 1 December claim that since 1 July 135 "incidents" have occurred along the frontier with Albania, and 140 others along the Hungarian-Romanian frontier. There is no corroboration of this and no details of the alleged incidents has been made public.

Yugoslav equipment and munitions are mostly Russian. In case of war with Russia, Yugoslavia would be unable to obtain spare parts for her artillery and armor, or ammunition. It seems improbable that Yugoslavia would accept war with Russia rather than settle a dispute (alleged) over the proper interpretation of Marxian Communism.

Comments. Since 1500, eight major campaigns have occurred between Yugoslavia and her northern neighbor. Five were fought between 1500 and 1700 by Turks going north, and two, in 1686 and 1914, by Hungarians and allies going south. Those seven made their main thrust west of the Danube and east of Lake Balaton. Reason—lines of communication were better than east of the Danube, while west of Lake Balaton routes are longer and more difficult. The eighth campaign, in 1941, was the invasion of Yugoslavia by the Germans. It followed the usual pattern, supplemented by invasions east of the Danube and from Romania and Bulgaria. The political situation which made that possible had not previously occurred; it had an annihilating effect within 14 days.

That political situation has been renewed today, except that it is in Russia's favor. It would seem to call for the same type of enveloping attack against

Yugoslavia. To make a main effort west of Lake Balaton would be far removed from offensives launched from Bulgaria and Romania and would give Yugoslavia the opportunity to contain one attack while seeking to overthrow others. The terrain would favor that.

Russian troops west of Lake Balaton may well be intended to march to Zagreb. But instead of continuing on deeper into Yugoslavia they might there turn west. Two railroads and two good roads lead from Zagreb to Trieste and Italy. It is the easiest route from Hungary to Italy and the hardest for Italy to defend.

No assumption should be made that Russian troop concentrations near Lake Balaton are intended for hostile operations against Yugoslavia. The Yugoslav situation remains obscure. It should be viewed with suspicion as possible effort to mislead the Western Powers. The available evidence points to Russian forces in Hungary being faced to the west rather than to the south.

JAPAN

On 31 December General MacArthur, in a New Year's Message to the Japanese nation to be proclaimed next day, complimented them on the progress made since the end of the war. Most important part of the Message related to the defense of Japan, and read:

"Some contemporary cynics deride as visionary Japan's constitutional renunciation of the concept of belligerency and armed security. Be not overly concerned by such detractors. A product of Japanese thought . . . by no sophistry of reasoning can it be interpreted as complete negation of the inalienable right of self-defence against unprovoked attack."

The one possibility of "unprovoked attack" is referred to in the opening paragraph of the Message as follows:

"Two basic and yet unresolved problems cause concern in every Japanese mind — the global ideological struggle brought close to Japan by the communist roll over China, and the international conflict delaying call of a Japanese peace conference."

Pending a peace treaty, the single threat of an unprovoked attack against Japan comes from communist forces on the mainland of Asia. How to prepare for such an eventuality was left for future determination, for the Message was silent as to this. Possible ways are: (1) organizing Japanese defense forces, which necessarily involves rearming; (2) an Alliance, in which protection of Japan will be taken over by some other Power. The only available Power would be the United States. (3) an Alliance, coupled with some Japanese rearming.

It has been announced that the American Combined Chiefs of Staff will visit Japan during February 1950. Presumably they will investigate what had best be done, and will provide for carrying out so much of General MacArthur's Message as asked the Japanese to have faith in the Americans. That request can be interpreted as a promise that the United States will not idly stand by and allow communism to roll over Japan as it did in North Korea and in China. It is ready to help Japan to avoid such a fate.

CHINA

Military Operations. The war between the Kuomintang and Communist Governments has continued. On 1 November, the line between the opposing forces was Patung (on Yangtze River); Enshih; Yuanling, and Chikiang. Kuomintang held the territory to the south and west with, according to their reports, several hundred thousands of troops. Yet no resistance has been made to the advance of the communists (North). Chungking, the Kuomintang capital, was taken on 29 November. The south border of China, with Indo-China, was reached on 16 December. Practically all of mainland China is now under communist rule.

About 100,000 Kuomintang troops are reported as having escaped to Hainan Island. They had abandoned their equipment while in flight; had been long unpaid; and were selling their clothing. Malaria, cholera, and typhus were prevalent. Their military value is next to zero. Communists claimed that 157,000 Kuomintang troops surrendered without fighting during the period. 25,000 others crossed the border and surrendered to the French in Indo-China. 2,000 are reported to have fled to mountains, presumably to act as guerrillas. Several hundred thousands are stated to be in Formosa, which with Hainan now represents the extent of the Kuomintang domain.

It took the communists slightly over one year to advance from Manchuria to Indo-China. Little fighting was involved, major battles having been fought only during the winter north of the Yantze. Thereafter, even when superior in numbers the Kuomintang has failed to fight.

The Kuomingtang still has an Air Force and a Navy, both now based on Formosa. The Air Force makes frequent raids on Shanghai and other places. It has met opposition neither from the ground nor in the air. Under these conditions targets are sometimes hit, and damage and casualties have occurred — none of military value. The Navy — a few gunboats and destroyers — have been blockading Shanghai. Again — no opposition. Consequently the blockade has interrupted sea transportation.

