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# HERO

## Historical Evaluation & Research Organization

AD-A175 713

Report Number 129

COMBAT HISTORY ANALYSIS STUDY EFFORT (CHASE)

DATA ENHANCEMENT STUDY (CDES)

Vol II: Task 1

Final Report  
31 January 1986

Prepared for the

US Army Concepts Analysis Agency

Bethesda, Maryland

Contract No. MDA903-85-C-0252

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER Report Number 129	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) COMBAT HISTORY ANALYSIS STUDY EFFORT (CHASE) DATA ENHANCEMENT STUDY (CDES) <i>Vol II</i>	5. TYPE OF REPORT & PERIOD COVERED Final, 06 Jun 1985 - 31 Jan 1986	
	6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s) Brian R. Bader, John R. Brinkerhoff, Trevor N. Dupuy, C. C. Johnson, Charles R. Smith	8. CONTRACT OR GRANT NUMBER(s) MDA903-C-85-0252	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Data Memory Systems, Inc., HERO Division 8316 Arlington Blvd., Suite 400 Fairfax, VA 22031	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
11. CONTROLLING OFFICE NAME AND ADDRESS U.S. Army Concepts Analysis Agency 8120 Woodmont Avenue Bethesda, MD 20814-2797	12. REPORT DATE 31 Jan 1986	
	13. NUMBER OF PAGES 764	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report) UNCLASSIFIED	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)  Unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES  See also AD-B086 797L, AD-B087 718L, AD-B087 719L, AD-B087 720L, AD-B087 721L, and AD-B087 722L.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Military history, engagement data bases, personnel strength data, casualty data, assessment of victory in engagements, engagement duration data, attacker and defender width of front data, defender posture data, strength and casualty data quality estimation, strength and attrition histories.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This final report contains enhanced data and corrections of omissions, inconsistencies, and ambiguities for a 1984 study performed by HERO for USACAA entitled "ANALYSIS OF FACTORS THAT HAVE INFLUENCED OUTCOMES OF BATTLES AND WARS: A DATA BASE OF BATTLES AND ENGAGEMENTS" (Contract No. MDA903-82C-0363). It has been performed in order to make the data base contained in the 1984 study applicable for use in U.S. Army studies and analyses, concept formulations, and wargaming. It contains enhanced and		

20. corrected data from the original data base, newly developed data, and responses to specific questions and problems formulated by USACAA in its transcription of the data base to computerized format. Volume I contains introductory materials, Volumes II-V, the main body of the report, contain the results of nine tasks developed by USACAA.

**Report Number 129**

**COMBAT HISTORY ANALYSIS STUDY EFFORT (CHASE)**

**DATA ENHANCEMENT STUDY (CDES)**

**Vol. II: Task 1**

**Final Report**

**Brian Bader  
John R. Brinkerhoff  
Trevor N. Dupuy  
C.C. Johnson  
Charles R. Smith**

**31 January 1986**

**Prepared for**

**US Army Concepts Analysis Agency**

**Bethesda, Maryland**

**Contract No. MDA903-85-C-0252**

**Data Memory Systems, Inc.  
8316 Arlington Blvd.  
Fairfax, Virginia 22031**

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## Task 1: Analysis of Data Base Problem Reports

The purpose of this task is to address problem reports compiled by CAA during its transcription of the data base into computerized format. The problem reports are divided into three groups: general, specific, and consistency.

The fifteen general problem reports deal with matters common to several engagements. They are generally addressed by text. Each general problem report is shown and followed by a response. Three of them, 1-3, are answered in part by text and in part by entries in tables addressing other tasks of this report. See general problem reports 1-3 for details.

The specific problem reports deal with matters related to a single data item for individual engagements. They are for the most part addressed in tabular format. However, text is required to answer certain specific problem reports. On the tables addressing the specific problem reports, the column heading Data Cell refers to the data cell in the original data base where a data entry is questioned; the column heading Change From refers to the actual data entry in the original data base; and the column heading Change To refers to the new data entered if the entry in the original data base has been revised.

