THE 1st DIVISION IN THE MEUSE-ARGONNE
1-12 October 1918
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by

Rexmond C. Cochrane

GAS WARFARE IN WORLD WAR I

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The 1st Division in the Meuse-Argonne
October 1918

Prepared by
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U.S. Army Chemical Corps

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

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Foreword

This is a tentative study of the gas experience of the 1st Division in the Meuse-Argonne 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. Walter O. Moeller and Mrs. Charlotte 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.
THE 1st DIVISION IN THE MEUSE-ARGONNE

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Narrative

The First Division Comes Up to the Line........... 2
Bursts of Gas........................................... 7
The Gas Casualties...................................... 13
The Advance is Resumed................................. 19
East of the Argonne and West of the Meuse........ 32
The Argonne Forest is Reduced......................... 40

Analysis

Shock Division.......................................... 50
HE and Gas Casualties.................................. 52
First Division Gas Operations and German Gas Casualties... 58

Sketch and Maps

Map No. 1 Operation West of the Meuse, Oct 1-12........ 5a
Map No. 2 Group Argonne Situation Map, 1 Oct............. 6a
Map No. 3 5th Guard Division Situation Map, 2 Oct, 5:00 a.m. 6b
Map No. 4 DOO Map Showing Enemy Gas Attacks of 1-2 Oct..... 15a
Map No. 5 1st Division Combat Sector...................... 24a
Map No. 6 G-2 Situation Map, 5 Oct......................... 24b
Map No. 7 Order of Battle, 1st Div, 4-9 Oct................ 28a
Map No. 8 Group Argonne Infantry Dispositions, 11 Oct, 5:00 a.m. 47a
As a result of gas attacks on the four succeeding nights after its arrival in the sector, while awaiting orders to advance, the 1st Division suffered more than 900 gas casualties. Many of the 480 additional gas casualties incurred during the week of operations that followed appear to represent delayed cases or new casualties as a result of occupying previously contaminated terrain.

In the attack of First Army on 4 October, the 1st Division was charged with flanking the enemy out of the Argonne Forest. The advance made by the left flank of 1st Division on the first day represented its maximum effort until 9 October. Without the assistance of its neighboring divisions, it drove the wedge for the flanking maneuver, but had to leave completion of the maneuver to the 82nd Division, while it fought to hold the ground over which it had advanced.

The focus of this narrative is on the series of gas attacks on the division prior to the assault, when the attack and support battalions of the division were held in ravines that were natural gas traps, within easy reach of the enemy artillery. These gas attacks were unquestionably a contributing factor not only to the inability of the division to effect the decisive flanking maneuver, but to excessively high casualties it had to take subsequently when it proved unable to assault and silence the German guns on its flank.
The lst Division Comes Up to the Line

On 14 September, having advanced fourteen kilometers in less than a day in closing the St. Mihiel salient, the lst Division, under Major General Charles P. Summerall, bivouacked in the luxurious former German rest camp in the Bois de la Belle Oziere. Five days later it was placed in Army reserve at Benoît-Vaux as plans were made to use the division east of the Meuse in the coming Meuse-Argonne offensive.

The first objective of Foch's "greatest of battles" that opened on 26 September was the breaching of the Hindenburg Line. The British armies stood before that line in the Cambrai-St. Quentin sector, but in the Meuse-Argonne sector, the American army was eight miles from the Hindenburg Line, represented in that sector by the Kriemhilde Stellung.

Of the nine American divisions along the line of assault, only one was a regular army division and only three had had previous battle experience. Nevertheless, Pershing expected his troops "to reach and break through the Kriemhilde line on the first day...and to exploit the success during the night, so that the second morning would find them in open country, and almost half-way to Sedan and the lateral railway." ¹

The natural obstacles of the terrain, the difficulties of supply, the stubborn defense of the German forces, and the nature of the German defenses in the sector thwarted the plan. In mid-1917, the Germans had largely abandoned the linear system of trenches for a system of disconnected strong points distributed in great depth. Machine guns, thickly sown, held these

forward stellugen or fortified positions, with troop reserves concentrated in the rear for counterattack.

In its first two days, the 35th Division, like the other divisions along the front, had overrun, at high cost, the foremost of these positions, penetrating four miles or more, but as Liggett was to say, the Germans, although surprised, were able to throw in reserves so rapidly as to block the original breach by the third day. As a result, the American attack came to a standstill on 28 September. This was nowhere more evident than in the 1st Corps sector, where, even before the German counterattack, the disorganization of its divisions made a halt at once imperative.

The initial German forces before the American army were war weary—they had been sent to that sector for rest and reorganization—and they were temporarily demoralized by the onslaught. They held on while reserves were rushed to them from Metz, even as the American forces waited for help from the veterans of St. Mihiel. The attack, which lost its impetus on 28 September, was not to be resumed until the morning of 4 October.

Still in the 3rd Corps sector, near the Meuse, on 29 September and still uncommitted, the 1st Division was suddenly assigned to 1st Corps and ordered to move that night by truck to Neuilly, on the far side of the First Army front. Early on the morning of the 30th, General Summerall arrived at the 35th Division CP at Cheppy with orders to relieve that division by 5:00 a.m., 1 October.

The position reported occupied by the 35th Division extended from Baulny to near the Apremont-Epinonville road, one kilometer east of Chaudron Ferme, and thence to Bellisfontaine—a front of more than four kilometers.
Messages were dispatched ordering three lines of the 1st Division into the ravines in the sector, the Baulny-Serieux Ferme ravine (the reported first line of the 35th Division), the Charpentry-Eolisfontaine ravine, and the Very ravine (Map No. 1). 2

The infantry columns approached the Varennes-Cheppy line at dark on 30 September, the 16th and 18th Regiments of the 1st Brigade, under Brig. Gen. Frank Parker, and the 28th and 26th Regiments of the 2nd Brigade, under Brig. Gen. Frank E. Bamford, in line from left to right. They advanced until a battalion of each regiment was in position in the three ravines, with the 1st Engineers in reserve southeast of Very.

At midnight, the 1st FA Brigade under Col. Henry W. Butner reached the vicinity of Cheppy and the next night began the relief of the 35th Division artillery. The batteries of the 6th FA Regiment were put on the western slope of the sector where, though screened from frontal fire, they were exposed to direct fire from the Argonne, just across the river Aire. The 7th FA went into positions southwest of Eolisfontaine, and the 5th FA (155s) took up positions near Charpentry and Very. At the former positions of the 35th Division artillery, the incoming brigade found 3,000 gas shells and 3,000 smoke shells neatly stacked in their cases. 3

2 Hist Sketch of the 1st Div During the World War, compiled by 1st Div Society (214 pp.), n.d., pp. 138-146 (1st Div Box 11, 1.4). This mimeographed account appears essentially unchanged in the published History of the 1st Division During the World War (Phila: J. C. Winston Co., 1922).

3 All 6,000 rounds were expended on 4 Oct, per 1st FA Brig Ammo Rpts, 20 Jan - 11 Nov; they were expended on 6 Oct, per Rpt, 36oz Shells Fired by 1st FA Brig, Jan - Nov 1918. See World War Records, 1st Division, Vol. 14. These bound vol., with preface by General Summerall, dated 28 Mar 1928, are hereafter cited as Records.
The lst Division came into the line with orders to continue the First Army attack immediately upon completion of the relief. The assault battalions were to assemble by midnight on the Charpentry-Eclisfontaine road, and proceed through the foremost line of 35th Division troops, ready to continue the advance to the Combined Army First Phase line (Chehery-Fleville-Cote de Maldah) at 5:30 a.m. on 1 October. At 8:00 p.m., Army orders cancelled the attack, but the troops, in line between Baulny and Eclisfontaine, remained in place. 4

In affecting the relief, the lst Division commented on the disorganization of the 35th Division, and reported that a patrol of its 26th Infantry, probing while the relief was in progress, found a number of men from the 35th lost in the Ravine de Mayache, south of Tronsal Forme. 5

The German 5th Guard Division also reported the capture that day of 11 men from the 137th, 138, and 139th Infantry, found inside its lines. 6


Shipley Thomas, The History of the A.E.F., pp. 288 - 289, says, "The ensuing delay was due to the necessity of building roads...for the transport of artillery and ammunition."

PO 43; "Found an awful mess at Charpentry"; Extracts from Diary of Maj. Edw R. Coppack (CO 16th Inf), 1 Oct (lst Div Box 12, 11, 4/9).

NOTE: The principal source of German data for this narrative is the bound volume, World War Records, lst Division-German Documents, Vol. 4; Meuse-Argonne (preface dated 30 Mar 1933). All refs to German records, unless otherwise specified, are to this volume.

Most of the volume consists of the translated records and diaries of the 5th Div and its units, with scattered data for the 37th, 45th Reg, 41st, and 52nd Divs at the back. More complete records of the 52nd Div are said in this volume to be in the War Diaries of German Units Opposing the Second Division, but the 2nd Div project to translate these war diaries apparently ceased with the Chateau Thierry campaign; no records of the 52nd Div are to be found there. It has therefore been necessary to translate pertinent material for the 52nd Div from its available records in the German Files of the National Archives.
Reconnaissance patrols of the 1st Brigade quickly learned that Chaudron Ferme and Montrebeau woods were strongly held by 5th Guard Division elements. Facing the 2nd Brigade with multiples of machine guns and supporting troops above the L'Esperance-Eolisfontaine road was the 52nd Division (see Maps Nos. 1, 2, 3). Although the condition of the 52nd Division, fully committed for the first time on 1 October, in relief of the 1st Guard, was "effective and excellent," the 5th Guard, to its left, was soon to be reported "completely exhausted," and the 2nd Landwehr, facing the 28th Division, was still "effective despite losses and fatigue."  

The first two positions of the German forces on the First Army front had been penetrated, and on 1 October the Army faced the Giselher Stellung, the enemy defense line through the Argonne near Binarville—south of Apremont—Eolisfontaine—Nantillois—Brieulles sur Maize. Despite their recent success against the left flank of First Army, the German forces opposite the 1st Division on 1 October were not sanguine. "The operative situations seems indicative that a further withdrawal is not unlikely," reported Group Argonne, and that same day a German Third Army memo said: "Army Headquarters has only a very limited number of reserves at its disposal and cannot count upon further reinforcements."  

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7 Items 102-104, 5th Gd War Diary & Annexes, show the arty support of the 5th Gd Div by the arty of the 2nd Ldw and 52nd Div, and 5th Gd arty support of these two divisions.

8 Est of situ, Op Arg to 3rd A, 4:15 p.m., 4 Oct (Item 25, Annexes to War Diary, Op Arg); of Survey of situ, 5 Oct, Item 121.

9 Op Order, 1 Oct (Item 87, Annexes to WD, Op Arg); Item 129, 3rd Army WD&A.
relieved immediately after... Gravity of situation demands sparing use.\textsuperscript{10}

The mission of the 1st Division was to drive a deep wedge into the high ground east of the Aire valley, forcing the enemy to loosen his hold on the Argonne, and so carry the whole of the Army line forward.\textsuperscript{11} The principal obstacles before the 1st Division were Montrebeau woods, Exermont ravine, Montrefagne woods with Hill 240, and as a culminating barrier, the great ridge of Hill 272. These taken, the Argonne would be flanked and First Army would be ready to assault the Kriemhilde Stellung. But, as Group Argonne said, "The enemy, cautious since the 29th of September, will have to silence the enfilade fire from the Argonne before he again renews his attacks east of the Aire." This mission Army assigned to the 28th Division, to the left of 1st Division.\textsuperscript{12} Meanwhile, the troops consolidated their positions, brought up supplies, and waited for the order to attack.

\underline{Bursts of Gas}

"The Army," Lt. Butler, Aide de Camp to General Summerall, wrote in his journal, "saws the Bosche have withdrawn, but we know better. We found the

\textsuperscript{10} Item 23, Annexes to WD, Gp Arg.

\textsuperscript{11} Hist Sketch, p. 151, Shipley Thomas, p. 291, adds, disregarding the intervening 77th and 28th Divs: "...and to effect a junction with the French Fourth Army at Grand Pre."

\textsuperscript{12} Gp Arg WD, 3 Cot, FO 33, 1st A, 12 Hr, 1 Oct, said 1st Corps /I.e., 1st Div/ was to continue the attack and capture the heights NE and N of Exermont, thus assisting 5th Corps in the capture of the heights W of Romagne. It /I.e., 28th Div/ was to seize and hold Hill 180 S of Cornay, Hill 244 W of Chatel Chehery, and the main crest of the Forêt d'Argonne, "thereby cutting off hostile enfilade fire against the attack east of the Aire River."
enemy with machine guns in the Montrebeau woods & in the woods to the east of the Montrebeau woods...many were killed and wounded in the patrols."

But the enemy artillery was to take a greater toll of troops. For four nights and three days, while the division waited, the German guns pounded the area. The troops, as Lt. Butler said, were concentrated along the front line, without cover, and the enemy’s batteries on the front and those in the Argonne, west and north of Apremont, were highly effective. On 2 October, he said: "If we are not to attack it is poor business to leave our men in attack formation subject to this heavy artillery fire." Not until the 3rd did he report that some of the units had been moved back.