Political. China has never freely chosen its own government. It has always been ruled by a dictatorial government supported by force. The present communist government has followed the usual custom of seizing the country, starting in the north and proceeding south. Such movements have occurred at nearly equal intervals in the past 3,000 years. It has generally taken 200 years to consolidate the new government, after which an uninterrupted period of 600 years of peace has followed. Chinese consider the 600 years of peace to more than balance the 200 years of upheaval and civil war. They consider the present series of wars

as having commenced about 100 years ago with the great rebellion in central China, since which there have been few years of peace. They rather expect that still another 100 years of trouble lies before them. This, however, may be shortened by the new weapons of civilization — yet no one knows. The usual custom has been for the victors to move the capital from Peiping to Nanking, and this may occur again.

Main factors in ruling China are — Face, Favor, and Fate. Face is an Oriental psychological factor. It consists in preserving one's good name, either by real value, by imitation, or fraudulently. Fate is another psychological factor. For Orientals it leads to abandoning a mission whenever an immediate solution is not apparent; for example, deserting to the enemy when it appears that he is winning, or can confer substantial benefits. Favor was discussed in the preceding installment and leads to public officials taking care of themselves, relatives, and friends out of public funds. This practice has existed from time immemorial and is considered by Chinese as normal.

The new communist government is paying attention to these Chinese characteristics, and is likely to have no particular trouble in governing the country, other than the Chinese habit of requiring 200 years to accept a new government before settling down to work in peace. This may give it plenty to do.

Subject to the foregoing, the following remarks about the Communist government are pertinent.

The President is Mao Tze-tung. He is practically a dictator and closely follows orders from Moscow. He is a great admirer of Stalin, and arrived in Moscow about 18 December for a meeting with representatives of Russia and all its satellites. As the year closed he was still there, reportedly arranging for an alliance. Prime Minister is Chou En-lai; his influence has declined. Coming man is said to be Liu Shao-chi, who is a Moscow graduate and very able.

It will be necessary to wait until Mao Tze-tung returns from Moscow to determine what policies his government will follow.

The Russian Cominform has been maintaining an advance CP at Peiping. It convened a conference there about 15 November, the same date as the main Cominform meeting in Hungary and presumably under the same direction. It must have been planned some time in advance, as communists from distant places were present. Most of these were labor leaders and included delegates from Mexico (Toledano); Cuba (Luis Peña); Korea (Choi Gendeck); Indo-China (Luu Duo-pho); India (Selwankar); France (Louis Saillant); etc., besides the Russian and Chinese delegates.

Keynote speech stressed that the major mission was to secure communist possession of all of Asia, including adjacent islands. It was necessary to unite all communists to head off the wicked American fascist imperialists, who were planning a war against the peace-loving democracies. War was not, however, immediately expected. Pending that, it was necessary to greatly increase industrial production throughout Asia. That continent, compared with the United States, had an overwhelming superiority in man power, but industrially it was very inferior. It is assumed, but not known, that some final order was issued, not yet ascertained.

Formosa. At date of writing, a wide discussion was in progress as to whether or not the United States should occupy or guarantee that island against eventual occupation by communist forces. That is a strategical problem which can not be separated from the general world strategical situation.

The United States is committed, formally, to the North Atlantic Alliance. In West Europe lies the greatest immediate danger, for if West Europe is lost the defense of the United States will be both costly and difficult.

The United States has only a limited number of divisions and air forces available. If several divisions with air forces are sent to Formosa it would be practically impossible to transfer them to West Europe if an emergency there arises. Formosa does have a strategic location. Its occupation by hostile air and/or naval forces would gravely compromise the American position in the Far East. It must be presumed that that risk is known to the High Command, and is considered at this date as a lesser risk than weakening the American commitment to our fellow Allies of the North Atlantic.

SOUTHEAST ASIA

Important political changes have taken place in Indonesia and in Indo-China.

On 27 December, the Netherlands signed a treaty granting full independence to Indonesia. Both countries are united under the Netherlands sovereign, but this union applies principally to consultation and economic matters. It does not require either to participate in a war in which the other may be engaged. The Dutch army in Indonesia, including 2 infantry and 1 armored divisions, is to be withdrawn by about 1 July, 1950 These troops are needed in West Europe. The Dutch retain naval rights at the Soerabaya base. Dutch (West) New Guinea is not included in the new Indonesia; it remains under Dutch rule.

On 30 December, France surrendered the civil government of Tonking, Annam, and Cochin-China to the new state of Viet Nam, whose chief is Bao Dai (formerly Emperor of Annam). France retains control of defense and of foreign affairs, although Viet Nam will participate in both. The French Parliament has not ratified the new agreement, but is expected to do so during January 1950. The population of the new state is around 18,000,000. About half of this number is controlled by the communist insurrection led by Ho Chih Minh, whose organization is designated as the Viet Minh. Recent fighting has been minor.

France has 140,000 troops attempting to quell the insurrection. She hopes the new state will unite all factions, and enable the French to withdraw at least 3 divisions, including 1 armored, for use in West Europe.