The engagement name and number and its location in the original data base by volume, page, and table number are provided for each revision.

The consistency problem reports deal with the consistency of two or more data items for an individual engagement. They are addressed in a tabular format similar to the form used for the

specific problem reports. For an explanation of the abbreviations used in tables addressing the specific and consistency problem reports, consult the list of abbreviations compiled in Volume I of this study.

Engagements which have a mission accomplishment score of 10 in the original data base have been included in the consistency problem reports. (See General Problem Report #4.) Any changes made in these scores are shown on the consistency problem report tables. Consistency problem reports for which no changes were made are presented at the end of the consistency problem report tables.

An asterisk after an engagement number indicates that there is an explanatory footnote for the engagement. Footnotes for all problem reports follow the tables addressing the consistency problem reports.

Note that for some entries in the specific and consistency problem report tables, two figures are presented separated by a diagonal line (N/x, for example). The figure to the left of the diagonal line should appear in the attacker's row on the tables in the original data base. The figure to the right of the line belongs in the defender's row. However, this does not apply to entries for Defender Posture, Terrain, Weather, and Season in Table 2 of the original data base. In these cases, a diagonal line is used to separate two or more entries for these data cells. No confusion should arise because the latter entries are not given separately for the attacker and defender.

## General Problem Reports

### General Problem Statement:

1. The value of KPDA (Attacker's Average Daily Rate of Advance), as defined by HERO, apparently can never be negative. Yet 25 battles have a negative KPDA. How come?

Response: HERO's intention was that a negative value for KPDA would indicate that an attacking force was ultimately driven back or withdrew and lost ground during the course of an engagement. HERO's revised definition for KPDA is: The distance, measured in kilometers, between the attacker's line of departure at the beginning of an engagement and the farthest point reached as of the end of the engagement by significant maneuver elements of the attacker in his advance or retrograde movement, divided by the total number of days of the engagement, with a portion of a day counted as a full day. The duration value is shown under the column heading "Duration (days)" on Table 1 of the original data base. For forward movement, the distance is measured along the attacker's axis of advance. A positive value indicates that the attacker had a net advance and ultimately gained ground, and a negative value shows that the attacker was forced back by the defender and ultimately lost ground. Therefore, KPDA is the average daily net displacement rate over the entire course of the engagement, as described above.

Following is a list of engagements with KPDA values checked by HERO to verify that they were assigned correctly according to the new definition for KPDA. These include all engagements with values of "0," "N," or negative numbers. Also included are

engagements for which KPDA data had not been found in the original data base, and engagements with corrected data. Those engagements for which data was not found in the original data base and for which data could not be found for this study are assigned values of "?". For the first 247 engagements, KPDA values were presented in Tables 3 and 5 of the original data base. Any engagement with different values in these tables (usually the result of a typographical error) is included in the following list, and the correct value for the engagement is given.

HERO has reassessed all engagements with the values of "N" and assigned a negative value or a value of "∅" for all such engagements. Two asterisks after an engagement number indicate that a KPDA value of "N" has been changed to "∅." A single asterisk after an engagement number alerts the user to any other change in a KPDA value. Footnotes follow the consistency problem reports.

