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INDEPENDENT REVIEW/REASSESSMENT

OF

ANOMALOUS DATA

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VOLUME III

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3. ABSTRACT (Continue on reverse if necessary and identify by block number) An independent review/reassessment of 61 battles in 8 campaigns of World War II and the Arab-Israeli Wars of 1967 and 1973 was conducted. This work will provide the U.S. Army's Concepts Analysis Agency (CAA) with a factual basis for determining the extent to which certain anomalies in the data contained in CAA Study Report CAA-SR-84-6, "Analysis of Factors That Have Influenced Outcomes of Battles and Wars" are attributable to actual changes in combat dynamics, or whether they are more likely due to flaws in the data base. In virtually every case, the LFW Team's findings differ substantially from those determined by the authors of CAA-SR-84-6. (Keywords: land combat; World War 2; Anzio and Rome campaigns; casualties; military force levels).			
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INTRODUCTION AND BIBLIOGRAPHY: ANZIO

As per contract, the LFW Team reviewed/reassessed the following battles:

Aprilla I 25-26 Jan 1944
Campoleone, 29-31 Jan 1944
Carroceto, 7-8 Feb 1944
Moletta River, 7-9 Feb 1944
Factory Counterattack, 11-12 Feb 1944
Fioccia, 21-23 Feb 1944

The basic source for statistical data on the battles of the Anzio campaign were the official records, of which the Fifth Army Periodic Reports were the most valuable source.

For the British 1st Infantry Division, loading tables were used to establish initial strength for Aprilla I and then adjusted for casualties and additions for the next two battles [Campoleone, Carroceto]. Strengths for the 45th Division, which was involved in the next three battles, were established from Fifth Army Periodic Reports and VI Corps and 45th Division situation reports.

"Bloody" casualties were established from the official records and "non-bloody" casualties primarily from Lada and Mellor, as explained in the general introduction.

Bibliography

Official Records

Fifth Army: After-Action Report, Periodic Reports, Operations Orders, G-1 and G-3 Journals, and Headquarters, Fifth Army, Historical Section, Fifth Army History [9 vols, n.p., n.d.].

VI Corps: After-Action Report, Periodic Reports, and G-1 and G-3 Journals.

45th Infantry Division: After-Action Report, Division Artillery After-Action Report, Daily Situation Reports,

Division Artillery Daily Situation Reports, Division Artillery Journal, and G-1 and G-3 Journals and files; After-Action Reports, Daily Situation Reports, and S-1 and S-3 Journals and files of the three organic regiments: 157th Infantry, 179th Infantry, and 180th Infantry.

British Sources

1st Infantry Division, Operations Report, Public Records Office, London.

German Sources

OKW KTB [War Diary of the Supreme Command of the Armed Forces], vols. 6 and 7, as cited in Salerno sources.

AOK 14, KTB [Fourteenth Army War Diary] and Anlagen [appendices] [Microfilm Collection T-312, rolls 482 through 492].

LXXVI Panzer Corps, KTB and Anlagen, 3 Feb-30 Jun 1944 [Microfilm Collection T-314, rolls 1572-1574].

Manuscripts: No. R-76, "Italian Theater, Order of Battle and List of Commanders, 22 Aug 1943-31 Mar 1944," by Ralph S. Mavrogordata, 1957; No. R-78, "XIV Panzer Corps Defensive Operations Along the Garigliano, Gari, and Rapido Rivers, 17-31 Jan 1944," by Ralph S. Mavrogordata, 1955; No. R-124, "The Battle of Anzio, 22 Jan-31 Mar 1944," by Ralph S. Mavrogordata, 1957; and MS without number, "The German Situation [in the Italian Theater of Operations]," by Britt Bailey, 1951.

Secondary Sources

Most Useful:

Blumenson, Martin, Salerno to Cassino [U.S. Army in World War II, Washington: Center of Military History, 1969].

Graham, Dominick, and Bidwell, Shelford, Tug of War: The Battle for Italy: 1943-45 [New York: St. Martin's Press, 1986].

Molony, Brig. C.J.C., et al., The Mediterranean and Middle East Vol. V, The Campaign in Sicily, 1943, and the Campaign in Italy, 3d September 1943 to 31st March 1944 [United Kingdom Military series, History of the Second World War, London: Her Majesty's Stationery Office, 1973].

Of limited usefulness:

Anzio Beachhead [American Forces in Action Series, Washington: Historical Division, War Department, 1947].

Blumenson, Martin, Anzio: The Gamble that Failed [Philadelphia: J.B. Lippincott Company, 1963].

Jackson, W.G.F., The Battle for Italy [New York: Harper and Row, 1967].

Starr, LTC Chester G., Salerno to the Alps [Washington: Infantry Journal Press, 1948].

Vaughan-Thomas, Wynford, Anzio [New York: Holt, Rinehart, and Winston, 1961].

Of peripheral usefulness:

The Fighting Forty-Fifth: The Combat Report of an Infantry Division [Baton Rouge, LA: Army and Navy Publishing Company, 1946].

NOTE: The LFW Team was unable to locate the source listed in the HERO study as: Muhm, Col. Gerhard, "Verluste der HG SUD wahrend der 4. CASSINO-SCHLACHT unter der Schlacht um ROM 911.5-2.6.1944]," unpublished study [1983]; but the Team considered that use of the official German records compensated for lack of access to this study.

US ARMY

LPW MANAGEMENT ASSOCIATES, INC. REVIEW

OF

CAA TASK 4 REQUIREMENTS

LPW'S INDEPENDENT REVIEW/REASSESSMENT OF SIX ANOMALOUS BATTLES

FROM THE ANZIO CAMPAIGN



TJT-4

US ARMY

BRITISH STRENGTH: APRIL 1

Low	
Estimate	23,195
High	
Estimate	24,478
Nominal	
Strength based on start basic and attached units' orgn.	
strength	23,312*
Replacements	0
RTD	0
Attachments/detachments during battle	0**
LFW estimate	<u>23,312</u>

BASIC SOURCES: *Loading tables in Operations Report, 1st Infantry Division; **Fifth Army Operations Orders.



