THE 33rd DIVISION ALONG THE MEUSE
October 1918
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by

Redmond C. Cochrane

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This is an accepted draft study on gas warfare in World War I
Foreword

This is a tentative study of the gas experience of the 33rd Division Along the Meuse during World War I. This study is not presented as a definitive and official history, but is reproduced for current reference use within the Military Establishment pending the publication of an approved history.

The author was assisted in his research by Mr. Guy F. Goodfellow and Mrs. Charlotte M. Bolin.

Note to Readers: Comments and suggestions relative to accuracy and adequacy of treatment are invited, and may be transmitted to the Chief, U.S. Army Chemical Corps Historical Office, Army Chemical Center, Maryland.
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THE 33rd DIVISION ALONG THE MEUSE
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On the first day of the Meuse-Argonne offensive, Bullard's III Corps, along the Meuse, was to advance to a position above Brieulles-sur-Meuse. On the second day the corps was to cross the river and outflank the enemy artillery and observation positions on the heights east of the Meuse.

When the left and center of III Corps delayed halfway to the Army Objective on the first day, the enemy recovered from his flight and from superior positions on both sides of the Meuse stopped the advance of III Corps before Brieulles with deadly accurate artillery and machine gun fire and with gas.

For almost two weeks, under ceaseless harassing fire with HE and gas, the 33rd Division, on the right flank of III Corps, held its positions along the Meuse. On 8 October it split its forces and crossed the river in an effort to take the heights by frontal assault. Weakened by the gas casualties suffered west of the Meuse, the division was in no condition to undertake such an assault. Both east and west of the Meuse there were to be almost twice as many gas casualties and HE casualties. In the opinion of one of the division medical officers, "every officer and man in the Division, working with combat battalions and in other organizations operating...near the front, was gassed to some degree during the operations along the Meuse river."¹

¹ Rpt, Medical Officer, 123rd MG Bn, in Med Hist of the 33rd Div, p. 26 (Med Dept Box 3704, fol 1).
Despite, or, possibly because of, the level of gas discipline that seems to have been maintained in the division, and the deep concern for gas discipline by the higher command, it was gas mask exhaustion as much as battle exhaustion that wore out the division. This is the study of a division that was gassed incessantly until it broke down.

Gas Discipline

The 33rd Division, known from its insignia as the Yellow Cross Division, was organized at Camp Logan, Texas, in August 1917 from Illinois National Guard units brought up from duty along the Rio Grande. The division comprised the 129th and 130th Regiments, 65th Brigade, under Brig. Gen. Edward L. King; the 131st and 132nd Regiments, 66th Brigade, under Brig. Gen. Paul A. Wolf; the 58th FA Brigade (which did not join the division in France until after the war); and machine gun, engineer, signal, and sanitary train components. In command of the division was Maj. Gen. George Bell, Jr., "known to the whole Regular Army as perhaps the most exacting inspector general that was ever in it."

By February 1918 the customary administrative and personnel difficulties of organization had been sufficiently resolved to begin intensive training and schooling of the division, during which "the infantry was given tours of duty in a system of trenches and was subjected to gas attacks arranged by the British and French instructors to simulate as closely as possible actual

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battle conditions of the Allied western front."

In April the division received over 7,000 recruits, to bring it up to strength, and a month later sailed for France. Moving to its training area near Abbeville, the 33rd Division began the program of retraining prescribed by GHQ AEF, under the eye of the Fourth British Army, and on 4 July, much against the wishes of Pershing, four companies of the 131st and 132nd Infantry participated with Australian troops in a minor operation against the town of Hamel, east of Amiens. On 9 August, the entire 131st Infantry took part in a British operation in the Somme valley. In a two-day battle for Bressaire Wood, the 131st lost 385 officers and men, and another 370 casualties were suffered in the week that followed as the 131st held the wood against almost continuous HE and gas fire.

On 23 August, the division left the British front for the Toul sector for final brigade and division maneuvers, and was joined there by the artillery that was to serve it in the coming campaign, the 52nd FA Brigade (27th Division), under Brig. Gen. George A. Wingate. Two weeks later the division was placed under the XVII French Corps, Second French Army, and entered

3 Frederic L. Huidekoper, The History of the 33rd Division, A.E.F. (Springfield, 1921), I, 21. The History by the Division Adjutant, comprises four volumes in the series, Illinois in the World War, the first volume of which is the narrative history. The documentation is complete, but the history is singularly devoid of any opinion or judgment. Nowhere in the history is the Division Gas Officer, 1st Lt. W. E. Vawter, mentioned, nor does any record of his appear among the documents.

4 History, I, 30, 35 - 49; Col J. B. Sanborn, CO 131st Inf, Rpt on Opns of 8 - 10 Aug, 18 Aug (33rd Div Box 17, 20.1). SOIs, 131st Inf, 10 - 19 Aug (same file) indicate that phosgene and/or mustard gas was fired on 131st Inf positions on every one of those days.
the line along Hill 304-Mort Homme-Cumieres, northwest of Verdun, completing the relief of the French units on the morning of 10 September (Map No. 1).

Whether or not it was the Gressaire Wood experience that alerted the division, the 33rd, on coming into the line, had a highly gas-conscious command.

We are now in the gas zone area. . . . Every possible precaution will be taken regarding gas. The Division Commander directs and insists upon strict compliance with his directive that gas officers and NCOs be used for no other purpose except for gas instruction and enforcement of gas regulations.

The 132nd Infantry acted promptly in the case of a breach of gas discipline:

It has been observed that men attached to transport and supply companies are very careless about their helmets and respirators. . . . Battalion, company and platoon commanders will begin at once a thorough inspection of their sectors to see that steel helmets and gas respirators are worn at all times by all troops.

This concern was also evident in an incident that occurred on the afternoon of 13 September. During a gas mask inspection of Battery D, 106th FA, a number of men from the 3rd Battalion, 131st Infantry, the veterans of Gressaire Wood, stood around and made remarks "to the effect that gas was a joke and, having been under fire several times, they were wise enough now not to bother carrying masks. On numerous other occasions they [had] laughed and attempted to make fun of the artillerymen wearing masks."

The incident was reported by the battery commander as detrimental to gas discipline, and ten indorsements on his letter indicated that the matter was not taken lightly. For one week, all companies of the 3rd Battalion were

\footnote{FOs 32 and 33, 132nd Inf, 7 and 9 Sep (33rd Div Box 20, 32-1). Such carelessness in discipline had been general throughout the division earlier. See ltr Col E. D. Ardery, CGO II Corps to Asst CofS G - 3, 24 Jul, subs: Gas Tng in 33rd Div (33rd Div Box 11, 55).}
given an extra hour of gas mask drill daily and had read to them at each as-
semble a letter from the 131st Infantry commander describing the offense and
closing with the warning that
A continuation of this spirit will result sooner or later in a large number
of casualties in your organization, when in action or subject to gas attacks,
and the fact cannot be impressed too strongly upon every man that his life
depends upon strict conformity to orders governing gas defense. 6

On the third day of the St. Mihiel operation, the 33rd Division and the
79th to its left passed to the command of Bullard's III Corps, and prepara-
tions began for the coming Meuse-Argonne offensive. During this period,
"utmost stress was laid upon the absolute necessity for every precaution
against hostile aerial observation and gas attacks." 7 Stress was also laid
upon the necessity for quiet and a minimum of movement, to conceal the in-
tensive preparations being made just behind the front lines for the coming
assault. A memo from the 65th Brigade commander to division headquarters
reported an outbreak nearby:

We have received very strict orders from your office to keep quiet, out of
sight, and do everything possible to prevent the enemy from thinking any-
body is here. The 79th on my left is raising hell -- machine guns, rifle
fire, grenades, and heaven knows what. My only hope is that they are doing
so much the boche will realize they are a rookie outfit and not pay any at-
tention to it, but can't you do something to get it stopped? 8

6 Ltr, CO Bty D 106th FA to CO 106th FA, 13 Sep, subj Gas Disc of Inf,
and 10 Inds (33rd Div Box 46, 400.73).

7 History, I, 58 - 59.

8 Memo, Brig Gen King to CofS 33rd Div, 18 Sep (33rd Div Box 13, 32.15).
Fortunately, as the division history said, most of the week "was marked by bad weather... [and] the comparative supineness of the enemy artillery."

On 19 September, a four-page training circular on gas defense, with particular emphasis on mustard gas, was distributed throughout the division. This circular, which was the first issued by the division to order temporary evacuation of positions contaminated with mustard gas to alternate positions, "superseded all gas training circulars up to that date."9 The division was to have need for all the gas discipline it could muster, for it was to be under gas attack every day it spent along the Meuse.

On the night of 21–22 September, the 4th and 80th Divisions were inserted between the 79th and 33rd, and on 24 September the division received the order for the attack.

**Plan of Attack**

The First Army plan was to attack in the direction of Buzancy and Stonne, with III Corps (including the 33rd Division) on the right maintaining liaison with Claudel's XVII French Corps, holding fast east of the Meuse, and with I Corps on the far left keeping in touch with the advance of Mangin's Fourth French Army.

The mission of III Corps was to advance across the Ruisseau de Forges (Forges Brook) north to the Bois de Foret, above Brieulles-sur-Meuse, the

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9 Tng Circ 177 (33rd Div Box 10, 50.3). There is no record that the officer and 30 NCO's per week authorized to attend AEF and I Corps Gas Schools beginning 6 Oct, did so. By then, circumstances certainly militated against it. (Ltr, TAG AEF to CG 33rd Div, 21 Sep, subs: Instru in Gas Def, 33rd Div Box 47, 565.2).
33rd division wheeling and organizing the west bank of the Meuse as quickly as possible to protect the Army advance (see Map No. 1).

The initial objective of III Corps was the enemy's Hagen Stellung, a series of trenches extending, west of the Meuse, from north and west of Malancourt through the Bois de Forges to the river. Beyond lay the Corps Objective, the Volker Stellung complex, which ran from Montblainville, on the edge of the Argonne Forest, across the front to Dannevoux. In the III Corps sector, it skirted south of Montfaucon, thence between the Bois de Sachet and the Bois d'en Dela, and up the east edge of the Bois Jure to the Meuse. Both enemy positions were to be overrun on the morning of the first day.

Above the first two enemy positions was the Kriemhilde Stellung, a defensive belt on this front from the Bois des Ogons to Brieulles-sur-Meuse, with a second series of positions above that from Andevanne to Dun-sur-Meuse.10 The Army Objective, through the first line of the Kriemhilde Stellung and including the heights of Romagne, Cunel, and Brieulles, was to be reached during the afternoon of the first day. Penetration of the Kriemhilde Stellung was to be completed by exploitation that night.11

The 33rd Division was to attack between the Passarelle du Don (a footbridge across Forges Brook midway between Bethincourt and the Moulin

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11 FO 20, First Army, 15 hrs, 20 Sep, par 3(X)5 (U. S. Army in the World War, 1917-1919 (1948), IX, 87; First Army Box 32).
de Raffecourt) and the Meuse, and in one bound take Drillancourt and the Bois de Forges, advance to Dannevoux and organize the river front from Dannevoux down to Cote de l'Oie (Map No. 2) The attack was to be made by the 66th Brigade, with two battalions each of the 131st and 132nd Infantry in line, reinforced by Company A, 1st Gas and Flame Regiment, and accompanied by nine tanks. "Proper precautions [were to be] exercised against gas in passing through woods and low ground." 12

Opposite III Corps from Malancourt to the Meuse were the 117th and 7th Reserve Divisions. All reserves were east of the Meuse, since Fifth Army fully expected the next attack, extending the St. Mihiel operation, to be made in that sector (Map No. 3). The rolling ground before III Corps gave little observational advantage to the enemy forces on the immediate front, but the enemy on the east bank of the Meuse had a clear field of observation well to the south of Forges Brook, and his artillery on the Cotes de Meuse commanded both sides of the river.

First Army appears to have been somewhat sanguine about the defensive value of the Meuse in its note that the river provided "easy protection for the right or east flank of the proposed operation," yet it expressed some concern about possible enemy observation and fire from Hill 382, below Bois Plat-Chene, and from the summits in the Bois de la Grande

12 FO 23, 33rd Div, 9:00 a.m.*, 24 Sep, esp par 3(h)8 (33rd Div Box 5, 32.1). "In case of an advance Bois de Forges would undoubtedly be gassed. It should be cleaned up quickly and vacated." Addenda to Intel Bul 2, 33rd Div, 20 Sep (33rd Div Box 3, 20.6). But the enemy did not gas the wood during the attack.
SITUATION des FORCES ENNEMIES
DEVANT LE FRONT DU 17e C.A.
le 25 Sept 1918

Source: 33rd Div Box 25
As a result, XVII French Corps was directed to join in the preparatory bombardment, to make deep raids at H hour, and to assist Army, III Corps, and divisional artillery in an intense 15-minute neutralization with yperite of known hostile artillery and observation points on the Meuse heights.\(^14\)

**The Halt on the Corps Objective**

A half hour before midnight on 25 September, corps artillery began its preparation for the attack. At 0230 on the 26th the Army artillery joined in, and the 108th Engineers began construction of nine passages over the marsh through which Forges Brook ran, using 12,000 fascines it had previously prepared. At 0530 the divisional artillery, reinforced by twelve French batteries, began its bombardment of near enemy positions and put a standing barrage on the Bethincourt-Forges road as the troops came up and began crossing the marsh.\(^15\) There is no evidence that III Corps or 33rd Division assisted in the neutralization of the Meuse heights.

Advancing with artillery and machine gun barrages and concealed in smoke and morning fog, the attack battalions of the 66th Brigade crossed

\(^13\) G - 3 Rpt, First Army, 7 Sep (USA in the WW, IX, 73 - 74).

\(^14\) FO 20, First Army, 15 hrs, 20 Sep, pars 3(C), 3(H)6; Annex 1, Employment of Army Arty, 19 Sep (USA in the WW, IX, 83, 86 - 87, 96).

\(^15\) Of the 80,000 rounds fired by III Corps that day, 33rd Div artillery fired 36,000 75-mm and 5,000 155-mm rounds (SOI 16, 33rd Div, 25 - 26 Sep, in 33rd Div Box 2, 20.1).
the enemy wire and trenches, met little opposition, and between 1,000 and 1,330 had flanked the Bois de Forges and reached the Corps and Army Objectives, from Laiterie de Belhaine, east of Dannevoux, down to the eastern edge of the Bois de Forges, opposite Brabant, between five and seven kilometers from the line of departure. During the last few hundred yards advance, reported one battalion, "The entire skyline in front was dotted with fleeing Boche."16

In the advance that morning, the 131st Infantry lost 1 officer and 19 men killed, 2 officers and 131 men wounded, while the 132nd Infantry lost 1 officer and 15 men killed and 72 men wounded, for a total of 241 battle casualties. Almost 1,400 prisoners had been taken, as well as 42 guns and mortars and 161 machine guns.17

Similarly overrunning the enemy forces on their fronts, the 80th and 4th Divisions to the left of the 33rd advanced to the Corps Objective on the morning of the 26th and halted there to wait for V Corps, stopped at Montfaucon, to come abreast. When ordered to continue the advance without V Corps, almost six hours later, it was too late. The halt at the Corps Objective, well below Brieulles, had been decisive. The retreating enemy had stopped and manned his defensive positions in the rear, as nearby reserve forces came down to fill gaps in the line and distant reserve forces

16 History, I, 69 ff; Opns Rpt, CO 1st En 131st Inf, n.d. (33rd Div Box 19, 33.6).

17 History, I, 76, 80; Brig Gen Wolf, Opns in the Mort Homme Sector, n.d. (33rd Div Box 15, 33.6); rpt, 131st Inf Engagement in Forges Wood, 26 Sep (33rd Div Box 19, 33.6).
Elements of the 5th Bavarian Reserve Division, coming in to support the 117th and 7th Reserve Divisions in the event of attack, had arrived at Vilosnes at 0515, 26 September. At 1025 the German command learned that the Americans had broken through the defense line east of Montfauccon, and at 1155 elements of the division were across the Meuse and on the west edge of the Bois du Fays. At 1800, its 12th Regiment had attacked the 4th and 80th Divisions coming through the Bois de Septsarges.