<u>Engagement #</u>	<u>KPDA</u>	<u>Engagement #</u>	<u>KPDA</u>	<u>Engagement #</u>	<u>KPDA</u>
1*	-6.4			250	?
4	-2.0	125	0	252*	3.3
6	-2.0	128	0	255*	-0.4
10*	-2.5	129	0	257	0
11*	1.0	130*	-2.4	261	0
12*	1.0	131	0	275	0
14*	2.0	135	0	276	0
16*	-2.0	136*	5.0	277*	1.3
19*	3.0	137	-5.0	296	0
22	-0.5	140*	1.0	297	0
24*	0	141	0	298	0
26	?	144	0	299	0
33	?	145	-2.0	306**	0
34	?	146*	0.2	310	0
37	?	147**	0	312**	0
38*	6.4	148**	0	326	0
39	-1.0	149**	0	327	0
42	?	153	-1.0	333	0
47*	2.4	156*	0.3	338	0
48*	1.0	159**	0	343	0
49*	-6.0	166	0	344	0
54	?	167	?	345	0
56*	-2.7	170	0	391*	-1.6
66	-1.0	172	-1.2	402	0
68*	1.0	177**	0	405	0
69	-2.0	180*	1.6	415	-1.6
74	-1.0	181	0	424	0
75*	2.0	182*	1.6	433	0
76**	0	183*	0.8	442	0
78	?	184	0	443	0
80*	-1.0	185*	0.5	466	0
83*	0	186	0	467*	-0.8
87*	1.0	187	0	483*	3.2
89*	-3.2	196*	-0.8	489*	5.5
92	-1.0	202	0	497	0
96**	0	203*	0.2	525	0
98**	0	205	0	526	0
101**	0	206	0	528	0
104**	0	207**	0	531	0
107*	-1.6	228*	2.7	561	0
109**	0	229	0	564	0
110**	0	231*	-2.0	573*	0
111**	0	233*	2.0	574	0
115	-3.0	234	-2.7	575	0
116**	0	235*	10.0	588**	0
117	-7.0	237**	0	589	0
119	-6.0	238**	0	592**	0
120*	3.8	239**	0	593	0
122	0	245	-1.7	596	-2.0
123	0	246**	0	598	0
124	-1.0	248	?	599	0
		249	?	600	0

**General Problem Statement:**

2. There is moderately strong reason on statistical grounds, to believe that for some battles, some or all of the values in data cells NAMA, NAMD, XØ, YØ, CX, CY, and WINA may perhaps be inaccurate. At any rate, there is enough evidence to justify a careful review of this data to either confirm its accuracy or to suggest improved values for those battles.

**Response:** Data for the 95 engagements listed below has been reviewed. A single asterisk following an engagement number indicates that personnel strength and/or casualty data (XØ, YØ, CX, CY) has been revised. New data is located in the tables in Volume III of this report addressing Task 2, Clarification of the Total Engaged Personnel Strength Data. Two asterisks after an engagement number indicate that a change has been made in the assignment of victory (WINA, the "attacker's relative level of victory," as described by CAA). The revised assignment of victory is located in the tables in Volume III of this report addressing Task 3, Clarification of the Basis for Assigning Victory.

Engagement #

15  
20\*  
36\*\*  
53  
66  
81\*  
82  
84  
93  
95  
120\*\*  
152  
176  
186\*  
193  
196\*  
198  
210  
223  
236  
250\*  
265  
290  
293  
296  
297  
299  
307  
311  
314  
316  
374\*

Engagement #

376  
379\*\*  
394  
395  
396\*\*  
397  
398  
400  
401  
403  
406  
408  
409  
410  
411  
413  
419  
422  
423  
425  
427  
428  
430  
433  
442  
443  
447  
448\*\*  
449  
451  
452  
454\*\*

Engagement #

459  
462  
465\*\*  
472  
479\*\*  
482\*\*  
483  
489  
491\*  
492  
496  
508  
513  
525  
526  
527  
532  
533\*\*  
539\*\*  
540  
543\*\*  
544\*\*  
558  
568\*  
579  
585  
586  
588  
592  
593  
600

**General Problem Statement:**

3. What are the correct values of the missing data in the following engagements?

<u>Engagement #</u>	<u>Data Cell(s)</u>	<u>Engagement #</u>	<u>Data Cell(s)</u>
26	CX	292	YO
40	CX,CY	300	CY
216	CY	301	CY
248	CY	391	CX,CY
254	CX	461	CX
267	CX	469	CY
289	XO,YO	484	CX,CY
291	XO,YO	485	CX,CY

**Response:** The correct values for the missing data listed above are found in the tables in Volume III of this report addressing Task 2, Clarification of the Total Engaged Personnel Strength Data.