Also on 30 December, the United States decided to aid the new state under Bao Dai, to the extent of allotting $20,000,000 for military supplies. These are to be shipped by February, 1950.

The communist insurrection in Malaya, and the multiple insurrections in Burma, continue, with no military operations of importance.

A good book is the precious life - blood of a master - spirit, embalmed and treasured up on purpose to a life beyond life.

—MILTON

Appeasement is Worthless

BERLIN COMMAND. By Brig. Gen. Frank L. Howley. G. P. Putnam's Sons, 276 pages. $3.50.

By Alan L. Otten

Frank Howley was a Philadelphia advertising executive when he was called to active duty in 1940. A broken back from a motorcycle accident, while he was serving as an officer in a mechanized cavalry regiment, switched him into military government. On July 1, 1945, he was appointed Director of the Office of Military Government, Berlin Sector, and U. S. Deputy Commandant of the Berlin Allied Kommandatura. On Dec. 1, 1947, he became Commandant. He resigned Sept. 1, 1949, returned to the States, and wrote this book. It is a fascinating volume, and a highly important one.

In it, Gen Howley has set down the day-by-day, play-to-play account of his encounters with the Russians during his four years in Berlin. It is a fascinating account because of the new information it gives us about many of the headline-making episodes of the 1945-46 period. It is important as a fact-studded documentation of the author's theory that "you can't do business with the Russians."

The book's 276 pages are jammed with first-hand accounts of Russian rape, looting, murder, and terror, the arguments in the Kommandatura, the October 1946 elections, currency reform, the blockade and airlift, the railroad workers' strike. Interesting as each incident is in and of itself, it also fits exactly into the pattern and thesis of the book.

The lessons we learned in Berlin are valuable in showing us what the Russians are and how to handle them, Gen. Howley believes. His thesis: They want world domination, they can't be trusted, they're the world's "most colossal liars, swindlers, and cutthroats," completely and utterly unprincipled and ruthless in achieving their ends. Appeasement is worthless. The defensive policy of containing Communism was risky and expensive, but reasonably safe so long as Russia did not have the bomb. Now, however, Russia no longer fears war with the U. S. "There is only one way to deal with gangsters — Russian-uniformed or otherwise — and that is to treat them like gangsters." Gen. Howley's book is full of instances when he treated them that way in Berlin, but rather vague on how this can become the full-scale foreign policy of the United States.

Integration in War

OVERTURE TO OVERLORD. By Lt.-Gen. Sir Frederick Morgan, K.C.B. Foreword by General of the Army Dwight D. Eisenhower. 302 pages. Doubleday. $3.50.

By Colonel R. Ernest Dupuy, USA, Retd.

Light was the touch of fantasy in the code names disguising our great operations in the last war; perhaps it was a good thing. Such names as COSSAC, OVERLORD, NEPTUNE, embracing the colossal invasion of Western Europe, tickle the imagination even now, as they did those of the men slaving at the meticulous preparations for that breath-taking operation.

Lieutenant - General Sir Frederick Morgan, K.C.B., forever "Freddy" to us at SHAEF, has done the military world a service in relating the inception of Operation OVERLORD. He has done it in such sprightly fashion, with such sympathetic touch, that his book is in reality a key to Anglo-American relationships. But that would be expected from quizzical, twinkle-eyed "Freddy," whose good-natured, keen understanding furnished both Americans and Britons on Eisenhower's staff figurative oil on axles overheated by compound of personal, national, and service jealousies and "Beetle" Smith's Simon Legree whiplash on the plunging team.

What General Morgan relates is the of the solution of the problem presented for landing the greatest armada yet seen, on a hostile coast rock-ribbed with defenses, and its later support and supply. Where? When? What? How? and Why? These sum up the COSSAC task and General Morgan *was* COSSAC—Chief of Staff, Supreme Allied Commander.

When "Freddy" was assigned the job of planning in early 1943, the nub of the matter was that no Supreme Allied Commander existed. British soothsayers pointed to Sir Alan Brooke, C.I.G.C.; American wiseacres were touting for George Catlett Marshall—an opinion persisting until mid-December when the curtain snapped up on Eisenhower. But none of the gossip aided the COSSAC planners who, as General Morgan relates, got some pushing around from higher authority; more, perhaps from the British than from our side, for a British staff officer unable to wield the magic name of his commander just doesn't belong.

The gathering of the planning staff of both nations, their internecine struggles, the frustrations of American officers confronted by that British abomination—the "committee"—all these are

set forth with delightful touch. Unwittingly perhaps, but with a chuckle notwithstanding, "Freddy" gives us a peep at the British approved solution for committee work—"the adroit selection of a chairman who will reduce chatter to a minimum and of a secretary who can write the minutes beforehand!" Now we know!

Step by step he leads us through all the preliminaries and the ramifications of choice of the Normandy coast, the build-up of the logistical support, the artificial harbors, the security precautions. On this last, comprised in the so-called "cover plan," General Morgan, while less nebulous than others who have told their stories, is bound by the "hush-hush" in which is still wrapped all that marvelous deception which kept an entire German army waiting for the Pas de Calais invasion which never came. But "Freddy" has done an excellent job, as those in the know will appreciate.