US ARMY

BRITISH CASUALTIES: APRILLA I

"Bloody"	
Low	
Estimate	169
High	
Estimate	207
Nominal	
Reported KIAs and WIAE	188*
"Non-Bloody"	
Low	
Casualties	64
High	
Casualties	78
Nominal	
Estimated NBCs	66**

BASIC SOURCES: *VI Corps Situation Reports and Fifth Army Periodic Reports; **January 1944 British daily NEC rate per thousand troops was 1.4145161. This figure multiplied by strength of 23.312 thousands and 2 battle days provides 66 NBC. [Mellor, Casualties and Medical Statistics, p. 241.]



US ARMY

GERMAN STRENGTH: APRILLA I

Low

Estimate 5,400

High

Estimate 6,600

Nominal

Reported strength 6,000
 Replacements received during battle 0
 RTD 0
 Attachments/detachments during battle 0
 Total 6,000

BASIC SOURCES: Fourteenth Army and LXXVI Panzer Corps War
 Diaries and appendices.



US ARMY

GERMAN CASUALTIES: APRILLA I

"Bloody"	
Low	
Estimate	35
High	
Estimate	43
Nominal	
Reported KIAs and WIAs	39*
"Non-Bloody"	
Low	
Estimate	206
High	
Estimate	252
Nominal	
Reported POWs	211**
Estimated NBCs from experience of British forces	17***
Total	229

BASIC SOURCES: *Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices; **Fifth Army Periodic Reports; ***British January 1944 daily NBC rate per thousand troops was 1.4145161. This figure multiplied by the battle strength [6 thousands] and 2 battle days provides 17 NBC. [Mellor, Casualties and Medical Statistics, p. 241].



US ARMY

APRILLA I

HERO

A/D	Strength					Air Sorties	Battle Casualties							
	Pers (Total)	Armor			Arty		Pers %/D	Armor %/D	Arty %/D	A/C %/D				
		T	Lt.	MBT	Pcs									
A	19,350	71	0	71	242	0	1,158	3.0	7	4.9	?	--	0	--
D	6,750	46	0	46	66	28	130	1.0	1	4.3	?	--	0	--

LEW

A/D	Strength					Air Sorties	Battle Casualties				
	Pers (Total)	Armor		Arty			Pers %D	Armor %D	Arty %D	A/C %D	%D
		T	Lt. MBT	Pcs	Pcs						
A	23,312	81	0	81	112	188	0.4	3	1.9	0	--
D	6,000	55	30	25	24	39	0.3	5	4.5	?	--



JII-9

US ARMY

BRITISH STRENGTH: CAMPOLEONE

LOW

Estimate 17,856

High

Estimate 21,824

Nominal

Based on start basic and attached units' orgn. strength ... 19,840*
 Replacements 0
 RTD 0
 Attachments/detachments during battle + 782**
 LFW estimate 20,622

BASIC SOURCES: *Loading tables in Operations Report, 1st Inf Div; **Fifth Army Operations Orders.



US ARMY

BRITISH CASUALTIES: CAMPOLEONE

"Bloody"	
Low	
Estimate	151
High	
Estimate	185
Nominal	
Reported KIAs and WIAs	168*
"Non-Bloody"	
Low	
Estimate	81
High	
Estimate	99
Nominal	
Estimate from experience of British forces	84**

BASIC SOURCES: *VI Corps Situation Reports and Fifth Army Periodic Reports; **January 1944 British daily NBC rate per thousand troops was 1.4145161. This figure multiplied by battle strength of 19,840 thousands and 3 battle days provides 84 NBC [Mellor, Casualties and Medical Statistics, p. 241].



US ARMY

GERMAN STRENGTH: CAMPOLEONE

Low

Estimate 14,518

High

Estimate 17,744

Nominal

Reported strength	16,131
Replacements received during battle	0
RTD	0
Attachments/detachments during battle	<u>0</u>
Total	16,131

BASIC SOURCES: Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices.



III-12

US ARMY

GERMAN CASUALTIES: CAMPOLEONE

"Bloody"	
Low	
Estimate	140
High	
Estimate	171
Nominal	
Reported KIAs and WIAs	155*
"Non-Bloody"	
Low	
Estimate	66
High	
Estimate	80
Nominal	
Estimated NBCs from experience of British forces	68**

BASIC SOURCES: *Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices; **January 1944 British daily NBC rate per thousand troops was 1.4145161. This figure multiplied by a battle strength of 16.131 thousands and 3 battle days provides 68 NBC [Mellor, Casualties and Medical Statistics, p. 241].



US ARMY

CAMPOLEONE

HERO

A/D	Strength				Air Sorties	Battle Casualties				
	Pers (Total)	Armor		Arty		Pers %/D	Armor %/D	Arty %/D	A/C %/D	
		T	Lt. MBT	Pcs						Pcs
A	17,766	71	0	71	16	742	1.4	?	--	0
D	15,098	92	0	92	30	221	0.5	?	--	0

LFW

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty			Pers %/D	Armor %/D	Arty %/D	A/C %/D		
		T	Lt. MBT	Pcs								
A	19,840	76	0	76	?	168	0.3	6	2.6	0	--	?
D	16,131	72	30	42	?	155	0.3	1	0.5	2	2.8	?



IIIJ-14

US ARMY

BRITISH STRENGTH: CARROCETO

Low

Aprilla I preceding battle low strength [23,195] minus high casualties ["bloody" 207, "non-bloody" 78] 22,910

High

Aprilla I preceding battle high strength [24,478] minus low casualties ["bloody" 169, "non-bloody" 64] 24,250

Nominal

Aprilla I preceding battle nominal strength [23,312] minus nominal casualties ["bloody" 188, "non-bloody" 71] 23,053
 Replacements received during battle 0
 RTD 0
 Attachments/detachments during battle [4 tank companies] .. + 720
 Total 23,773

BASIC SOURCES: Fifth Army Operations Orders and Periodic Reports.



US ARMY

BRITISH CASUALTIES: CARROCETO

"Bloody"	
Low	
Estimate	149
High	
Estimate	182
Nominal	
Reported KIAs and WTAs	165*
"Non-Bloody"	
Low	
Estimated NBCs	65**
High	
Estimate	140
Nominal	
Reported NBCs and MIAs	127*

BASIC SOURCES: *VI Corps Situation Reports and Fifth Army Periodic Reports; **January 1944 British daily NBC rate per thousand troops was 1.4145161. This figure multiplied by a battle strength of 23.053 thousands and 2 battle days provides 65 NBC [Mellor, Casualties and Medical Statistics, p. 241].