**General Problem Statement:**

4. The battles with ACHA = 0 or 10, and with ACHD = 0 or 10 are shown below. Explain these data. Why no battles with ACHA or ACHD equal to zero? How come the proportion of battles with ACHA or ACHD equal to 10 is so high for the first 100 battles?

**Response:** HERO's review of the mission accomplishment (ACHA and ACHD) and level of victory (WINA) data, performed for the consistency problem reports and Task 3, Clarification of the Basis for Assigning Victory, revealed that some assigned mission accomplishment scores of 10 were too high. In HERO's judgement, a combat force's mission accomplishment rarely merits such a score. Conversely, it is HERO's judgment that no force has performed so

poorly as to deserve a score of 0. If a force appears on the battlefield, it should warrant at least a score of 1.0.

The following list identifies engagements from the original data base with mission accomplishment scores of 10. An asterisk after the engagement number indicates that the score has not been revised. If the score has been revised, no asterisk follows the engagement number. The new score is found in the tables in Volume III of this report addressing Task 3.

Exceptional success was often achieved by combat forces in a large proportion of the first 100 battles of the data base. This success is reflected in high mission accomplishment scores in a large number of the first 100 battles.

<u>Engagement #</u>	<u>ACHA or ACHD?</u>	<u>Engagement #</u>	<u>ACHA or ACHD?</u>
4	ACHD	85	ACHA
11	ACHA	92	ACHD
12	ACHA	102	ACHA
13	ACHA	108	ACHA
14	ACHA	117*	ACHD
17	ACHA	118	ACHA
19	ACHA	119*	ACHD
23	ACHA	150	ACHA
26	ACHA	151	ACHA
28	ACHA	154	ACHA
31	ACHD	155	ACHD
38	ACHA	156	ACHD
40	ACHA	194	ACHD
42	ACHA	196*	ACHD
43	ACHA	233	ACHA
46	ACHA	288	ACHA
47	ACHA	327	ACHD
48	ACHA	510	ACHA
50	ACHA	521	ACHA
51	ACHA	526	ACHD
52	ACHA	536	ACHA
54	ACHA	537	ACHA
59	ACHA	556	ACHA
69	ACHD	574	ACHD
70*	ACHA	575	ACHD
73	ACHA	584 (HERO #582)	ACHA
78	ACHA		

**General Problem Statement:**

5. Clarify what side the outcome descriptors refer to. For example, does "pursued" listed under the defender mean the defender was pursued and the attacker did the pursuing, or does it mean that the defender did the pursuing?

**Response:** If "Annihilated" is entered as an outcome descriptor, this indicates that the side under which it is entered was annihilated by its opponent. If "Pursued" is entered as an outcome descriptor, this indicates that the side under which it is entered pursued. If "Withdrew with serious loss" or "Withdrew" is entered as an outcome descriptor, this indicates that the side under which it is entered withdrew. If "Breakthrough" is entered as an outcome descriptor, this indicates that the side under which it is entered achieved a breakthrough. If "Penetration" is entered as an outcome descriptor, this indicates that the side under which it is entered penetrated. If "Repulse" is entered as an outcome descriptor, this indicates that the side under which it is entered was repulsed by its opponent. If "Stalemate" is entered as an outcome descriptor, this indicates that the side under which it is entered was stalemated by its opponent.

**General Problem Statement:**

6. Definition of momentum is obscure.

**Response:** The definition of momentum has been revised and now reads: Continuing forward movement of a military force, as a result of previous success in combat, which is presumed to provide an additive or multiplicative bonus to its combat capability.

**General Problem Statement:**

7. How are the defensive posture entries from Table 2 related to those implied by the concept of operations given in Table 7?