The 1st Division was not aware of the enemy’s range-finding on 30 September, in preparation for gas shoots on Baulny and Ernst ravine to the northeast, nor did Major Wise, the 35th Division Gas Officer, apparently mention to the incoming division his suspicion, following a tour on the 30th of the troop and artillery positions in the Charpentry area, that "conditions were most favorable for the enemy to use Mustard Gas on these positions and lines of supply."13

The Gaschiessen began normally enough. Late in the evening of the 30th, while the relief was still in progress, Lt. Butler wrote: "It is a clear night & the enemy is only throwing over a few shells. He is throwing over single gas shells from time to time to harass." By morning it was obvious that some sort of systematic gas shelling was under way, and orders

13 5th Gd Arty Order 12, 0530, 30 Sep (Item 111, 5th Gd War Diary, German Files Box 151). Bpt, Wise, n.d., 35th Div Box 10, 53.35
went out: "Regimental commanders will issue the necessary warning to their troopers that the enemy is shelling along the entire front with phosgene and mustard gas." Between 3:00 and 5:30 a.m., 1 October, a battery of the German 1st Guard heavy artillery had put 300 rounds of yellow cross on Ernst valley, from Buane the creek at Baulny up to Serieux Ferme, while another battery, between 4:30 and 5:00 a.m., fired two sudden bursts of gas totaling 70 blue cross rounds (diphenylchlorarsine) and 40 green cross (phosgene) on Baulny.15

Expecting a renewal of the American attack on 2 October, Group Argonne ordered continuous harassing fire through the night of 1 - 2 October, the fire to be "increased from 5:00 am. At that time gas will be delivered on the probable assembly areas; this gas will be delivered as close to our lines as weather conditions permit....of primary importance: ravines at Bouzon, Ernst ravine, commune woods of Baulny, commune woods of Cierges. The gas must be sufficiently dense!"16 The 5th Guard artillery order, prepared two

14 Memo, 2nd Br Ig 1st Div, 1 Oct sub: Gas Shelling (Records 8). Sent to all orgs; see 1st Div Box 65, 32.15.
15 Arty O 14, 8 pm, 30 Sep (Item 99, 5th Gd WD&A). "During the night, assembly places gassed, especially ravine near Bouzon, Ernst ravine, Commune Baulny woods, Commune Cierges woods" (Op Arg War Diary, 1 Oct). "Yellow cross fires were carried out on the southern part of the Ernst draw" (5th Gd Art Comdr to 5th Gd, noon rpt, 1 Oct, Item 105. See also 3rd Gd Foot Regt, Diary, 1 Oct (5th Gd-Regts-WD&A). Unaccounted for in arty orders is the evening rpt, 4th Gd FA Regt 1 Oct which said the 2nd Bty 1st Gd Regt delivered 270 rounds of yellow cross from 8-9:15 on southern part of Ernst ravine. Similarly, 1st Bn 1st Gd Res Foot FA, Diary, 1 Oct rpts 204 rounds of gas and harassing fire during the day (both items in 5th Gd-Sub Units-WD&A).
16 GP Order, 10:30 p.m., 1 Oct (Item 39, Annexes to WD).
hours earlier, called for 450 rounds of yellow cross to be fired from 1:30-3:00 a.m. by two heavy batteries of 1st Guard artillery on the valley from Baulny to the entrance of Karl ravine. In addition, sudden bursts of lethal gas -- 20 rounds of blue cross by each of five light batteries, 30 rounds of green cross by a sixth battery -- were to be fired at 11:30 p.m., 12:15, 12:30, 2:15, 2:30, and 4:15 a.m. on Baulny -- a total of 780 lethal shells. In his morning report on 2 October, the artillery commander said:

"From 1:00 a.m. the valley between Baulny and Charpentry was gassed with yellow cross; bursts of gas were delivered on Baulny itself."18

The extent of German gas intentions then in progress is evident in the instructions issued for the continued defense of the 5th Guard sectors:

Preparations will be made for the delivery of gas so that they can be carried out at any time, particularly against Hoffung valley above Chaudron Ferme to Chaudron farm, Baulny and Charpentry ravines, Ernst ravine to west of Baulny to Sereux farm, Franz draw north of Charpentry, Karl ravine.

During the gassing of ravines the surrounding heights will be systematically covered with harassing fire of H.E. at the same time.

If possible, during the harassing fire important traffic points will be gassed frequently and thoroughly with yellow cross.19

All during the day of 2 October, the troops and batteries in the ravines of the 1st Division sector were pounded with high explosive. An enemy report

17 Arty 016, 8:30 p.m., 1 Oct, Item 74.5.

18 Item 76; 5th Gd Morning Rpt, 2 Oct, Item 73. The morning Rpt of the 4th Gd FA said 135 rounds of yellow cross were put on Baulny valley and Baulny, 262 rounds on Buzancy valley to the entrance of Karl ravine (in 5th Gd-Sub Units-WDA). Instructions, 2 Oct, Par VI.5 (Item 63/4, 5th Gd WDA).
that night said: "The attack that was expected today did not develop, apparently on account of the copious harassing fire during the night, gassing and due to the waves of annihilation fire."\textsuperscript{20}

That evening the gassing was resumed when a single heavy battery was ordered to fire 160 rounds of green cross in "sudden bursts...on Charpentry about 9:30, 10:25, 10:45, and 11:50." 40 rounds each time. Another 195 rounds of green cross were to be fired in sudden bursts on Baulny at 3:00, 3:30, and 4:15 a.m. by two heavy batteries. Then, about 4:40 a.m. on the 3rd, six batteries were to fire "bursts of gas, suddenly...on the roadforks and bridges 200 meters southeast of Baulny." Four light batteries would fire 80 rounds of blue cross each, two heavy batteries would fire 25 rounds of blue cross and 40 rounds of green cross between them, for a total of 265 rounds.\textsuperscript{21}

Reports on the 3rd confirmed the "Harassing fire...against batteries, bursts of gas on Charpentry and Baulny," with later "bursts of gas on the roadforks southeast of Baulny and on Baulny."\textsuperscript{22} In response to requests of the infantry, two batteries of the 4th Guard FA fired an additional 200 rounds of blue cross on Baulny between 4:30 and 5:30 on the afternoon of the 3rd.\textsuperscript{23}

\textsuperscript{20} 5th Gd Art Comdr to 5th Gd, Evening Rpt, 2 Oct (Item 82.1, 5th Gd WD&A).

\textsuperscript{21} Arty O 17, 7:30 p.m., 2 Oct, Item 53.

\textsuperscript{22} 5th Gd Morning Rpt, 3 Oct, Item 122; Noon Rpt, 12:40 p.m., 3 Oct, Item 142; 5th Gd Art Comdr, Noon Rpt, 10:10 a.m., Item 54. 1st Bn 1st Gd Res Foot FA, Diary, 3 Oct, confirms burst of gas on Baulny, 40 rds, 3:00 a.m.; bursts of gas on Baulny & bridge, 113 rds, 3:50-4:40 a.m.

\textsuperscript{23} Supplement to final rpt, 3 Oct (in 5th Gd-Sub Units-WD&A).
Warning that an immediate resumption of the attack must be expected, a German divisional order for 3 October asked for additional "Yellow cross on Baulny, and if the ammunition situation permits, on the Ernst ravine." The artillery order that evening said that "sudden bursts of gas, at the maximum rate of fire" were to be put on the region between the two bridges at the southwest corner of Charpentry. A heavy battery would fire 25 rounds of green cross at 9:30 and again at 10:24, 10:45, and 11:50 p.m. Each of two light batteries would also fire 50 rounds of blue cross at 10:45 and 11:50, for a total of 300 lethal gas shells.

In addition, from 1:00 to 3:00 on the morning of 4 October, a light battery, moved from northeast of Fleuville into an advanced position east of Montrefagne for that purpose, was to fire 580 yellow cross shells on the northwest slope and bottom of Ernst ravine, from the Baulny-Charpentry road to 700 meters north. Farther back, a heavy battery would fire another 330 rounds of yellow cross on Baulny from 2:00 to 4:00 a.m.

Completion of this gas mission was confirmed in the 5th Guard morning report of 4 October: "Bursts of gas against the bridges on the southwest corner of Charpentry. From 2:00 to 4:00 a.m. gas firing on Baulny....Searching and sweeping fire into the rear area with gas.""}

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24 5th Gd Div O, 3 Oct, par 5d, Item 37.
25 Arty O 18, 8:30 p.m., 3 Oct, Item 34.
26 Item 174, Annexes to WD, Op Arg; also 5th Gd Morning Rpt, 4 Oct (Item 43, 5th Gd WD&A).
4th Gd FA, Morning Rpt 4 Oct (5th Gd-Sub Units) confirms firing of 40 rds blue cross by 9th Bty 270th FA betw 9:30-11:00 p.m. against Amer arty.
3rd Bn 4th Gd FA, Diary, 3 Oct, confirms displacement of three guns of 7th Bty to fire yellow cross between 12 m-1:45 a.m. 5th Gd Art Comdr, Morning Rpt, 5:56 a.m., 4 Oct, Item 35, confirms the 350 rds yellow cross; 1st Bn 1st Gd Res Foot FA, Diary, 4 Oct, says 344 rds yellow cross were fired between 2-4 a.m. on Baulny and Charpentry bridges.
Unaccounted for 1st 3rd Gd Foot Regt, Diary, 3-4 Oct (5th Gd-Regts-WD&A): "During the night of 3/4 Oct, the Montrésseau and the ravines of the sector had been gassed."
It is estimated that before the 1st Division began its attack on the morning of 4 October, it had been shelled with at least 1660 yellow cross rounds, 1135 blue cross, and 675 green cross, or a minimum total of 3470 gas shells.

The Gas Casualties

The divisional summaries of intelligence for the period tend to minimize the extent of this gassing. The report for the 24-hour period ending 4:00 p.m., 1 October, admitted heavy HE fire that day from north of Cornay and Hills 233, 240, 212, and 269, but said the "gas shells...mixed in with H.E's were not in sufficient numbers to cause damage." On 2 October the division reported only 110 gas shells, mixed in with H.E.'s and occasional shrapnel" were coming in "to the rear as far as the divisional P.C."

And on the 3rd, "Many gas shells fell on all of our positions. Few casualties."

The divisional operations report for 1 October, mentioning "A few gas shells" in addition to the HE fire, said that nine men had been reported killed, twenty-eight wounded and only two gassed up to noon that date.28 Earlier that morning, a 26th Infantry battalion commander, below Serieux Farm, reported that "Mustard gas has been fired intermittently on my left front company."29 At noon, however, a platoon leader of the 3rd MG Battalion,

27 SOI 16 h to 16 h, 30 Sep-3 Oct (Records 4).
28 Ops Rpt, n to n, 30 Sep-1 Oct (Records 13), Notes DORs after mid-September cease to estimate the number of its own and enemy arty HE and gas rounds fired each day.
29 FM CO 1st Bn 26th Inf, 9:25 a.m., 1 Oct (Records 15). Notes: Almost all FMs in 1st Div files are "true copies." They have been edited, and there are few or no originals.
with the 2nd Brigade, signalled: "Please send over 1 Sgt & 3 runners. Everybody over here is gassed. 4 or 5 officers and quite a few men have evacuated including runner. Most everybody in the Bn will not be able to make an attack in this shape. The Major & Adj. have both been evacuated (FM CO 2nd Plat to CO Co D 3rd MG Bn /Date supplied in post-war note, Records 15)." There are no messages from the most heavily gassed unit on 1 - 2 October, the 16th Infantry.

If the Summary of Intelligence for 1 October did not report sufficient gas shells coming in that day to cause damage, it added that Company L, 18th Infantry, had been gassed while digging in. There were "few casualties." Lt. Butler, in his journal entry for that same day, wrote: "Some of our men dug into ground saturated with gas & became well saturated before they realized it... We have about 400 casualties this first day. Mostly gas." The commander of the 18th Infantry was more explicit:

150 men, 90 being from one company were evacuated this afternoon, all having been gased with mustard gas. This company moved into trenches as support company this morning about 3:00 a.m. and dug in while there was some shelling, mixed H.E. and Gas. About 100 gas shells reported in an area of about a kilometer square. It was necessary for the whole battalion to pass through the gassed area. They all adjusted their masks and none showed signs of being gassed as a result. But this afternoon this whole company showed signs of being gassed with mustard gas, burning eyes and vomiting. No gas shells had hit at the particular place where this company dug in nor yet to windward of it. Apparently this place had been bombarded with gas and throwing the earth up in digging and this being exposed to the sun the gas was given off, as there was no sign of gas when the company took its position. As soon as it was noticed that there was gas, the company took up position out of the gassed area.

30

Ltr, Hunt CO 18th Inf to CG 1st Brig, 1 Oct, sub: Rpt on Gas (Records 13).

Lt Ind to CG 1st Div, 2 Oct, suggested that the men had dug in saturated ground and became subjected unawares to the accumulated influence of mustard fumes.
On 2 October, Major Coppack, commanding the 16th Infantry, wrote in his diary of gas shelling some hours before 5:00 a.m., the hour Group Argonne ordered gas on the Baulny area. "My headquarters is only 1500 yards from the enemy. Last night he shelled us with gas, H.E., and shrapnel. We wore our masks from midnight at 2 A.M. Yet there were 70 casualties from gas. I am sick at my stomach today on account of it." At 6:00 a.m. on the 2nd, the 1st Division reported 254 gas casualties. 31 By noontime, a total of 409 gas cases had been reported. 32

Capt. G. J. Sielaff, the Division gas Officer, in his first gas attack reports, makes no mention of gas on the morning of 1 October, but refers to the gassing between 10:00 p.m. and 3:00 a.m. on 1-2 October. Following that attack, he says, there were 392 mustard gas casualties out of a thousand men exposed in the 18th Infantry, as a result of failure to recognize the presence of the gas, and 17 out of two thousand men, taken by surprise, in the 16th Infantry. Six hundred yperite shells were said to have fallen on the 16th Infantry reserve position. 33

31 Tele G-3, 2 Oct (Records 13) reports 118 wounded, 254 gassed, 6 PN, 44 sick for period 12m-6am 1-2 Oct.

32 Opns Rpt, 1-2 Oct, reporting "Heavy harassing fire especially during night on front line. H.E. shell and gas." shows 14 killed, 97 wounded, 409 gassed.