Since this is not the story of OVERLORD itself, General Morgan has nothing to say of the later repercussions and word-battles between pro- and anti-Montgomery factions for appointment of a Ground Forces commander. But he does make one pungent remark showing that the War Office wind blew from one certain direction from the beginning: "With the change of command of Twenty-first Army Group"—and he is writing of the initial appointment of Monty to that command—"there was a short-lived recrudescence of the attempt to create a Ground Forces Command to parallel the command of sea and air forces, but when the Supreme Allied Commander came all matters quickly adjusted themselves into final form."

Eisenhower's arrival in January, 1944, and his insistence that "Beetle" Smith, his African chief of staff, continue in that relationship, might well have brought heartbreak and pique to the man initially picked for the job; a lesser man indeed might have chucked it all. But "Freddy" Morgan saw it out as Deputy Chief of Staff and senior British Army officer in the command. It was a job well done.

Striking is his conclusion that only under American leadership could the invasion have been a success. ". . . In the hands of a British leader, the whole affair might have gone very much otherwise. I go so far even to say that it might not have gone at all. . . . I do not believe that, as things then stood, British command would have been a practical possibility."

One of the pleasant things about this book is "Freddy's" command of American English. It's all very well for him to say that "American English and British English are two quite different languages," but he goes further. His writing is flavored with American slang and American colloquialisms so aptly handled that one at times forgets that this is an Englishman writing.

A grand book, by a grand soldier, much needed at this time when "integration," it would seem, is only a word.

Justice or Retribution?

THE CASE OF GENERAL YAMASHITA. by A. Frank Reel. The University of Chicago Press; 325 pages; $4.00.

By Colonel John E. Coleman

How far do you believe the theory of "chain of command" should go? If you were a general and a minor portion of your command stationed many miles away from you committed atrocities of various types, do you believe that you should be tried, found guilty, and hanged because of those acts? Acts you didn't order, didn't know were happening, and had never condoned?

Yet that is exactly the Yamashita case. Not only did the prosecution not prove that Yamashita was in any way involved in any of the charges, it didn't even charge that he was. The charge was that Japanese forces had committed certain acts in violation of the rules of war, that Yamashita was in technical command, therefore Yamashita was guilty.

Do you believe that a fair trial should be granted even to a fallen enemy? A trial which recognizes the rules of evidence we are accustomed to in our American courts? The military commission which tried Yamashita had no one on it with a legal background. The order which set it up granted it power to make its own rules. Hearsay evidence, opinion, deposition no court in the United States would accept, and even a propaganda film, were admitted

by the commission. The commission didn't care for cross-examination; it would take up too much valuable time and speed was the keynote of the entire procedure.

The timing didn't turn out too badly for the commission, for it was on the 1945 anniversary of Pearl Harbor that Yamashita was pronounced guilty and sentenced to hang.

The defense attorneys got the case before the United States Supreme Court only to have the majority rule that it had no jurisdiction. The Court stepped around the Fifth Amendment to the United States Constitution by saying, "The Commission's ruling on evidence and the mode of conducting these proceedings . . . are not reviewable by the Courts, but only by the reviewing military authorities."

Two minority opinions, one by the late Justice Murphy and the other by the late Justice Rutledge, are opinions worth reading. Both deplored the majority action and both felt that the Fifth Amendment very clearly had been violated and that the Court should have acted to avoid an injustice that had been done.

Justice Murphy wrote, "The high feelings of the moment doubtless will be satisfied. But in the sober afterglow will come the realization of the boundless and dangerous implications of the procedure sanctioned today. No one in a position of command in an army, from sergeant to general, can escape the implications. Indeed, the fate of some future president of the United States and his chiefs of staff and military advisers may well have been sealed by this decision. But even more significant will be the hatred and ill-will growing out of the application of this unprecedented procedure. That has been the inevitable effect of every method of punishment disregarding the element of personal culpability."

Justice Rutledge quoted Tom Paine: "It was a great patriot who said: 'He that would make his own liberty secure must guard even his enemy from oppression; for if he violates this duty he establishes a precedent that will reach himself.' "

Think it over.

Naval History

BATTLE REPORT, Vol. V (Victory in the Pacific). By Karig, Harris and Manson. 525 pages. 212 photographs. 6 Maps. Appendix. Index. Rinehart. $5.00.

By Robert F. Cocklin

With the publication of this, the fifth and final volume of the *Battle Report* series, we have the completion of an excellent, non-technical narrative of the Navy's contribution in World War II. Prepared under the supervision of Captain tain Walter Karig, USNR, these volumes parallel and complement the more solid, detailed operational history of the Navy being prepared by Captain Samuel Eliot Morison.

Preceding volumes in this series described the naval war from Pearl Harbor through the Battle for Leyte Gulf. This final book is concerned with the landings in the Philippines, Borneo, Okinawa, Iwo Jima and of course the final surrender aboard the battleship *Missouri*. Halsey's spectacular raids agains the Japanese mainland and the valorous exploits of our submarine fleet also receive attention.