**Response:** Defensive posture entries from Table 2 are generally related to those presented under Main Attack and Scheme of Defense in Table 7. Entries in Table 2 describe the defender's level of resistance to, or protection from, any and all forms of enemy attack at the start of an engagement and, if applicable, during the course of an engagement (i.e., over time for some prolonged engagements--see the definitions of combination and average posture descriptors in Vol. V, p. 1, of the report). Defensive posture may be essentially static, and not change. However, if the defender counterattacks or shifts to an offensive posture during the course of an engagement, these changes and a general description of them are noted in Table 7.

**General Problem Statement:**

**8. How can fortifications favor the attacker?**

**Response:** A review of the original data base revealed that fortifications were incorrectly presented as affecting engagement outcome in favor of the attacker in six engagements. In HERO's judgement, fortifications can not favor an attacker. Two of these cases contained typographical errors. Fortifications favored the defender, not the attacker, in engagements #81 and #546. In engagement #245, fortifications were incorrectly assessed to have favored the attacker and defender. In fact, they helped only the defender. Also, fortifications did not favor the attacker, as incorrectly shown in the original data base, in engagements #54, #590 and #591. Therefore, the revised values, located in the specified volumes of the original data base, are as follows:

<u>Eng.#</u>	<u>Vol.#</u>	<u>Pg.#</u>	<u>Change From:</u>	<u>Change To:</u>
54	II	92	x/(blank)	N/(blank)
81	II	142	x/(blank)	(blank)/x
245	III	13	x/x	(blank)/x
546	VI	119	x/(blank)	(blank)/x
590	VI	199	x/(blank)	N/(blank)
591	VI	199	x/(blank)	N/(blank)

**General Problem Statement:**

9. Some battles (or campaigns) are subdivided into many segments (Italy, Okinawa, etc.). Others are not (Defense of Moscow, etc.). Doesn't this affect the relative statistical weights unreasonably?

**Response:** The data base contains data for significant combat encounters between hostile forces at various levels of aggregation from battalion to army group. HERO recognizes that the manner in which battles are or are not subdivided may unreasonably affect the relative statistical weights of the data. However, the variety of the types of combat encounters provided in the data base, ranging from prolonged battles involving army groups to single-day small unit actions, may allow the analyst to study combat encounters of different sizes.

**General Problem Statement:**

10. Desert is a topography and climate, not a season, and therefore doesn't serve to delimit the hours of daylight.

**Response:** Season descriptors in the data base consist of two parts. The first part describes the actual season, i.e., spring, summer, fall, or winter. The second gives the general climatic characteristics of the region where the engagement takes place, i.e., temperate (mild, neither excessively hot or cold), tropical (hot and humid, characteristic weather conditions of the Tropical

Zone but not necessarily in that geographical zone), and desert (arid). It is important to note that the second part of the season descriptor is not intended to identify a geographical zone bounded by specific latitudes (i.e., Temperate, Torrid, or Frigid Zones). Since most of the engagements in the data base occurred in the Temperate Zones, the first part of the season descriptor might be used to provide a rough measure of the hours of daylight in those zones.

**General Problem Statement:**

11. The Iwo Jima and Okinawa campaigns have a lot of battles where the same forces were engaged and fought at nearly the same time and places. (1) Opportunities for inter-battle correlation abound. (2) Opportunities for persistent bias on the part of the military historian abound.

**Response:** Some of the combat encounters in the data base are division-level engagements. These engagements frequently involve the same units in one area during a relatively short time span. Engagements from the Okinawa campaign of World War II, the 1967 Arab-Israeli War, and the 1973 Arab-Israeli War are examples. The division-level engagements of these conflicts are discrete combat encounters separated by historical start and stop times. HERO does not believe that there is any deliberate bias introduced by the historians.

**General Problem Statement:**

12. The Arab-Israeli campaigns also involve a lot of fighting between the same units at nearly the same times and in the same type of terrain and weather. This could lead to correlations among the data for individual battles (or to a persistent bias in compiling the data).