On the 27th, against mounting resistance, the left of the III Corps line inched forward, coming to a stop along the line Hill 295-western edge of Bois de Septsarges-through the Bois de Brieulles-Hill 280-north edge of Bois de la Cote Lemont. After the great stride made the first day, First Army had come to a standstill along Apremont-Nantillois-Bois de la Cote Lemont. The Army Objective was not to be reached for another fifteen days.

The War Diary of Artillerie Kommando (Arko) 95, 7th Reserve Division, reported the new disposition of troops and weapons made on the afternoon of the 26th. As the Americans stopped their pursuit about noontime, the

Too late, FO 27, First Army, 23:50 hrs, 28 Sep, was to say that corps were to advance within their zones of action without regard to objectives. See original pattern of objectives, USA in the WW, IX, 81. Cf. Liddell Hart, The Real War, 1914-1918 (Boston 1931), pp. 465 - 666.

5th Bav Res Div WD, 26 Sep (5th Bav Res Div WD&A, 23 Sep - 10 Nov, German Files Box 149, fol II, pp. 2 - 3).

III Corps Rpt of Opns, 9 Sep - 11 Nov (III Corps Box 4, 11.4).
scattered forces of the division halted, the 5th Bavarian Reserve Division arrived to fill in their gaps, and the 147th Infantry, 37th Division, was brought up as support at Brieulles. Two battalions of field guns saved from capture were put across the river near Vilosnes as a flanking group, and a heavy battalion, two long mortar batteries, and a 15-cm cannon battery were reorganized back of the field guns as the heavy flanking group. At least five other field batteries from reserve were hastily brought down to augment the light flanking group.21

While these dispositions were being made, the 1st Austro-Hungarian Division (KuK) was directed by Maas Ost "to support with all means the Maas West sector," resetting its artillery groups "for operations against the west bank of the Meuse." To this end, a number of field and heavy batteries from the 15th Division were transferred to swell the artillery groups of the 1st Austro-Hungarian.22 On the 27th, still more artillery was brought down "to support the [German forces on the] west bank of the Meuse with flanking fire." The artillery of the 1st Austro-Hungarian was ordered "to put flanking fire in the area between Dannevoux-Gercourt and

21 Arko 95 WD, 26 Sep (7th Res Div-Sub Units-WD&A, 23 Sep - 11 Oct, German Files Box 155, fol II, p. 51). Arko 17 WD, 26 - 30 Sep (5th Bav Res Div-Sub Units-WD&A, German Files Box 149, fol IIIa, pp. 210 - 11), rpts that a flanking group remained on the east bank under the 7th Res Div, the rest of its batteries moving to the Bois de Cunel and Clery le Grande, their principal targets the Bois du Fays, Bois de Brieulles, and Bois Cote Lemonto.

22 Msg, Maas Ost, to 1 KuK, 26 Sep, and Maas Ost Opns O 3803, 26 Sep (Maas Ost [5th Res Corps] Annexes, 18 Sep - 20 Nov, German Files Box 116, fol II, pp. 8, 11).
in the Bois de Forges," to prevent enemy crossing of the Meuse in that sector, and to "fire unconditionally with everything they have. Conservation of ammunition is of no importance." 23

While the 7th Reserve Division sought to collect its scattered forces and move them into the Vilosnes-Sivry sector, the 5th Bavarian Reserve Division, spanning the river at Brieulles, temporarily consolidated the 7th Reserve artillery with its own. When the 7th Reserve was in place, it was to resume command of its flanking group on the west bank, receiving missions from Maas West. 24

Over the next several days, as Maas Ost assured its divisions on either side of the river that there was "adequate time to get out orders for the regulation of methods of annihilation fire...reciprocal grouping of artillery...communications and liaison with neighboring divisions," the artillery defense was completed. "Large yellow cross shots...[were] to be prepared" and submitted for approval by 2 October. 25

23 Maas Ost WD, 26 Sep (German Files Box 115, fol I, p. 22); Maas Ost Rpt 1451, 27 Sep (German Files Box 116, fol II, pp. 14 - 15).


Notes 7th Res Div arty (Arko 95) operated intact but the troops of the division seem to have been intermingled with those of the 1st A-H Div. The German maps, below, make this clear, but no confirming rpt has been found.

25 Maas Ost Order 3917, 30 Sep (German Files Box 48, fol 810/32.13). A prisoner on the 28th was to report the arrival of 3 or 4 divisions on III Corps front, along with much arty on the east bank, including long naval guns (SOI 19, 33rd Div, 28 - 29 Sep).
Harassing Fire with HE and Gas

On 27 September, as enemy artillery began systematic shelling of the Bois de Forges, Cumieres, and the back areas, the 65th Brigade of 33rd Division, inactive in the assault, advanced to positions west of Dannevoux preparatory to relieving the 80th Division in the Bois de la Cote Lemont and Bois de Dannevoux. Driven back repeatedly by enemy machine guns in the Bois du Fays, the 4th Division needed assistance, as did V Corps to the left, and first a regiment, then the entire 80th Division, was to be swung around to the left flank of the 4th Division. Owing to delay of orders, a German counterattack from Brieulles on the morning of the 28th, and extremely heavy enemy fire with "many gas shells," it was the morning of the 30th before the 33rd Division relief of the 80th was completed.26

During the enemy shelling on the 27th, twelve 77-mm diphosgene and chloropicrin shells were reported to have fallen just beyond the village of Forges. No troops were in the immediate area at the time and the gas was said to have been quickly dispersed by the wind. Nevertheless, the next day 43 men of Company A, 1st Gas Regiment, and 3 men of the 131st

26 FO 24, 33rd Div, 10:30 p.m., 28 Sep; History, I, 85 - 89. Tele order, G - 3, First Army to III Corps, 1:59 p.m., 26 Sep (USA in the WW, IX, 135) directed "lengthening out the defensive front of 33rd Div." "Hostile shelling on front with intense fire....Gas concentrations used during night [from] right bank of Meuse River" (Msgs G - 2 65th Brig to G - 3, 33rd Div, 7:15 a.m., 10:15 a.m., 30 Sep, in 33rd Div Boxes 6 and 13, 3206). It was probably the 80th Div that received the "ordered contamination of the village of Dannevoux and Bois des Moriaux with yellow cross...carried out by Group Hpt. Edleman [on hill E of Villeneuve Fme] early this morning [i.e., the 28th]" (Arko 1st A-H daily rpt, Italian Files Box 2, fol 1, p. 139).
Infantry, in the Forges area, were evacuated with severe symptoms of chloropicrin poisoning. Investigation by 1st Lt. W. E. Vawter, Acting Division Gas Officer, indicated that all 46 men had drunk coffee that had probably been made from contaminated shell-hole water, since the KP who had been sent for fresh water, almost a kilometer distant, had returned in a suspiciously short time.27

All four regiments of the 33rd Division -- the 130th and 129th Infantry, in line at the bend of the Meuse, and the 131st and 132nd, between Dannevoux and Forges -- were within range of enemy gun groups in the Bois de Chatillon as well as the Bois de Consevoye (Map No. 4).28 While the 65th Brigade was being subjected to periodic bursts of gas shell on the 29th the 30th, the 66th Brigade reported "heavy gas shelling [with yellow cross and chloropicrin] during the night [of 29 - 30 September] in the Bois de Forges area." The Division Gas Officer was to report only a single episode in the widespread gas shelling that night. Approximately fifty 105-mm mustard gas shells fell in the vicinity of the 2nd Battalion, 132nd Infantry, at 1730 on the 29th. A single gas shell, making a direct hit on the entrance

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27 Ltr, [Actg. DGO to CGO III Corps, 7 Oct, Rpt B-2 (WD Hist Box 300, 33.6; GAF-33rd Div)].

Notes: There is no DGO file and no DGO corresp in 33rd Div records. His reports and corresp have been found in GAF, WD Hist, III Corps, and First Army records.

28 The arty of the 1st A-H Div, in position between the Bois de la Grande Montagne and the Bois de Consevoye, kept the areas around Dannevoux and opposite Consevoye and Brabant under gas and HE fire. See 1st A-H Div order 420/8, 28 Sep and rpts 29 Sep (Italian Files Box 2, fol 1, pp. 64, 149 - 50).
APPROXIMATE DISPOSITION of 33rd DIVISION FORCES
30 September 1918
Based on SOI and DOR, 33rd Division

MAP NO. 4
to H Company headquarters dugout in the Bois de Forges, reportedly produced all the casualties resulting from the attack — 2 officers and 25 men.

When the shell burst, all in the dugout masked at once, but no effort was made to leave the area. About an hour later the company commander, who had been to the gas school at St. Valery and should have known better, removed his mask and so did the rest of the men. The company gas NCO remarked on the strong odor of gas in the dugout and suggested evacuation of the area, but the company commander thought it only the smell of drugs, since the dugout had recently been a German dressing station.

At 2000, the Battalion Gas Officer and Assistant Division Gas Officer heard of the gas attack from another company that passed near H Company dugout and at once went over and ordered immediate evacuation of the area. Shortly after, all 27 headquarters men, who had been exposed for over an hour to the mustard gas fumes, developed serious eye complications. Two of the men, who had apparently inhaled high concentrations of the gas when it struck the dugout, died two days later.29

Both the 80th and 4th Divisions had been subjected to far more intense gas and HE fire than the 33rd in the first three days of the campaign, and with the failure of their repeated assaults on the line

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29 Ltr, Actg DGO to CGO III Corps, 7 Oct, Rpt B-2 (GAF-33rd Div). Cf. FM CO 132nd Inf to G - 3 33rd Div, 1220 p.m., 30 Sep, "Last night my left battalion was heavily shelled with gas. One shell broke in front of hq at Co. H. Company Comdr, Capt Dauberfield, Lt Heath, the 1st Sgt, and 16 men gassed and evacuated during the night" (33rd Div Box 6, 32.16).

Note: Despite the date on ltr above, the III CGO received no rpts of gas atk from his DGOs until after 9 Oct. See memos to DGOs 4th, 80th, 33rd Divs, 5 and 9 Oct, re no gas attack rpts 26 Sep to date (III Corps Box 39, 63.33).
Cierges-Brieulles on 28 and 29 September, the attacking power of III Corps was spent. It was clear that the German batteries in the Bois de Chatillon and on the heights beyond had to be silenced, and that the German defense at Brieulles, forming a tactically favorable point d'appui or strongpoint at the bend of the Meuse, must be dislodged. Unless III Corps could get above Brieulles, an extension of the fighting front across the Meuse would be imperative, and much sooner than planned.

As the 65th Brigade took over the 80th Division sector, III Corps directed the 33rd Division to organize a stout outpost line from the nameless hill south of Brieulles-Cote 294—the bend of the Meuse-Cote de l'Oie; to construct a main line of resistance along the Septsarges-Dannevoux road; and to begin patrolling the Meuse east of the Bois de Forges and reconnoiter for fords along the river flats. 30

The 130th Infantry, on the hill below Brieulles, found that "its houses were full of machine guns," with at least fifteen seen in action on one occasion. Immobilized by artillery fire from the Bois de Chatillon and the ridge above Vilosnes, the 130th and 129th Infantry were also swept by frequent bursts of machine gun fire from the edge of the wood and from the village of Vilosnes. 31 Enfilade fire from the vicinity of Sivry began coming into the 65th Brigade sector on the night of 30 September and

30 Rpt of Opns, III Corps, 28 Sep (III Corps Box 4, 11.4); G - 3 Memo, First Army, 29 Sep (USA in the WW, IX, 149); 33rd Div Plan of Defense, Vilosnes-Consenvoye Sector, 29 Sep (33rd Div Box 8, 32.6); Opns Orders 6, 7, 130th Inf, 2 and 5 Oct (33rd Div Box 17, 32.12, 33.1).

31 SOI, 130th Inf, 29 Sep - 6 Oct (33rd Div Box 17, 20.1).
continued through the next day, as the 66th Brigade to the south reported
gas and shrapnel on Forges wood at the rate of four rounds per minute
through the midnight hours of 30 September. 32

Observing artillery moving up to support the 65th Brigade on 1
October, 7th Reserve Division ordered its artillery "to destroy with all
means the enemy artillery moving into position. Whenever possible gas is
to be used." A second order, to gas the Bois de Brieulles and Bois des
Moriaux on the night of 1 - 2 October, was carried out in the morning
hours of the 2nd. 33

Confirming these enemy gas missions, the 65th Brigade reported gas
concentrations on Butel ravine and the Dannevoux Septsarges valley at 1845
and 0230 on the night of 1 - 2 October. The gas attack on the 130th In­
fantry sector at 1845 was said to have been ineffective when the wind blew

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32 DOR, 66th Brig, 30 Sep - 1 Oct (33rd Div Box 15, 33.1); SOI 22,
33rd Div, 1 - 2 Oct.

33 Div Orders, 1 Oct (7th Res Div WD&A, 18 Sep - 19 Oct, German Files
Box 155, fol 1, pp. 127, 133).

Maas Ost Order 3964, 1 Oct, called for "gas shoot into Bois des
Moriaux...and Bois de Forges...to prevent preparation of material for
hasty bridges," the gassing to be carried out at irregular times between
2200 and 0500 (German Files Box 48, 810/32.13).

Maas Ost WD, 2 Oct, said that blue cross had been used in the usual
harassing fire that morning on ravines, roads, villages, and woods up to
the line Nantillois-Montfaucon-Malancourt (German Files Box 115, fol Ia,
p. 19). There was no word of the gas shoots in any of the specified
woods.

Note: Orders and reports on HE and gas missions in the German
records are fairly complete from 1 Oct on, but almost nowhere are the
number of rounds given for these missions. Thus it is possible to con­
firm most German gas missions but not their degree.
the gas into the zone of the 4th Division. In the 129th Infantry sector, in the Bois des Moriaux, a report of "some gas shells" was made just after midnight on 2 October. At 0654, it was reported that the "gas attack launched against the 129th is still going on. Attack is coming from Vilosnes. Our artillery is firing on that town." A message at 0712 said the artillery had "stopped the gas attack."

The Division Gas Officer was to report only 60 rounds of 77-mm yellow cross shell fired on the slope below the Bois des Moriaux at 0530 that morning. The 129th Infantry, in the wood, reported no casualties. On the evening of 2 October, the 65th Brigade reported 150 gas shells in a "rather heavy bombardment of large caliber shrapnel and gas on the front of the 130th Infantry, causing 3 killed and 7 wounded. Our artillery... silenced the enemy." No DGO report has been found for this shelling.

34 SOI 22, 33rd Div, 1 - 2 Oct; History, I, 90. III Corps Opns Rpt, 1 - 2 Oct (USA in the WW, IX, 208) said about 300 sneezing and phosgene gas shells were fired into the ravine and valley.

35 Msg, G - 2 65th Brig to G - 3 33rd Div, 5:26 a.m., 2 Oct; Msg, Lt Prosser to G - 3 33rd Div, 6:54 a.m.; Msg, 65th Brig to 33rd Div, 7:12 a.m. (33rd Div Box 6, 32.16).

36 Ltr, Actg DGO to CGO III Corps, 7 Oct, Rpt B-2; FM Osborne RGO 129th Inf to DGO 33rd Div, 9:30 a.m., 2 Oct (33rd Div Box 15, 32.16), rptd "two or three casualties."

Unreported by the DGO was the shelling of "the approaches and crossing places over the Meuse with yellow cross" by the 1st A-H arty on the morning of 2 Oct (Daily rpt, 2 Oct, Italian Files Box 2, Fol I, p. 171).

37 Msg, G - 2 65th Brig to G - 3 33rd Div, 4:50 p.m., 2 Oct; Msg, CO 65th Brig to CG 33rd Div, 9:00 p.m., 2 Oct (33rd Div Box 6, 32.16).
As will be shown later, both the German orders and the 33rd Division reports in the first week of the campaign apparently exaggerate the quantity of gas shell being used. Yet some proportion of gas shell was fired in the nightly harassing missions and no part of the 33rd Division sector was exempt from this fire. As a result, the troops were kept alert and in their masks through most of each night. The effectiveness of the fire, by wearing down the troops through keeping them awake and masked, is only partly revealed in the number of gas cases recorded each day. The gas casualties reported by the DGO and those actually admitted to the gas hospital on 1 and 2 October, for example, totaled 16 and 33, respectively.