Lt. Butler, at Cheppy, noted on 2 Oct only that that town "was shelled slightly last night with single gas shells," and on the 3rd, that "The enemy is dropping a gas shell in Cheppy from time to time. Just enough to cause 'Gas Alarms'."

33 Rpts on Gas Atk, 2 Oct (GAF-1st Div Atks). Spencer, Pt I, p. 75, repeating these same DGO rpts adds 700 gas shells in the 18th Inf sector, not in DGO rpt.
Map Showing Enemy Gas Offensive
Against 1st Div Oct 1-2, 1918
Reduced scale 1:20000

Places where 16th Inf casualties occurred

Source: Spencer, EACD 460, Part 11 (15 Feb 28)
(original map dated to memo DCO 1st Div to
C Cusp. 1st Oct - in EAC - 1st Div Atta)
The itemized casualty lists of the division field hospital show by actual count 189 men gassed in the 16th Infantry, 3 officers and 117 men in the 18th Infantry, 52 men in the 26th Infantry, and 3 officers and 105 men gassed in the 28th Infantry -- a total of 469 casualties among its admissions on 1-2 October.\textsuperscript{34}

It appears that Captain Sielaff was confused about the extent of the gas attacks, as well as in error about when and where they occurred. This is clear from his post-action account of the gassing, with attached map (see Map No. 4), wherein he dates the relief of the 35th Division and the first gas attack as the night of 1-2 October, instead of 30 September-1 October.

On the night of the relief the enemy began shelling at 10:00 p.m., October 1st and continued until 4:00 a.m. of the 2nd. In the area of Charpentry the ravines were shelled with yellow cross containing a large amount of high explosive, making it impossible to distinguish the gas shells from the high explosive. The fuses used were probably slight delay, as in nearly all cases small craters showed that the shells had penetrated the earth from two to four feet before exploding.

It was in this area that the 16th Infantry was bivouacked and their casualties were caused by surprise and then by not keeping on the gas masks long enough. The night was cold and the odor of the gas was very, very faint, but shoes and clothing were evidently contaminated. The troops were moved forward over ground that had been shelled with yellow cross.

The 18th Infantry in passing toward the front lines, one battalion was compelled to dig in on the brow of the hill \textit{east of Chaudron Ferme} at the edge of the small woods. This ground was shell torn and about one hundred gas shells were fired on them along with the high explosive shells. They dug in without wearing their masks, not knowing that gas was being used.

The 26th and 28th Infantry apparently did not suffer casualties until the following day when they passed over gassed ground. The 28th passed over flat ground covered with tall grass which had been shelled with mustard.\textsuperscript{35}

\textsuperscript{34} Med Dept Box 3406.

\textsuperscript{35} Memo, G00 to C GWA, 18 Oct, sub: Rpt of gas attacks from Oct 2nd to 11th, 1918 (GAY-1st Div Atks).
Resuming the 1st Division account of the gas attacks, on the night of 2-3 October, it reported "the ravine northwest of Charpentry was again shelled with mustard gas. Roads leading to Very and Charpentry were shelled continuously throughout the day and night." At 6:00 a.m., 3 October, the division triage at Cheppy recorded a cumulative total of 1,182 casualties to date, of which 84 were 1st Division wounded, 561 gassed, with another 220 wounded and 164 gassed belonging to other divisions, principally 35th Division artillery.

In the next 24 hours, another 27 wounded and 66 gassed were reported by the triage, as well as 79 wounded and 9 gassed from other divisions. During the night of 3-4 October, Major Coppock wrote in his diary, "My PC was hit twice with shells and gassed twice. An awful night....Before we started the attack 192 men of the 18th Infantry had been gassed."

Reports of casualties resulting from men digging in mustard-contaminated ground, as had the 18th Infantry earlier, continued to come in. A company

36 OR 2-3 Oct also rpted approx 5 killed, 100 wounded, 150 gassed as a result.

37 Ltr, CO Field Hosp 3 to Div Surg, 3 Oct, sub: Rpt of Casus thru Triage (Records 13). The DGO reports on gas atks after 2 Oct are all on a noon to noon basis and make no attempt to give the number of rounds fired or units affected. His rpt for 2-3 Oct shows 409 gas cases (as in the Opns Rpt for the day before), all mustard gas, occurring NE of Charpentry. Spencer, Pt 1, p. 77, recording this same rpt says 600 77mm. shells were fired in that atk.

38 Ltr, CO Field Hosp 3 to Div Surg, 4 Oct. The DGO rptd 50 gas cases for 3-4 Oct and 38 for 4-5 Oct (produced, adds Spencer, by 500 gas shells), with a note to see his rpts of 2 and 3 Oct for further details.
of Engineers reported 15 of its men were slightly gassed on 4 October while
working on the roads between Charpentry and Baulny and Route 46. On 5
October, the Gas Officer of the Engineers reported 80 casualties from mustard
in low concentration in the valley south of Charpentry, where the men had
"sought shelter in shell holes during bombardment of H.E.S.," and where
troops were continually passing through the area. And on 6 October, the
Engineers reported additional casualties, when approximately 120 men in
Company C were burned while working on the road near Baulny without their
masks. The area had been subjected to yellow cross, said the report, about
ten hours previous to their arrival. The officer in charge had been in
France only two months and had had no gas experience, and was therefore
unaware that subsequent shelling with high explosives could volatilize
mustard gas in contaminated ground.

The 1st Division was later to say, somewhat selectively, that during
this period "The ravine northeast of Charpentry was constantly drenched with
mustard gas," although the gassing was not limited to that area.

39 Rpt of Co D 1st Eng during Recent Opns, 14 Oct. See ltr CO 1st Eng
to CO 1st Div, 20 Oct, Rpt on Recent Opns, which said nothing of gas or gas
attacks but reported total cases for the period of 21 killed, 72 wounded,
and 156 gassed.

40 Ltr, RGO 1st Eng to DGO 1st Div, 5 Oct (Records 14).

41 Ltr, RGO 1st Eng to CO 1st Eng, 6 Oct, subj: Rpt (1st Div Box 114, 66.
3). This gassing is confirmed in DGO ltr of 18 Oct. It appears to be the
same that is said to have occurred on 4 Oct, in ltr, CO 1st Bn 1st Eng to CO
1st Eng, 14 Oct, Rpt on Opns in Atk W of Meuse, Sep & Oct 1918 (Records 14).

42 Hist Sketch, p. 151.
ably, many of the casualties that resulted from the successive attacks were owing to the failure to recognize the potential effectiveness of yellow cross when mixed with harassing fire, particularly when much or perhaps all of that yellow cross was in the new German mustard-HE shell. The Summary of Intelligence for 4-5 October guessed at the hazard when it reported that "Many HE's contain strong mustard gas composition."

In its three-day wait for the order to attack, the division had taken almost 1,500 casualties, of which over 900 were caused by gas.43

The Advance is Resumed

Resumption of the Army offensive was ordered for 5:30 a.m., 4 October. For the attack, two companies of tanks (actually, 47 in number) and three troops of cavalry were made available to the division. Company C of the 1st Gas Regiment was attached, to put down a smoke screen along the southern edge of the Bois de Montrebeau for four minutes beginning at H hour, but this was apparently cancelled.44

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43 Opns Rpt, 3-4 Oc t, gives only the est. of total casus. The Amer Battle Monu Comm study, 1st Division Sum of Opns (1944), p. 95 shows 125 killed, 107 died of wound, and 1,257 wounded in the period 29 Sep-3 Oct. The wounded apparently include gas casualties. The DGO reports through 4-5 Oct indicate a total of 906 casualties, all represented as mustard gas cases. No mention is made of phosgene or diphenylchlorarsine cases.

In his gas att reports, the DGO notes a total of 223 gas cases at the triage from other divisions, but does not indicate whether these are included in his daily figures. They are apparently excluded in his ltr to C CWS, 5 Oct, sub: Preliminary Rpt on Gas Atk of Oct 1st and 2nd (1st Div Box 57, 65, 33), which rpts 863 "casualties suffered by the First Division," as reported between 2-4 Oct.

44 FO 47, 1st Div, 2 Oct, pars 3B, 3G; Memo G-3, 1058, 3 Oct (Records 3). The Co C mission was changed twice in orders, but Hist of 1st Gas Regt, Pt III, p. 17, makes no mention of this smoke mission. Yet Hist Sketch, p. 160, said, "The Chemical Warfare Company...aided powerfully at the initial assault but the casualties soon became disabling for so small a unit."
The divisional artillery was augmented by the 219th FA (French), making a relatively small total of 84 75mm. guns and 24 155mm. howitzers. These were to open the attack without any preparation other than a standing barrage, to allow the troops to close up before both advanced. Two field pieces were put at the disposal of each attack battalion for use as forward guns. Counter-battery and interdictory fire were to be conducted by two groups of 105's and one group of 155's of the 1st Corps Artillery Grouping, in liaison with divisional artillery.

In the assault, the first infantry objective was a line along the northern edge of Montrebeau woods, where the barrage would stand for thirty minutes, to stun the enemy on the crests of Exermont ravine and to permit the troops to reform after passing through the woods. The second objective was a line along the base of the northern slope of Montrefagne woods, where another barrage would stand for thirty minutes. The final objective for the day was a line just north of Fleville, where the barrage would fall for twenty minutes and then cease, while the guns came forward.

The order, that "No. 5 shells (Lethal gas) will be used freely on favorable targets and under favorable weather conditions" was carried out by the attached 219th FA which, on the evening of 3 October, began "throwing over

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45 Forward guns were ordered in FO 63, 1st C, 17 hr, 1 Oct and implemented in Attack Order, Opns No. 4, 1st FA Brig, 2 Oct (Records 9). Memo 00 1st FA to CO 6th and 7th FA, 6 Oct, reduced this to one gun per bn.


47 FO 35, 1st A, 1 Oct; FO 63, 1st C, 1 Oct; FO 47, 1st Div.
concentrations of lethal gas from time to time, until 2:00 A.M. tomorrow morning."

Both the 5th Guard and 52nd Infantry Divisions reported the heavy gas and incendiary fire on their forward lines and rear areas on 3-4 October. Elisabeth Regiment of the 5th Guard reported: "At 2 am the enemy commenced to shell the entire terrain below the front line and north of Fleville with gas and smoke. At 7 am the terrain had been so heavily gassed and smoked that there was no observation from the Regimental CP. It was possible to see for only 5-10 paces. The gas and artificial fog moved to the north in heavy swaths, making any observation impossible." The 3rd Battalion of the same regiment said: "At 5:30 am the preparatory fire of the enemy commenced suddenly. Our men had to suffer much from lachrymatory gas with which the rear area was shelled in particular." Yet a summary report of losses in the 5th Guard Division between 1-7 October shows only a single gas casualty for the period, a member of the Elisabeth Regiment.

At 5:25 a.m. on the morning of the attack, the barrage opened 200 meters above the L'Esperance-Chaudron Ferme road and then northeast to the Bois.

48 ADC Jnl Opns; Rpt, Spec Shells Fired by 1st FA Brig, shows 1620 gas rounds fired on 4 Oct by the French unit. Hahnian, Der Chemische Krieg, p. 45, says it was 1800 phosgene shells.

49 3rd Gd Gren Regt War Diary, 4 Oct; 3rd Bn War Diary, 4 Oct (5th Gd-Regts-Diaries and Annexes).

50 Items 112, 113, 5th Gd WD&A. A summary of cases in the 20th Inf (Tautentzein) Regt, 5th Gd, for 21 Sep-10 Oct, showed 24 killed, 181 wounded, 175 missing, none gassed (5th Gd-Regts).
Communale de Baulny. When the barrage began to advance five minutes later, the 
brigades moved with it. At once enemy batteries that had been brought up and 
emplaced in secret during the week opened up on the advancing troops and imme-
diately knocked out at least two of the 75mm. guns moving up with the assault 
battalions. The others found no opportunity to fire in the subsequent action. 51

Interlocking machine guns and a determined thin line of supporting troops 
met the advancing waves. It was the impression, repeated again and again later 
that day, that "all the Bosch who didn't have machine guns had cannons." 52

"Bodies of American soldiers...dotted the ground over which the attack pro-
gressed," and there was evidence in the bandaged dead "that many of the wounded 
of the 35th Division had been left by the enemy to die where they fell." 53

51 G-3 Memo, 17 Oct, Rpt on Opns of 1st Div...Oct 1-10 incl (Records 13), 
said these guns were "too often lost or disabled and in general they are not 
considered effective."

The difficulties of advancing in an infantry attack with a gun, 2 caissons, 
18 horses, and 19 men are described in ltr, 2nd Lt. Cross, 7th FA to CO 7th FA, 
25 Nov, sub: Rpt on accompanying gun (Records 14). He moved out about 2 am, 4 
Oct, to advance with the 3rd Bn, 28th Inf, carrying HE and gas shell, was gas- 
sed in Epinonville, reached position an hour late, was not allowed to fire, and 
at 1 pm the next day returned the gun to the battery. See also ltr, 1st Lt. 
McVicker, 7th FA, 26 Nov, sub: Accot of forward gun, who reports a similar ex-
perience at St. Mihiel, where he could not follow the infantry and did not fire 
a shot, and in the Argonne with the 1st Bn, 26th Inf, where he at once lost his 
gun in the attack, 11 of his 12 horses, and 9 of his 13 men.