**Response:** See the Response to the preceding General Problem Statement.

**General Problem Statement:**

13. For some campaigns, two units of one side engaged one unit on the other side (e.g., The battles of Suez and Adabiya of page 180 of Vol. VI) -- yet this is reported by HERO as two distinct engagements. But how can one tell which of these engagements really had what kind of influence on battle outcome?

**Response:** The two examples given for the problem report are in fact two distinct engagements. The Battle of Adabiya, 23/24 October 1973, involved the Israeli Magen Division and elements of the Egyptian Third Army. The Battle of Suez, 23-24 October 1973, involved the Israeli Adan division and elements of the Egyptian Third Army (not the same elements that were engaged at Adabiya). The Egyptian Third Army in the 1973 Arab-Israeli War was composed of about half a dozen infantry, armored, and mechanized divisions and other units. Because the space for entry in the "Forces" (NAMA and NAMD) cells of the data base is limited, all individual

units of a side frequently can not be entered in the report. In some cases, the designation of the largest participating unit, modified by a reinforced (+) sign to indicate other units, is entered. Or, as in the case of the above mentioned engagements, the designation of the next largest unit, the Egyptian Third Army, is entered and modified by a minus sign.

**General Problem Statement:**

14. Check the battles to see that designated WINA is consistent with resolution. Specifically, how is WINA scored when RESO is listed as a stalemate? Several battles are listed as stalemates, but victory is not marked as a drawn battle.

**Response:** In assigning victory in an engagement, HERO first determined whether or not there was a "decisive" (or clear-cut) resolution of combat and assigned victory on this basis if there was such clear-cut resolution. If combat was judged not to be clear-cut by inspection, then mission accomplishment scores were employed to determine success or failure. The resolution of combat (RESO) recorded in Table 7 of the data base is a schematic representation of what happened to both sides as a result of the battle. It does not necessarily represent whether or not the resolution was decisive (i.e., clear-cut) nor was it HERO's intention for it to do so. Success (WINA) is determined in all engagements, including those with stalemate entered in RESO, by (1) decisive resolution of combat, or (2) mission accomplishment. See also the response to Task 3 in Volume III of this study.

**General Problem Statement:**

15. Data given for US and Japanese strength in engagement #520 may not comport with HERO's own definition of total personnel as those exposed to enemy fire. Note that the Okinawa battles suffer from the same problem, as do several of the Arab-Israeli battles.

**Response:** HERO calculated the strengths for these engagements by adding the reported or estimated strengths of combat, combat support, and service units, if they were judged subject to enemy fire.

### Specific Problem Reports

The specific problem reports are divided into two groups. The first group contains problem reports that are addressed by text. The problem reports in the second group are addressed in tabular format. These are presented in order by volume, page, table, engagement, attacker data cell, and defender data cell, as they appear in the original data base.

### Specific Problem Reports

Turckheim, #37: SECA (Vol. II, p.67, Table 7). The value, as entered is "FE," indicating a demonstration. This value is consistent with the narrative, p. 76, para 3.

Hastenbeck, #68: RESOA and RESOD (Vol. II, p. 143, Table 7). "Both sides withdrew? Misleading or wrong." In fact, both sides did withdraw (see narrative, p.149). However, the French subsequently returned and occupied the battlefield.

Arcola, #106: TERRA (Vol. II, p. 192, Table 2). The HERO terrain code "M" is used to indicate a marsh or swamp. Arcola was fought in an extensive swampy bottom land. Troop movements were confined largely to causeways.