US ARMY

GERMAN STRENGTH: CARROCETO

Low	
Estimate	21,400
High	
Estimate	26,156
Nominal	
Reported strength	23,778
Replacements received during battle	0
RTD	0
Attachments/detachments during battle	0
Total	<u>23,778</u>

BASIC SOURCES: Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices.



US ARMY

GERMAN CASUALTIES: CARROCE TO

"Bloody"

Low

Estimate 324

High

Estimate 396

Nominal

Reported KIAs and WIAs 360*

"Non-Bloody"

Low

Estimated NBCs 65

High

Estimate 79

Nominal

Estimate from experience of British forces 67**

BASIC SOURCES: *Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices; **February 1944 British daily NBC rate per thousand troops was 1.4145161. This figure multiplied by a battle strength of 23,778 thousands and 2 battle days provides 67 NBC [Mellor, Casualties and Medical Statistics, p. 241].



CARROCCETO

HERO

A/D	Strength					Air Sorties	Battle Casualties				
	Pers (Total)	Armor		Arty			Pers %/D	Armor %/D	Arty %/D	A/C %/D	
		T	Lt. MBT	Pcs	Pcs						
A	26,490	107	0	107	221	18	341	0.6	?	?	
D	4,515	139	0	139	82	7	369	4.1	?	?	

LEW

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty			Pers %/D	Armor %/D	Arty %/D	%A/C %/D		
		T	Lt. MBT	Pcs								
A	23,778	163	0	163	112	?	360	0.8	5	1.5	?	--
D	23,053	132	0	132	74	?	165	0.2	7	2.7	0	--



US ARMY

U.S. STRENGTH: MOLETTA RIVER

Low

Estimate 6,930

High

Estimate 8,470

Nominal

157th RCT [5,000] and attached units' [2,700] strength 7,700
 Replacements received during battle 126
 RTD 109
 Attachments/detachments during battle 0

Total 7,935

BASIC SOURCES: 45th Infantry Division after-action report, situation reports, and operations orders.



III-20

US ARMY

U.S. CASUALTIES: MOLETTA RIVER

"Bloody"	
Estimate	Low 24
Estimate	High 30
Nominal	
Reported KIAs [5] and MIAs [22]	27
"Non-Bloody"	
Estimate	Low 116
Estimate	High 142
Nominal	
Reported MIA [1] and NBC [128]	129

BASIC SOURCE 45th Infantry Division after-action report,
G-1/AG Section.



US ARMY

GERMAN STRENGTH: MOLETTA RIVER

Low

Estimate 5,850

High

Estimate 7,150

Nominal

Reported strength 6,500
 Replacements received during battle 0
 RTD 0
 Attachments/detachments during battle 0

Total 6,500

BASIC SOURCES: Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices.



US ARMY

GERMAN CASUALTIES: MOLETTA RIVER

"Bloody"	
Estimate	57
Low	
High	
Estimate	69
Nominal	
Reported KIAs and WIAs	63*
"Non-Bloody"	
Low	
Estimate	26
High	
Estimate	32
Nominal	
Estimate from experience of British forces	28**

BASIC SOURCES: *Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices; **February 1944 British daily NBC rate per thousand troops was 1,415161. This figure multiplied by a battle strength of 6.5 thousands and 3 battle days provides 28 NBC [Mellor, Casualties and Medical Statistics, p. 241].



US ARMY

MOLETTA RIVER

HERO

A/D	Strength					Air Sorties	Battle Casualties				
	Pers (Total)	Armor		Arty			Pers %/D	Armor %/D	Arty %/D	A/C %/D	
		T	Lt. MBT	Pcs	Pcs						
A	7,418	27	0	27	58	167	1.1	?	?	?	
D	5,000	0	0	0	76	107	1.1	?	?	?	

LFW

A/D	Strength				Air Sorties	Battle Casualties			
	Pers (Total)	Armor		Arty Pcs		Pers %/D	Armor %/D	Arty %/D	A/C %/D
		T	Lt. MBT						
A	6,500	24	24	0	36	0.3	?	?	?
D	7,700	17	0	17	52	0.1	0	0	--



US ARMY

U.S. STRENGTH: FACTORY COUNTERATTACK

	Low	High	Nominal
Estimate	5,805		
Estimate		7,095	
179th RCT [5,000] plus attached units' orgn. strength [1,450]			6,450
Replacements received during battle			0
RTD			14
Attachments/detachments during battle			<u>0</u>
Total			6,464

BASIC SOURCES: 45th Infantry Division after-action report,
C-1/AG Section, and operations orders.



US ARMY

U.S. CASUALTIES: FACTORY COUNTERATTACK

"Bloody"		
	Low	
Estimate		55
High		
Estimate		67
Nominal		
Reported KIAs [7] and WIAs [54]		61
"Non-Bloody"		
	Low	
Estimate		62
High		
Estimate		64
Nominal		
Reported NBC		58

BASIC SOURCE: 45th Infantry Division after-action report,
G-1/AG Section.



US ARMY

GERMAN STRENGTH: FACTORY COUNTERATTACK

	Low	
Estimate	6,570	
	High	
Estimate	8,030	
	Nominal	
Reported strength	7,300	
Replacements received during battle	0	
RTD	0	
Attachments/detachments during battle	0	
Total	7,300	

BASIC SOURCES: Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices.



•GERMAN CASUALTIES: FACTORY COUNTERATTACK

BASIC SOURCE: *Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices; **Fifth Army Periodic Reports; ***February 1944 British daily NBC rate per thousand troops was 1.4145161. This figure multiplied by battle strength of 7.3 thousands and 2 battle days provides 21 NBC [Mellor, Casualties and Medical Statistics, p. 241.].

US ARMY

FACTORY COUNTERATTACK

HERO

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty			Pers %/D	Armor %/D	Arty %/D	A/C %/D		
		T	Lt, MBT	Pcs	Pcs							
A	13,400	70	0	70	155	7	101	0.8	?	?	0	--
D	7,077	28	0	28	102	0	206	2.9	?	?	0	--

LFW

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty Pcs			Pers %/D	Armor %/D	Arty %/D	A/C %/D	% /D	
		T	Lt. MBT	IC	17							
A	6,450	70	0	155	?	61	0.5	8	5.7	?	--	
D	7,300	17	0	48	?	175	1.2	2	5.9	0	--	



US ARMY

U.S. STRENGTH: FIOCCIA

Low

Estimate 16,721

High

Estimate 18,481

Nominal

Estimated strength [15,601] plus attached British units

[2,000] 17,601*

Replacements during battle 751**

RTD 230**

Attachments/detachments during battle 0

Total 18,582

BASIC SOURCES: *TO&E Strength and 45th Infantry Division operations orders; **45th Infantry Division after-action report, G-1/AG Section.