52 ADC Jnl Opns.

53 Hist Sketch, p. 155. "The fields between the Exermont ravine & our jump-
ing off line are covered with the dead bodies of men from the 35th Div which 
fell back across it. Many of these had on their first aid bandages, showing 
they had been wounded & died after falling back. The Bosch does not look after 
our wounded" (ADC Jnl Opns, 5 Oct). The division was later to say that "Due to 
the number of dead left by the preceding division, burial of the dead was not 
completed until after the division left the line" (G-3 Memo, 17 Oct, Rpt on 
Opns of 1st Div, op. cit.).
Despite high casualties, the 1st Brigade reached its first objective, above Montrebeau Woods, at 7:00 o'clock. In the first hour of the attack, both battalion commanders and all company commanders of the 16th Infantry were wounded, but the regimental units continued their advance. On the right, the 2nd Brigade met greater resistance from the machine gun nests and the entrenched enemy troops than it had anticipated and did not reach Exermont Ravine until 7:30 a.m.

The second barrage began on schedule and the line moved out. Braving the flanking fire from the Argonne heights, the assault battalion of the 16th Infantry cleared the snipers and machine guns out of Ferme des Granges, crossed Exermont Ravine, and entered Fleville. Anticipating the bombardment of the town, at 1:00 p.m. the troops withdrew to the reverse slope below Fleville. The battalion had lost 18 of its 20 officers and 560 of its 800 men that morning, but it was "the only unit in the First American Army to reach its final position" on schedule that day. Its support battalion came up to the north slope of Exermont Ravine, while working parties of Engineers were sent up that night to consolidate the position, four kilometers from the line of departure. And there the 16th Infantry waited for the other regiments to come abreast of it.

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54 Coppack Diary.

55 Hist Sketch, pp. 155-157. Gp Arg WD, 4 Oct, said the counter-attack by a part of the 45th Div and the 37th late that afternoon retook Montrefagne and drove the enemy out of Fleville. But as a result of the "acute danger for the Aire Valley...the withdrawal of the Argonne front to in rear...had to be...taken under consideration."
To the right of the 16th Infantry, the remains of the assault and support battalions of the 18th Infantry became embroiled on the slopes of Montrefagne woods, after having suffered at Exermont the close range punishment that the 35th Division had met there from the ridge above the town and from the guns in the Argonne. Only remnants of companies were left as the two battalions penetrated the dense growth on the slope of Cote 240. Elements that reached the summit were beaten back and at nightfall the assault forces dug in on the south and west slopes of Cote 240. Two companies of the reserve battalion of the 18th crossed Exermont ravine, on the left of the main force, and dug in to support a possible counterattack.\footnote{Hist Sketch, pp. 157-158; ADC Jnl of Opns, 4 Oct; Op Arg WD, 4 Oct.}

In the 2nd Brigade sector, the 28th Infantry had advanced that morning across open fields against a 77 battery above Exermont ravine and a network of machine gun nests around La Neuville le Comte Ferme. When these were finally taken late in the afternoon, the assault battalion dug in between Beauregard and le Comte farms and established liaison with the regiments to its left and right.\footnote{Hist Sketch, p. 158.}

The assault battalion of the 26th Infantry, on the far right, was so badly mauled by frontal fire, as well as by flanking fire from the hills on its right, that it had to halt at the first objective, in line with the top of Montrebeau woods, and let its supporting battalion pass through to continue the assault. Like the 28th Infantry battalion to its left, the
Somme Arnes

La Ferté

Front line this AM 5th Oct.

Front line

37th Div. This AM Oct 5th

Cierges

Front line 28th Div. This AM Oct 5th

Châtel-Chêp-Herby

Sedan

Junction of lines 10th Oct.

Aprémont

Baulny

Charpentry

MAP NO. 6

Source: G-2 memo, map attached, 5 Oct, for circulation to troops (301 Records 4)
support battalion at once came under fire from the artillery above Exermont ravine and the machine guns at le Comte Ferme. When those two sources of fire had been silenced with the help of thermite fired by First Gas Regiment troops, the 26th Infantry troops turned and attacked the enemy position in the wood to the east, outside the 1st Division sector. At nightfall, the 26th Infantry was dug in between le Comte Ferme and the edge of the Bois de la Marine, two kilometers from the line of departure.58

That evening, with all troops holding fast, the gap between 1st and 2nd Brigades was filled by the 18th Infantry at Montrefagne. "There was no confusion or disorganization."59 The division reported its line from Fleuville-south slope of Cote 240-south edge of Bois de Boyon-Ferme Beauregard-Hill 212 (see Map No. 5; cf. Map No. 1). On its left, said Lt. Butler in his journal, the 28th Division, between Ferme des Granges and Apremont, and on the right, the 32nd Division somewhere below Gesnes-Cierges, "were far behind" (see Map No. 6).60

The statement in the divisional history for 4 October that "During the afternoon and night...the battery positions and valley suffered especially from gas" probably referred to the effects of the 900 rounds of yellow cross fired just prior to the attack, and was reflected in the report from the triage at Choppy of 318 wounded and 94 gassed in the Division that day,


59 Hist Sketch, p. 161.

60 ADC Jnl Opns; FM 2039 1st C to 1st A, 2215 hr, 4 Oct (Records 15).
with another 103 wounded and 39 gas cases from other divisions. The emergency triage at Varennes on the 4th reported an additional 800 wounded and 82 gassed in the 1st Division, 85 wounded and 7 gassed from other divisions. That triage was later to say that it had treated but not recorded another 177 wounded on the 4th and had had to send 400 or more wounded back to the hospitals at Clermont and Les Islettes without treating them.

Of the 47 tanks that had accompanied the assault forces that day, only three remained. The accurate and well-sited German guns had taken them out one by one. But the German troops on that front had been pushed back a distance of between two and four kilometers. The gaps made on both flanks of the 5th Guard that day were to be filled the next day by two regiments of the 37th Division and elements of the 1st Guard Division, sent

Hist Sketch, p. 162; SOI 16h 4 Oct-12h 5 Oct; ltr, CO Fld Hosp 3 to Div Surg, 5 Oct, for period 6 a.m.-6 a.m., 4-5 Oct.

Triage rpt, Fld Hosp 2, 5 Oct, for period 10 a.m.-5 p.m., 4 Oct; ltr supplement, Fld Hosp 2 to Div Surg, 6 Oct, and 1st Ind to G-3 1st Div, 6 Oct (1st Div Box 16, 12.3). Opns Rpt, 4-5 Oct, was to estimate casus at 800, with total casus to date of approx 2300.

Memo, Capt C. H. Barnard, Tank Corps, to CG Camp Dix, N.J., 17 Dec 20, sub: Opns of 1st Brig Tank Corps, with 1st Div in M-A Offensive (1st Div Box 48, 33.6/11). On 26 Sep his gp had 96 tanks. On 1 Oct the remaining 47 were put at 1st Div disposal. At the close of 4 Oct the brigade had suffered "almost complete annihilation," with 34% of its officers and men killed or wounded.
Order of Battle Maps
1st Division

Sommerance

52nd Div

1st Gd

5th Gd

37th Div

Fléville

16th Inf
18th Inf
26th Inf
28th Inf

Source: Composite of Order of Battle Maps with 502d, 1st Div (Records 4)

Map No. 7
in to counterattack Montrefagne and Fleville (see Map No. 7).

The order for the attack on 5 October directed the 18th Infantry and the 2nd brigade to advance to a line parallel with the 16th Infantry at Fleville and then proceed to the Corps Objective (which was also the Combined Army First Phase line), one kilometer above Fleville to the Cote de Maldah.

SOI, 5-6 Oct (Records 4). The next day, 5 Oct, von Kleist's Op Arg (a part of von Einem's 3rd Army) was trfd to von der Marwitz's 5th Army (Item 19, 3rd A War Diary). The trf may have resulted from a difference in the conduct of defensive tactics, as is suggested in Army Group Commander von Gallurtz's statements: "More than once before I felt the necessity of close cooperation between the West Group of the Fifth Army and Group Argonne of the Third Army. It was for this reason that the supreme command ordered Group Argonne to be attached to the Fifth Army." (As They Saw Us, editor G.S. Viebeck, p. 250).

"With the trf of Gp Arg today, rpt of losses and of booty, final rpt and spec rpt of 3:00 p.m. are done away with" (Memo, Op Arg to 52nd, 37th, 2nd Ldw Divs, 2:35 p.m., 5 Oct /Item 100, Annexes to WD, Op Arg/).

An estimate of the Op Arg divs on 5 Oct reported the 1st and 5th Gd Div on the left front of 1st Div no longer effective for defensive action; on the right front of 1st Div the 52nd Div was still fully effective, but the 45th Res Div behind it was effective for defense only (Item 18, 3rd A WDA).

On the left front, the 37th Div was inserted on 4 Oct and replaced the 1st and 5th Gds the next day (Item C, 10:30 p.m., 4 Oct /Item 17, 5th Gd WDA/). All three regts of the 41st Div, the counterattack div of Op Meuse-West, were found on the north slope of Hill 272 on 10 Oct (FM 7797, 1st C to 1st A, 4:50 p.m., 10 Oct).

On the right front, the 211th Regt, 45th Res, the counterattack div of Op Arg, was first identified on the night of 9 Oct (FM G-2 to G-2 5th C, 9 Oct). Though exhausted, this div replaced the 2nd Ldw on 12 Oct (Op Order, 10 p.m., 11 Oct /Item 110, Annexes to WD, Op Arg/). The 109th Regt, 28th Div, was first identified in LtPetit Bois on 9 Oct, and all regts the next morning when they counterattacked Hill 269 (FM 1st Div to 5th C, 14 hr, 9 Oct; SOI 9-10 Oct). The 15th Div was used briefly in the unsuccessful counterattack on Hi 269 on 8 Oct (41st Div Order, 2 a.m., 7 Oct /Item 4, Annexes to WD GP Arg/).
At 6:15 a.m., in heavy fog, the 26th Infantry moved up to Hill 212, the support battalion passing through the assault battalion on its crest, and continued to the edge of the Bois de Moncy before it was stopped. To its left, the 28th Infantry advanced in the valley east of Montrefagne woods against enemy positions above Beauregard Ferme and intense enemy artillery fire from the crests of the valley. Climbing the slopes of Montrefagne to Cote 240, the 28th Infantry joined the 18th and assaulted the counterattack battalion of the German 37th that had come up during the night.66

Clearing the hilltop at high cost, the 1st Division, in line again, attempted to continue on towards its second objective that day. Assault troops of the 26th Infantry captured Arietal Ferme but got no farther as heavy fire poured down from Hill 272. On the right, the 32nd Division had relieved the 91st Division that morning, and to assist its advance, in accordance with Corps order, the 26th Infantry proceeded to extend its line well over a kilometer, from Arietal Ferme east to the Bois de Moncy.67 In the maneuver, a patrol was put on the heights of Cote 269, found partially unoccupied, in the rear of the enemy position. During the afternoon, another patrol of the 26th Infantry appears to have got as far as Cote 263, from whose heights they announced that if someone would give them a brigade, they would "clean out the whole business" that evening.68

66 Hist Sketch, pp. 163-164.
67 FO 65, 1st C, 2300, 4 Oct, said 1st Div was to assist the 32nd by "carrying the west edge of Bois de Romagne."
68 5th C considered sending reinforcements to the patrol. See FM (Tele rpt) 1st C to 1st A, 4:48 p.m., 6 Oct.
The 28th Infantry, advancing with the 26th and 18th to its right and left, was stopped by intense machine gun and artillery fire from Cote 272 and from the woods and trenches north of Montrefagne. The 18th Infantry too was stopped in the low ground beyond Montrefagne woods. With the 16th Infantry immobile, the 1st Division had come to a halt from Fleville to Arietal Ferme and the Bois de Moncy. But "the wedge was driven and the Argonne was flanked." 69

The Argonne was flanked but it was not reduced. The division was pinned down all along the front, too depleted by gas and HE casualties, too battered by the two days of fighting to execute the movement that would actually rout the enemy out of the Argonne. Its line, along the north slope of the ridge southeast of Fleville, north edge of woods on the north slope of Hill 240, through the woods northeast to Arietal Ferme, could only be held until help came to extricate the division. 70 Equally battered were the German 1st and 5th Guards on the Fleville front, replaced that afternoon with the insertion of the 37th Division and moved to the vicinity of Cornay for rehabilitation.

No estimate of the casualties could be made for that second day of battle. Throughout the day, enemy artillery had been highly active with "H.E's, 77's, Gas....his artillery strength greatly superior to our
In particular, "The 16th Infantry at Fleville lay under a constant rain of shell and gas from the enemy's well placed batteries. The losses mounted high..." The Division Gas Officer, reporting 162 gas casualties among troops back in the gassed ravine east of Charpentry, said the enemy had "harassed the entire sector, especially all roads and ravines, as far back as Charpentry, with Yperite. Some phosgene was used on roads between Saulny and Fleville." The Operations Report for the day said nothing of gas or HE casualties, but only that to date it was estimated that 500 men had been killed, 3,000 wounded in the division. An estimate the next day was at considerable variance when it said that up to midnight, 6 October, there were approximately 5,050 wounded, 200 dead and buried, and 500 unburied.