Although the 33rd Division artillery had large stocks of gas munitions on hand, they were not used, and such retaliation as there was for the nightly gassing by the enemy was inadequate. At 2300 on 2 October, after a day’s delay owing to unfavorable winds, a gas projector shoot was carried out by Company F, 1st Gas Regiment, to inflict casualties on the enemy forces around Vilosnes. Although 50 phosgene drums were launched from projectors installed near the center of the Bois des Moriaux, the attack was said to have resulted in only two casualties, according to a later prisoner interrogation report, because of the high wind at the time and the fact that few men were in the vicinity of the target area when the shoot occurred.38

38 Ltr, CGO III Corps to C CWS, 12 Nov, sub: Rpt on Gas Activities for Oct (GAF-III Corps). A repeat of this attack on the morning of 5 Oct was not carried out owing to unfavorable winds, nor on 6 Oct, "owing to difficulties making it impossible to complete operations in one night" (Opns O 2, 1st GR, 4 Oct and pencil note, 33rd Div Box 12, 63-3, and Memo, Co F, 1st GR to CO 65th Brig, 6 Oct, sub: Cancellation of proposed Gas Opn, 33rd Div Box 13, 12.8).
Except for a brief HE bombardment, there was no immediate reprisal by the enemy for the gas projector attack. The 7th Reserve Division artillery order for the night of 2 - 3 October was to be substantially repeated through the week that followed as the enemy sought to wear down the American troops on his front and prevent them from crossing the river.

Harassing fire with HE and gas on Bois de Laimont [Cote Lemont], Bois de Dannevoux, Bois des Moriaux; long-range fire on Dannevoux and Gercourt, and on the Dannevoux-Vilosnes, Dannevoux-Septsarges, Dannevoux-Gercourt, and Gercourt-Cuisy-Montfaucon roads [as well as other targets to the left of the 33rd Division]. At 9:30 p.m., increase of gas shells in the harassing fire, especially on Bois des Moriaux and Bois de Septsarges, and 150 10-cm HE and blue cross on Bois de Brieulles.

Of this gas shelling, the Division Gas Officer reported only 12 yellow cross shells that fell among 90 men of the 129th Infantry in the Bois Jure at 0430. Six men who were sprinkled with the liquid from the bursting shells were said to have been evacuated. Hospital records, however, show that 21 gas cases were admitted on 3 October and 22 on 4 October, principally from the 129th Infantry and the 123rd MG Battalion, in the 66th Brigade sector.

39

Arko 95 order for 7 p.m. 2 Oct to 7 a.m. 3 Oct (7th Res Div-Sub Units-WD&A, 23 Sep-11 Oct, Arko 95 annexes, German Files Box 155, fol II, p. 61). Fol I in this file contains divisional morning and noon reports confirming these fire missions.

40

Resumption of the Advance

On the evening of 3 October, the 33rd Division received the First Army order resuming the attack, in an effort to pierce the Kriemhilde Stellung. In the assault, III Corps was to penetrate the enemy position between Cunel and Brieulles, advancing to the heights northeast of Cunel, and then sweep east to the Meuse, cutting off Brieulles. The 80th Division, on the left of the 4th Division, was to attack along the Bois des Ogons to the North edge of the Bois des Rappes; the 4th Division through the Bois du Fays to the north edge of the Bois de Forêt and then east to the river. The 33rd Division was to hold its positions and protect the flank of the attack.

For the attack, three field batteries and four machine gun companies of the 33rd Division were moved into the northwest edge of the Bois de la Cote Lemont, to assist the 130th Infantry in breaking up possible enemy counterattacks between the Bois de Brieulles, Bois de Forêt, and Brieulles. As the hour of attack approached, the remaining divisional artillery prepared to bombard Brieulles and its defenses to the northwest, and to neutralize with HE the enemy guns in the Bois de Chatillon, Bois de Sartelle, and the two ravines east of Liny-devant-Dun.

The enemy artillery order for the night of 3 - 4 October indicated no particular awareness of the impending attack as it called for

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41 FO 33, First Army noon, 1 Oct; FO 22, III Corps, 9:00 a.m., 3 Oct; FO 26, 33rd Div, 10:15 p.m., 3 Oct.

42 History, I, 92 - 93.
harassing fire with surprise bursts of gas and HE at irregular intervals on woods of Dannevoux, Moriaux and Jure, on Dannevoux and Gercourt, and on roads running from Dannevoux to Septsarges, Vilosnes and Gercourt. 43

The 66th Brigade, along the west bank of the Meuse, reported heavy shell fire and gas along its entire front from 0215 to 0330, the 131st Infantry specifying it as tear \( \text{chloropicrin} \) gas. 44 Of the gas shelling in this brigade sector, Lieutenant Vawter was to report only an undetermined number of yellow cross shells that fell in the Bois de Forges some time that night resulting in a highly contaminated area that was discovered by a gas officer the next morning. Guards were at once posted. In the 65th Brigade sector, however, Vawter said 300 gas and HE shells were reported to have fallen into the southeast corner of the Bois de Septsarges between midnight and 0600 on the 4th. There were two casualties. 45

It is apparent from Lieutenant Vawter's long, belated report on gas attacks up to 7 October that it was not possible to report the numerous areas subjected to bursts of gas, and he could only say that in general the sector of the 65th Brigade north and west of Dannevoux had been heavily shelled with HE, yellow cross, and blue cross every night. He

43 Arko 95 order for 7 p.m. 3 Oct to 7 a.m. 4 Oct (7th Res Div, above, p. 62.)

44 Msg, CG 66th Brig to G - 3 33rd Div, 6:10 a.m. 4 Oct; Msg, G - 2 131st Inf to CG 33rd Div, n.h., 4 Oct (33rd Div Box 6, 32.16). See also SOI 23, 24, 33rd Div, 2 - 4 Oct; SOI, 131st Inf, 3 - 5 Oct (33rd Div Box 18, 20.1).

45 Ltr, Actg DGO to CGO III C, 7 Oct, Rpt B-2.
might have said the same for the sector of the 66th Brigade, south of Dannevoux. 46

In the attack launched by First Army at 0525 on 4 October, the 80th and 4th Divisions almost reached the Cunel-Brieulles road, when savage artillery and machine gun fire and counterattacking forces from Brieulles hurled them back to their former positions. For the next two days, as all available guns of Army and corps concentrated on the enemy batteries in the Bois de Chatillon, 33rd Division guns pounded Brieulles, and its troops attempted, without success, to take Teton Trench (Map No. 5 and sketch of Brieulles), in an effort to protect the 4th Division forces, which had got into the Bois du Fays, from intense flanking machine gun fire. 47

At 1800 on the night of 6 October, 20 Allied planes carried out a bombing raid on Brieulles, setting fire to a part of the town. Seven hours later the III Corps Gas Officer signaled: "Hamilton[80th Division] is going to throw gas into Brieulles at 4 A.M." 48 Beginning at 0400, 80th Division 75's fired 1,000 phosgene shells into Brieulles, following up with an equal mixture of HE and yperite shells for thirty minutes, and then yperite shells alone until 1,500 No. 20 shells had been

46 See Analysis, p. 92.

47 See 65th Brigade memo orders, 4 - 6 Oct (33rd Div Box 13, 32.13).

48 Msg, CGO Emerson to G - 3 33rd Div, 1:00 a.m., 7 Oct.
put into the town. All divisions in the vicinity were notified "to take the necessary precautions when the town is taken." 49

Although the entire front became "very quiet" after the rain of destruction on Brieulles, 50 its defenses in front of the town and on the ridge to the northwest were quickly restored. Teton Trench, said the 65th Brigade commander, had in the past week been "fairly well shot to pieces," but on the afternoon of the 7th he had to admit that "a considerable amount of machine gun fire was still coming from that location." 51 Meanwhile, determined to hold the Bois du Fays, a salient with enemy troops pressing on both flanks and with strongly entrenched forces above in the Bois de Malaumont, III Corps called the 33rd Division for assistance. On the morning of 7 October, the 3rd Battalion, 132nd Infantry, and its machine gun company were sent in to relieve the regiment of the 4th Division in the Bois du Fays. 52

49 Memo, Robbe CGO III Corps to C CWS Att Def Div, 8 Oct (GAF-III Corps); ltr, CGO III Corps to C CWS Att Def Div, 27 Oct, subj: Record of Gas Atks (First Army Box 340, III CGO); ltr, CGO III Corps to C CWS, 12 Nov, subj: Rpt on Gas Activities for Oct. This corresp indicates that the 4th and 80th Divs fired considerable gas shells during the period, the 33rd Div none.

50 Msg, Prosser [1st Lt, III Corps LO at 65th Brig] to G - 3 33rd Div, 9:15 a.m., 7 Oct (33rd Div Box 6, 32.16), reported completion of the gas mission. "Entire front now very quiet."

51 Msg, CG 65th Brig to G - 3 33rd Div, 12:25 p.m., 7 Oct (33rd Div Box 6, 32.16.)

On 9 Oct, 4th Div put 400 yperite shells into Brieulles and the next day captured Teton Trench. Brieulles however was not to be taken until the end of the month.

52 History, I, 96 - 97, 100.
Gas Attack on the Bois des Moriaux

The only major gas attack on the 33rd Division during the operation occurred on 5 October. The initial gas bombardment occurred between 0200 and 0330 when approximately 1,500 green, blue, and yellow cross 77 and 105-mm shells were fired into the Bois des Moriaux, opposite Vilosnes, an area of approximately one square kilometer (Map No. 6).

Nothing has been found to suggest that this attack was in reprisal for the gas projector shoot of 2 October. More likely it was the threat of a possible crossing at that point, indicated by the continued heavy fire of the trench mortars in the wood, that the enemy sought to neutralize. But the gas shoot got none of the mortarmen, for they regularly withdrew to the Bois Jure when not firing.

The wood was occupied at the time by the 1st Battalion and part of the 2nd Battalion, 129th Infantry, a total of approximately 1,100 men. Evacuation of the area was impossible, as the enemy held the men there with intense HE fire and air-burst shrapnel following the gassing. During the attack, a message from the 131st Infantry on the right said; "HE shells and gas from 12:30 to 2:30 [sic], two wounded, three gassed. 129th very heavily shelled during same period."

Between 0815 and 0845, another 700 gas shells were reportedly put into the wood and again evacuation was blocked by follow-up HE fire. At 1515 that afternoon, 400 more gas shells fell on the slope just south of the wood, as troops attempted to move down to escape the gas-filled wood.

53

Msg, 3rd Bn 131st Inf to CO 131st Inf, 2:55 a.m., 5 Oct (33rd Div Bx 18, 32.16.)
Altogether, it was estimated that between 5,000 and 7,000 shells had been fired into that square kilometer that day, 2,600 of them gas shells. As soon as night had fallen, the wood was completely evacuated. Casualties resulting from the prolonged gas attack were reported by Lieutenant Vawter as 350, including two men killed by fragments of exploding gas shells. Forty men were evacuated with lung complications, the remainder with eye or body burns. The most serious cases, those with lung complications, were said to have been the result of either close-bursting shells or long exposure. Some of the men had kept their masks on as long as six hours before succumbing to the discomfort of the mask.

A brigade report said that the 1st Battalion, 129th Infantry, lost 5 officers and approximately 375 men in the prolonged gas attack, and the

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No arty order has been found for this atk in the records of the 7th Res Div, 5th Bn Div, 1st A-H Div, Maas Ost, or Maas West. Arko 95 order for 7 p.m., 4 Oct to 7 a.m., 5 Oct called only for the usual harassing fire with sudden gas concentrations on the woods of Moriaux, Septsarges, and d'en Dela, on Dannevoux, Gercourt, and the roads out of Dannevoux, with other targets out of the 33rd Div sector (German Files Box 155, fol II, p. 65, confirmed in Morning Rpt, p. 66). Daily Rpts, 7th Res Div, 5, 6 Oct, confirms the gas attacks: "At 2:00 a.m., 8:00-9:00 a.m., and 3:00-4:00 p.m., Bois des Moriaux contaminated with yellow cross" (7th Res Div WD&A, 13 Sep - 19 Oct, German Files Box 155, fol I, pp. 160 - 161, 166; also in Maas Ost WD, 5, 6 Oct, German Files Box 115, fol I, p. 39).

Rpt on Gas Atk, 7 Oct (WD Hist Box 300, 33.6; GAF-33rd Div); Spencer, II. 365 - 66.

Div G - 2 seems not to have been aware of this gas attack, but in a rare detailed accounting it did report on 4 - 5 Oct "Heavy intermittent shelling with HE and gas of areas Bois Jure, Bois Septsarges, Gercourt"; 159 gas shells between 1140-1155, 4 Oct, on the Forges-Cumieres road; 96 gas shells on the same road at 2315; 24 gas shells on Forges at 0300, 5 Oct; and heavy shelling with 200 HE and gas rounds on the front line area from Dannevoux to Bois de Forges between midnight and 0230, 5 Oct (SOI 25, 33rd Div, 4 - 5 Oct). There is no mention of the atk in SOI 26, 5 - 6 Oct, either.
next day the battalion was
withdrawn...to Regimental Reserve [south of Hill 28] account of long continuous service in the line and having suffered heavy casualties from enemy artillery...and the enemy gas attack of October 5th.... Orders were issued to all units of the Brigade to insure men protecting themselves by proper wearing of the gas mask in case of gas attacks.

As a result of the gas attack, together with earlier HE and gas casualties, the effective strength of the 1st Battalion was now reduced to 16 officers and 305 men. Apparently refusing to believe so many casualties could be caused by gas, the brigade began an investigation at once "to determine the actual number of serious cases, with a view to having returned to duty those not seriously gassed." No record of the investigation has been found, but a regimental memo issued on 6 October, containing detailed instructions on protection against gas before, during, and after an attack, indicated the line of investigation:

It has been reported...that in the recent attack on our First Battalion, that after the main attack in which men wore their masks from 3 to 5 hours, men removed masks when they could still smell gas strongly and...only mouth-pieces and nose-clips were used thereafter....Brigade has directed that any man who does this will be carried on the sick report as 'Gassed, not in line of duty'. SBRs can be worn a day and night without injury, and eye casualties due to this improper use will be considered self-inflicted wounds.57

In the week that followed the gassing of the Bois des Moriaux, the Division Gas Officer was to say that no real gas attacks occurred, although

56 Chron Rec of Events of 65th Brig, 5 - 7 Oct (33rd Div Box 13, 11.5); History, I, 97; II, 597.
57 Memo, PC Pinetree [129th Inf], 6 Oct (33rd Div Box 15, 32.13).
considerable amounts of gas were used each day in harassing fire. On 6 October, he reported that 75 77-mm mustard gas shells caused 27 eye casualties among 165 men of I Company, 3rd Battalion, 129th Infantry, in the Bois Rond. The next day, an estimated 175 rounds of mustard gas, with some phosgene, landed among 425 men in the Bois Jure. Most of the 150 casualties evacuated were in K Company, 129th Infantry, and since the woods were under direct observation of the German lines across the river, evacuation was not possible until nightfall. The gassed area was posted and put under guard, but during the next three days, "25 men...managed to pass through the area" and all were subsequently evacuated to the gas hospital.

The Division Gas Officer did not report the 2 officers and 176 men "wounded and gassed" in this same 3rd Battalion on 8 October when it was shelled near Dannevoux as it began moving down to the Bois de Forges, preparatory to crossing the Meuse at Consenvoye. In addition to direct


59  Ltr DGO to CGO III Corps, 13 Oct, subj: Gas Rpts (GAF-33rd Div). Chron Rec of Events of 129th Inf, 7 Oct (33rd Div Box 15, 11.5 and History, II, 645) says that on the 7th, 3 officers and 106 men of the 3rd Bn and atchd machine gun company were wounded and gassed in the Bois Rond (not Bois Jure).