This entire series has been endowed with exceptionally fine writing and the selection and editing have been superb. The reader quickly senses that the specific battles and places are but geographical landmarks in the overall account of the terrific punishment which our navy took (and dished out) to help achieve final victory. The stark terror of the Kamikaze reached its full height during the period covered in this volume. The typhoon of 18 December 1944 mauled our fleet in a manner which the Japanese could not hope to do, leaving a death list of 790 victims, to say nothing of the 3 destroyers sunk, 146 planes destroyed, and numerous other ships crippled, The accounts of individual courage and heroism are so numerous as to become accepted as the normal role for the men of our navy.

Battle Report comes as close to a unit-type history as anything yet published about the navy. The authors carefully identify not only all of the various ships in the operations but the Captains as well. The accounts are well-sprinkled with names from all ranks and of course contain hundreds of fine combat photos.

Conferedate Society and Government

A DIARY FROM DIXIE. By Mary Boykin Chestnut. Edited by Ben Ames Williams. 547 pages. Index. Houghton Mifflin Co. $5.00.

By Lt. Col. Robert F. Cocklin

Some fifty years ago, there was an edition of a diary written by a southern gentlewoman covering the period of the Civil War. It has since been used as a valuable source book by many writing about or just interested in the Civil War. Now, for the first time, we are treated to the full text of this diary prepared under the gentle blue pencil of Ben Ames Williams.

The author of this work, Mary Boykin Chestnut, was well-qualified to write an interesting account of this period. Herself the daughter of one of the South's finest families, she was married to James Chestnut, one of the outstanding leaders of the Civil War South. James Chestnut was the first United States Senator from the South to resign his seat in the Senate as a result of the secession issue and he played various important governmental roles during the war days. Through her position, Mrs. Chestnut was in daily contact with all factions of southern society and consequently her diary provides an excellent picture of the conditions, morale and thinking of their leadership during the war.

The wit and intelligence of the author heighten the interest of her daily jottings which cover everything from the fashions of the day to the slave issue. In this latter field, present day readers will get an interesting slant on the view of a large number of southern slave-holders. Apparently, many were not only reconciled to the abolition of slavery but looked forward to its advent without much sorrow.

All of the petty in-fighting, personal prejudices and backbiting attendant on a new government, particularly during a period of chaos, are clearly drawn from the pages of this book. We see the families manuevering to get commissions for their kin; the continuing criticism of the leadership both military and civilian in the face of adversity; and most of all, the complete collapse of the totally unrealistic economic system that pervaded the South prior to the Civil War. Soldering, too, among these writings, is the open rebellion of womanhood against its inferior position. Mrs. Chestnut was clearly a champion of women's rights.

Ably edited by Ben Ames Williams, *A Diary From Dixie* is a thoroughly enjoyable book. Certainly, addicts of Civil War lore cannot afford to pass it by and even those with ante or postbellum tastes will find several pleasant evenings in the perusal of Mrs. Chestnut's diary.

Cold War Fronts

AMERICAN - RUSSIAN RELATIONS IN THE FAR EAST. By Pauline Tompkins. The MacMillan Co. 426 pages, index. $5.00.

RUSSIA AND THE WEST IN IRAN. By George Lenczowski. Cornell University Press. 383 pages, appendices, index. $4.50.

By Richard Gordon McCloskey

It is difficult to be objective about Russia. During the war, of course, practically anything the Russians did was fine, and now everything the Russians do is wrong. To stand apart from the current hurry-burry and view the situation calmy requires the cold approach of a scientist or historian. Both of these books are praiseworthy for their objective approach.

Miss Tompkins shows with commendable clarity that many of the impediments to peace between Russia and the United States are surmountable. While she recognizes fully the inexcusable behavior of the Soviet government, she also calls attention to the errors in our own policy. The book is in effect a critical evaluation of the "balance of power" system. It discusses the triangular nature of the Far Eastern struggle between the U. S., Russia and Japan; it emphasizes that our diplomacy in the Far East is not isolated, but an integral part of world affairs. From the beginning of our rivalry in Asia, in 1895, through both World Wars and down to 1948, Miss Tompkins recapitulates the strategy of psychological, moral and diplomatic jockeying between the two nations. Readable and vigorous in style, it throws a candid light on the present Chinese crisis.

At the other end of the Russian land mass from the Far East lies Iran — a

country whose experiences with the great powers have not been happy. After generations of being the shuttlecock in the game of power politics between the East and West, Iran understandably mistrusts the motives of both Russia and England. With the United States, however, she has had no such history, and it is to this country that she is now turning in her struggle to build a state with the industrial and political independence to survive in the maelstrom of Middle East politics.

This study by Professor Lenczowski permits students of the present-day conditions in the Middle East to understand the emergence of a new type of rivalry for Iran, a rivalry based upon profound ideological differences and employing entirely different techniques from those common during the old, imperialistic rivalry for prestige and territory.

The appendices in this book, quoting Iranian and Soviet documents, are particularly useful to students of Near Eastern affairs. The entire book is most helpful to anyone interested in that area.

Global Operations and Objectives

THE UNITED STATES IN WORLD AFFAIRS, 1948-1949. By John C. Campbell, 541 pages. Bibliography. Chronology. Appendix. Index. Maps. Harper & Bros. $5.00.