SOI, n to n, 5-6 Oct. No German arty records have been found to confirm this gassing or that of the night of 4-5 Oct. There is, however, a memo from von Kleist to the 2nd Ldx, 37th, and 52nd Divs, 10 a.m., 5 Oct (Item 81, Annexes to WD, Gp, Arg), saying: "I desire that the pauses in the combat be utilized to fortify and methodically organize the defenses...as well as to crush the enemy's will to attack by having the arty gas the assembly areas and harass the hostile arty." The next evening, 5th A signalled Gp Arg (Item 163): "Attention is again directed to orders for the most persistent artillery counterbattery work (H.E. - gas ammunition and with the use of our long range artillery)."

Hist Sketch, p. 167. Major Coppack wrote in his diary that day: "My regiment is the most advanced of the Division...Loss has been heavy -- about 20 officers and 1,000 men from the 16th Inf."

Rpt on Gas Atk, 6 Oct, for period noon to noon 5-6 Oct (GAF-1st Div Atks.) Spencer, Pt. I, p. 79, adds to his copy of the D30 Rpt that possibly 500 77mm, 105mm, & 150mm gas shells were fired.

Opns Rpt 5-6 Oct; Memo, 1st Div to G-3 1st C, rec'd 1st A 9 Oct (Records 13).
On the evening of 5 October, Army ordered all three corps to halt and prepare for a counterattack. The whole line had been hit hard by heavy gas and HE casualties, and German infantry and artillery reinforcements were reported moving down, preparatory to a general counterattack. Army was particularly concerned for its left flank, then threatening the strategic German position in the Argonne-Aire sector, and the possibility of another setback like that suffered the week before. While holding their forward positions, the corps were at once to organize for defense a general line of resistance to their rear: from the advance position of the 77th Division-Le Chene Tondu-Apremont-Montrebeau-Bois de Baulny-Bois de Cierges-Bois de Emont-Bois de Beuge-Nantillois-Bois de Brieulles.\textsuperscript{75}

The I\textsuperscript{st} Corps order implementing this decision referred to its order to the 35th Division on 30 September and said the line of resistance was to be Le Chene Tondu-Apremont-Esperance-Chaudron Ferme-Serieux Ferme-Cote 231.\textsuperscript{76} Lt. Butler wrote in his journal of 5 October: "We...received orders tonight to organize the line from which we originally jumped off & to be ready to fall back to it. This order makes us all feel exceedingly low. Let us hope we are relieved before our men have to drop back. We never yet have fallen back." That night the I\textsuperscript{st} Engineers were brought up to Charpentry and Baulny and began construction of a defensive line between Chaudron and Serieux Fermes.\textsuperscript{77}

\textsuperscript{75} FO 43, 1st A, 22 hr, 5 Oct.
\textsuperscript{76} FO 66, 1st C, 24 hr, 5 Oct; Cf FO 61, 1st C, 1 hr, 30 Sept.
\textsuperscript{77} ADC Jnl Ops; Hist Sketch, p. 168; Memo, Capt Johnson to Col Fiske, 6 Oct (Records 14).
Aware that the American forces had been hurt, the German Third Army indeed planned a large-scale counterattack on the 6th, determined to regain the Exermont-Gesnes line, but at the last moment could not execute it "because of the unfavorable ammunition situation." All along the front, the American forces were now at the approaches to the Kriemhilde Stellung. Sixteen German divisions had arrived or were on their way to stop the American advance, and despite the temporary ammunition situation, the German command for a time had hopes that it could hold out in the trenches and strong points there through the winter, protecting its vital communications, and perhaps regain lost ground in a successful spring offensive.

Conforming to Corps orders for 6 October, the 1st Division held its positions without trying to advance that day, and brought its 7th FA up to La Neuville le Comte Ferme. Efforts to push patrols to the front and infiltrate from Arletal Ferme toward Hill 272 were promptly repulsed, but elsewhere small gains were made as the enemy counterattack failed to develop. Lt. Butler wrote: "We will not have to drop back. 2nd Brigade advanced about 500 meters....The Divisions on our right and left are doing nothing."

East of the Argonne and West of the Meuse

The divisional history was later to say that "There was never a more trying period than October 6, 7, and 8, when the 1st Division waited for First Army to renew the assault... During which time the troops lay under a ceaseless downpour of shell, gas and bullets... Every valley was drenched

78 Op Arg War Diary, 6 Oct.

- 32 -
with gas. The Division Gas Officer reported 68 gas casualties, mostly from mustard gas, with some phosgene, occurring throughout the division sector on 6–7 October, as a result of the inability of troops to evacuate contaminated ground. Another 24 mustard gas cases were reported for 7–8 October. All these cases, like the 31 reported for 8–9 October, among troops advancing over shelled areas and lying in shell holes, seem to indicate the effects of residual mustard rather than new attacks.

No German record has been found of any gassing on 6–7 October, but on the 7th a German artillery order said that between 6:30–9:00 a.m. on 8 October, "the 10cm and the 15cm gun batteries will neutralize the annoying hostile batteries with blue cross — in case of lack of this ammunition — with high explosive ammunition." There is no further mention of this shelling in either German or 1st Division records, but 1st Division casualties for 7–8 October were variously reported as 4 killed, 94 wounded, 24 gassed, and 122 wounded, 35 gassed.

If the enemy fired no gas on 8 October, early that morning the French and American batteries of the 1st Division reportedly fired the 3,000 rounds of gas shell left by the 35th Division putting it on Lichtenauer Hill.

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79 Hist Sketch, pp. 170–171.
80 Item 7, Annexes to WD, Gp Arg; also Item 28. Item 103, 8 Oct repeated the order to engage hostile batteries with blue cross.
81 Opns Rpt, n to n 7–8 Oct; FM G–3 1st Div to G–3 5th C, 8:30 a.m. 8 Oct.
272, the ravine to its north, and around Sommerance. The artillery report that day, however, shows but 300 rounds of gas scheduled for eight enemy targets "some time before 6:00 PM," as directed by the regimental commanders.

To the 1st Division, its troops exhausted and with thinning ranks, it seemed that the fate of battle rested on the capture of the guns at Cornay, across the Aire, and the capture of Hill 272. It was obvious that the enemy, whose flanking fire had mauled the 16th Infantry since the 4th, must be cleared from the north end of the Argonne if Corps and Army were to advance. To this end, Army ordered the 82nd Division to move into the right sector of the 28th Division, to the immediate left of 1st Division during the night of 6-7 October, with orders to assault the heights of Cornay along the line Chatel Chehery-Hills 180-223-244, the strong points of the Aisne Switch in the Argonne, and then turn south and link up with the 77th Division. All the rest of the front was to remain in place while this maneuver was executed.

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82 Rpt, Spec Shells Fired by 1st FA Brig, op. cit.; 37th Div War Diary, 6 Oct (37th Div & Sub Units, WD&A).

83 Memo 00, 1st FA Brig to COs 6th & 7th FA, 6 Oct (Records 9). The tracing showing the targets is rptd lost.

84 FO 44, 1st A, 13 hr, 6 Oct. FO 67, 1st G, 18 hr, 6 Oct, said the 82nd would relieve the 28th Div before midnight on 6 Oct on the line La Forge-north to Fleville. See also Gp Arg War Diary, 7-8 Oct; Hist Sketch, p. 168.

Coppack, CO 16th Inf, wrote in his diary on the 7th: "Only half a regiment left....Our mission is to hold on till the balance of the Division can come up. The 28th Division on our right has failed to come up to us. They are being relieved by the 82nd Division."
While the 82nd Division worked its way north through storm and rain up the edge of the Argonne on 7 October, the 1st Division fought off local counterattacks and clung to its position without advancing. With the arrival of the 82nd at Hill 180-Chatel Chehery late that morning, the flanking fire from the west ceased. 85 Group Argonne confirmed the disasters: "The occupation of the heights at Chatel has limited our flank observation and artillery effect in the Aire valley." More than that, the Argonne was now effectively flanked, and without sufficient fresh troops to counterattack, the German 3rd and 5th Armies agreed that evening to withdraw the defense line to Humberg (road junction W of Cornay)-Cornay valley-Bavarian ridge (NE of Lancon) on the night of 8-9 October. 86

The fall of Schoene Aussicht (Hill 180) and the consequent flanking threat to the German 37th Division was the vital preliminary to the battle of 9 October which, as Group Argonne was to say later, was an attempt "to penetrate both sides of the Aire towards Juvin and Landre, cut off the Argonne front, and attack in rear of the Brunhild position to effect decisive action on the Group (Argonne)." 87

At noon on the 7th, in a planned change of front, First Army transferred the 1st Division to 5th Corps and the 181st Brigade, 91st Division (relieved in the line by the 32nd on 4 October), was attached to 1st Division, to enable

85 ADC Jnl Opns, 7-8 Oct, also rptd that "the six companies of the 77th Division (i.e. the Lost Battalion) cut off in Apremont Forest for several days are now relieved." 5th Army War Diary, 7 Oct, said the 2nd Ldw gave up Chatel at 10:30 a.m.

86 Op Arg War Diary, 8 Oct.

87 Rpt, Corps Hq to 5th Army, 10 Oct (Item 14, 5th A WD&A).
it to extend its right to the line Hill 269-Tuileries Ferme, and so assist the
32nd Division on the right by clearing Le Petit Bois, Hill 263, and the Bois
de Romagne. The plan to advance 5th Corps in the center the next day, while
1st and 3rd Corps held their positions, had to be postponed, to allow the
82nd to consolidate its gains on the heights east of the Aisne and west of
the Aire. 88

That night all Engineer work on the Chaudron Ferme defense line ceased
as the entire regiment was ordered to move up to Tronsal Ferme and advance
to relieve the companies of the 127th Infantry (32nd Division) as well as the
26th Infantry patrol on Hill 269. 89 The relief was completed before morning
of the 8th, but as the Engineers discovered, only several of the knobs on the
hill were occupied by friendly forces. There were "Germans all around up
there," and although they were finally cleared from the summit that day, they
continued to hold the slopes of the hill. To support the Engineers, the
181st Brigade (91st Division) was sent to hold the line Hill 255-Hill 269
(see Map No. 1). 90

That day, 8 October, 5th Corps issued orders to renew the assault the
next morning. In the advance, the change of front was to be completed,

88
PO 46, 1st A, 12 hr, 7 Oct; PO 64, 5th C, 18 hr, 7 Oct; PO 49, 1st Div,
21 hr, 7 Oct; Hist Sketch, pp. 168-169.
PO 65, 1st C, 18 hr, 8 Oct, said it had info that the enemy was with-
drawing to the Kriemhild Stellung from the Aisne to the Meuse.
89
FM CO 26th Inf to CO 1st Bn 26th Inf, 2150, 7 Oct.
90
Ltr, C, 1st Bn 1st Eng, 14 Oct, Rpt on Ops; Ltr, Div Eng to CE 5th C,
9 Oct, Rpt of Eng Ops (Records 14). Memos 1084, 1086, G-3 1st Div, 8 Oct
(Records 2).
releasing the Aire valley to 1st Corps by extending 1st Division two kilometers east. To do this, the 1st Brigade was to attack between the sensitive line Fleville-Sommerance and Hill 272. The 2nd Brigade attacking towards the northeast between Hill 272 and the line Hill 269--Tuilerie Ferme. The 1st Engineers would hold their position on Hill 269 and clear the Bois de Moncy. The 361st Infantry (181st Brigade, 91st Division) was to hold the gap between the 2nd Brigade and 1st Engineers.

The initial objective of the 1st Division was a line north of Hill 272, its second objective a line north of Cote de Maldah and the Bois de Romagne. The reserve battalion of the 16th Infantry, nearly 1,000 strong, which up to this time had been held intact near Charpentry and was the only unused element in the division, was placed under Lt. Col. Hunt, commander of the 18th Infantry, and assigned to take Hill 272, whose defenders had so successfully stopped the advance of the division. This battalion would pass through the 28th Infantry on its way to Hill 272, whereupon the line would reform, with the 26th Infantry at Aristal Ferme and the 28th Infantry at St. Germain Ferme.

In preparation for the assault on Hill 272, the artillery was ordered to keep the hill under shell, snupnel, and non-persistent gas fire throughout 8 October, while a battery each of the 317th FA (155mm) and 451st FA

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91 FO 51, 1st A, 18 hr, 8 Oct; FO 66, 5th C, 22 hr, 8 Oct.

92 FO 49, 1st Div, 8 Oct, Opns Instr 72, 1st Brig, 8 Oct (Records 8). This maneuver was not unlike that executed by the 1st Div in the race for Sedan early in November, when the whole division, in center corps, raced through the 42nd Div (capturing its comdr in its enthusiasm), only to be stopped before the city by Liggett, in order to let the French have the honor of taking Sedan. See Hart, The Real War, p. 469.
Company C, 1st Gas Regiment, was ordered to Hill 240 on the night of 8 October, to fire thermite for 15 minutes preceding H hour on the woods south and east of Hill 176 and into the trenches east of Hill 176.

Instructions for the assault reported the German line 200 to 500 meters to its front, the enemy troops showing great vigilance and alertness, confirming information that the forces on that front had orders to hold at any cost. The depletion of 1st Division troops was indicated by the order that regimental commanders were to utilize every man in their headquarters companies and similar elements in order to strengthen their fighting units.

That night, the reserve battalion of the 18th Infantry took its position at the north base of Montrevaque woods. Before it was a valley with no vestige of cover, every foot of it swept by tiers of machine gun pill boxes and hidden batteries of field guns and trench mortars, and flanked east and west by patches of machine gun-infested woods. It was expected that the advance of the troops on the right and left would clear the woods and protect the battalion's flanks. The 28th Infantry, on the right of the battalion, was to pass through the 26th Infantry and attack


94 FO 49; Hist Sketch, p. 170. Hist of 1st Gas Regt, Pt. III, p. 17, says 60 rds thermite were fired with success on three MG nests on 7 Oct. There is no mention of missions on 4 Oct or this one on the 9th.