60  Chron Rec of Events of 129th, 8 Oct; History, II, 645; Morning Rpt, 7th Res Div, 9 Oct: "At 10 p.m. [8 Oct] two installments of contamination fire on Dannevoux" (7th Res Div WD&A, German Files Box 155, fol I, p. 182).
shelling, the 129th Infantry also suffered from indirect gassing in the Bois des Moriaux, as the 130th Infantry, to its left, in the Bois de Dannevoux, pointed out:

Gas shells, frequently mixed with HE and shrapnel (air bursts), are almost constantly thrown in great numbers in the wooded areas adjacent to the outpost zone. If a south wind is blowing the enemy may shell the valley, extending from Dannevoux east to the Meuse river, a very concentrated mustard gas being used, the wind carrying it into the Bois des Moriaux where it clings persistently for days. 61

With the 129th in the Bois des Moriaux was the 102nd Trench Mortar Battery, most of whose mortars were concentrated in that wood. The history of the battery was to say that only its weapons were maintained in the wood, with all else back in the Bois Jure, "on account of the large amount of gas which the enemy continued to fire into the valley of Dannevoux and the Bois des Moriaux." 62

Between the enemy harassing fire with gas night after night and the gas attack of 5 October, the severe drain on the strength of the 129th Infantry resulted on the 8th in a memo to all battalion commanders:

The rapid depletion of the fighting strength of the regiment, due to the evacuation of large numbers of 'gassed' cases is a matter of vital concern to all officers. While undoubtedly the greater number of cases are bona fide, it is quite probable that some men are availing themselves of this excuse in order to leave the firing line. Company and platoon commanders can assist by seeing all gassed cases (except wounded) before they report to aid stations. Battalion surgeons should use the greatest care in evacuation. Only earnest and painstaking care...will enable this regiment...not to neglect its actual gassed cases on the one hand, or deplete its strength through unnecessary evacuations on the other.

61 Situ Rpt, 130th Inf, 9 Okt, sub: s/s Dannevoux (33rd Div Box 17, 33.1).

62 Brief History, 102nd TM Bty, n.d. (33rd Div Box 13, 33.2).
And the next days

The regimental commander desires to impress on all officers and men the seriousness of the situation, and to remind all unit commanders that they are responsible for the enforcement of gas discipline.

The second memo went on to say that all gas cases were to be investigated, and if any officer or NCO had failed in his duty, he was to be disciplined. Meanwhile, company commanders were to see that all companies were given further gas defense instruction by the gas personnel.63

Across the Meuse

With the failure to pierce the Kriemhilde Stellung in the attack on 4 October, Claudel's XVII French Corps, which had remained in place since the start of the offensive, was alerted to prepare a frontal attack on the Meuse heights. On 7 October, the 33rd Division was put under XVII Corps for tactical purposes, with orders to hold its defensive position on the left bank of the river and at the same time ready a part of its forces to cross the river and cooperate in the attack.64

The mission of XVII Corps was to seize and hold the heights of the Meuse northwest of Beaumont between the Meuse and Theinte rivers. Its forces included the 18th and 26th French Divisions, reinforced by six Senegalese battalions. To their left would be the 58th Brigade of the 29th American Division, and astride the Meuse, the 33rd Division. Opposite was

63 Memo, 129th Inf to bn and spec unit cmdrs, 8 Oct, sub: Evac of Gas Cases; memo, ibid., 9 Oct, n.s. (33rd Div Box 16, 64.4).

64 FO 39, First Army, 14 hrs, 5 Oct; SO 546-S/3, XVII Corps, 3rd Bur, 6 Oct; FO 24, III Corps, 1730 o'clock, 7 Oct.
the 1st Austro-Hungarian Division, soon to be reinforced by the 32nd Division and elements of the 228th Division (Maps No. 7 and 8).

The first objectives of the 58th Brigade and 18th French Division were the enemy OP's at Malbrouck ridge and the Bois d'Haumont; the second objectives, Molleville Ferme and the Bois d'Ormont. On the right, the 26th French Division was to capture the Bois des Caures and Flabas.

When XVII Corps had advanced to the line Consenvoye-top of Bois de Consenvoye-Flabas, elements of the 33rd Division would cross at Consenvoye and Brabant and join the flank of the 58th Brigade. The whole corps would then advance in an arc to the first line of exploitation, north edges of Bois de Chaume and Plat-Chene-Bois d'Etraves-Crepion-Flabas, and then the second line, Sivry-top of Bois de la Grande Montagne-Flabas. III Corps was to assist this operation by a simultaneous attack west of the Meuse (Map No. 9). 65

For its part in the operation, the 33rd Division was directed to put two battalions along the southern edge of the Bois de Forges, ready to cross at Brabant, and a battalion on the northern edge of the wood, to cross at Consenvoye. Six batteries of 75's in the Bois de Forges, three more near Cote de l'Oie, and three batteries of 155's below Cumieres were to protect the crossing at Consenvoye. 66

65 History, I, 100 - 02, and FOs, above. Also, Plan d'Engagement du 17th C. A. 4 Oct (33rd Div Box 5, 32). See Map 37 in History, IV, for 33rd Div objectives.

66 FO 27, 33rd Div, 600 p.m., 7 Oct.
SITUATION de DEVANT LE FRONT ouf 7 Octobre 1918

SITUATION des FORCES ENNEMIES
DEVANT LE FRONT du 17e C.A.
1er 8 Octobre 1918

Source : 33rd Div Box 24

MAP NO. 7
On 7 October, two of the machine gun companies and the three batteries of 75's in the Bois de la Cote Lemont moved down to the Forges area, arriving there well after dark. At the same time, the 1st and 2nd Battalions of the 132nd Infantry, in reserve at Malancourt, and the 2nd Battalion of the 131st Infantry with its machine gun company, near Dannevoux, as well as two companies of the 108th Engineers, came into the Bois de Forges opposite Brabant and Consenvoye. Observing the movements, enemy artillery shelled "the neighborhood of Forges with gas from 2200 until shortly before midnight." 67

At 0500 on 8 October, without artillery preparation, the American and French forces between Samogneux and Beaumont began their attack. Before 0800 they had advanced above Brabant, and the 1st and 2nd Battalions of the 132nd Infantry, under a dense barrage, were ordered across to that town. Construction of passages over the river and canal had begun at dawn "under heavy [enemy] artillery fire averaging ninety shells an hour -- many of them gas shells, so that masks had to be worn during part of the time." 68

With their machine gun companies on their flanks, the 1st and 2nd Battalions of the 132nd Infantry, under Col. Abel Davis, formed abreast just north of Brabant. At 1100, learning that the 58th Brigade had reached Malbrouck and the southern edge of the Bois de Brabant, they advanced toward their objective, the road running northeast out of Consenvoye.

67 History, I, 98 - 99. DOR, 33rd Div, 7 - 8 Oct (33rd Div Box 8, 33.1) reported 180 gas shells in the Forges area between 2200-2345, with 150 HE shells in the Bois de Forges. Two casualties were reported.

68 History, I, 104 - 05.
Despite flanking fire from the Bois de Consenvoye, the objective was reached shortly after noon. At that time the 2nd Battalion, 131st Infantry, was ordered across at Consenvoye, to support the 132nd Infantry in its next advance to the top of the Bois de Chaume. Under a two-hour standing and rolling barrage, the line advanced towards the wood, only to be halted by intense enemy shell fire. At nightfall the troops dug in along the south edge of the Bois de Chaume, overtaken by "darkness and storm". The line of XVII Corps, advanced that day with the fire support of 600 guns, extended from the southern edge of Bois de Chaume-through the Bois de Consenvoye-Ormont Ferme-north edge of Bois d'Haumont-northwest corner of Bois des Caures.

Because of the danger of counterattack against its troops east of the Meuse, as well as the toll-taking machine gun and artillery fire from the heights north and east of Sivry-sur-Meuse, the 33rd Division on the afternoon of the 8th ordered the two remaining battalions of the 131st Infantry to the Bois de Forges as an emergency reserve.

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69 DOR 33rd Div, 8 - 9 Oct. Cf Msg, CO 132nd Inf, 8:20 p.m., 8 Oct; "At 6:40, left battalion advance element about 700 yards north of Consenvoye.....Stopped by standing barrage till dark and dug in for night. No word from right battalion. Capt Kendall, surgeon, just came in, reports about 75 casualties; some gas, some bullets, and some artillery, apparently pretty well mixed" (33rd Div Box 20, 32-11).

70 FO 28, 33rd Div, 11:45 p.m., 8 Oct; History, I, 107 - 08. The 12 batteries of the 52nd Brig fired 13,000 rounds in support that day and during the next two days were to fire as many more (DOR 33rd Div, 8 - 10 Oct).

71 History, I, 109 - 10.
In stubborn retreat before the advance of the Franco-American forces along its front that day, Maas Ost ordered its artillery to make "the widest possible use of gas ammunition...[by the 77's and field howitzers], with slight use of HE" through the night of 8 - 9 October. The harassing fire of the 7th Reserve Division artillery was to cover Consenvoye and the terrain to its north, that of the 1st Austro-Hungarian Division from Consenvoye to Samogneux, the 32nd Division from Samogneux to Anglemont Ferme, and the 15th Division from Anglemont Ferme to Beaumont. The 1st Austro-Hungarian artillery was also to keep Forges and Brabant under heavy fire during the night, to prevent further reenforcements coming over from the west bank, while from 0500 on its artillery and that of the 32nd Division were to maintain annihilation fire on the portion of the Hagen and Brabant Stelluugen on their fronts.72 The forces under Colonel Davis were later to report that they were "flooded with gas" on 8 - 9 October.

Resuming the attack at 0640 on the 9 October under a 6,000-round barrage, the two battalions of the 132nd Infantry, with the 2nd Battalion, 131st Infantry, in support of the right flank, advanced from below the Bois de Chaume and reached their objective about noontime, a line above the Tranchee la Vanne and along the north edges of the Bois de Chaume and Bois Plat-Chene. That same morning, as the enemy launched a concerted counterattack against XVII Corps forces, the 177th and 102nd Infantry of

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72 Maas Ost Order 4163, 8 Oct (Maas Ost Opns Orders to Oct 18, German Files Box 48, fol 810/32.13). Maas Ost WD, 9 Oct, said in confirmation that "our arty held the Meuse crossings as well as assembly points and approach roads under heavy fire mixed with gas" (German Files Box 115, fol 1a, p. 34).
the 32nd Division, which had come in beside the 1st Austro-Hungarian Division during the night, assaulted the 58th Brigade forces at the top of the Bois de Consenvoye, driving them back through the woods and exposing the flank of the 33rd Division troops (Map No. 10). Nevertheless, the three battalions continued to advance above the Bois de Chaume and at 1400 were in the vicinity of the road from Sivry to Villeneuve Ferme.

At that point, the 102nd Infantry wheeled and hit the 131st Infantry on the right flank, as the 232nd Reserve Infantry and 105th Storm Battalion of the 1st Austro-Hungarian Division struck the battalions of the 132nd Infantry below Sivry. All three battalions were driven back approximately two kilometers as the German forces recaptured the Bois de Chaume and Bois Plat-Chene. The troops that had fallen back to the trenches below the Bois de Chaume were described that night as "in very

73 Msg, Maj Chipenfield [JAG, 33rd Div] with 18th Fr Div, 8:50 a.m., 9 Oct; Msg, Huidekoper, 9:15 a.m., 9 Oct; Msg, Adj 58th Brig, 10:10 a.m., 9 Oct (33rd Div Box 6, 32.16).

74 Particular Order 868/3, XVII Corps, 1350 hrs, 9 Oct, reporting Msg, Huidekoper at 2:20 p.m. (with Msgs in Box 6, 32.16).

75 These erroneous identifications of the 1st A-H units involved appear in a number of 33rd Div records. The 1st A-H Div had a 106th St. Brn. but not a 105th, and the 232nd Res Inf was in the 107th Div and not on this front. See Map No. 10 for the more probable units. There are also discrepancies between this map and the records concerning the 32nd Div unit involved.
CONTRE-ATTAQUE ALLEMANDE
du 9\° Octobre 1918
The three battalions under Col. Abel Davis were in no condition to continue the attack. In two days they had advanced five kilometers through the Hagen and Volker Stellungen and were at the Giselher Stellung when they were stopped. "They...had been heavily pounded with shells and machine-gun fire, and flooded with gas," and had lost 1 officer and 37 men killed, 11 officers and 315 men wounded. 77

The Division Gas Officer was to say there were no special gas attacks on 8 and 9 October, but that large numbers of gas shells mixed with HE fell over the entire division area, on both sides of the Meuse. "The large losses reported this date [i.e., 257 gas cases in the 129th Infantry, 181 gas cases among the forces east of the Meuse] were misleading." The

76

Msg (Conversation), Capt Bader [LO Fr Mission] at 66th Brig Hq to G - 3 33rd Div, n.h., 9 Oct (33rd Div Box 6, 32.16); DOR, 33rd Div, 9 - 10 Oct; History, I, 112 - 15; ltr, CO 132nd Inf to CG 33rd Div, 15 Nov, sub: Conf Memo 36 (33rd Div Box 20, 33.6).

Maas Ost WD, 9 Oct, implied that the principal object of the counter-attack that day was Krongrinzhohe [Hill 316 in the Bois de Chaume], but the arty comdr of the 32nd Div said its 102nd and 177th Inf were ordered to retake the HWL [i.e., MLR] or Volker Stellung (32nd Div-Sub Units WD&A, 8 - 20 Oct, German Files Box 184, fol III, p. 112).

A prisoner that day described the fortified mg nests, 10 meter-deep dugouts, and trench network in the Bois de Chaume and Bois de Consenvoye and said these woods would be held and that 3 to 4 divisions were in reserve back of the woods for that purpose (Msg, Capt Lauer Asst G - 2 33rd Div, tc G - 2 33rd Div, 12:05 p.m., 9 Oct).

77

History, I, 115. Ltr, CO 132nd Inf, 15 Nov, above, said the casualties as of the 9th were 2 officers and 54 men killed, 7 officers, and 191 men wounded.

Note: The History (I, 115, 362) reports the same casualty totals for the bn of the 132nd Inf on the west bank as for the two bns on the east bank. See p. 57 below. Ltr, 15 Nov, is probably correct.
operation under Colonel Davis had slowed down, said Lieutenant Vawter, and on the 9th all those men who were thought to have been gassed were sent to the aid station for examination. The Medical Department kept no record of the number of those who were evacuated but estimated that it was at least 50 percent of those examined.  

Reenforcements to the East Bank

Brigadier General Wolf, commander of the 66th Brigade, was now placed in charge of troops across the river, and on the night of 9 October reinforcements began pouring over the bridges. All three battalions of the much-gassed 129th Infantry, the 3rd Battalion of the 130th, and the two remaining battalions of the 131st, with four machine gun companies, were moved across during the night. Except for the battalion of the 132nd Infantry with the 4th Division in the Bois du Fays, two battalions of the 130th Infantry in front of Brieulles, and a single machine gun company in the Bois de Forges, all combat units of the 33rd Division were now on the east bank of the Meuse.

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78 Ltr, DGO to C CWS, 22 Feb, sub: Gas Atks (GAF-33rd Div). Hospital admission lists show 251 gas casualties and 115 wounded evacuated on 9 Oct (see Analysis).

79 Six gas casualties were reported in one of the MG companies when it traversed a contaminated area in the Bois Jure that night (Ltr, DGO to CGO III C, 13 Oct, sub: Gas Rpts).

80 History, I, 116 - 17. Actually, the 3rd Bn, 129th Inf, crossed on the night of the 9th, the other two the next day (Chron Rec of Events of 65th Brig, 10 Oct, 33rd Div Box 13, 11.5).
The movement across the river had been carried out under continual harassing fire from the enemy guns to the north. The War Diary of the 7th Reserve Division artillery commander reported that "abundant gas" was fired on the night of 9 - 10 October, both on the reenforcements moving down the west bank and the forces clinging to their positions on the east bank.

During the night the batteries fired heavy harassing fire on troop areas, woods, roads, approaches, probable assembly places, and bridgeheads south of Vilosnes, west of Sivry to south of Belhaine-Muhle on the west bank of the Meuse, with long range fire in front of our lines south of Sivry-Kronprinz draw—below Hill 316—Schaumberg Ravine to the west of Hills 375 and 382—south of Pantaleon Kapelle. The nightly harassing shoot was carried out with abundant gas content. 81

The order for attack issued by XVII Corps on the evening of the 9th directed the 33rd Division to retake the Bois de Chaume and Bois Plat-Chene with the two "fresh" battalions of the 131st Infantry in the lead, exploiting to the line south of Sivry-Villeneuve Ferme-Grid line 24 (see Map No. 2). The 58th Brigade of the 29th Division and the 18th French Division would continue their advance to the Bois de la Grande Montagne, Bois de la Reine, and Bois d'Ormont. 82

When General Wolf arrived on the east bank, he reported to General Bells:

81 Arko 95 WD, 10 Oct (7th Res Div-Sub Units-WD&A, 23 Sep - 11 Oct, German Files Box 155, fol II, p. 52); Morning Rpt, 7th Res Div, 10 Oct (fol I, p. 188). The Morning Rpt for 11 Oct (p. 196) said that during the night gas and HE had again been put on troop assembly areas, roads, draws, and the bridgeheads on the Meuse.