By Lt. Col. Robert F. Cocklin

The publication of this, the third postwar survey of American foreign policy published by the Council on Foreign Relations, comes at a time when the public at large is giving considerable attention to this subject. General George C. Marshall points this up in his introduction to this volume when he states, "Never before have the broad objectives and even the day-to-day operations of our foreign policy been more widely or fully discussed than during this period."

Certainly the reading of this work is essential to the intelligent discussion of our foreign policy. Without trying to offer solutions to the problems which we face, Mr. Campbell simply gives us an analysis of the record devoid of editorial comment pro or con.

It is difficult to single out sections of the book for particular emphasis. The problems confronting the nation in this field blanket the globe and are almost equally important. Suffice to say, this book covers them well and in detail even to the inclusion of the complete text of the North Atlantic Treaty in an Appendix. The book is well-indexed, contains a worthwhile chronology of world events and has a very complete bibliography.

Russian Military Guide

THE RED ARMY TODAY. By Colonel Louis B. Ely. 255 pages. Index. Military Service Publishing Co. $3.50.

By Colonel Conrad H. Lanza

This is a timely presentation of the present (1949) organization and tactics of Russian forces. The many facts presented are based primarily on the screening of escaped Russians, whose accounts have been consolidated, condensed and arranged in logical order.

The accounts of tactics often cover methods peculiar to Russians. As an example: an old Russian trick, and one recommended here, is leading enemy troops into an ambush by withdrawing a decoy force into a trap. It could succeed only if the enemy neglected most elementary measures of security. As an indirect commentary on this point, a common lack of Russian initiative in lower grades is properly commented on elsewhere. That factor has led Russians into military traps.

Colonel Ely's book is a handy volume, furnishing a quick orientation and an accurate description of current Russian organization and tactics.

Blue Water

THE WIND IS FREE. By Frank A. Wightman. Duell, Sloan and Pearce, New York, 1949. 303 pages, illustrations. $4.50.

DESPERATE VOYAGE. By John Caldwell. Little, Brown and Co., Boston, 1949. 324 pages, illustrations. $3.50.

By Richard Gordon McCloskey

It is seldom that yachtsmen and chairbound sailors come across such a treat as is presented by these two books. Taken singly, they form an event in the sailing world, but coming out within a month of each other they make a feast indeed.

The books make an interesting comparison. Wightman had the longing to make a small-boat cruise rubbed into his soul. Caldwell took off in his thirty footer because that was the only way he could get to Australia and rejoin his bride. Their narratives reflect this difference. Wightman's writing is amongst the finest I have read in a long, long time. In fact, it would be difficult to find another yachtsman who can match his style. Caldwell tells his story in plain prose. He had a job to do, and this is how he did it. In many ways his voyage was the hardest. He knew nothing about sailing before he awkwardly pushed off from Panama —and he sailed alone. Wightman, while not an expert, was a competent sailor. He had built his own boat, and he sailed from South Africa to Brazil with Graham Young, who, by all accounts, was an ideal companion.

If there's a drop of salt water in your blood these books will send it racing through your veins. They are both topnotch sailing stories—and you'll learn a whale of a lot about sailing from them, too.

BOOKS IN COLUMN

By MAJOR NELSON L. DRUMMOND, JR.

A steady rate of production continues for straight combat novels and others which focus on particular, lesser-known aspects of war experience. The former repeat familiar themes of unequal justice, opportunism vs. selfless duty, brutality and confusion, front-line courage and despair. The question must occur of how much value such books can continue to bring to nearly saturated readers. Probably in these days of individual, competitive peacetime interests it is good for us to review the emotions and events that formed the shattering communal conflict in which we played such varying roles, and to realize again how the full impact of war fell only upon the combat infantry and those detachments of supporting arms which worked closely with them.

Mask of Glory by Dan Levin (Whittlesey House—$3.00) and Ned Calmer's *The Strange Land* (Scribners—$3.00) are both sagas of the front-line soldier. Levin, a Marine in the Pacific during the war, does for the Marine Corps what Norman Mailer's *The Naked and The Dead* did for (or to) the Army, in a book of less scope but more cohesion, less power but better balance. It is the story of nineteen-year-old. Polish-American Glen Manson's year as a fighting Marine from the planned brutilization of bootcamp training through the harried idyll of Hawaiian Island life to the final goal of amphibious combat. The story has clarity and strength, with a nice balance between dramatic action and reflective analysis as the careers of Glen, the comrades in his rifle unit and their veteran leader, Sergeant Lewicki, swiftly unfold. Levin cracks the veneer of unthinking, glory-seeking, Marine indoctrination and strongly features an element previously given little attention—the yearning of Glen, his family and his immigrant-born comrades to achieve solid roots in their American community. As the book ends, his combat sacrifice has accomplished this—yet to what permanence, the thoughtful reader may inquire.