JII-30



US ARMY

U.S. CASUALTIES: FIOCCIA

"Bloody"	
Low	
Estimate	234
High	
Estimate	286
Nominal	
Reported KIAs [32] and WIAs [228]	260
"Non-Bloody"	
Low	
Estimate	944
High	
Estimate	1,154
Nominal	
Reported NBC	480
Reported MIA	<u>569</u>
Total	1,049

BASIC SOURCES: 45th Infantry Division after-action report,
G-1/AG Section; Fifth Army Periodic Reports.



US ARMY

GERMAN STRENGTH: FIOCCIA

Low

Estimate 7,200

High

Estimate 8,800

Nominal

Reported strength 8,000
 Replacements during battle 0
 RTD 0
 Attachments/detachments during battle 0

Total 8,000

BASIC SOURCES: Fourteenth Army and LXXXVI Panzer Corps War Diaries and appendices.



US ARMY

GERMAN CASUALTIES: FIOCCIA

"Bloody"	
Low	
Estimate	113
High	
Estimate	139
Nominal	
Reported KIAs and WIAs.....	126*
"Non-Bloody"	
Low	
Estimate	32
High	
Estimate	40
Nominal	
Estimate from experience of British forces	34**

BASIC SOURCES: *Fourteenth Army and LXXVI Panzer Corps War Diaries and appendices; **February 1944 British daily NBC rate per thousand troops was 1.4145161. This figure multiplied by a battle strength of 8.0 thousands and 3 battle days provides 34 NBC [Nellor, Casualties and Medical Statistics, p. 241].



US ARMY

FIOCCIA

HERO

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty			Pers %/D	Armor %/D	Arty %/D	A/C %/D	A/C %/D	
		T	Lt. MBT	Pcs	Pcs							
A	15,037	45	0	45	164	170	255	0.6	?	--	?	--
D	19,613	106	17	89	187	178	403	0.7	?	--	?	--

LFW

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor			Arty Pcs		Pers %/D	Armor %/D	Arty %/D	A/C %/D	A/C %/D	
		T	Lt.	MBI								
A	8,000	45	0	45	48	?	?	?	--	?	--	
D	17,601	70	34	36	187	?	?	0	--	?	--	



INTRODUCTION AND BIBLIOGRAPHY: ROME

As per contract, the LFW Team reviewed/reassessed the following battles:

Moletta Offensive, 23-24 May 1944
Anzio-Albano Road, 23-24 May 1944
Velletri, 26 May 1944
Campoleone Station, 25-28 May 1944
Villa Crocetta, 27-28 May 1944
Lanuvio, 29 May-1 June 1944
Via Anziate, 1-2 Jun 1944

The basic source for statistical data on the battles of the Rome campaign were the official records, of which the Fifth Army Periodic Reports were the most valuable source, both for opening strengths and for "bloody" casualties, including the British divisions. VI Corps Periodic Reports and division records, particularly daily situation reports, were of value for the two American divisions, and some figures were obtained from the official history, Fisher, Cassino to the Alps, in particular opening strength of the 1st Armored Division. "Non-bloody" casualties were derived primarily from extrapolation of data in Lada and Mellor, as explained in the general introduction.

Bibliography

Official Records

Fifth Army: After-Action Report, Periodic Reports, Operations Orders, G-1 and G-3 Journals, and Headquarters, Fifth Army Historical Section, Fifth Army History [9 vols, n.p., n.d.].

VI Corps: After-Action Report, Periodic Reports, and G-1 and G-3 Journals.

1st Armored Division: After-Action Report, Division Artillery After-Action Report, Daily Situation Reports, Division Artillery Daily Situation Reports, Division Artillery

Journal and G-1 and G-3 Journals and files; and After-Action Reports, Daily Situation Reports, and S-1 and S-3 Journals and files of the two principal combat commands, A and B.

34th Infantry Division: After-Action Report, Division Artillery After-Action Report, Daily Situation Reports, Division Artillery Daily Situation Reports, Division Artillery Journal, and G-1 and G-3 Journals and files; After-Action reports, Daily Situation Reports, and S-1 and S-3 Journals and files of the three organic regiments: 133d Infantry, 135th Infantry, and 168th Infantry.

45th Infantry Division: After-Action Report, Division Artillery After-Action Report, Daily Situation Reports, Division Artillery Daily Situation Reports, Division Artillery Journal and G-1 and G-3 Journals and files; After-Action Reports, Daily Situation Reports, and S-2 and S-3 Journals and files of the three organic regiments: 157th Infantry, 179th Infantry, and 180th Infantry.

British Sources

1st Infantry Division, Operations Report, Public Records Office, London.

5th Infantry Division, Operations Report, Public Records Office, London.

German Sources

OKW KTB [War Diary of the Supreme Command of the Armed Forces], vol. 7, as cited in Salerno sources.

AOK 14, KTB [Fourteenth Army War Diary] and Anlagen [appendices]. [Microfilm Collection T-312, rolls 482-492, and G-314, roll 487].

LXXVI Panzer Corps, KTB and Anlagen [Microfilm Collection T-314, rolls 1572-1574].

Manuscripts: No. R-50, "The Drive on Rome," by Britt

Bailey, 1957; Nos. T-1a and T-16, "The Italian Campaign," by General Siegfried Westphal and other participants [National Archives, in German].

Secondary Sources

Most useful:

Fisher, Ernest F., Jr., Cassino to the Alps [U.S. Army in World War II, Washington: Center of Military History, 1977].

Graham, Dominick, and Bidwell, Shelford, Tug of War: The Battle for Italy: 1943-45 [New York: St. Martin's Press, 1986].

Of limited usefulness:

Anzio Beachhead [American Forces in Action Series, Washington: Historical Division, War Department, 1947].

Blumenson, Martin, Anzio: The Gamble that Failed [Philadelphia: J.B. Lippincott Company, 1963].

Howe, George F., The Battle History of the First Armored Division [Washington: Combat Forces Press, 1954].