82 Msg, CofS XVII Corps, 9:45 p.m., 9 Oct; Particular Order 864/3, 9 Oct (33rd Div Box 6, 32.16).
Unless the 58th Brigade helps us on the right, we will be only throwing away men to attack the German forces in the woods. Bader [Capt, LO, French Mission] thinks unless they will help us we should withdraw to the normal objective [i.e., Consenvoye-top of Bois de Consenvoye].

General Bell replied:

That attack has got to be made tomorrow morning at 6 o'clock. Has Ridgway been relieved in accordance with my orders? Relieve him at once....He is panicky. The regiment at the right is going to make the attack....Were the troops of the 131st engaged in this fight? What is to prevent the five battalions that did not take part, making the attack tomorrow?...You have five fresh battalions. I will see that they get there.

The attack was made without the help of the 58th Brigade on the right.

The barrage came down at 0605 on the morning of the 10th and the troops moved out through Colonel Davis' exhausted and disorganized forces in the Tranchée du Cable. Against heavy artillery and machine gun fire, the 3rd Battalion, 131st Infantry, fought its way through the Bois de Chaume to the road from Sivry to Villeneuve Ferme. At 1050 its commander reported:

Our troops gained objective but could not hold it on account of intense shelling and machine gun fire. Shelling is of HE and gas. Am trying to gather troops who are in the underbrush and will establish a new line in La Vanne trench west of Bois de Chaume. Can you send reinforcements to join on my right?

Msg (Conv), no. h.o., 9 Oct (33rd Div Box 6, 32-16) records a series of conversations between Bader, Wolf, and Bell that night. One conv indicates it was 2040 when Gen Bell ordered the two bns of the 129th and one of the 130th to rpt to Gen Wolf on the east bank, and that they were to lead the attack at daylight. But the 131st Inf units, preceding them across the river, made the attack.

The reference to Maj Hamlet C. Ridgway (2nd Bn, 131st Inf) seems explained in Rpt, 131st Inf Engagement at Bois de Chaume (33rd Div Box 19, 33-6): "One recently assigned Major who had never been in action before was inclined to be panicky, and more or less disorganization existed in some of the three Regimental Detachments and Machine Gun Companies scattered as they were through the woods." Major Ridgway, however, was with the division when it arrived in France. The "recently assigned Major" has not otherwise been identified.
An hour later he signalled:

We are in a hole. So is 1st Battalion. Company A of 1st Battalion is withdrawing. Enemy artillery fire is ruining us.

And ten minutes later:

1st Battalion is now 1000 yards to my right with no troops in between. I have no field of fire and in case of attack will have to fall back in the woods. The woods are being shelled very heavily and it would be almost impossible to keep troops in there with gas as strong as it is....It is impossible to stay in the front edge of the woods without having a gas mask on all the time. We sure need more men.

At 1240, the 3rd Battalion fell back through the woods.\(^8^4\)

On the right, the 1st Battalion, 131st Infantry, initially disorganized by intense machine gun fire, had almost come up to the 3rd Battalion when its position along the north edge of the woods was made untenable by hostile fire and "vegetation...reeking with gas."\(^8^5\) Tenable or not, the 1st Battalion hung on, for at 1400 the commander of the 131st Infantry reported his line spread thinly along the north edges of Chaume and Plat-Chene woods, without any sign of the 58th Brigade on his flank. Ten minutes later, the 1st Battalion signalled:

Enemy is forming for counterattack. Without further strength for front line will have to withdraw. Heavy casualties have been suffered and no touch on right.\(^8^6\)

\(^{84}\) Msg, CO 3rd Bn 131st Inf [Maj Francis M. Allen] to CO 131st Inf, 1050, 10 Oct; Msg, ibid., 1205; Msg, Capt Magner with 3rd Bn, ibid., 1215; Msg, 3rd Bn, ibid., 1240 (33rd Div Box 18, 32.16.)

\(^{85}\) History, I, 118 - 21.

\(^{86}\) Msg, CO 131st Inf [Col Jos B. Sanborn] to CO 115th Inf [58th Brig], 1400, 10 Oct; Msg, CO 1st Bn, 131st Inf [Maj Coady] to CO 131st Inf, 1410, (33rd Div Box 6, 32.16.) Although Msg, CO 131st Inf to CO 1st Bn, 131st Inf, 1355, 10 Oct (33rd Div Box 18, 32.16) ordered Capt Walter H. Magner of 2nd Bn, 131st Inf to replace Coady as 1st Bn comdr, this does not seem to have taken place until 13 Oct. See below, p 61.
Advance elements of both the 3rd and 1st Battalions, 131st Infantry, seem to have got on the road west of Sivry and above the Bois Plat-Chene almost to Villeneuve Ferme, for the first were seen from the air and, though questionable, the others were so reported at 1600 by the 1st Battalion:

Have suffered heavy casualties. Troops dug in on 84 Meridian. 1st Battalion, 129th Infantry in rear my right flank.87

With troop elements dug in to the east of Sivry and the remainder of the 3rd and 1st Battalions, 131st Infantry, disorganized and scattered above and in the Bois de Chaume and Bois Plat-Chene, the 3rd Battalions of the 130th and 129th Infantry were sent up as support on the afternoon of the 10th, and were themselves thrown into disorder by the "terrific artillery fire consisting of high explosive, shrapnel and gas, as well as flanking machine gun fire resulting in many casualties." "The terrain which they occupied was flooded with gas," and "enemy planes sprayed the line with machine gun fire...without opposition."88

That night the left side of the line remained near Sivry, while the battered right of the line, held only by disorganized detachments, dug in along Dans les Vaux valley and through the woods east to Meridian 24. Under heavy machine gun, shell, and gas fire, it was not possible to connect

87 Msg and map dropped by Lt Borden, 90th Air Squad, 1520, 10 Oct; FM, CO 1st Bn 131st Inf to CO 131st Inf, 1600 (33rd Div Box 6, 32.16).

up the line, "but individual units dug in the best they could."  

At 2015 that night, the commander of the 1st Battalion, 131st Infantry, sent the first of a series of messages describing his plight:

Counterattack imminent as enemy has been massing troops all day. Front thinly held. Support is absolutely necessary if we hold.

Need support. Valley is shelled and gassed. Casualties estimated at 50%.

My right flank entirely open. Have lost touch with my C and D companies and the other two badly shot up. Need support.  

At midnight, the regimental surgeon reported:

The extreme point of endurance has almost been reached and I have grave fears for the result if the regiment is not withdrawn from the line.  

Indicating the probable disposition of 33rd Division troops on the night of 10 October is a map prepared by the 129th Infantry, tracing the movements of its battalions between 9 - 20 October (Map No. 11). Another map showing the disposition of 131st Infantry troops on the 10th is represented by the Overlay to Map No. 11. Neither map indicates any advance forces or patrols on a line with Sivry, although messages and records of events put them that far forward.

Still another map, made by an officer of the Historical Section, Army War College, and based on unidentified division records and an actual survey of the terrain east of the Meuse, appears as Map No. 12. It is unlikely that any of the battalions represented, except perhaps those in the Tranchee

89 History, I, 124.

90 Msgs, Coady CO 1st Bn to CO 131st Inf, 2015, 2245, 2400, 10 Oct (33rd Div Box 6, 32.16).

91 Msg, MO to CO 131st Inf, 2400, 10 Oct (33rd Div Box 18, 32.16).
Situation Map No. 5
129th Infantry
9-20 October
33rd Div Box 15, 11-5
See also C E map, Box 24
Note: No similar maps have been found for the other regiments.
MAP TO ACCOMPANY FIELD NOTES ON 33D DIVISION EAST OF MEUSE

NOTES BY MAJ LOUIS GRANDJEN, INF. HIST SEC 63, MAY 1919
SOURCE: 33D DIV BOX 1, I.8

Sivry-sur-Meuse
Bois de Chaume
Consenvoye

MAP NO. 12
Approximate Disposition of 33rd Division Troops on night of 10 Oct

Source: Opns map, 131st Inf.
10 Oct (History, IV, Map No. 30)
du Cable and above Consenvoye, possessed anything like the cohesion indicated on these maps.

On the west bank of the Meuse on the 10th, under relatively light enemy fire, the 1st and 2nd Battalions of the 130th Infantry were spread in a thin line from the western edge of the Bois de la Cote Lemont, through the Bois de Dannevoux, around the bend of the Meuse, down to Laiterie de Belhaine, with two platoons sent that day to occupy the sector between Dannevoux and Consenvoye.

The only other element of the 33rd Division on that side of the river was the 3rd Battalion, 132nd Infantry, and its machine gun company, with the 4th Division in the Bois du Fays. On the 10th it participated in the attack against the Bois de Foret, advancing to the northern edge of the wood, and holding its position until relieved by the 3rd Division on the 13th. In its week with the 4th Division, the battalion lost 1 officer and 37 men killed, 11 officers and 315 men wounded and gassed. The machine gun company commander was to say that "due to the enemy alternating high velocity shells with gas," 105 of his 130 combat men had become casualties during that week.

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92 History, I, 125.

93 History, I, 125, 130, 362. Ltr, CO MG Co 132nd Inf to CO 132nd Inf, 30 Jan 19, sub: Rpt on Action...in Bois du Fays, 6-12 Oct (33rd Div Box 20, 33.6).

Cf Msg, Maj Bullington CO 3rd Bn 132nd Inf to G - 3 33rd Div, 5:10 p.m., 10 Oct (33rd Div Box 6, 32.16): "I have had 9 officers and about 160 men casualties. Located in Bois de Fays. My doctor and first aid people were all gassed and have gone to the hospital."
The order of XVII French Corps on the evening of 10 October announced that the line reached that day ran across the top of the Bois de Chaume and Bois Plat-Chene-Hill 371 (west of Richene, i.e., Hill 382)—the northern edge of the Bois de Molleville—southern edge of the Bois d'Ormont. There was no change in the mission of the 33rd Division, as the 58th Brigade was directed to continue its advance to the Grande Montagne the next morning, supported by the French divisions on its right.94

But the Bois de Chaume was as yet tenuously held, and most of the Bois Plat-Chene remained firmly in the enemy's hands. Fearing another counterattack against its tired forces, the 33rd Division directed that an emergency defense line be prepared along the top of the Bois de Chaume running southeast to Hill 371, with a liaison detachment between Hills 371 and 382 (Richene), connecting with the 58th Brigade. "The Line of Resistance will be held to the last...Prompt means will be taken to bring up all stragglers, and to complete any necessary reorganization of units."95

94 History, I, 126.
95 FO 29, 33rd Div, 900 p.m., 10 Oct; FM, CG 66th Brig to Opns 0 131st Inf, 2025, 10 Oct (33rd Div Box 18, 32.16).

Troops "drifting to the rear in large numbers upon small excuse"—a problem in the St. Mihiel operation—became a real threat on the whole Army front in October. See III Corps orders on straggling, cited in Conf Memo 7, 33rd Div, 7 Sep, and Conf Memo 24, 33rd Div, 21 Oct (33rd Div Box 5, 32.15).

The events east of the Meuse that week were anticipated by III Corps before the operation began. Opns instructions, 131st Inf, 25 Sep (33rd Div
Throughout the night of 10 - 11 October and the following day incessant high explosive, machine gun, and gas fire hampered the division as it sought to round up its stragglers, reorganize its units, and set up the defensive line on the edge of the Bois de Chaume. The commander of the 1st Battalion, 131st Infantry, in the valley above Chaume, reported that mornings "Am being flanked on right by heavy machine guns. Can't hold on much longer. Advise." So far as he could tell, he had 6 officers and 243 men left in his battalion, including headquarters men. One company had only 30 men and was without officers. 96

Some idea of the confusion at the time may be seen in Brigadier General Wolf's order, and its sequelae, to Colonel Sanborn of the 131st Infantry on the morning of the 11th, to take command of the 3rd Battalions of the 129th and 130th Infantry, with their machine gun units, as well as his own regiment and machine gun companies. When these scattered and casualty-ridden elements had been regrouped, he was to organize a defensive line with a battalion each of the 131st, 130th, and 129th Infantry abreast along Grid 82, a support line in the trenches below Bois de Chaume and Bois Plat-Chene with the 1st and 2nd Battalions of the 131st Infantry, and

95 (continued)
Box 18, 32.11 quoted a ltr from Gen Bullard: "In the fight expect from even good officers reports of their losses greater than ever occurred in any battle....Expect therefore hysterical outcries for reinforcements long before they are necessary....Make big provisions for military police to push men back into the firing line. Search rear echelons and kitchens especially...."

96
Msgs, 1st Bn 131st Inf to CO 131st Inf, 1000, 1100, 11 Oct (33rd Div Box 18, 32.16; Box 6, 32.16).
reserve forces in the trenches northeast of Consenvoye comprising the 1st and 3rd Battalions of the 129th Infantry and 2nd Battalion, 132nd Infantry. 97

Almost continuous heavy enemy fire made movement all but impossible and little reorganization of units or preparation of defensive positions was achieved over the next three days. As Colonel Sanborn said:

The troops from 6 A.M., October 10th to the night of October 14th-15th were subjected to shell fire, machine gun fire, gas, aeroplane attacks and fire from snipers incessantly in some parts of the line. Very few were able to obtain any needed rest or sleep. To add to their discomfort it rained nearly every day, frequently food could not be transported to parts of the line, sometimes it was spoiled by mustard gas, and low areas in the woods compelled men to wear gas masks nearly all the time.... And he added:

Commencing the night of the 10th until the relief, battalion and company commanders [sent] messages [constantly] portraying the situation as untenable and the condition of the men as desperate. 98

Of the messages extant in the records of the division, those of the 1st Battalion, 131st Infantry, are most complete. In a final exchange with Colonel Sanborn on the 12th, Major Coady reported:

The condition of the Battalion is awfully bad. The men are completely exhausted. They are constantly exposed to artillery and machine gun fire....

97 History, I, 128 - 33; Msg, CO 131st Inf to Maj Bittle [CO 3rd Bn, 130th Inf] 1100, 11 Oct (33rd Div Box 18, 32.16).

The remains of the 1st and 3rd Bns, 129th Inf were ordered consolidated in the early morning of the 12th (Msg, PC 130th Inf to 3rd Bn 131st Inf [sic], 2:20 a.m., 12 Oct, 33rd Div Box 18, 32.16).

98 131st Inf Engagement at Bois de Chaume, 10 - 14 Oct (33rd Div Box 19, 33.6); History, I, 359.
They can't possibly stand it any longer. Only 2 captains and 3 lieutenants are left, the other officers being killed or wounded. I have approximately 250 men left. Most of them when they get out of here will be physical wrecks. Can't something be done to relieve this situation?

Colonel Sanborn replied:

Stay where you are and hold the line until you hear further from me. You are no worse off than the rest of the troops who are holding on and making no complaints.99

The next day, Major Coady of the 1st Battalion was replaced by Captain Magner, Major Ridgway of the 2nd Battalion who had fallen back on the morning of the 9th, was replaced by Captain Marr, and the messages from the 1st Battalion ceased.100

Neither Army, corps, nor divisional artillery, confined since 2 October to the firing of HE alone, appears to have been effective against the heavy enemy fire. Although the 52nd FA Brigade, on the west bank advanced its 75's from the Bois de Forges to the Bois Jure, with several batteries put across the river below Consenvoye, and from the Cote d'Oie to the vicinity of Gercourt, to give closer support to the operations on the east bank, it could get no directions for its fire and the enemy guns poured in shell unmolested.101

The batteries of the 1st Austro-Hungarian Division joined in that Maas Ost fire, but by 10 October the troops of the German division were

99 Msg, 1st Bn 131st Inf to CO 131st Inf, 1215, 12 Oct; Msg to CO 1st Bn, 131st Inf, 1220 (33rd Div Box 18, 32.16).

100 Msg, CO 131st Inf, 1500, 13 Oct (33rd Div Box 18, 32.16).

reduced to defensive clusters of exhausted men. A ten-page operations report of the division describes in some detail the action of the 1st Austro-Hungarian and 32nd Division on 8 - 10 October. It asserts that each German regiment in the line was opposed by an entire American or French division, and that regrouping of the available artillery, together with determined counterattacks by the last reserve forces on that front, were the decisive factors in the successful holding operation.  