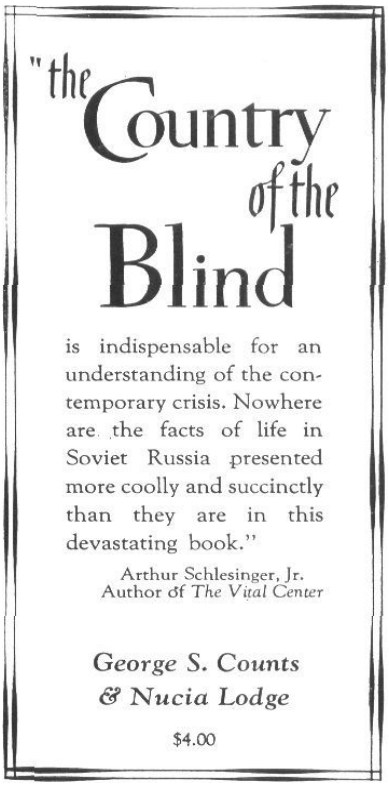
The Strange Land recounts six days of an abortive campaign in the winter Siegfried Line, as seen and felt by selected participants from corps commanders down to the platoon leaders and riflemen who spearhead the attack. Calmer, war correspondent for CBS in 1944-45, handles the episodic threads of his narrative with sound perception and restrained power, flashing from rear headquarters to line units in intricate pattern but constantly mounting momentum. Major Harrod, able, sensitive, intelligence officer in the lines on a special mission, serves as link between the headquarters world of plans—with its ambitious or worried commanders, war correspondents. WAC's and safe comforts—and the sodden area of operations, where war-wearied remnants of rifle companies carry out an over-optimistic attack. Regiment is reluctant, battalion baffled; Captain Crosby in a helpless rage moves his company competently forward into heavy opposition; Lt. Keith and Sgt. Vorak. quiet combat veterans, pull together their mutinously exhausted men to reach the exposed village objective; here, betrayed in varying degree from rear and flanks, they face annihilation as white-washed reports are issued to war correspondents at Headquarters far to rear. Familiar ingredients are effectively combined, with an unusual dash furnished by considerable deft treatment of combat public relations activity.

Two books by British authors deal with peripheral elements of combat life. *The Wooden Horse* by Eric Williams (Harper — $2.75) recounts, in simple graphic prose, highlights of prison camp existence, the author's nerve-wracking and ingenious escape with two comrades, their subsequent adventures across Germany to Denmark and Sweden, thence successfully to England. This highly-paced tale of suspense and danger brings its reader an exciting sense of participation in the detailed planning and dramatic episodes. Richard Llewellyn, noted for his *How Green Was My Valley*, tells the earthy and warmly human story of Snowy, a Cockney truck driver and his four-wheeled love "Rosie" as they tour far behind the lines in wartime Italy, with *A Few Flowers for Shiner* (MacMillan—$3.00). Shiner was Snowy's comrade though years of combat in North Africa and Sicily, until a shell found their truck in southern Italy; his grave is Snowy's objective. An unwelcome fellow-soldier, also on leave, is detailed to the trip, then the two successively pick up an American deserter, an American-Italian princess, a British black-marketeer and a strange assortment of refugees. Rough humor and passion, tenderness and violence mark the miles on Rosie's speedometer. Objective obtained, the truck is stolen by an armed gang of black marketeers with whom they battle to recover her; finally they deposit the tangle of refugees and return to the routine of combat.

The Witness by Jean Bloch-Michel (Pantheon—$2.50) is not really a war novel but its scene is occupied France and the underground resistance movement. A short, extremely fine piece of introspective fiction, it paints with sensitive, brooding power the inner disintegration of a man who commits one act of cowardice, unknown to any but himself, and finally cannot escape his own sense of guilt. The author, wartime member of the French underground, speaks eloquently in this day of expediency and confused material values for the individual's vital need of pride and faith.

• •

Russia and minions continue to draw a good deal of literary fire. *The Country of the Blind* by George S. Counts and Nucia Lodge (Houghton-Mifflin—$4.00) is a solid, authoritative and very readable study of Stalin's Communist regime and his ruthlessly controlled people. The authors trace succinctly the background and execution of the Russian Revolution, its violent seizure by Lenin's Bolshevik minority, their destructively powerful growth under Lenin and Stalin through



wedding revolutionary fanaticism to a strangling state terrorism. Within this blend, they show, Stalin later nurtured the once-strong sense of Slavic mission and high destiny throughout an effete world. Subsequent chapters give excellently detailed accounts of Communist Party organization, its utter dominance of Russian life, men and methods of the Politburo, the diabolically enforced slavery of all arts, sciences and education to build Party propaganda and eventually to produce an entire people blinded to any thought or emotion except building communist (i.e., Politburo) power. Outside the country, utterly callous use of democratic vulnerabilities and individuals suffering red or pink illusions is ably discussed.

The authors thoroughly demonstrate that 30 years of Lenin and Stalin leave no question of inconsistency or change of heart in Politburo policy. Only shifts in power of forces inimical to their interests within or without the Soviet Union have caused apparent shifts of policy. These men are masters of calculation and use of power and our only hope for avoiding war is to maintain economic and military strength they will not chose to challenge. We must preserve confidence and faith in our democracy, while cleaning our own house, building the United Nations, and regional alliances, and supporting independent progressive regimes. We must take the offensive in blasting Russian propaganda and thought control at every opportunity, through drastic exploitation of Soviet weaknesses and effective presentation of our own case.