Jackson, W.G.F., The Battle for Italy [New York: Harper and Row, 1967].

Starr, LTC Chester G., Salerno to the Alps [Washington: Infantry Journal Press, 1948].

Vaughan-Thomas, Wynford, Anzio [New York: Holt, Rinehart and Winston, 1961].

Of peripheral usefulness:

Aris, George, The Fifth British Division: 1929 to 1945 [London: The Fifth Division Benevolent Fund, 1959].

The Fighting Forty-Fifth: The Combat Report of an Infantry Division [Baton Rouge, LA: Army and Navy Publishing Co., 1946].

Hougen, LTC John H., The Story of the Famous 34th Infantry Division [Nashville, TN: Battery Press, reprint, 1979].

US ARMY

LFW MANAGEMENT ASSOCIATES, INC. REVIEW

OF

CAA TASK 5 REQUIREMENTS

LFW'S INDEPENDENT REVIEW/REASSESSMENT OF EIGHT ANOMALOUS BATTLES

FROM THE ROME CAMPAIGN



IIIJ-39

US ARMY

BRITISH STRENGTH: MOLETTA OFFENSIVE

Low

British 5th Div low estimated strength 9,000

High

British 5th Div high estimated strength 11,000

Nominal

LFW Team's estimate	10,400
Replacements received during battle	0
RTD	460
Attachments/Detachments during battle	0

Total 10,860

BASIC SOURCES: Operations Report, 5th Inf Div; strength reports in records of 15th Army Group, Hq, Allied Armies in Italy. Because of low effective strength, the division was placed in a holding role on 24 April.

III-40



US ARMY

BRITISH CASUALTIES: MOLETTA OFFENSIVE

"Bloody"	
Estimated casualties	212
Low	
High	
Estimated casualties	234
Nominal	
Estimated casualties [KIA 57, WIA 166]	223*
"Non-Bloody"	
Low	
Casualties	77
High	
Casualties	85
Nominal	
Casualties [MIA 32, POW 23]* plus 26 NBC**	81

BASIC SOURCES: *Division reports to VI Corps found in Fifth Army Periodic Reports; and **Mellor, Casualties and Medical Statistics, p. 241.



US ARMY

GERMAN STRENGTH: MOLETTA OFFENSIVE

Low

German 4th Parachute Div estimated low strength 8,200

High

German 4th Parachute Div estimated high strength 8,900

Nominal

LFW Team's estimate	8,600
Replacements received during battle	0
RTD	0
Attachments/Detachments during battle	0

Total 8,600

BASIC SOURCES: Fourteenth Army War Diary and appendices. The 4th Parachute Division was seriously understrength.



US ARMY

GERMAN CASUALTIES: MOLETTA OFFENSIVE

"Bloody"	
Low	
Estimated casualties	57
High	
Estimated casualties	69
Nominal	
Estimated casualties*	63
"Non-Bloody"	
Low	
Estimate	13
High	
Estimate	15
Nominal	
Estimated casualties NBC based on British experience** ..	14

BASIC SOURCES: *Fourteenth Army War Diary and appendices; and
 **Mellor, Casualties and Medical Statistics, p. 241.



US ARMY

MOLETTA OFFENSIVE

HERO

A/D	Strength				Air Sorties	Battle Casualties				
	Pers (Total)	Armor		Arty		Pers %/D	Armor %/D	Arty %/D	%D	
		T	Lt.	MBT						Pcs
A	17,345	35	0	35	100	234	0.7	?	?	--
D	12,569	0	0	0	92	468	1.9	?	?	--

LFW

A/D	Strength					Air Sorties	Battle Casualties							
	Pers (Total)	Armor		Arty Pcs			Pers %/D	Armor %/D	Arty %/D	%D				
		T	Lt.	MBT										
A	10,400	54	0	54	96	?	223	1.1	1	0.9	0	?	?	?
D	8,600	0	24	0	72	?	63	0.4	0	--	?	?	?	--



US ARMY

MOLETTA OFFENSIVE

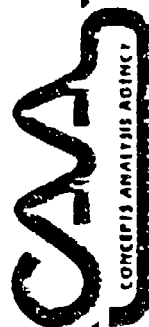
HERO

A/D	Def Posture	Terrain	Weather	Season	Surprise	Level		Air
						Suprise	Sup	
A		FM	WLT	SPT	N	-		x
D	FD							

LFW

A/D	Def Posture	Terrain	Weather	Season	Surprise	Level		Air
						Suprise	Sup	
A		FM	WLT	SPT	N	-		x
D	PD							

The Germans were not in a fortified position (FD) but in a prepared defense (PD).



US ARMY

ANZIO-ALBANO ROAD

HERO

A/D	Dates	Campaign	Forces	Commanders	Days	Width of Front (Km)
A	23-24 May 44	Rome	Br 1st Inf Div (+)	MG Penney	2	6.0
D			Gr 65th Inf Div	MG Ziehlberg		

LFW

A/D	Dates	Campaign	Forces	Commanders	Days	Width of Front (Km)
A	23-24 May 44	Rome	Br 1st Inf Div (+)	Brigadier Loewen	2	6.0
D			Gr 65th Inf Div	MG Ziehlberg		

General Loewen had succeeded General Penney as British commander.



III-46

US ARMY

BRITISH STRENGTH: ANZIO-ALBANO ROAD

Low

British 1st Div low estimated strength 3,290

High

British 1st Div high estimated strength 10,120

Nominal

LFW Team's estimate	9,200*
Replacements received during battle	0
RTD	265**
Attachments/Detachments during battle	<u>0</u>
Total	9,465

BASIC SOURCES: *Operations Report, 5th Inf Div; strength reports in records of 15th Army Group, Hq, Allied Armies in Italy; and ** Mellor, Casualties and Medical Statistics.



US ARMY

BRITISH CASUALTIES: ANZIO-ALBANO ROAD

"Bloody"		
Low		
Estimated casualties		141
High		
Estimated casualties		155
Nominal		
Estimated casualties [KIA 57, WIA 166]		148*
"Non-Bloody"		
Low		
Casualties		56
High		
Casualties		62
Nominal		
Casualties [MIA 21, POW 15]* plus 23 NBC**		59

BASIC SOURCES: *Division reports to VI Corps found in Fifth Army Periodic Reports; and **Mellor, Casualties and Medical Statistics, p. 241.