On the afternoon of 12 October, the remnants of the 1st Austro-Hungarian Division were relieved by the 228th Division and marched to Jamiets (Map No. 13), "to reorganize new combat units from it and be ready for re-employment as soon as possible."  

Overwhelming as the enemy fire seemed to the 33rd Division, General von Soden of Maas Ost was to express dissatisfaction on 12 October with the fire performance of the divisional artillery under his command. An order that day said:

In spite of many directions [given in corps orders on 2, 5, 6, 8, 9, October] that gas ammunition in significantly large amounts be fired... the ammunition consumption survey of 10-11 October showed that nothing approaching this order was achieved. According to this survey only 2,262 rounds of gas against 29,843 rounds of HE were fired in the entire group area. I ask all headquarters with all their means to carry out the given

102 Opns Rpt 2966, Combat Activities East of the Meuse, 1st A-H Div, 14 Oct (Italian Files Box 2, A-H Army Hq).

103 Opns Rpt 2966, p. 10. On 18 Oct, the "worn-out" 1st A-H Div was back in the line, in the Vilosnes-Sivry sector, replacing the 117th Div, and adjacent to the 5th Bav Res Div of Maas West.
orders regarding the expenditure of gas ammunition.104

There is evidence that Maas Ost artillery sought to comply with this directive, for 7th Reserve Division orders to its artillery for the nights of 12 - 13 October and 13 - 14 October called for "heavy gas content" and "abundant use of gas" in the harassing fire missions in the Dannevoux area, in the woods of Cote Lemont, Moriaux, Dannevoux, and Jure, the length of the Vilosnes-Drillancourt road, the east edge of the Bois de Forges across to Consenvoye, the Sivry-Consenvoye road, and each of the principal villages on the west bank of the Meuse.105 The 33rd Division is said to have reported a total of 2,000 gas shells, principally yellow cross and green cross (phosgene), in its sector through the week of 14 - 21 October, and gas cases increased proportionately.106

104 Opns 0 4268, Maas Ost, 12 Oct (German Files Box 48, fol 810-32.13). Of these five orders, only that of 8 Oct has been found in the German files. Maas West Order 759, 12 Oct, similarly ordered more "generous use of gas" and "more gas than shrapnel," but gave no ammo summary. (Maas West WD&AT, 24 Sep - 11 Nov, German Files Box 50, fol II, p. 61).

Note: This is the only German document giving precise figures on gas ammo expended. Presumably the period of time over which the 2,262 gas shells were fired by the arty of the 7th Res Div, 1st A-H Div, 32nd Div, and 228th Div -- all of Maas Ost -- was that of the corps orders referred to, 2 - 12 Oct.

If this was the weight of gas shell fired by Maas Ost arty on both banks of the Meuse, the amount falling in the 33rd Div sectors on either side of the river cannot have been great, but put on tired troops it produced results out of all proportion to its weight.

105 Div Orders 127/10 and 135/10 (7th Res Div WD&AT, 13 Sep - 19 Oct, German Files Box 155, fol I, pp. 203, 207).

It was the night of 13 - 15 October before partially regrouped units on the east bank moved into the defense, support, and reserve positions that had been prepared during intervals in the enemy shelling. Only two, instead of the planned three, battalions were put into the front line positions, with one in support and four in reserve. The other two battalions on that side of the river, the 1st and 2nd of the 132nd Infantry, hardest hit in the counterattack on the 9th, remained in the trenches near the reserves at Consenvoye. 107

The 2nd Battalion, 129th Infantry, was one of the two units that moved forward to Grid 82 in the Bois de Chaume that night (see Map No. 11).

They were engaged in improving their positions until the 15th of October. In this wood the weather continued damp and cold, a continual fog hanging in the woods, and rain falling often. The enemy used all calibers in strafing the woods, and swept from one end to the other with his batteries night and day. Gas was used extensively in his bombardments and the troops had to be constantly on the alert. 108

The two remaining battalions of the 129th, in reserve above the Consenvoye road, reported six "heavy gas and HE bombardments" between 13 - 15 October. 109

The occupation of the hasty defense lines on the night of 13 - 14 October terminated the active operations of the 33rd Division east of the Meuse.

107 History, I, 136 - 37. See Opns 0 10, 130th Inf, 19 Oct (33rd Div Box 17, 32.12), for the final defensive organization.


109 SOI, 129th Inf, 13 - 15 Oct (33rd Div Box 16, 32.16).
Modest Gains

Marshal Foch in his Memoirs said that between 8 - 10 October the XVII French Corps got possession of the line Sivry-Beaumont, but after 10 October it met with constantly increasing resistance from the enemy and the means at its disposal were insufficient to overcome the obstacles which its advance encountered. Its gains became more and more modest. The enemy seemed firmly resolved to hold the right bank of the Meuse at all costs—a assumption which was all the more plausible since this was his sole chance of covering and assuring the retreat of his beaten armies on his right wing and centre.110

In extenuation of the failure of the 33rd Division to put its forces on Haraumont ridge, Colonel Sanborn, commanding the attacking troops, said that three times his men had been on the final objective the Sivry-Villeneuve Ferme road over-looking the ridge and each time had had to fall back when the troops on the right had been unable to advance their lines. Each time that the 33rd had moved out in front, enemy machine guns had worked their way back through the woods to the open flank and the line had to be withdrawn to keep from being cut to pieces. "It was not deemed advisable," he said, "to shell and gas the woods on the right [i.e., la Grande Montagne] except as a last resort for fear of

110 -- pp. 413, 442 - 43. Not quite at all costs. When, about 20 Oct, the lst A-H Div learned that Maas West had orders to withdraw to the Senta Stellung (below Aincreville-Doulcon) if a full scale attack was made on the hills north of Brieulles, the division urgently requested directions for its own withdrawal in that event (Opns Sec Weekly Rpt 3043, Preparations for Withdrawal and Morale of Troops, 21 Oct, Italian Files Box 2, A-H Army Hq).
interfering with troops...attempting to come forward..." 111 This report is the only evidence that Haraumont ridge was the 33rd Division objective, or that there was ever any thought of gassing the Bois de la Grande Montagne. 112

More truly, the tired and often-gassed troops that crossed the Meuse on the night of 9 October was so out up and disorganized from the 10th on that they were in no condition to make that advance against withering fire across open country to the ridge. Losses in the seven days between 8 - 14 October were reported as 2 officers and 53 men killed, 7 officers and 597 men wounded, and 643 officers and men evacuated as gas and exhaustion cases, a total of 1,302 battle casualties. 113

111 131st Inf Engagement at Bois de Chaume, 10 - 14 Oct (33rd Div Box 19, 33.6). Word that the 131st Inf had reached the objective three times was reported in a single Msg, Opns Off 131st Inf to Opns Off 66th Brig, 1550, 10 Oct (33rd Div Box 18, 32.16).

112 In 33rd Div Box 5, 32.12 Opns O, is an overlay without date, identification, or explanation, showing six circled targets in la Grande Montagne, including Hills 377 and 375, and a seventh circle around all Sivry-Sur-Meuse. Gas or smoke on these areas might well have aided the advance on the 33rd Div.

113 History, I, 145. Brig Gen Wolf, Opns on East Bank of the Meuse, 20 Nov (33rd Div Box 15, 33.6), the source of these figures, said of the 643 gassed and exhaustion cases that 152 were evacuated on 16 Oct, 429 on 17 Oct, and 62 on 18 Oct.

Rpt, 131st Inf Engagement at Bois de Chaume, 10 - 14 Oct (33rd Div Box 19, 33.6), claimed that 131st Inf casualties alone were 14 killed and an incomplete total of 141 wounded. It also claimed all the 643 gas and exhaustion cases. Elsewhere in the same report, in a contradictory set of figures, the 131st Inf claimed its strength on 8 Oct was 57 officers and 2,164 men, and that it lost 19 officers and 406 men in the Bois de Chaume operation.
Apparently it was solely in an effort to straighten out the tangle in which the two brigades were now involved, prior to the anticipated relief of the division, that an order was issued on the evening of 13 October for "mutual transfer of the 65th and 66th Brigades...to the east and west banks of the Meuse respectively." That night, the 1st and 2nd Battalions of the 132nd Infantry began crossing to the west bank, to replace the 1st and 2nd Battalions, 130th Infantry, in the line below Brieulles. And beginning that same night, the machine gun companies were sorted out to their battalions and the alignment began of the remaining infantry battalions on their proper side of the Meuse.

The End of the Campaign

On the evening of 14 October, the operations order of the XVII Corps announced that there had been a slight advance in the Bois d' Ormont, and that the next morning the 58th Brigade, supported by the 33rd and 18th French Divisions would take by surprise the fortified clearing before Molleville Ferme, as part of the continuing operation

114 Add 1 to FO 29, 33rd Div, 6:00 PM, 13 Oct; History, I, 139. No reason whatever is offered in the History for the transfer.

115 Under daily shell fire and bursts of gas from the north, northeast, and east bank of the Meuse, the 130th Inf reported total casualties at the time of its relief as 27 men killed, 9 officers and 135 men wounded (Ltr, CO 130th Inf to CG 33rd Div, 15 Nov, sub: Rpt of Opns, 33rd Div Box 17, 11.4).

116 History, I, 138 - 42.
against the Grande Montagne.\textsuperscript{117}

With corps and divisional fire, and supported by a battalion of the 129th Infantry, the 58th Brigade resumed the attack at 0800, 15 October. Though it reached the southern edge of the Bois de la Grande Montagne, it could not advance to its first objective. The supporting 129th Infantry element, with 39 men killed and wounded, fell back to its original position on the southern edge of the Bois Plat-Chene.\textsuperscript{118} All that afternoon and night the enemy put heavy fire on the vicinity of Consenvoye, the Bois de Chaume, and the Consenvoye-Etraye road, and at 1930 put a heavy gas concentration just east of the Bois de Chaume.\textsuperscript{119}

The attack was renewed on the 16th, when the 58th Brigade carried the enemy positions at Molleville Ferme, and the next day reportedly reached the summit (Cote 375?) in la Grande Montagne. Except for the necessary adjustment of its lines on the right flank, the 33rd Division held fast along Grid 82.\textsuperscript{120}

\textsuperscript{117} History, I, 145 - 46.

\textsuperscript{118} History, I, 145 - 49; SOI 35, 33rd Div, 14 - 15 Oct.

\textsuperscript{119} History, I, 149. DOR, 15 - 16 Oct rptd 50 gas & HE rds at that hour on the road east of Consenvoye, with "shelling" in the Bois de Chaume.

\textsuperscript{120} History, I, 152 - 55. See G - 2 Plan of Defense, Sector East of Meuse to Grid Line 24, 17 Oct (33rd Div Box 8, 32.8), which rptd that the enemy still held all terrain above Grid 83 east of the Meuse. Between Vilosnes and Sivry, said G - 2, were elements of the 106th Landsturm Div and 1st A-H, and from Sivry east, elements of the 15th Div, 7th Res Div, and 228th Div.
With American troops comprising almost two-thirds of his corps forces, General Claudel had for some time been concerned with the serious losses they were sustaining from gas shell bombardments. The enemy, he said in a Note de Service on 11 October, "has made, during several counterattacks, intensive use of Yperite" and it was necessary to caution the Americans to avoid delay in masking during any bombardment, to prepare changes of station in case of yperite shelling, to disinfect yperite areas quickly, and to instruct troops in gas defense.

Less than a week later, on the 17th, speaking of the 42 gas casualties reported that day in the 33rd Division and the 97 in the 29th Division, Claudel said: "These high figures can only indicate either inexperience or carelessness on the part of the men." Intensive instructions were to be given at once by the two divisions in proper masking and proper respect for yperite. No replies or comments on these notes have been found. Of interest, as they support General Claudel's concern, are comparative gas casualty figures for his French divisions, in the Analysis, below.

Notes de Service 9361/H, 11 Oct; 946 C/3, 17 Oct (33rd Div Box 7, 32.7).

The 33rd Div casualties on the 17th may have resulted from the 45 gas and HE rounds on the 129th Inf in the Bois de Chaume at 1525 on the 16th, further gas and HE on the road above the Bois de Consenvoye at 1615, and three "heavy gas" fires at 2150, 2400, and 0130, 17 Oct, on the road west of Consenvoye wood.

The 129th Inf reported "heavy gas" thirteen times in the five-day period, 13 - 18 Oct. See SOIs, 129th Inf (33rd Div Box 16, 32.16). Chron Rec of Events of 129th Inf, 19 Oct (33rd Div Box 15, 12.5) says total casualties of the regt, 29 Sep - 19 Oct, were 37 killed, 1041 wounded or gassed.
Through each of these days of waiting, from 14 to 19 October, the apparently unassailable enemy artillery continued to pound the 33rd Division astride the Meuse with gas and HE, hitting its artillery positions in the Bois Sachet, Bois Jure, and in the vicinity of Drillancourt and Gercourt, its troops in transit over the Meuse, and the troop areas east of the river from Consenvoye to the Bois de Chaume.122

The increased use of gas after 12 October, as demanded by Maas Ost, is seen in the ammunition consumption reports that are available for the 32nd Division, which came in between the 1st Austro-Hungarian and 15th Divisions on 8 October. (Its subsequent position is represented in Map No. 14.) Though sketchy between 8 - 11 October, thereafter the artillery records of the 32nd Division are fairly complete. While its principal targets were in the sector of the 29th Division and 18th French Division, some proportion of its fire each day fell on the worn-out 33rd Division beside them. The dates below are those of the reports and represent the previous day's fire:

<table>
<thead>
<tr>
<th>Date</th>
<th>HE</th>
<th>Gas</th>
<th>(green cross and blue cross)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 October</td>
<td>13,099</td>
<td>1,117</td>
<td>including 1,084 yellow cross</td>
</tr>
<tr>
<td>14 October</td>
<td>3,989</td>
<td>3,981</td>
<td>including 1,022 yellow cross</td>
</tr>
<tr>
<td>15 October</td>
<td>5,216 shrapnel</td>
<td>6,690</td>
<td>including 780 yellow cross</td>
</tr>
<tr>
<td>16 October</td>
<td>3,628 shrapnel</td>
<td>1,957</td>
<td>including 150 yellow cross</td>
</tr>
<tr>
<td>17 October</td>
<td>1,707 shrapnel</td>
<td>2,573</td>
<td>including 557 yellow cross</td>
</tr>
<tr>
<td>18 October</td>
<td>1,448 shrapnel</td>
<td>990</td>
<td></td>
</tr>
<tr>
<td>19 October</td>
<td>308 shrapnel</td>
<td>1,451</td>
<td>including 557 yellow cross</td>
</tr>
</tbody>
</table>

The targets of the 32nd Division artillery were "ravines and draws and enemy assembly positions, approaches, and infantry strong points."

122 SOI 35 - 40, 33rd Div, 14 - 20 Oct.
SITUATION des FORCES ENNEMIES

Devant le Front du 17e C.A.
Vers le 15 Octobre 1918

Source: History of 33rd Div. IV, Map 12

MAP NO. 14
On 16 October, Kliener Stern [below Molleville Ferme] and Schaumbergmulde [the ravine between the Bois de Chaume and Bois de Consenvoye] were reported to have been contaminated with yellow cross, with other yellow cross fire on targets to the right of the 33rd Division sector. That same day, the 16th, the artillery order said that "the supply of ammunition makes greater economy necessary....In annihilation fire blue cross will be used only in slight amounts."

The fire order for the night of 18 - 19 October called for 200 10-cm yellow cross rounds on the Consenvoye crossroad between 2300-0400, and to the east, 150 rounds of blue and green cross on Kleiner Stern and 300 rounds of yellow cross on the Ormont Ferme area. The fire order for the night of 19 - 20 October called for 200 rounds of yellow cross along the Consenvoye-Kleiner Stern road, 100 10-cm yellow cross rounds in the ravine south of Consenvoye, 150 10-cm yellow cross rounds northeast of Consenvoye, as well as similar quantities of yellow, blue, and green cross shell in the sectors of the 29th Division and 18th French Divisions.