95 Opns Instru 72.
Hill 263. Further to the right those units of the 26th Infantry in the Bois de Moncy were also to advance to Hill 263. The 18th Infantry on the left was to attack Hill 176 and along the valley between that hill and Hill 272. On the far left, the 16th Infantry would continue through Fleville and advance with the rest of the line. In order to secure density of fire, the entire artillery available would assist, in succession, the attack battalion of the 16th Infantry, then the 3rd Brigade, and finally the 2nd Brigade.

During the night of 8-9 October, "all gas on hand," approximately 3,000 rounds, was fired into the German positions, except for 100 rounds which were put into the Bois de Gesnes just before the attack. The German gassing in return was not so much retaliatory as defensive. A Group Argonne order said: In view of the general situation the line of the 2nd Landwehr, from hill north of Wolf ravine (south of Marcq)-Huserberg (west of Cornay) Cornay-Aire must be held no matter how many troops have to be inserted....The artillery of the 2nd Landwehr and 37th Infantry will heavily gas the most important points occupied by the enemy, assembly points, etc., with the available yellow cross ammunition.

96 Hist Sketch, pp. 172-173.
37th Div Diary, 8 Oct (37th Div & Sub Units) rpt heavy fire mixed with gas on Lichtenauer Hill (Hill 272 as well as on forward lines and rear areas. On the 9th, it rptd that the ravines in its sector were gassed during the night. There is no report of casualties.
Major Coppack, reporting on the experience of the 10th Infantry that night, said in his diary under 9 October: "This place was one hell last night. Big 6 inch H.E. 's fell on our position at intervals all night. Gassed twice. Masks saved us." The German 37th Division acknowledged that its artillery had gassed the 1st Division ravines. The German 52nd Division reported both the 1st Division gas attack and its own gas fire: "During the night enemy artillery put down strong harassing fire mixed with gas, especially in the Kleiner Wald (Le Petit Bois), on account of which the 18th In Regt 41st Division suffered considerable losses... Our own artillery...gassed...the Morena wood." 

The Division Gas Officer reported 134 mustard gas casualties for the period 9-10 October and another 57 the next day. The casualties were among troops in the woods above Hill 272 and reportedly resulted from their failure to wear masks in low concentrations of the gas. He added that the division medical gas officer believed many of the first group of casualties were fatigue cases rather than gas cases.

The Argonne Forest is Reduced

At 8:30 a.m. on 9 October, in heavy fog and with the howitzers pounding Hill 272, the assault battalion of the 10th Infantry crossed the valley to

100 SOI 8-9 Oct rptd only "Gas mixed with H.E. shells."

101 Noon rpts, 37th & 52nd Divs, 9 Oct (Item 111, Annexes to WD, Gp Arg).
Noon rpt, Gp Arg, 9 Oct (Item 13, WD&A Gp Arg), said: "Assembly areas of the enemy were gassed upon several occasions."
No arty orders or firing rpts for the 2nd Ldw, 37th or 52nd have been found to show the number and kinds of rounds fired.

102 Rpts on Gas Attack, 10, 11 Oct (GAF-1st Div Atks).
the base of the hill, reportedly captured more than 50 machine guns on its slope and took the hill on schedule.103 On the left, the remainder of the 16th Infantry and the 18th Infantry, "with cooks and mule drivers in the line," advanced against heavy machine gun and artillery fire and despite great losses reached their first objective above Fleville.104 On the right, the 2nd Brigade jumped off at 8:52 a.m. and assaulted Hill 263, with the 1st Engineers completing the capture of Hill 269, assisted by a company each of the 361st (91st Division) and 28th Infantry. But that afternoon, only the 16th Infantry battalion was on its objective line, north of the Cote de Maldah. The remainder of the 1st Brigade curved up to join the line.105

At 1:30 p.m. that day, von Kleist frantically signalled his division commanders:

The gravity of the situation demands...the expenditure of the last effort by officers and men as well as the sharpest decisive action so that discipline will not slacken and the morale sink. Otherwise there will be a catastrophe! There is no time now for fatigue and weakness....The artillery, even though it only has gas ammunition, must be so active that it takes the burden off the infantry before the enemy assaults....Bring all available rifles in rear into action.106

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103 Hist Sketch, p. 173, Op Arg War Diary, 9 Oct, said Lichtenauer Hill fell at 2 p.m. when enveloped from the east. FM 2739 G-3 1st C to G-3 1st A, 1155 hrs, 10 Oct, said Hills 272 and 263 were finally captured as of 9:45 a.m. on 10 Oct.

104 Coppack Diary, 10 Oct.

105 Hist Sketch, pp. 174-175. At mid-afternoon, said Lt. Butler on the 9th, the line was Fleville—So of Cote de Maldah—Cote 263—Cote 269, and the 181st Brig had been put between Hills 255 and 269 to close the gap between the 1st and 32nd Divisions.

Ltr, CO 1st Bn 1st Eng to CO 1st Eng, Rpt on Opns... (Records 14), said the Eng reverted to their normal status at dark on 11 Oct, when they were relieved on Hill 269 by VCOO 2nd Brig.

Neither side yielded, but the enemy position was no longer tenable. The position of the 1st Division at the end of the day ran from a point half a kilometer north of Fleville, along the top of the Cote de Maldah, the north edge of Le Petit Bois, through the Bois de Romagne, to the line Hill 269-Tuilerie Ferme. That night a regiment of the 82nd Division took over the left sector above Fleville, and the light guns of the 1st Division came up to the line Fleville-Hill 272.\textsuperscript{107}

The Operations Report admitted that it had been the "bitterest day of fighting yet," and even an approximate estimate of the casualties was impossible, although they were reported to be above normal, partly as a result of the intense barrage, counter-battery, destructive, and harassing fire throughout the sector. Casualties for the period noon to noon, 9-10 October, were later estimated at more than 160 killed or missing and 19 officers and 934 men wounded.\textsuperscript{108} There was no mention of gas or gas casualties other than in the Division Gas Officer's reports, previously cited.

What the 1st Division -- and First American Army -- lacked in artillery and machine guns, by comparison with the enemy forces on that front, it made up in superior numbers of troops, and it had succeeded in "smashing the front by incessant blows without regard to...losses....Each day at least one \textsuperscript{\[German\]} division \textsuperscript{\[was\]} withdrawn as no longer effective for defensive

\textsuperscript{107} Hist Sketch, pp. 174-175.

\textsuperscript{108} Ops Rpts, 8-10 Oct; Memo, G-1 1st Div to G-1 5th C, which gave the 9-10 data, is dated 9 Oct (Records 13). Total casualties to date were said to be 1,003 killed, 5,995 wounded.
action." That day, 9 October, as Group Argonne later said:

The turning point came with the overrunning of Cornay, the capture of Lichttenauerhöhe Hill 272 and the Marienhöhe Hill 269. Due to the influence of his failure to effect decisive action on Group Argonne, the enemy ceased his infantry attack in the evening of the 9th, did not once feel forward and so made it possible for us to disengage...and withdraw on the whole Group front to the Brunhild-Kriemhild position.

That night the 2nd Landwehr and 37th Infantry withdrew to the forward edge of the Brunhilde position on the north edge of the Aire valley, the 52nd Division, with the 41st inserted on its left, to the Brunhilde-Kriemhilde position, as Group Argonne moved its headquarters back from Buzancy to Beaumont.

Since the 5th Army, contrary to the 3rd Army, deems it expedient to withdraw the Argonne front rapidly in rear of the Aire...troops of the 3rd Army will withdraw to in rear of the Aire the night of the 9/10, the rear-guards the night of the 10/11, and Group Argonne will retire in conformity therewith. The main line of resistance for the night of the 10/11 is Hüttten farm Ferme des Loges-St Juvin-Sommerance-Sommerberg-Kleiner Wald-Moncy wood-Robinette farm north of Gesnes.

During the night of the 9th, "the Kriemhild position Bois des Loges-south limit of Juvin-hill south of St Georges-Cote de Chatillon-Romagne was

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109 3rd Army War Diary, 5 Oct.

110 Rpt, Item 14, Corps Hq to 5th A, 10 Oct (5th A WD Annexes). See also draft of this Rpt, 10 Oct, Item 48.

111 Gp 0, 11:45 p.m., 9 Oct; Gp 0, 7:30 p.m., 10 Oct (Items 130, 35, Annexes to WD, Gp Arg).

occupied without interference from the enemy." The Brunhilde position in
the zone of Group Argonne had previously been designated as the Kriemhilde
position, with Group Argonne responsible for its reinforcement, and the
Freya position was to be commenced without delay on the line Authe-Buzancy-
Bayonville.

With considerable elation, First Army reported late on 9 October that
the enemy was retreating before the British on a fifty-kilometer front at
Cambrai, just as it was retreating in the Argonne Forest. The Army would
continue the attack the next day on the entire front from the Aisne to
Beaumont. "No objectives are assigned. All troops will take advantage of
the enemy’s retreat...." On the night of the 10th, 1st Corps announced,
"The Forest d’Argonne has been reduced," and Army said the hostile third
position in the vicinity of Romagne and Cunel had been pierced and its
troops were north of the line Sommerance-Marcq. First Army would continue
with all speed its advance towards Briquenay-Buzancy-Clery le Petit. The
British had the enemy in seeming full retreat, and F. Army must match them.

But the end of the war wasn’t that near.

On 10 October, badly used up, the Division intended to remain in place,
from just west of Sommerance to the crossroads in the Bois de Romagne. But
Corps ordered it to continue its advance by exploitation. Patrols prodded
the front along the line Sommerance-Tuilerie Ferme and held points of vantage

113 Op Arg War Diary, 10 Oct.
114 Army Memo, 6 Oct (Item 1, 5th Army WD Annexes).
115 FO 53, 1st A, 21 hr, 9 Oct; FO 71, 1st C, 20 hr, 10 Oct; FO 56, 1st A,
18 hr, 10 Oct.
until the forward battalions came up. One hundred rounds of gas were fired during the exploitation by the 7th FA.\textsuperscript{116} An advance of between one and two kilometers was made in this fashion, and by nightfall the line ran from just north of Sommerance to the northern edge of the Bois de Romagne.\textsuperscript{117}

How badly used up the division was may be seen in the messages of the 26th Infantry that day. The 1st Battalion reported 192 men and 23 machine gunners left on the morning of the 10th. The 2nd Battalion had 200 riflemen, with 70 men remaining in its machine gun company. They were without water or rations. The 3rd Battalion, in the line, was down to 245 men and 55 machine gunners, with only 7 officers. All its companies had become badly mixed up and disorganized by the enemy fire the day before.\textsuperscript{118} That evening the 3rd Battalion reached the foot of the hills south of the Bois de Romagne and found them "powerfully held with machine guns." By the morning of the 11th, its commander thought his men were approaching exhaustion; "Most of the men have had nothing to eat in 48 hours and no water, Some of my officers and many of my men are sick and cannot go much farther. I do not want to complain but I would like the CO to know the situation we are in. Will move forward as soon as possible." (FM Frasier to CO 26th Inf, 6:35 p.m., 10 Oct; FM Frasier, 8:15 a.m., 11 Oct). Nevertheless, that forenoon it was the 3rd Battalion that

\textsuperscript{116} FO 67, 5th C, 2300 hr, 9 Oct; Rpt, Spec Shells Fired by 1st FA Brig.

\textsuperscript{117} Memos, Items 1092-93, G-3 1st Div, 9 Oct (Records 3); FO 50, 1st Div, 2330 hr, 9 Sep; Hist Sketch, p. 175.

At 11:30 p.m., the front line was rptd from north of Sommerance-Ravine de Gras Faux-northern part of Bois de Romagne-west edge of Bois de Romagne (FM 1st Div to G-3 5th C, 10 Oct).

\textsuperscript{118} FM Legge CO 1st Bn to CO 26th Inf, 8:45 a.m., 10 Oct; FM Youell CO 2nd Bn, 6:30 a.m.; FM Frasier CO 3rd Bn, 6:53 a.m.

- 45 -
continued as assault battalion, when the 362nd Infantry (31st Division), itself down to 200 men and no machine guns, came up behind it to relieve the 2nd Battalion.119

The only message in that period indicating even momentary panic was on the afternoon of the 9th, when the 26th Infantry commander admitted some straggling: "Lt. Hyde reports Bosche coming in on his left. He seems very much excited on account of this. Several of our men have straggled to the rear. Not enough of officers and NCO's to watch them (FM CO 26th Inf to CO 2nd Bn 26th Inf, 2:50 p.m., 9 Oct)." Straggling in the German ranks was a far more pressing problem at the time, as their division reports indicate. The order to retire on the night of 9 October started a rearward movement clearly depicted in a 52nd Division order of 11 Oct.: "Stragglers will be assembled in Bayonville by regiment and forwarded to their regiments in detachments of 50 men each."120

The order to continue the advance by exploitation was repeated for 11 October, the division pushing out patrols, supported by artillery, to the second line of exploitation at Landres et St. Georges. Lt. Butler wrote in his journal that night: "With less than 2,500 effectives we were unable to gain much ground. It was wicked to order our men to attack again this morning....Since we entered this sector....we have lost between nine and ten thousand men." During those two days of exploitation, enemy artillery

119 FM CO 26th Inf to CG 2nd Brig, 10 a.m., 11 Oct; FM Ridgely CO 26th Inf to CO 26th Inf, 11 a.m., 11 Oct.
Lt Butler (ADC, Jno Opns, 11 Oct) was to report that one company of the 18th Inf came out of the line on the 11th with only 4 men.