US ARMY

GERMAN STRENGTH: ANZIO-ALBANO ROAD

Low

German 4th Parachute Div estimated strength 8,800

High

German 4th Parachute Div estimated strength 9,500

Nominal

LFW Team's estimate	9,000
Replacements received during battle	0
RTD	0
Attachments/Detachments during battle	0

Total	9,000
-------	-------

BASIC SOURCES: Fourteenth Army War Diary and appendices; MS No. R-50 (Bailey).



US ARMY

GERMAN CASUALTIES: ANZIO-ALBANO ROAD

"Bloody"	
Low	
Estimated casualties	88
High	
Estimated casualties	110
Nominal	
Estimated casualties	99
"Non-Bloody"	
Low	
Estimate	17
High	
Estimate	21
Nominal	
Estimate (11 NBC plus 8 MIA)	19

BASIC SOURCES: Fourteenth Army War Diary and appendices;
MS No. 50 (Bailey).



US ARMY

ANZIO-ALBANO ROAD

HERO

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor			Arty Pcs		Pers %/D	Armor %/D	Arty %/D	A/C %/D	A/C %/D	
		T	Lt.	MBT								
A	17,313	36	0	36	100	35	194	0.6	?	?	?	--
D	11,343	19	0	19	96	0	107	0.5	?	?	?	--

LFW

A/D	Strength					Air Sorties	Battle Casualties						
	Pers (Total)	Armor			Arty Pcs		Pers %/D	Armor %/D	Arty %/D	A/C %/D	A/C %/D		
		T	Lt.	MBT									
A	9,200	64	0	64	96	?	143	0.8	?	5.5	0	?	?
D	9,000	0	7	0	72	?	99	0.6	?	?	?	?	?



III-51

US ARMY

ANZIO-ALBANO ROAD

HERO

A/D	Def Posture	Terrain	Weather	Season	Surprise	Suprizer	Level	Air
A		FM	WLT	SPT	N	-	-	x
D	FD							

LFM

A/D	Def Posture	Terrain	Weather	Season	Surprise	Suprizer	Level	Air
A		FM	WLT	SPT	N	-	-	x
D	PD							

The defenders were not in a fortified defense (FD) but a prepared defense (PD).



US ARMY

U.S. STRENGTH: VELLETRI

Low

Estimated US 1st Armd Div strength 18,000

High

Estimated US 1st Armd Div strength 18,650

Nominal

LFW Team's estimate (14,620) minus TF Howze (2,200) plus attached units (6,000).....	18,420
Replacements received during battle	0
RTD	0
Attachments/Detachments during battle	0
Total	18,420

BASIC SOURCES: 1st Armd Div Daily Situation Reports; Fisher,
Cassino to the Alps, (U.S. official history).



US ARMY

U.S. CASUALTIES: VELLETRI

"Bloody"	
Low	
Estimated casualties	27
High	
Estimated casualties	33
Nominal	
Casualties from VI corps Daily Situation Report	30*
"Non-Bloody"	
Low	
Casualties	52
High	
Casualties	64
Nominal	
Casualties [MIA 16]* from VI Corps Daily Situation Report, plus 42 NBC**	58

BASIC SOURCES: *1st Armored Division and VI Corps Daily Situation Reports; and **Lada, Medical Statistics World War II, p. 27.



US ARMY

GERMAN STRENGTH: VELLETRI

Low

Estimated strength 7,700

High

Estimated strength 8,500

Nominal

LFW Team's estimate 8,100
 Replacements received during battle 0
 RTD 0
 Attachments/Detachments during battle 0

Total 8,100

BASIC SOURCES: Fourteenth Army War Diary and appendices;
 MS. No. R-50 (Bailey).



US ARMY

GERMAN CASUALTIES: VELLETRI

"Bloody"	
Low	
Estimated casualties	350
High	
Estimated casualties	450
Nominal	
Casualties [KIA 100, WIA 300]	400*
"Non-Bloody"	
Low	
Casualties	271
High	
Casualties	331
Nominal	
Casualties [MIA 294* plus 7 NBC**]	301

BASIC SOURCES: *Fourteenth Army War Diary and appendices;
MS No. R-50 [Bailey]; and **Mellor, Casualties and Medical
Statistics, p. 241.



US ARMY

VELLETRI

HERO

A/D	Strength					Battle Casualties						
	Pers (Total)	Armor			Art'y Pcs	Air Sorties	Pers	Casualties				
		T	Lt.	MBT				S/D	Armor	S/D	A/C	
A	20,683	462	158	304	92	8	767	3.7	18	3.9	7	--
D	12,327	65	0	65	64	0	1,319	10.7	7	--	0	--

LFW

A/D	Strength						Battle Casualties						
	Pers (Total)	Armor			Art'y Pcs	Air Sorties	Pers	Casualties					
		T	Lt.	MBI				%D	Armor	%D	A/C		
A	18,420	321	221	100	96	7	30	0.2	8	2.5	7	---	---
D	8,100	110	45	65	38	7	400	4.9	14	0.1	2	5.3	7



US ARMY

VELLETRI

HERO

A/D	Def Posture	Terrain	Weather	Season	Surprise	Suprizer	Level	Air
A		RM	DST	SpT	Y	-	-	x
D	FD					x	minor	

LFM

A/D	Def Posture	Terrain	Weather	Season	Surprise	Suprizer	Level	Air
A		RM	DST	SpT	N	-	-	x
D	HD							

The defenders were not in a fortified defense (FD) but a hasty defense (HD).



US ARMY

U.S. STRENGTH: CAMPOLEONE STATION

	Low	
Estimated strength	16,800	
	High	
Estimated strength	18,000	
	Nominal	
LFW Team's estimate 45th Div (14,000) plus TF Howze (2,000) plus attached units (1,400)	17,400	
Replacements received during battle	0	
RTD	0	
Attachments/Detachments during battle	0	
Total	17,400	

BASIC SOURCES: 45th Div Daily Situation Reports and Fisher,
Cassino to the Alps.



US ARMY

U.S. CASUALTIES: CAMPOLEONE STATION

"Bloody"	
Low	
Estimated casualties (30 KIA, 169 WIA) based on corps report	167
High	
Estimated casualties	231
Nominal	
Casualties (30 KIA, 169 WIA) per VI Corps Daily Situation Report	199
"Non-Bloody"	
Low	
Estimated casualties	357
High	
Casualties	437
Nominal	
Casualties (MIA 228, POW 39) per VI Corps Daily Situation Report (plus 118 NBC)*	397

BASIC SOURCES: VI Corps Daily Situation Reports; and *Lada, Medical Statistics World War II, p. 27.