The artillery ammunition report of 20 October confirmed the carrying out of these missions but failed to distinguish between gas and HE in its total of 5,991 rounds consumed the previous day.123

The Division Gas Officer was to report a total of 1,885 yellow, blue, and green cross shells in eight separate attacks on troops in the Bois de Chaume, Bois Plat-Chene, and in and around Consenvoye between 17 - 19 October. He reported few or no casualties resulting from seven of the

123

32nd Div-Sub Units-WD&IA, 8 - 20 Oct (German Files Box 184, fol III, pp. 114 - 20).
attacks, but the eighth, against the 1st Battalion, 129th Infantry, on the afternoon of the 18th, he said, caused "few casualties then, but many later." These may be the 86 men of the 129th Infantry reported by G - 3 as having been "wounded" in the trenches south of Consenvoye that day.

They are better identified in the DGO monthly gas report for October, which shows 97 gas casualties in the 129th Infantry on 18 October and 83 on 19 October. A special report on the gas attack of 18 October, however, said only 49 men, including the gas NCOs, were evacuated. There had been no casualties up to the time the battalion was moved out of the area where approximately 300 green 1, green 2, blue, and yellow cross shells had fallen over a period of several hours. But after their arrival in the support trenches, they sat around a fire to dry out and keep warm, and the casualties resulted when their wet, contaminated clothing released mustard fumes. In the same monthly gas report for October, Lieutenant Vawter was to show a total of 807 gas casualties evacuated during the period 17 - 21 October.

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124 Ltr, DGO to CGO III Corps, 20 Oct, sub: Weekly Rpt, 13 - 20 Oct (WD Hist Box 300, 33.6).

125 DOR, 33rd Div, 18 - 19 Oct.

126 Ltr, DGO 33rd Div to C CWS, 20 Oct, sub: Special Rpt, [grid lines] 24-80 Bois de Consenvoye (WD Hist Box 300, 33.6, Rpts on Gas Atks).
Beginning the night of 19 - 20 October, as the two brigades completed their last exchanges of units, the 33rd Division was relieved by the 15th Colonial Division. Three days of rest, to be followed by a short training period, were prescribed as the last of the troops came into the Dieue area, ten kilometers south of Verdun, on the 21st.127

Less than a week later, on 26 October, the division was transferred to the II Colonial Corps, Second American Army, and put into the line near Troyon-sur-Meuse, southeast of Verdun, in relief of the 79th Division.128

Although operationally inactive until the eve of the Armistice, and occupied principally with strengthening the defense system in its sector, the 33rd Division was under gas attack every one of the remaining days of the war, including a major attack over a fairly wide area with approximately 2,400 yellow and blue cross shells on the night of 29 - 30 October that cost a reported 142 gas casualties.129 In all, between 26 October

127 FO 30, 33rd Div, 6:15 p.m., 19 Oct (33rd Div Box 5, 32.1); History, I, 157, 151. FO 76, First Army, 18 hr, 19 Oct. (USA in the WW, IX, 301) said the 33rd Div was relieved "for the purpose of relieving the 79th Div."

128 FO 31, 33rd Div, 8:00 p.m., 23 Oct.

129 Rpt on Gas Atk (33rd Div Box 12, 63.33); ltr, DGO 33rd Div to C Gws, 3 Nov, subj Weekly Rpt (GAF-33rd Div); Note de Service, 31 Oct (33rd Div Box 7, 32.7); Opns Rpt, 130th Inf, quoted in History, I, 390 - 91. Spencer's account (History of Gas Attacks upon the A.E.F., II, 367) covers only part of the attack.

Following this atk the division issued Tng Circ 188, n.d., on "New Gas Discipline." Tng Circ 189, 4 Nov, on the handling of mustard gas casualties, and directed attention again to Tng Circ 177, 19 Sep, on mustard gas defense. Cf. History, I, 184, 188.
and 11 November, the 33rd Division sustained 329 gas casualties.\textsuperscript{130}

The 33rd was one of the few divisions still counting delayed gas casualties when the Armistice ended the war. Having advanced and occupied a part of the Bois d'Harville, east of Fresnes-en-Woëvre, on the morning of 10 November, the enemy in a final gesture that evening filled the wood with gas "so dense that further occupancy either by our own or enemy troops became impossible."\textsuperscript{131}

\textbf{ANALYSIS}

\textbf{The Battle Casualties of the 33rd Division}

The History of the 33rd Division was to say that "Ordinarily speaking, 'butcher bills' are a criterion of the lack of skill in the handling of troops in action," and pointed proudly to the fact that in troops killed the division ranked 20th in the AEF, and in wounded it ranked 12th. The History might have added that with only 27 days in active sectors, the 33rd Division ranked 13th among the 29 divisions in the AEF.\textsuperscript{132}

Total battle casualties between 7 September and 11 November, according to Ayres, were 1,002 killed and 8,251 wounded. These figures

\textsuperscript{130} 33rd Div DGO Monthly Rpt of Gas Casualties, November 1918 (GAF-33rd Div). This rpt included 155 gas cases for the latter part of Oct, not rptd on the Oct summary, and 174 between 1 - 13 Nov.

\textsuperscript{131} History, I, 216 - 17; III, 127.

seem excessive (though unchallengeable at the moment) in the light of divisional data. For the 44 days (10 September - 23 October) in the sector north of Verdun, the divisional History reported total battle casualties of 5,213, including 352 officers and men killed and 4,718 wounded.\textsuperscript{133} In his final report, General Bell showed a total of 5,187 battle casualties between 18 September - 25 October, including 344 killed and 4,700 wounded.\textsuperscript{134} The American Battle Monuments Commission's study, 33rd Division Summary of Operations (1944), pp. 43 - 44, reveals still fewer total casualties:

<table>
<thead>
<tr>
<th></th>
<th>7-25 Sep</th>
<th>26 Sep</th>
<th>27 Sep-7 Oct</th>
<th>8-23 Oct</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Killed</td>
<td>2</td>
<td>54</td>
<td>80</td>
<td>242</td>
<td>378</td>
</tr>
<tr>
<td>Died of wounds</td>
<td>11</td>
<td>11</td>
<td>57</td>
<td>82</td>
<td>161</td>
</tr>
<tr>
<td>Wounded</td>
<td>52</td>
<td>244</td>
<td>961</td>
<td>2,292</td>
<td>3,549</td>
</tr>
</tbody>
</table>

What none of these sources reveals is that the 33rd Division had considerably more gas casualties than wounded during the period 26 September - 20 October. What is more, no other division in the AEF suffered greater numbers of gas casualties than did the 33rd, either during that period or at any time in the entire Meuse-Argonne campaign.\textsuperscript{135}

\textsuperscript{133} History, I, 166 - 67; III, 368.

\textsuperscript{134} Rpt, Bell to G - 3 First Army, 28 Dec, sub: Rpt of Opns of 33rd Div (33rd Div Box 45, 314.7).

Notes: No corroboration is possible through the DORs of the division, which for the period 26 Sep - 20 Oct indicate total casualties of only 389, including just 6 gas casualties in those 25 days.

\textsuperscript{135} Chart in First Army Box 342-CGO Misc Corresp, shows 1,807 gas casualties in the 33rd Div for 27 Sep - 10 Oct and 2,016 for 27 Sep - 17 Nov. See also p. 90, below.
The Gas Casualties

A comparison of Division Gas Officer and Corps Gas Officer daily gas figures for the 33rd Division with those found in the field hospital admission lists is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>DGO</th>
<th>CGO</th>
<th>FH Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gas</td>
</tr>
<tr>
<td>26 Sep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 Sep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 Sep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 Sep</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>30 Sep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Oct</td>
<td>4</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>2 Oct</td>
<td>12</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>3 Oct</td>
<td>18</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>4 Oct</td>
<td>29</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>5 Oct</td>
<td>377</td>
<td>12</td>
<td>181</td>
</tr>
<tr>
<td>6 Oct</td>
<td>48</td>
<td>322</td>
<td>381</td>
</tr>
<tr>
<td>7 Oct</td>
<td>10</td>
<td>179</td>
<td>2</td>
</tr>
<tr>
<td>8 Oct</td>
<td>3</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>9 Oct</td>
<td>465</td>
<td>74</td>
<td>251</td>
</tr>
<tr>
<td>10 Oct</td>
<td>134</td>
<td>294</td>
<td>106</td>
</tr>
<tr>
<td>11 Oct</td>
<td>183</td>
<td>59</td>
<td>91</td>
</tr>
<tr>
<td>12 Oct</td>
<td>33</td>
<td>162</td>
<td>85</td>
</tr>
<tr>
<td>13 Oct</td>
<td>14</td>
<td>76</td>
<td>18</td>
</tr>
<tr>
<td>14 Oct</td>
<td>37</td>
<td>21</td>
<td>37</td>
</tr>
<tr>
<td>15 Oct</td>
<td>63</td>
<td>53</td>
<td>65</td>
</tr>
<tr>
<td>16 Oct</td>
<td>120</td>
<td>63</td>
<td>169</td>
</tr>
<tr>
<td>17 Oct</td>
<td>325</td>
<td>174</td>
<td>306</td>
</tr>
<tr>
<td>18 Oct</td>
<td>387</td>
<td>58</td>
<td>142</td>
</tr>
<tr>
<td>19 Oct</td>
<td>84</td>
<td></td>
<td>62</td>
</tr>
<tr>
<td>20 Oct</td>
<td>9</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>21 Oct</td>
<td>2</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2,357</td>
<td>1,641</td>
<td>1,978</td>
</tr>
</tbody>
</table>

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136 DGO data from Rpt of Gas Casualties, 33rd Div, Oct 1918 (GAF-33rd Div).
CGO data from Rpt of Gas Casualties, III Corps, Oct 1918, (First Army Box 340-III C). The rpt also shows that the Corps' 4th Div had 837 gas casualties in Oct, the 80th had 1,328, the 90th 395, the 3rd Div 602, and the 5th Div 507, for a corps total of 5,323 in Oct, exclusive of 3 gas deaths in the 33rd Div (in figures above) and 9 in the 90th Div. Both gas and HE casualty data in the last two columns are from the admission lists of FHs 129 and 132 (33rd Div, Med Dept Boxes 3711, 3714), FH 318 (80th Div, Med Dept Box 3883), and FH 114 (29th Div, Med Dept Box 3650).
A breakdown by units of the daily gas casualties recorded by the DGO and as found in the field hospital lists reveals:

<table>
<thead>
<tr>
<th></th>
<th>128th Inf</th>
<th>130th Inf</th>
<th>122nd MG</th>
<th>131st Inf</th>
<th>132nd Inf</th>
<th>123rd MG</th>
<th>124th MG</th>
<th>52nd OTHER</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DGO FH</td>
<td>DGO FH</td>
<td>DGO FH</td>
<td>DGO FH</td>
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|       | 1,014 | 996 | 83 | 51 | 10 | 7 | 549 | 548 | 540 | 240 | 90 | 66 | 23 | 9 | 8 | 7 | 40 | 54 | 2,357 | 1,978 |

- 79 -
The figure of 1,978 gas casualties compiled from hospital admission lists is based on incomplete records. Between 26 - 30 September, FH 131 operated a gas and HE triage at Glorieux, northwest of Verdun, until relieved on the 30th by the regular gas hospital of the 33rd Division, FH 132. There are no records available for FH 131, although it is said to have cared for several thousand patients between 26 - 30 September. Many of these patients doubtless came from other divisions as well as the 33rd, since the narrative indicates less than 350 casualties in the 33rd Division during that period, which presumably includes the 65 gas cases reported by the DGO for 26 - 30 September.

Hospital figures for the period 26 September - 4 October are based on the admission lists of FH 132 at Glorieux and FH 318 (80th Division) at Fromerville. Hospitalized gas cases for the period 5 - 15 October are based on the lists of FH 318 and FH 129, located at Bethincourt, which took care of 33rd Division gas casualties on the west bank, and FH 132, to which those on the east bank were sent. Finally, gas casualties for 15 - 20 October are found in the admission lists of FH 129 and FH 114 (29th Division), which relieved FH 132 at Glorieux.

The hospital picture is further complicated by the fact that the 33rd Division's FH 130, whose records show no gas casualties, was

137 Medical Dept of the U S Army in the World War (Washington: GPO, 1925), VIII, 625 - 27.

nevertheless apparently operated as a gas hospital for a short time, since an order ended its function as such on 4 October. That same date, FH 132 was directed to restrict itself to emergency gas cases only, since III Corps planned to set up an 80th Division field hospital at Bethincourt as the Corps Gas Hospital. But gas casualties in the corps became so numerous — there were more than 5,000 in October — that a consolidated gas hospital was not practicable, and FH 132 continued as the principal 33rd Division gas hospital.

The 1,641 gas casualties in the 33rd Division reported by corps in its October summary was increased to 1,719 in a postwar corps report that covered the entire period that the 33rd Division was under III Corps, i.e., 15 September - 26 October (see below, p. 90). An Army summary of divisional gas casualties over the period 27 September - 17 November showed 2,016 gas casualties in the 33rd Division. The Division Gas Officer's report of 2,357 gas casualties in October was, under the circumstances, perhaps excessive.

Gas Mask Exhaustion

The Chemical Warfare Service appears to have been greatly concerned over the large number of gas casualties reported by the division

139 FOs 11, 12, 108th San Tr, 33rd Div, 3, 6 Oct (MS. Medical History of the 33rd Div, Med Dept Box 3704, fol 1).

140 Memo for Div Surgeons fr OCS III Corps, 7 Oct (Medical History, above).

141 First Army Box 342, CGO Miso Corresp.
for October. Lieutenant Vawter explained that the figures had been obtained from the divisional statistical officer, but did not represent the true picture of gas casualties. For instance, he said,

On October 17th one regiment evacuated over 500 men as gassed. This regiment had been out of the active area 48 hours. Practically every man who was examined was found not to be gassed but suffering from exhaustion and cold. The records of casualties are based on how a man is tagged as he goes back and not as the case is actually found. All of these men were back for duty in a few days.

On the 18th and 19th the 131st Infantry had some 400 men evacuated as gassed, and it was found later that the men were suffering from colds and exhaustion. The Division Medical Gas Officer stated that possibly 300 to 400 of the others were evacuated the same way. If gas was not used these would not be evacuated but due to the benefit of the doubt that the men must have, it is necessary to call them gas cases. \(^{142}\)

While these statements of the DGO do not agree at all with the breakdown of his figures or those of the gas hospitals (Analysis, p.78), there is some corroboration for his remarks in the final report of the 131st Infantry medical officer who said that "a great percentage of those tagged as gassed were more properly due to exhaustion and gas." He added, "Gas solely and directly \(^{143}\) responsible for but few cases," and the "majority of true gas cases in the regiment were\(^{143}\) due to Yellow Cross shells." Elsewhere, the medical officer of the 130th Infantry, which had the fewest gas casualties of the four regiments, said of his battle casualties that "In general the most serious cases were those that

\(^{142}\) Ltr, DGO to C CWS, 2 Nov, sub: Casualty Rpt; ltr, DGO to C CWS, 22 Feb 19, sub: Gas Atks (GAF-33rd Div). No correspondence of the DMGO has been found.

\(^{143}\) Rpt, Surg, 131st Inf, Med Hist of 33rd Div, p. 23.
had been gassed," and that there were "more vesicating than asphyxiating gas cases." 144

No comments have been found by the medical officers of the 129th Infantry, the worst gassed in the division, or of the 132nd Infantry. There was some agreement of experience between the commanding officers of FH 129 and FH 131, the first asserting that "Sixty percent of men tagged 'Gassed' turned out to be suffering from causes other than gas," and the latter that "Nearly all gas cases were vesicant (mustard) gas," implying that the abundant use of non-vesicant agents by the enemy did not produce true gas cases. 145

These reports of the Division Gas Officer and division medical officers raise the question about the kinds of gas fired by the enemy. With limited enemy data this cannot be entirely resolved. The German artillery orders seem to indicate that blue cross (diphenylchlorarsine) rather than mustard gas was principally used in harassing fire, with only occasional mention of contamination or yellow cross fire. The Division Gas Officer in his gas attack reports seems to agree that diphenylchlorarsine was the principal agent used, with mustard gas the next largest quantity used, and phosgene only in small amounts.