120 Item 117, Annexes to WD, Op Arg.
activity was "confined principally to the advanced battalions with gas and HE," and it was probably this as much as actual encounter with the enemy that resulted in 210 men killed, 134 wounded, and 57 gassed.\textsuperscript{121}

In the absence of German artillery records, the only indication that enemy artillery fired gas on both 11 and 12 October is a series of messages in the War Diaries of the 37th and 45th Reserve Divisions and in a combat report of the 52nd Division that a number of gas rounds fell short both days and presumably gassed their own troops.

This morning our artillery often fired too short. The men had to put on their gas masks early today on account of similar short firing (FM CP to 150th Regt, 9:40 a.m., 11 Oct, Item 189 b. 2, Hq 150th Inf Regt).

The 211th Inf 45th Res has retired....The retirement is said to have been caused by our own artillery and gas, which, however, came from the enemy (FM 2nd Bn 150th to 150th Regt, 11:00 a.m., 11 Oct, Item 189 b. 6).

Our artillery fired too short, at times delivered gas shells in rear of our line (Combat Rpt, 1st Bn 170th Regt, 11 Oct 52nd Div & Sub Units).

Our artillery fired gas and HE considerably too short (2nd Bn 211th Inf Diary, 8:50 a.m., 11 Oct 45th Res WD&A).

Our artillery placed annihilation fire on hostile positions from 5 a.m.; in doing so several rounds, including gas shells, fell on and in rear of our line (1st Bn 151st Regt Diary, 12 Oct).

At 5:00 a.m. our artillery shelled the hostile line with gas. The gas drifted towards our troops. Gas masks had to be put on (2nd Bn, 151st Regt Diary, 12 Oct).

Just below Landres et St. Georges and St. Georges, at the approach to the Kriemhilde Stellung, patrols met such determined resistance that it was

\textsuperscript{121} Opns Rpt, 10-11 Oct, also estimated total killed and missing during the opn as 1,813, total wounded 7,243, for a grand total of 9,056. Memo, G-1 to G-1 5th C, 11 Oct, estimated 210 killed, 4 officers and 244 men wounded between n-n 10-11 Oct. Total casualties to date were estimated at 1,213 killed, 6,243 wounded, or 7,456 men (1st Div Box 16, 12.3 Casu Rpts).
GROUP ARGONNE
INFANTRY DISPOSITIONS
ON 11-10-18, 5:00 AM

Source: Gp Arg Situation Map Tracing
German Files Box 23

MAP NO. 8
clear that a special preparation would be necessary before an infantry assault could be made against this position (see Map No. 8). 122 At the time, that resistance was probably relative, for the German command in the Kriemhilde was much concerned about the continued effectiveness of its divisions, reduced "in part by bloody losses and sickness, in part by the morale of the troops that, in view of the political situation, is continually decreasing slightly." The German Fifth Army had only two effective divisions left on 11 October, the newly arrived 1st Landwehr and the 123rd Saxon. The next day, however, "a number of new divisions were placed at the disposal of Army." 123

On the night of 11 October, First Army knew there was to be no further pursuit of the enemy and ordered its division to "hold the ground gained and prepare for further attack." The next night Army ruefully reported:

The enemy is resisting our advance between the Meuse and the Aisne by the skillful use of machine guns and artillery. The Allied armies to our left are continuing their advance and the enemy is giving way before them. First Army...will attack on 14 October at H hour. Corps and division commanders will utilize to the fullest extent possible the advantages of lethal gas in preparing for and assisting the infantry attack, and in causing casualties in the rear areas and along lines of communication. 124

122
FO 51, 1st Div, 2230 hr, 10 Oct; FO 33, 26th Inf, 11 Oct, (Records 10).

123

124
FO 58, 1st A, 21 hr, 11 Oct; FO 59, 1st A, 11 hr, 12 Oct, esp. par.
On the night of 11-12 October, the exhausted and depleted 1st Division was relieved by the 42nd Division.\textsuperscript{125} It came out, as its historical accounts suggested without irony, "with an excellent nucleus as a fighting unit." The troops assembled near Cheppy that night, went on to Les Islettes on the 13th, and continued their march to Vavincourt, 75 kilometers south, arriving there on 16 October. There it received more than 8,000 replacements to fill its ranks again and on 31 October the division was pronounced ready for combat again.

The 1st Division was placed in reserve at Gesnes-Cierges and on 6 November relieved the 80th Division on the Stonne-Beaumont road, from whence it took part shortly after in the wild race for Sedan.\textsuperscript{126}

\textsuperscript{125} FO 52, 1st Div, 11 Oct. In his diary for 11 & 19 Oct, Maj Coppack said his 16th Inf went in with 68 officers, 3,650 men, and came out with 32 officers, 1,799 men, a loss of 36 officers, 1,851 men. A later reckoning revised this loss to 35 officers, 1,640 men, as follows: 7 officers and 129 men killed, 23 officers and 812 men wounded, 4 officers and 298 men gassed, 1 officer and 301 men missing.

Memo, 2nd Brig to G-3 1st Div, 4 p.m., 10 Oct (Records 13), rptd 32 officers, 713 men left in the 26th Inf, 28 officers, 665 men left in the 28th inf.

\textsuperscript{126} Hist Sketch, pp. 176, 183, 189.
ANALYSIS

Shock Division

It seems evident, considering the nature and condition of its opposition, and the degree of assistance that the division required, that the Meuse-Argonne exploit of the 1st Division was not in the same class with its earlier successes. Liddell Hart has said of the operation:

A renewed general attack on October 4 made little progress, except on the left, and revealed once more the folly of trying to overthrow machine-guns by sheer weight of human bodies without adequate fire support or surprise. But the value of training was also shown by the regular 1st Division in Liggett's Corps which drove in a deep if narrow wedge on the east bank of the Aire. This enabled Liggett, on October 7, to try a manœuvre both original and daring; bringing the 82nd Division up in the wake of the 1st, he swung it against the enemy's flank west of the Aire and then northward. If the execution fell below the conception -- only a tithe of the division came into action -- so that the chance of cutting off the enemy troops in the Argonne was lost, the threat at least persuaded the enemy to retire from the forest while there was time, and by October 10 the American line had passed and was clear of this hampering obstacle.127

This account emphasizes rightly the contribution of the 1st Division in reaching Fleville on the first day of the attack and staying there. Perhaps only the 1st Division, with its vaunted pride, could have remained so relatively immobile for so long a while, enduring such casualties. The gas casualties of more than 1,400, with the 5,225 killed and wounded, which it took in three days of advancing and five of holding or exploiting, were comparable to the 1,350 gas casualties and 5,100 killed and wounded suffered by the 35th Division in a similar advance in the sector.

The comparison with the 35th Division is inevitable, because the histories of the 1st Division, recounting this operation in the Meuse-Argonne, seem

almost to have been written as a deliberate counterpart to the record of the 35th there. The number of coincidences in the experience of the two divisions, and the emphasis given those aspects of preparation and performance that distinguish well trained from poorly trained troops, seem too great to be accidental.

With half the guns that had been available to the 35th Division for its preparation, the 1st Division began its assault with no other preparation than a barrage. But field pieces accompanied each assault battalion with some psychological, if not actual, benefit, and the remaining artillery advanced beginning three hours after H hour and remained in close support of the infantry throughout the operation.

Advancing in fog and rain against the same formidable enemy positions attempted by the 35th, the 1st Division maintained tight control over all its units. Forward elements were halted and reorganized after penetrating woods, before advancing again. Despite decimating casualties, companies and battalions held the ground they had taken. Corps, consequently, was willing to send reinforcements to the division, as it would not to the 35th.

Although the 1st Division took more HE and gas casualties than the 35th Division, as the self-styled "shock division" of the AEF, the "Wheelhorse" of the Corps, it could not retreat. It is interesting to note that,

128 Cf. Shipley Thomas, The History of the AEF, pp. 296-297. (Captain Shigley Thomas was RIO, 26th Infantry.)

129 A number of items in 1st Div orders and memos for this opn are either not found in previous divisional orders or appear to receive more detailed treatment, seemingly as a result of the 35th Div experience. See for example the warning against mixing of units (PO 47, 2 Oct, par. 2), the order to reorganize and report at each objective, halting for two hours at the objective for that purpose (PO 48, 5 Oct, par. 3), the order to reorganize battalions after engaging the enemy (Memo G-3, Item 1073, 5 Oct), and the special instructions to RIOs (Annex to SII, 1-2 Oct).
unlike the 35th Division, the 1st Division in its history freely acknowledged (narrative, pp. 18, 25) and perhaps even exaggerated (pp. 29, 33) the amount and effects of the gas fired into its sector.

HE and Gas Casualties

If fairly complete gas shell data are possible for the gas casualties in the 1st Division between 1-5 October, similar data for its machine gun and artillery casualties are at best fragmentary. No estimate is possible for the fire of the thickly-sown German machine guns, and only two of the four 5th Guard Division artillery orders in the period show the number of HE rounds to be fired on specific days. The artillery order prepared on the evening of 30 September gives only targets and hours for night-long harassing and annihilating fire waves. That on the evening of 1 October is the same, with the note that "The sub-group commanders will determine the expenditure of ammunition according to the supplies of their batteries."

The first artillery order giving detailed HE data is that issued at 7:30 p.m., 2 October, which ordered:

150 rds, harassing fire, Hoffnung valley, night of 2-3 Oct.
150 rds, harassing fire, Ernst Ravine, night of 2-3 Oct.
No rds given, harassing fire, on 4 targets, night of 2-3 Oct.
20 rds, each battery, on Esperance Ravine, at 5:20 a.m.
30 rds, each battery, on the whole front, at 5:30 a.m.
50 rds, long range fire, Hoffnung valley, no time given.
50 rds total, long range fire, on 4 targets in Charpentry area.

Thus, something over a thousand HE shells of large and small caliber were fired on the night of 2-3 October.

Arty 0 17, 7:30 p.m., 2 Oct. Available to the 5th Gd in its three close range groups were a total of 12 batteries; in its long range group, 4 batteries (5th Gd Div 0, 3:30 p.m., 1 Oct, Item 94).
For the night of 3-4 October, the fire mission was:

300 rds, harassing fire, on 10 targets during the night.
20 rds, each battery, annihilation fire, on Esperance draw, at 5:30 a.m.
30 rds, each battery, annihilation fire, on the whole front, at 6:00 a.m.
90 rds, long range fire, on 6 targets during the night. [1]

Again, approximately a thousand rounds of large and small caliber HE were fired during that night.

In the absence of other data in these relatively complete records of 5th Guard artillery, it may be assumed that a minimum of between 4-5000 rounds of HE were fired into the 1st Division ravines during the four nights while the troops there waited for the order to attack. (There are no records available for the German 52nd Division artillery, which may or may not have had fire missions for the right flank of 1st Division.) On the same four nights, approximately 3,470 gas shells, divided almost evenly between mustard gas and nonpersistent agents, fell in the same area.

While machine gun and rifle casualties among the patrols during this period cannot be distinguished, their numbers were probably small by comparison with the casualties caused by the German artillery. The reports of the two hospital triages for the early period show:

<table>
<thead>
<tr>
<th></th>
<th>1st Division</th>
<th>Other Divisions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wounded</td>
<td>Wounded</td>
</tr>
<tr>
<td></td>
<td>Gassed</td>
<td>Gassed</td>
</tr>
<tr>
<td>FH3, 6am-6am 2-3 Oct</td>
<td>64</td>
<td>561</td>
</tr>
<tr>
<td>FH3, 6am-6am 3-4 Oct</td>
<td>27</td>
<td>66</td>
</tr>
<tr>
<td>FH2, 10am-5pm 4 Oct</td>
<td>(800)</td>
<td>82</td>
</tr>
<tr>
<td>FH3, 6am-6am 4-5 Oct</td>
<td>(318)</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>(1118)</td>
<td>(803)</td>
</tr>
</tbody>
</table>

[131] Arty 0 18, 8:30 p.m., 3 Oct.
[132] A large proportion of the figures in parentheses unquestionably represent casualties in the assault on 4 October. NOTE: The triage opened on 1 Oct and began recording cases on 2 Oct. Gas cases on 4-5 Oct probably represent for the most part delayed cases.
In this tabulation, the gas casualties in the 1st Division and among the 35th Division artillerymen between 30 September and 4 October total 1,022, produced by approximately 3,470 gas shells. The wounded prior to the hour of attack total 410 (incomplete Operation Reports show only 28 killed, 225 wounded between 30 September–3 October), as the result of approximately 4,000 HE shells. Some proportion of the 1,306 total wounded on 4–5 October doubtless should be considered, but it would appear that it required but three gas shells to produce a gas casualty, as opposed to eight to ten HE shells to produce a wound casualty.

The total casualties reported for the 1st Division in the Meuse-Argonne campaign from 1–12 October range between 8,554 and 9,387. Only the total of 8,554 is broken down to distinguish gas casualties, as follows: 35 officers and 816 men killed, 103 officers and 4,271 men wounded, 29 officers and 1,585 men gassed, 10 officers and 1,705 men captured or missing.

Memo, 21 Dec 18, Brief Hist of Opns of 1st Div (1st Div Box 11, 11.4; also Records 13) has a total of 177 officers, 8,377 men, or 8,554. This total is attributed to the Div Stat Sec in the Hist of the Med Dept, 1st Div…1917-18, forwarded by ltr, Div Surg to Hist Br, War Plans Div, GS, 14 Jan 20 (Med Dept-1st Div, Box 3398 fol.1).