US ARMY

GERMAN STRENGTH: CAMPOLEONE STATION

Low

Strengths of German units 8,760

High

Estimated high strength 9,100

Nominal

LFW Team's estimate 8,930
 Replacements received during battle 0
 RTD 0
 Attachments/Detachments during battle 0

Total
 8,930

BASIC SOURCES: Fourteenth Army War Diary and appendices.



US ARMY

GERMAN CASUALTIES: CAMPOLEONE STATION

"Bloody"	
Low	
Estimated casualties	273
High	
Estimated casualties	425
Nominal	
Casualties (KIA 118, WIA 230)	348
"Non-Bloody"	
Low	
Casualties	306
High	
Casualties	374
Nominal	
Casualties (MIA 276 plus 64 NBC)*	340

BASIC SOURCES: Fourteenth Army War Diary and appendices; and
 *Mellor, Casualties and Medical Statistics, p. 241.



US ARMY

CAMPOLEONE STATION

HERO

A/D	Strength					Air Sorties	Battle Casualties							
	Pers (Total)	Armor			Arty Pcs		Pers							
		T	Lt.					MBT	%D	Armor	%D	Arty	%D	A/C
A	19,047	102	13	89	97	0	517	0.9	?	--	1	0.3	?	--
D	10,593	19	0	19	106	0	580	1.8	?	--	?	--	0	--

LFV

A/D	Strength					Battle Casualties						
	Pers (Total)	Armor			Arty Pcs	Air Sorties	Pers					
		T	Lt.					%D	Armor	%D	Arty	
				MBT								
A	17,400	108	34	74	86	?	199	0.4	0	--	?	--
D	8,930	7	0	0	72	?	343	1.3	0	--	0	--
											?	--
											--	--



III-63

US ARMY

U.S. STRENGTH: VILLA CROCETTA

	Low	
Estimated strength	15,000	
	High	
Estimated strength	17,500	
	Nominal	
LFW Team's estimate	16,400	
Replacements received during battle	0	
RTD	0	
Attachments/Detachments during battle	0	
	Total	16,400

BASIC SOURCES: 34th Inf Div and VI Corps Daily Situation Reports.



US ARMY

U.S. CASUALTIES: VILLA CROCETTA

"Bloody"	
Low	
Estimated casualties	150
High	
Estimated casualties	250
Nominal	
Estimated.....	200
"Non-Bloody"	
Low	
Casualties	128
High	
Casualties	156
Nominal	
Casualties (MIA 57, POW 9, 76 NBC).....	142

BASIC SOURCES: VI Corps G-1 Daily Situation Reports.



US ARMY

GERMAN STRENGTH: VILLA CROCETTA

Low

Estimated low strength 11,000

High

Estimated high strength 12,500

Nominal

LFW Team's estimate	11,200
Replacements received during battle	0
RTD	0
Attachments/Detachments during battle	<u>0</u>

Total 11,200

BASIC SOURCES: Fourteenth Army War Diary and appendices.



IIJ-66

US ARMY

GERMAN CASUALTIES: VILLA CROCETTA

"Bloody"	
Low	
Estimated casualties	150
High	
Estimated casualties	300
Nominal	
Estimated Casualties (KIA 81 plus WIA 100)	181
"Non-Bloody"	
Low	
Casualties	216
High	
Casualties	264
Nominal	
Casualties (MIA 114, POW 18, NBC 104)	240

BASIC SOURCES: Fourteenth Army War Diary and appendices.



US ARMY

VILLA CROCIETTA

HERO

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor			Arty Pcs		Pers %/D	Armor %/D	Arty %/D	A/C %/D	%D	
		T	Lt.	MBT								
A	18,000	102	13	89	93	0	263	0.7	?	--	--	
D	13,715	71	0	71	117	0	598	2.2	?	--	--	

LFW

A/D	Strength					Air Sorties	Battle Casualties				
	Pers (Total)	Armor			Arty		Pers %/D	Armor %/D	Arty %/D	A/C %/D	
		T	Lt.	MBT	Pcs						
A	16,400	108	34	74	93	?	200	0.6	?	--	--
D	11,200	8	8	0	68	?	181	0.8	?	--	--



III-68

US ARMY

FOSSO di CAMPOLEONE

HERO

A/D	Dates	Campaign	Forces	Commanders	Days	Width of Front (Km)
A	29-31 May 44	Rome	US 1st Armd Div & US 45th Inf Div (+) Gr 3d PG Div ($\frac{1}{2}$) (+)	MG Harmon	3	11.0
D				MG Baade		

LFW

A/D	Dates	Campaign	Forces	Commanders	Days	Width of Front (Km)
A	29-31 May 44	Rome	US 1st Armd Div & US 45th Inf Div (+) Gr 3d Pz Gr Div ($\frac{1}{2}$) (+)	MG Harmon MG Eagles MG Baade	3	11.0
D						

Since the 45th Inf Div was not under the command of the 1st Armd Div, the division commander, General Eagles, should be listed.



III-69

US ARMY

U.S. STRENGTH: FOSSO di CANPOLEONE

Low

Estimated low strength 28,141

High

Estimated high strength 32,831

Nominal

LFW Team's estimate 31,268
 Replacements received during battle 0
 RTD 0
 Attachments/Detachments during battle 0

Total 31,268

BASIC SOURCES: VI Corps Daily Situation Reports.



US ARMY

U.S. CASUALTIES: FOSSO di CAMPOLEONE

"Bloody"	
Low	
Estimated low casualties	835
High	
Estimated high casualties	1,535
Nominal	
Estimated Casualties	1,315
"Non-Bloody"	
Low	
Casualties	192
High	
Casualties	234
Nominal	
Casualties (MIA 114, POW 18, NBC 104)	213

BASIC SOURCES: VI Corps Daily Situation Reports and NBC from Lada,
Medical Statistics World War II, p. 27



US ARMY

GERMAN STRENGTH: FOSSE DI CAMPOLEONE

	Low	
Estimated low strength	9,000	
	High	
Estimated high strength	11,000	
	Nominal	
LFW Team's estimate	10,000	
Replacements received during battle	0	
RTD	0	
Attachments/Detachments during battle	0	
Total	10,000	

BASIC SOURCES: Fourteenth Army War Diary and appendices.