A survey of the 1,978 gas casualties in the hospital admission lists indicates that 544 were admitted as mustard gas cases, 21 phosgene, 119 diphenylchlorarsine, 809 simply as "gassed," 457 not yet

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144 Rpt, MO, 130th Inf, Med Hist of the 33rd Div, pp. 21 - 22.

145 Med Hist of the 33rd Div, pp. 15, 16.
determined," and 28 "mixed gas." This distribution appears to agree with the findings of the DGO and medical officers, and with what we know of the proportion of gases used by the 32nd Division (narrative, p. 71).

Of the 1,978 total gas casualties, the 1,294 admitted as a result of unidentified gas, "mixed gas," or "gas not yet determined" support the field hospital statement that 60 percent of the men tagged "Gassed" were suffering from causes other than gas. The principal "other cause" was unquestionably gas mask exhaustion.

Although "battle exhaustion" was well known and recognized as such in World War I, the phenomenon of "gas mask exhaustion" has not been encountered in any record. Yet in any organization that encountered prolonged gassing, especially in repeated small quantities, and where good gas discipline was maintained, as it appears to have been in the 33rd Division, gas mask exhaustion certainly took as great a toll as conventional battle exhaustion. The suffocating effect of the nose-clip and mouthpiece of the small box respirator became intolerable in a short time, and the necessity of wearing the respirator night after night, resulting in both loss of sleep and progressive fatigue, guaranteed eventual exhaustion.

In the growing state of exhaustion in which the 33rd Division found itself on the east bank of the Meuse, it would have been remarkable if the incessant enemy HE and gas fire, unhampered by divisional efforts to still it, had not produced evidence of gas panic among the troops. That periodic waves of gas panic, among both officers and men, swept the division from 9 October until the division was relieved on the 18th, seems
clear from the narrative (pp. 50 - 54, 60 - 61). Furthermore, the Division Gas Officer's postwar explanation for the large numbers of gas casualties evacuated on 17, 18, and 19 October may be viewed in another light when we read his summary report on the gas casualties evacuated in the period 9 - 13 October.

He was to report that on the night of the 9th, and again on the 10th and 11th, the enemy repeatedly fired small quantities of blue cross shell (diphenylchlorarsine) into the valley from the Bois de Consenvoye to the Meuse, between Consenvoye and Brabant, occupied during this period by elements of the 129th, 131st, and 132nd Infantry. Almost all of the troops were exposed to the gas, said Lieutenant Vawter, and apparently reported themselves gassed, but only 75 were evacuated as hospital cases by the regimental medical officers.

Such small concentrations of diphenylchlorarsine, said Lieutenant Vawter, caused only temporary inconvenience to men in good condition, but these men had been in the line for almost five weeks, without rest and under constant harassing fire, and were "dirty, tired, and with a weakened will power." The enemy, he asserted, deliberately used blue cross on tired troops, since even small concentrations were sufficient to put them out of action.

Another element in the large number of gas casualties suffered while east of the Meuse should be mentioned, even though it has proved negative. It was anticipated, in the course of this study, that some expression of

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146 Ltr, DGO to CGO III Corps, 13 Oct, subj: Gas Rpts (GAF-33rd Div).
concern would be found in the records when 33rd and 29th Division troops advanced east of the Meuse over the terrain that had been yperited by Army and XVII Corps artillery between 26 September - 2 October, in the neutralization of the Cotes de Meuse. Since less than a week elapsed between the last yperiting and the advance over that ground on 8 October, many of the target areas must still have retained some degree of contamination. It is not likely that the warning to take precautions in those gassed areas was scrupulously heeded, and yet there is no record that any mustard gas casualties were incurred in this fashion.\footnote{147}

**Gas and HE Shell**

33rd Division Summaries of Intelligence and Daily Operations Reports have proved useless as sources of statistics for this study. While the SOIs between 26 September - 20 October regularly report "heavy gas shelling during the night," "gas concentrations throughout the night," etc., the enemy gas shell count for that period totals only 710, exclusive of 600 mixed gas and HE. The actual count of enemy HE shell comes to 5,481, with most days marked only by "heavy intermittent shelling," "deadly flanking fire," etc.

DOR figures, compiled for the same period, reveal that the 33rd Division artillery fired a total of 90,004 HE rounds into the enemy lines.

\footnote{147} Ltr, CGO First Army to CG III Corps, 5 Oct., subj: Mustard gassed areas north of Verdun (GAF-1st A). See Col. J. N. W. Schulz, 1st Army GO, lecture Execution of Gas Plans for the...A-M Opn, 17 Jan 1919, p. 19 (GHQ AlF G - 3 Rpts Box 3153, fol 1090-4): "Our 33rd and 29th Divisions, without any resulting ill effects, \[operated across the Meuse\] over ground that had been mustard gassed up to six days beforehand."
while a mere 4,201 rounds were fired into the sector in that period by
enemy artillery, all of it apparently HE. Such enemy gas shell data as
appear in this study are from other sources than divisional G - 2 and
G - 3.

The available German records are little more satisfactory. While
the German artillery orders for the nightly harassing missions with
gas and HE are fairly complete, none of them, with the exception of the
32nd Division orders in the latter part of October, indicates the num­
ber of gas or HE shells allotted for or fired in these missions. Ex­
ceptional too is the report of Maas Ost on 12 October that for the
period 2 - 12 October, the divisional artillery in that corps fired a
total of 29,643 HE shells and 2,262 gas shells (narrative, pp. 61 - 62).

It is necessary to accept the figure of 2,600 gas shells reported
by the Division Gas Officer as falling in the Bois des Moriaux on the
morning of 5 October (narrative, pp. 32 - 34). The 7th Reserve Division
merely confirmed the contamination fire, although no order or shell
count has been found in its records. In addition to the 2,600 gas
shells, the DGO estimated between 2,400 and 4,000 HE shells in the tar­
get area in the course of the gas attack. He reported total gas casu­
alties of 350; the brigade reported 380 casualties in the 1st Battalion
alone. Neither reported any HE casualties. The hospital lists, how­
ever, show 158 gas casualties in the 129th Infantry admitted on 5
October and 362 on 6 October, a total of 520. (The DGO total for those
two days is 391.) The wounded, for all regiments in the division on 5
October, were 17, according to hospital records. Only two men are
known to have been killed that day, by exploding gas shell fragments during the gas attack.

Accepting these conflicting figures, between 5 and 7 gas shells were required for each gas casualty in the attack. The results of the HE shelling, even assuming that all 17 casualties that day occurred in the 129th Infantry, would indicate that between 140 and 235 shells were required for each wound casualty.

For further comparative statistics, it is necessary to rely on the unique ammunition expenditure report of Maas Ost (narrative, pp. 62 - 63). While a principal target of Maas Ost divisional artillery was undoubtedly the 33rd Division sector, that artillery also fired into the sector of the 4th Division, to the left of the 33rd, and into the sectors of the 29th Division and 18th French Division, to the right of the 33rd. Maas West artillery, for which we have no data, also fired on the 33rd Division sector west of the river. Under the circumstances, the figures of 29,843 HE and 2,262 gas rounds have been arbitrarily accepted to represent the approximate weight of shell fired into the 33rd Division sector alone during the ten days between 2 - 11 October.

Between 2 - 12 October, the Division Gas Officer reported a total of 935 gas casualties (not counting the 377 resulting from the gas attack of 5 October). Field hospital lists show 748 gas casualties (exclusive of 381 for the 5th) and 696 HE casualties for the same period, of which 538 gas and 600 HE casualties occurred between 8 - 12 October, during the advance on the east bank and the disastrous counterattacks there.
On the basis of 935 gas casualties, the 2,262 gas rounds produced a casualty for each 2.4 shells. On the basis of 748 gas casualties, the proportion was 3 shells for each casualty. Even assuming every one of the 696 HE casualties was caused by high explosive shell and not machine gun and rifle fire (as most of them were), the proportion is 44 shells for each wound casualty.

The Division Gas Officer's estimate of 1,885 gas shells falling in the troop areas east of the Meuse between 17 - 19 October (narrative, pp. 73 - 74) resulted in between 610 and 796 gas casualties, according to hospital and DGO data, or no more than 2 to 3 shells for each casualty.

The unusually low ratio between gas shells and gas casualties may be explained in the statements of the DGO and medical officers that the combination of gas and exhaustion produced casualties out of all proportion to the amount of gas shell fired by the enemy.

It was this combination of continual gassing and progressive exhaustion, and the absence of large-scale gas attacks, that made reporting the gas experience of the 33rd and the other divisions in III Corps so difficult for the gas officers. The line officers were inclined to suspect malingering, while the medical officers were confused by the numbers of men reporting themselves gassed, whose symptoms were not sufficiently pronounced for certain diagnosis.

As the Corps Gas Officer said: "On active fronts it is found that where there is daily shelling, certain areas are kept saturated with gas without any specific gas attack made, although daily casualties
from gas occur." Gas casualties could not therefore be ascribed to specific gas attacks, and however large their numbers, could only be summed up each week and so reported. ¹⁴⁸

A summary of these weekly figures received from III Corps divisions during the period 9 September 11 November appears in a postwar report of III Corps:

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<td>1,106</td>
<td>1,708</td>
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<td>4th</td>
<td>918</td>
<td>1,909</td>
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<td>565</td>
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<td>1,716</td>
<td>896</td>
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<td>80th</td>
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<td>90th</td>
<td>449</td>
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The figures corroborate the distinction achieved by the 33rd Division in reporting almost twice as many gas casualties as other casualties. Of

¹⁴⁸ Ltr, CGO III Corps to CGO First Army, 27 Oct, sub: Record of Gas Atks (First Army Box 340, III CGO).

¹⁴⁹ Ltr, CGO III C to CGO First Army, 19 Nov, sub: Rpt on Gas Activities from Sep 9th to Nov 11th (First Army Box 340). The estimate of III Corps that 35,000 gas shells were fired into its area during this period would indicate a gas casualty for every six shells.

A similar chart in ltr, CGO III Corps to C CWS, 12 Nov, sub: Rpt on Gas Activities for October (Box 340 and GAF-III Corps) shows totals of 5,323 gas casualties (including 12 deaths) and 9,214 other casualties.

Still a third chart, in III Corps Rpt on Prisoners, Casualties...from 26 Sep to 11 Nov, 18 Nov (5th Div Box 4, 16.1) shows totals of 6,041 gas casualties and 15,167 wounded. In this chart, 38 officers and 1,963 men in the 33rd Div were gassed and 8 officers and 1,169 men were wounded.
special interest is the close agreement between corps' "other" figure of 896 and the hospital wounded total of 892 through 21 October. (No explanation can be given for the wide discrepancy between the casualty total in this corps chart of 2,612 and the casualty totals of 5,213, 5,187 and 4,088, on pp. 67 - 68 above.)

The corps' figures also tend to explain why the 33rd Division was put back in the line less than a week after being relieved along the Meuse, without apparently receiving any replacements. With less than 900 wound casualties, the division may have seemed to higher headquarters to have required neither replacements nor an extended rest.

Unfair, perhaps, to the 33rd Division, in view of their dates, are four Compte-Rendus (G - 1 reports) of the XVII French Corps which have been found, offering comparative data on the gas and wound casualties in that Corps. As was shown in Study No. 4, "The 26th Division in the Aisne-Marne Campaign" (pp. 63 - 64), the French, under similar or even heavier gas fire than that experienced by American troops at their side, took far fewer casualties. After four years of war, the French had learned to conserve their forces and the French soldier had learned to respect gas. Thus General Claudel was right to suggest that the high gas casualties in his American divisions indicated "either inexperience or carelessness" (narrative, pp. 69 - 70).

No mention of replacements has been found in the History or the records of the division, although Spencer (II, 363a) quotes the unlikely figure of 20,140 replacements, found in Shipley Thomas, The History of The A.E.F., p. 465.
There is no reason to think that the weight of HE or gas shell fired by the enemy varied much between the divisions. Even considering the fact that a French division had approximately half the rifle strength of an American division, the disproportionate casualty figures below indicate that American divisions were indeed either inexperienced or careless.

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A final word remains to be said concerning the Division Gas Officer, 1st Lt Vawter. No reports or correspondence of his has been found in the records of the division, he is not mentioned in the official History, and, curiously, in almost every report of his found in corps, Army, or GAF records, the manner of the reports indicates that he obtained his information at second hand, presumably from the regimental and battalion medical officers and gas officers.

Yet few organizations appear to have issued more training circulars on gas defense or been more diligent in their efforts to establish good gas discipline than the 33rd Division, presumably — although no evidence has been found — through the efforts of the Division Gas Officer. Moreover, an inspection tour made by the office of the Chief Gas Officer, First Army, late in October resulted in high marks for both him and his

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33rd Div Box 2, 20.23.
organization, despite the fact that the division was to prove unique in reporting more gas casualties than wound casualties in the Meuse-Argonne campaign. The inspector reported that 33rd Division gas defense equipment was found ample in every particular, and that Colonel Vandervater of the office of the Chief of Staff "talked of Lt. Vawter in the most complimentary terms, and seemed to be satisfied in every way with the gas defense of the Division." 152

Use of Gas by the 52nd Field Artillery

The 52nd FA Brigade apparently had an abundance of gas ammunition throughout the campaign but would not use it. Available ammunition reports for the period 11 - 14 October reveal almost 10,000 75-mm special shells and 300 155-mm special shells on hand. The division was apparently without smoke shells, for none are listed.

The only artillery orders showing use of gas indicate that the 106th FA fired 20 phosgene rounds on the night of 30 September at targets across the river, above Consenvoye and in the Bois de Chaume, and 15 phosgene rounds on the morning of 1 October, "east of the Meuse." The artillery regimental histories report firing large quantities of HE but no smoke or gas shells. 153

152 Ltr, Capt T. W. Balfe, OCGO First Army to CGO First Army, 27 Oct, sub: Trip to 33rd Div for ACoF S G - 4 (First Army Box 339, 470). Neither Col Vandervater nor his headquarters has been identified.

153 Reports and histories in 33rd Div Box 11, 44.6; Box 13, 44.6; Box 12, 32.12.
The Division Gas Officer explained this record of the 52nd FA Brigade in a letter to the III Corps Gas Officer on 15 October:

Our Artillery Brigade has not put over any gas... Concerning the use of gas by our Artillery, they do not seem to be keen on the use of it. You are probably familiar with the difficulties in convincing people that modern warfare does not require noise and destruction to get the best results in the way of putting men out of action. There is quite a bit of gas ammunition laying about the area, some of which has no markings on it at all, but during the present clean up arrangements have been made to assemble it all in the vicinity of Gercourt. It is hoped that when all the shells are assembled in one place more interest will be worked up and a show of our own will be started.

But the time had passed when it might have been effectively used, and presumably the gas ammunition was left at Gercourt when the division pulled out.

The Yellow Cross Division

The advice of III Corps to its divisions on 24 October, that they "must learn to avoid serious losses, and carry on a fight for three or four weeks before relief," came too late to help the 33rd Division.

It was a tired and casualty-ridden division when it crossed the Meuse on the night of 9 - 10 October. (Why the 129th Infantry, after its successive gassings, was sent across is a mystery.) On the east bank the troops rapidly passed from weariness to exhaustion, as the division met enemy forces in a state of readiness far greater than that found on 26 September, and was exposed to daily gas fire more pervasive, because

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154 Memo, 15 Oct, n.s. (WD Hist Box 300, 33.6, Use of Gas by Arty).
155 Memo, III Corps to all divisions, subj: Tactical Defects (90th Div Box 6, 32.15).
concentrated in a smaller area, than had been met with on the west bank. There is no reason to doubt that every combat officer and man in the division was gassed to some degree in the operation.

On the west bank, without protection against the German artillery on the Cotes de Meuse, the 33rd Division could do nothing about its plight but hold on. On the east bank it advanced until it was overtaken by gas and gas mask exhaustion. The comparative casualty figures, as well as the distances covered by the American and French forces east of the Meuse, might be construed to indicate that the Americans were written off as expendable even as they crossed the Meuse.