Opns Rpt, 10–11 Oct, estimates casualties of 1,613 killed, 7,243 wounded, or 8,856. Hist Sketch, p. 178, estimates 49 officers and 1,480 men killed, 175 officers and 6,951 men wounded, 280 men captured or missing, for a total of 8,935. G-3 Memos, 17 Oct & 24 Nov, same sub: Rpt on Opns of 1st Div…Oct 1–12 incl (Records 13; 1st Div Box 48, 33.6/10), show total caus of 9,387 officers and men. This is the figure used by Shipley Thomas, p. 317, who says it represents "the heaviest casualties suffered by any American division in the Meuse-Argonne offensive."

Frederick Palmer, Our Greatest Battle (NY: Dodd, Mead, 1919) pp. 307–08, accepts 8,554 causus, saying: "Three-fifths of its infantry was out of action from death and wounds; the remainder had been fully 'expepted' in exhaustion and sickness. Surely no division in all our history had ever... suffered more losses in a single action."
A later compilation, reportedly based on records in the Surgeon General's Office, indicates a still smaller total of 7,726 casualties, but with a surprising number of gas cases: 1,252 killed, 4,576 wounded, and 1,898 gassed.

Neither the gas casualty total of 1,898 nor that of 1,614 (29 = 1,585) is borne out by other records of the 1st Division. In the eleven gas attack reports by Captain Sielaff, DGO, the gas casualties total 1,382. His monthly Gas Casualty Report, however, showed 32 officers and 1,394 men gassed, for a total of 1,426 of which 182 or 15% were later returned to duty. A comparison of these two totals is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Gas Atk Rpts</th>
<th>Gas Casu Rpt</th>
<th>Casua</th>
<th>Rtn to Dty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 October</td>
<td>332</td>
<td>409</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>404</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>409</td>
<td>50</td>
<td>6</td>
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<tr>
<td>4</td>
<td>50</td>
<td>38</td>
<td>13</td>
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<td>5</td>
<td>38</td>
<td>162</td>
<td>17</td>
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<tr>
<td>6</td>
<td>162</td>
<td>78</td>
<td>13</td>
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<td>7</td>
<td>68</td>
<td>24</td>
<td>11</td>
<td></td>
</tr>
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<td>8</td>
<td>24</td>
<td>31</td>
<td>12</td>
<td></td>
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<tr>
<td>9</td>
<td>31</td>
<td>134</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>154</td>
<td>57</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>67</td>
<td>36</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>no rpt</td>
<td>13</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1382</td>
<td>1428</td>
<td>182</td>
<td></td>
</tr>
</tbody>
</table>

Battle Losses, 14 Dec 21 (1st Div Box 15, 12.3). By comparison the American Battle Monuments Commission study, 1st Division Summary of Operations (1944), p. 95, has a total of 7,803 casualties: 1,296 killed, 472 died of wounds, 6,035 wounded (and gassed).

Gas Casu Rpt, 31 Oct, with note: "Not possible to get the cases by separate units" (GAF-1st Div Misc). This is also the total reported in ltr, DGO (Capt A. H. Bengs) to C CWS, 27 Jan 19, sub: Rpt on Circ Ltr 89 (GAF-1st Div Misc).
Of the totals of 1,382, 1,426, 1,614 and 1,898 gas casualties, only the first two figures are, in a sense, documented.

The search for data on the number of enemy gas rounds required to produce these casualties has not been entirely satisfactory. The only indication of the total number of gas shells fired by the enemy during the period 1-12 October is that offered by the Division Gas Officer:

Approximately 700 gas shells were fired on our troops on the night of October 1st-2nd. During the succeeding days gas shells were fired into the valley of the Aire and the ravines East of Charpentry and in front of Exermont, the woods of Montrebeau, those above Hill 212, and Bois de la Morine, Le Petit Bois and battery positions...I estimate that the enemy fired 7000 gas shells the first night and approximately 500 on each of the following days, 77mm. shells being used with mustard and blue cross, 105mm. shells with blue cross and 150mm. on the back area near the Division P.C. and on the road from Cheppy to Varennes; these latter shells contained yellow cross...

The cases of phosgene gassing were very few and might have been attributed to the men passing through the areas which had been shelled by our own guns previously, as I found no evidence of the enemy employing phosgene.

To be noted in Captain Sielaff's contradiction in the number of rounds fired the first night (700 vs. 1000), his difference with German artillery records concerning the number of gas shells fired on the night of 1-2 October (i.e., 30 September-1 October), and his disagreement with German artillery reports on the amount of phosgene shell fired into the 1st Division sector (narrative, pp. 9-14, 16).

If it is assumed that the estimate of 6,000 rounds is approximately correct, then the German artillery claimed a gas casualty for every four

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Memo DGO 1st Div for C CWS, 18 Oct, sub: Rpt of gas attacks from October 2nd to 11th, 1918 (GAF-1st Div Atks). In copying this memo by Sielaff in his postwar letter to C CWS, 27 Jan 19, sub: Rpt on Circ ltr 89 (GAF-1st Div Misc), Capt Bengs summarized the shelling: Approximately 6000 gas shells were fired by the enemy during this entire operation.
gas rounds fired.

In an effort to explain the large number of gas casualties suffered by the division, the medical historian of the division was later to say that the gas casualties, for the most part,

were incurred in the narrow ravines in the vicinity of Charpentry; the enemy knowing these positions well and what perfect gas traps they made, frequently filled these ravines with gas, especially during the night hours, and, as the gas shells were also accompanied with high explosive shells, or the gas was in the high explosive shells, it was impossible to recognize the fact that gas shells were being used until the odor of the gas was actually detected.137

In extenuation, the Division Gas Officer said: "Quite a number of junior officers... came to the division without any gas training... and mostly through ignorance of the subject, did not appreciate the full danger of gas, especially low concentrations." 138

The fact of "868 mustard gas casualties over a period of three days" was brought to the attention of the Army Inspector General, and there was talk of an investigation of the gas discipline and gas defense procedure of the 1st Division. As the Army Gas Officer said, these gas casualties are a striking example of what can be expected in open warfare unless the gas discipline is enforced even more rigidly than heretofore. It is believed that an informal inquiry by your department may be of assistance in directing attention of officers to the importance of taking the proper preventive measures.

Mustard gas is the most dangerous gas used today, as it causes more casualties than any other. Its odor is fairly difficult to detect, and men have a tendency to take chances with mustard gas, going without masks, neglecting (frequently unavoidably) to take proper prophylactic measures by the

137 Ltr, Col W. M. Phelps, Medical History of the 1st Div, p. 46 (Med Dept- 1st Div-Box 3398, fol.1).

138 Ltr, DGO to C GWS, 31 Oct, sub: Monthly Rpt-Oct 1918 (Records 13)
use of sag paste, bathing the hands and body, etc. Its effects are cumulative so that a man can remain in a light concentration for some time before becoming a casualty, often a serious one. 133

No more has been found concerning this investigation.

1st Division Gas Operations and German Gas Casualties

First Division artillery, which fired over 7,700 gas shells during 4, 6, 8, 9 and 10 October for its own troop operations continued gassing enemy positions for the 42nd Division, which was brought up on 11 October to crack the forward positions of the Kriemhilde Stellung. In its operations through 31 October, the 1st FA Brigade fired an additional 8,097 gas rounds, for a grand total of 16,228. 140 A note in its report on the firing of special shell said: "5, 6, 9, 14 employed effectively. Prisoners continually complained of gas casualties in great numbers. Concentrations on ravines, villages, quarries, woods, etc., by quick surprise fires." A post-war letter on the offensive use of gas by the 1st FA Brigade said:

Very satisfactory results were obtained from the extensive use of gas. It fired a total of 66,706 gas shells during the war. In fact its value was considered so great that ammunition of this nature was in continual demand and was never supplied in the quantities desired. This was especially true before the Meuse-Argonne Offensive. Special shells #4 and #6 were the most extensively employed, #3, #20, #6, and #8 followed in the order enumerated.

133 Memo, CGO 1st A for Insp Gen, 21 Oct (1st A-CGO-Box 340, 1st Div).

140 Rpt, Spec Shell Fired by 1st FA Brig, Jan-Nov 1918 (Records 14), shows 4483 gas rounds fired by 6th and 7th FA, 3220 by the 219th FA betw 4-10 Oct, and a combined total of 11,329 smoke rounds in that same period.

This rpt seems denied by memo 6th FA To CofArty AEF, 24 Jan 19, which rptd firing only 1200 rds, all on 11-12 Oct, and by similar memo 7th FA, 23 Jan, reporting only 1000 rds on the morning of 3-4 Oct against machine gun positions behind the German trenches.

In these same memos the 6th FA rptd no record of gas atks against it during the opn, the 7th FA rptd 6 men gassed due to 200 gas shells on 1 Oct, 3 cases on 3-4 Oct due to 200 phosgene shells, and no cases in atks of 5-6 Oct and 8-10 Oct with mustard, phosgene, and sneezing gas. Memos in GAF-1st Div Misc.
These proportions were governed by the supply, not by the needs of the occasion. Numbers 4 and 5 were considered as being better than nothing and hence employed in considerable quantities because of the fact that no other varieties were obtainable.

The use of gas by the Artillery is considered an unquestionable value, especially when defensive missions are assigned. For rapid neutralization of enemy batteries, for harassing fire, for use against the enemy in probable assembly points during periods when attack by the enemy is imminent, extensive employment of gas concentrations constitutes a means of injuring the enemy which should never be disregarded. The value of smoke screens during offensive operations is too generally recognized to warrant comment here. The use of smoke was generally limited by the supply, as in the case of gas.

Of interest is a word of advice on good relations by the 6th FA liaison officer: "When the infantry reports that the enemy is sending over 500 shells of gas let them know that we are sending back a thousand. That is what he likes to know." But this concern for gas retaliation did not extend to the proper employment by the division of its company of gas troops. According to the History of the First Gas Regiment, Company C fired a single mission of 60 thermite bombs in its 12 days with the 1st Division. Its casualties, said the division history in extenuation, "soon became disabling for so small a unit" (see narrative, pp. 19, 25, 37-38). A postwar note by a division Chief of Staff who had not been there was not so kind: "One gas company was assigned, but so far as known was of no benefit."

The Chief Gas Officer, 5th Corps, was to say of the 1st Division's attitude towards its gas troops:

141 Ltr CO 1st FA Brig to DGO 1st Div, 12 Feb 19, sub: Offensive Use of Gas by 1st FA Brig (Records 14).
142 LO Instructions, Some Helpful Hints, no date, ca May 1918 (Records 14).
143 Hist Sketch, p. 160, Fuqua CofS 1st Div, Rpt on Opns of 1st Div...Oct 1-12, 24 Nov 18 (1st Div Box 48, 33.6/10).
A general lack of information existed concerning the use of special
gas troops in connection with an infantry advance, and this the Inspecting
Officer sought to remedy in part by a talk to the officers of the 16th In-
fantry, arrangement for same talk to the officers of the 28th Infantry the
following day, and for a demonstration before both regiments of the use of
Stokes mortar, with high explosive, thermite and smoke screen, to take place
October 30th.144

The instructions for this demonstration would seem to imply that the use of
gas by the Ist Gas Regiment had been ruled out of consideration by late
October 1918:

Your attention is invited to the plan of introducing to troops,
where practicable, the use of Thermite, smoke screens and high explosive
bombs, as used by the special Gas and Flame troops, prior to the actual
attack in which these weapons are employed for the purpose of masking an
advance or eliminating machine gun nests or strong-points....The object
sought is familiarization of the Infantry with the activity of the special
troops so that they will not hesitate, as they heretofore have on several
occasions, to take full advantage of the very effective preparation afforded
by elements of the Gas Regiment which may be assigned to their organization.

Although more than seven thousand gas shells fell on enemy positions
during the period under discussion, even the most complete collection of
German records (i.e., that of the 5th Guard Division) offers only question-
able or incomplete data concerning their effectiveness. An examination of
the records of both the 5th Guard and 52nd Divisions does not reveal more
than a total of 40 or 50 admitted gas casualties as a result of the 7,700
gas shells fired by the 1st FA Brigade. These questionable figures are
like the total casualties reported by the 5th Guard Division, which seem,
by comparison with 1st Division losses, disproportionately meager, even al-
lowing for the skeletal composition of the German units. The 3rd Guard
Foot Regiment of 5th Guard Division, for example, admitted losses between

144 Ltr, CGO 5th G to CGO 5th G, 29 Oct, subj: Inspection of 1st Div (1st
A-CGO-1st Div Box 340).
1-10 October of no more than 10 men killed, 4 officers and 68 men wounded, and 5 men gassed. 145

The statistics of a machine gun sharp shooter detachment, of which there were at least four attached to the German units opposite 1st Division, are interesting. By 12 October, SS Detachment No. 47, which had come into the Group Argonne sector on 6 October, had lost 2 officers, 17 NCO's, 68 men, and 12 machine guns, causes not specified. The remainder of the detachment, completely exhausted on 12 October, were combined into two companies with six machine guns and consisted of 2 officers, 9 NCO's, and 44 men, "including the men who are slightly sick on account of gas and are able to remain on duty." 146

Exceptional is the report of the 18th Infantry Regiment, 41st Division, which admitted 29 gas casualties on 9 October, following the 1st FA Brigade gas shoot with 2,617 rounds on its positions. 147

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145 3rd Guard Diary, 10 Oct (5th Gd-Regts-WDMA).
146 Rpt on Condition of Det, 12 Oct (Item 174, Annexes to WD, Gp Arg).
147 18th Inf Annexes to WD (Item 197, 74th Brig [41st Div]).