US ARMY

GERMAN CASUALTIES: POSSO di CAMPOLEONE

"Bloody"	
Estimated casualties	800
Low	
High	
Estimated casualties	890
Nominal	
Estimated Casualties	810
"Non-Bloody"	
Low	
Casualties	250
High	
Casualties	350
Nominal	
Casualties (MIA 65, NBC 200)	265

BASIC SOURCES: Fourteenth Army War Diary and appendices.



US ARMY

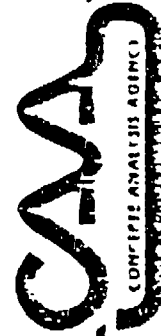
FOSSO di CAMPOLEONE

HERO

A/D	Strength					Air Sorties	Battle Casualties						
	Pers (Total)	Armor		Arty Pcs			Pers	Casualties					
		T	Lt.	MBI	%/D			Armor	%/D	Arty	%/D	A/C	%/D
A	29,711	281	77	204	146	1,304	1.5	80	9.5	1	0.2	?	--
D	15,801	100	0	100	117	1,379	2.9	?	--	?	--	?	--

LFM

A/D	Strength					Air Sorties	Battle Casualties							
	Pers (Total)	Armor		Arty Pcs			Pers	Casualties						
		T	Lt.	MBI	Pcs			%/U	Armor	%/D	Arty	%/D	A/C	%/D
A	31,268	429	255	174	134	?	1,315	1.4	71	5.5	?	--	?	--
D	10,000	?	?	?	34	?	810	2.7	2	?	?	3	2.9	?



III-74

US ARMY

U.S. STRENGTH: LANUVIO

Low

Estimated low strength 16,000

High

Estimated high strength 17,200

Nominal

LFW Team's estimate	16,934
Replacements received during battle	0
RTD	0
Attachments/Detachments during battle	0

Total	16,934
-------	--------

BASIC SOURCES: 34th Inf Div and VI Corps Daily Situation Reports.



III-75

US ARMY

U.S. CASUALTIES: LANUVIO

"Bloody"		
Low		
Estimated casualties		1,458
High		
Estimated casualties		1,782
Nominal		
Estimated Casualties		1,620
"Non-Bloody"		
Low		
Casualties		139
High		
Casualties		169
Nominal		
Casualties		154*

BASIC SOURCES: VI Corps Daily Situation Reports and *Lada, Medical Statistics World War II, p. 27.



JII-76

US ARMY

GERMAN STRENGTH: LANUVIO

Low	
Estimated low strength	6,500
High	
Estimated high strength	7,300
Nominal	
LFW Team's estimate	7,000
Replacements received during battle	0
RTD	0
Attachments/Detachments during battle	0
Total	7,000

BASIC SOURCES: Fourteenth Army War Diary and appendices.



US ARMY

GERMAN CASUALTIES: LANUVIO

"Bloody"	
Low	
Estimated casualties	800
High	
Estimated casualties	992
Nominal	
Estimated Casualties	825
"Non-Bloody"	
Low	
Casualties	54
High	
Casualties	66
Nominal	
Casualties	60*

BASIC SOURCES: Fourteenth Army War Diary and appendices, and
 *Mellor, Casualties and Medical Statistics, p. 241.

LANUVIO

HERO

A/D	Strength				Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty		Pers %	Armor %	Arty %	A/C %	D %	
		T	Lt. MBT	Pcs							Pcs
A	17,300	0	0	0	94	371	825	1.2	?	?	?
D	6,108	46	0	46	61	11	698	2.9	?	?	?

LFW

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty Pcs			Pers %	Armor %	Arty %	A/C %	D %	
		T	Lt.	MBT								
A	16,934	108	34	74	94	?	1,620	2.4	?	?	?	--
D	7,000	?	?	?	24	?	825	2.9	?	?	?	--



US ARMY

U.S. STRENGTH: VIA ANZIATE

Low

Estimated low strength 15,500

High

Estimated high strength 17,200

Nominal

IFW Team's estimate 16,400
 Replacements received during battle 0
 RTD 0
 Attachments/Detachments during battle 0

Total 16,400

BASIC SOURCES: VI Corps Daily Situation Reports.



US ARMY

U.S. CASUALTIES: VIA ANZIATE

"Bloody"	
Low	
Estimated casualties	500
High	
Estimated casualties	1,100
Nominal	
Estimated Casualties	800
"Non-Bloody"	
Low	
Casualties	67
High	
Casualties	81
Nominal	
Casualties	74*

BASIC SOURCES: VI Corps Daily Situation Reports, and *Lada, Medical Statistics World War II, p. 27.



US ARMY

GERMAN STRENGTH: VIA ANZIATE

Low	
Estimated low strength	7,500
High	
Estimated high strength	8,500
Nominal	
LFW Team's estimate	8,000
Replacements received during battle	0
RTD	0
Attachments/Detachments during battle	0
Total	8,000

BASIC SOURCES: Fourteenth Army War Diary and appendices.



US ARMY

GERMAN CASUALTIES: VIA ANZIATE

"Bloody"	
Low	
Estimated casualties	700
High	
Estimated casualties	1,400
Nominal	
Estimated Casualties	800
"Non-Bloody"	
Low	
Casualties	31
High	
Casualties	37
Nominal	
Casualties	34*

BASIC SOURCES: Fourteenth Army War Diary and appendices and

*Mellor, Casualties and Medical Statistics, p. 241.



VIA ANZIATE

H.F.R.C

A/D	Strength					Air Sorties	Battle Casualties					
	Pers (Total)	Armor		Arty			Pers %	%D	Armor %	%D	Arty %	%D
		T	Lt.	MBT	Pcs							
A	23,604	156	17	139	121	38	316	0.7	8	2.6	0	--
D	19,255	35	0	35	202	2	884	2.3	12	17.1	?	--

LEW

A/D	Strength					Air Sorties	Battle Casualties						
	Pers (Total)	Armor			Arty PCS		Casualties						
		T	L	MBT			Pers	%/D	Armor	%/D	Arty	%/D	A/C
A	16,400	108	34	74	86	?	750	2.3	?	?	?	?	?
D	2,000	16	16	0	36	?	800	5.0	?	?	?	?	?

III-1-84



SAS
CONCEPT ANALYSIS AGENCY