Irene Odoevzev, noted young Soviet writer who chose emigration to France prior to Stalin's iron curtain, creates a living picture of people who live under the conditions analysed above, in a novel of great force and integrity, *All Hope Abandon* (Pantheon—$3.00). Unlike the recent plethora of confession tales, this book deals with the highest circles of Soviet society, where life is luxurious but uncertain, pervaded with privilege, ceremony and deadly suspicion, where other's envy and fear may cause the slightest deviation from Party thought to be fatal. A famous poet, ballet dancer and field marshall are the main characters; in their lives emerges a profound and sickening visualization of the mental and moral decay human beings suffer through worship of absolute power.

In *The God That Failed* (Harper—$3.50) six brilliant American and European writers, who are former members of the Communist Party, explain the reasons that attracted them to Russian Communism as a great hope for humanity, and the details of disillusion that drove them away. Basically each confession seems a gradual revolt from the Party-imposed intellectual strait-jacket, spurred by the blank, contemptuous unwillingness of Communist members to meet their mental and moral doubts. Certainly these six varying personalities combine first-hand knowledge, perceptive intelligence and articulateness to a degree that makes their several indictments highly significant.

Soviet Gold (Farrar, Straus—$4.00) and *My Retreat From Russia* (Yale Press—$4.00) by Vladimir Petrov, recount respectively the author's life for six years as slave laborer in the Siberian mines and his escape from Russia across Europe during the war years. Seemingly two parts of the same large manuscript, the first book was published late in 1949 and the second is scheduled for February. Both have equal appeal as interesting narrative and valuable, remarkably detailed observation of conditions in the U.S.S.R. The first book is noteworthy for its delineation of the miserable conditions, production waste, and hopeless apathy of prisoners within the slave labor camps, with the paradox of friendly relations between favored prisoners and officials since prison sentence is taken as a quite normal part of one's life. *My Retreat From Russia* is loaded with tense situations and ingenious escapes, has particular interest to military readers in its graphic account of the German occupation forces with which the author served, the manner in which they failed to utilize the large amount of anti-Soviet feeling among the Russians, and subsequent organization of the German army's Russian Corps.

Out of the Crocodile's Mouth (Public Affairs Press—$2.50) is an interesting collection of recent anti-American cartoons from the Soviet Union's official humor magazine, revealing the somewhat crude Soviet standards in this field and of value in pointing out our vulnerabilities which Russian propaganda uses and distorts.

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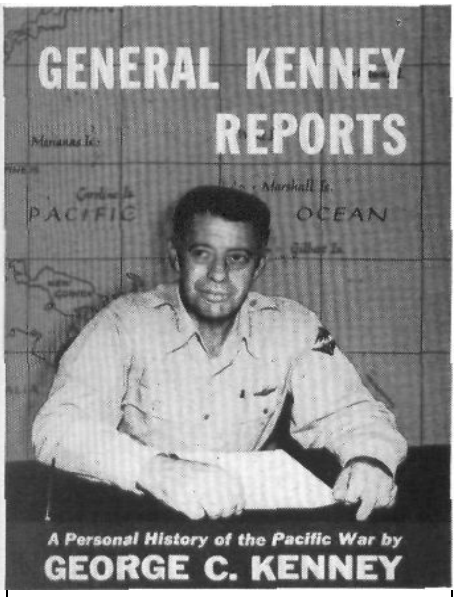
A timely and valuable aid to winter sports enthusiasts is *World Ski Book* edited by F. Elkins and F. Harper (Longmans, Green—$5.00), a handsomely illustrated volume containing short but useful summaries of the four main schools of ski technique, interesting sketches on the development of skiing, snow and mountain lore, clothes and equipment, etc., plus a thorough listing by states and foreign nations of every adequate skiing center. For each place there is a good description of how to get there, conditions, tow and trail facilities, and available hotels, including prices for food and lodging.



The wartime commander of Air Forces in the South Pacific under General MacArthur gives a vivid, punchy and professionally valuable account of the problems and personalities involved in fighting land-based aircraft from Australia to Japan.

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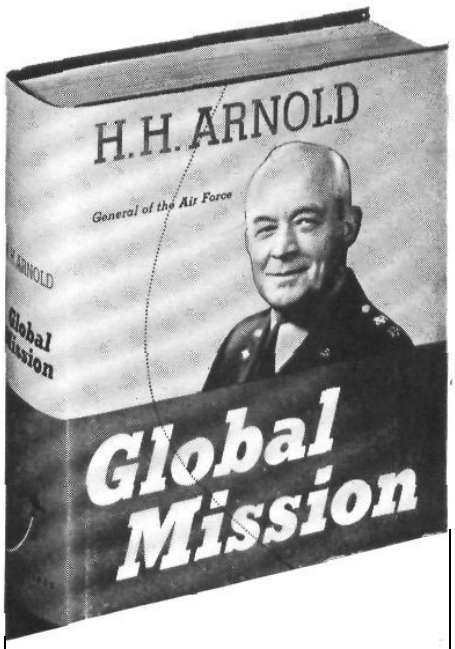

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