Pyramids, #108: WX (Vol. II, p. 192, Table 2)  
Mount Tabor, #110: WX (Vol. II, p. 192, Table 2)  
Palo Alto, #157: WX (Vol. III, p. 68, Table 2)  
Resaca de la Palma, #158: WX (Vol. III, p. 68, Table 2)  
Buena Vista, #159: WX (Vol. III, p. 68, Table 2)  
Ordurman, #234: WX (Vol. III, p. 212, Table 2)  
Kut-el-Amara, #302: WX (Vol. IV, p.122, Table 2)  
Ctesiphon, #303: WX (Vol. IV, p. 122, Table 2)  
Alam Halfa, #386: WX (Vol. V, p. 7, Table 2)  
El Alamein II, #387: WX (Vol. V, p. 7, Table 2)  
Operation "Lightfoot," #388: WX (Vol. V., p. 7 Table 2)  
Alamein Bridgehead Expansion, #389: WX (Vol. V. p. 7, Table 2)  
Operation "Supercharge," #390: WX (Vol. V, p. 7, Table 2)  
El Guettar, #392: WX (Vol. V, p. 7, Table 2)  
Rafah, #554: WX (Vol. VI, p. 138, Table 2))  
Bir Lahfan, #555: WX (Vol. VI, p. 138, Table 2)  
Abu Ageila-Um Katef, #556: WX (Vol. VI, p. 138, Table 2)  
El Arish, #557: WX (Vol. VI, p. 138, Table 2)  
Jebel Libni, #558: WX (Vol. VI, p. 138, Table 2)  
Gaza Strip, #559: WX (Vol. VI, p. 139, Table 2)  
Bir Hassna-Bir Thamada, #560: WX (Vol. VI, p. 139, Table 2)  
Mitla Pass, #561: WX (Vol. VI, p. 139, Table 2)

Bir Hamma-Bir Gifgafa, #562: WX (Vol. VI, p. 139, Table 2)  
Nakhl, #563: WX (Vol. VI, p. 139, Table 2)  
Bir Gifgafa, #564: WX (Vol. VI, p. 139, Table 2)  
Suez Canal Assault-North, #569: WX (Vol VI, p. 181, Table 2)  
Suez Canal Assault-South, #570: WX (Vol. VI, p. 181, Table 2)  
Second Army Buildup, #571: WX (Vol. VI, p. 181, Table 2)  
Third Army Buildup, #572: WX (Vol. VI, p. 181, Table 2)  
Kantara-Firdan, #573: WX (Vol. VI, p. 181, Table 2)  
Egyptian Offensive-North, #574: WX (Vol. VI, p. 181, Table 2)  
Egyptian Offensive-South, #575: WX (Vol. VI, p. 181, Table 2)  
Deversoir (Chinese Farm I), #576: WX (Vol. VI, p. 181, Table 2)  
Deversoir (Chinese Farm II), #577: WX (Vol. VI, p. 181, Table 2)  
Deversoir West, #578: WX (Vol. VI, p. 181, Table 2)  
Ismailia, #579: WX (Vol. VI, p. 182, Table 2)  
Jebel Geneifa, #580: WX (Vol. VI, p. 182, Table 2)  
Shallufa I, #581: WX (Vol. VI, p. 182, Table 2)  
Adabiya, #582: WX (Vol. VI, p. 182, Table 2)  
Shallufa II, #583: WX (Vol. VI, p. 182, Table 2)  
Suez, #584: WX (Vol. VI, p.182, Table 2)

All of the engagements in the list above, beginning with The Pyramids, #108, had specific problem reports regarding the entries in the Season descriptor cell of Table 2. In each case the Season descriptor entered incorporated the "D" (=desert) suffix.

This is apparently directly related to the problem described in General Problem Report #10, that is, the inclusion of "desert," a topographical/climate type descriptor, within the compound Season descriptor. For the answer to this objection, the reader is referred to the reply to General Problem Report #10.

Custoza II, #170: WOF (Vol. III, p. 92, Table 1). This entry was left blank in the original data base. We have been unable to determine WOF for this engagement. A "?" should have been entered.

Shiloh, #178: SURPA (Vol. III, p. 105, Table 2). "I would have thought that at Shiloh surprise was complete .... I fear that HERO rates surprise by its subjectively judged effects, rather than by surprise per se." The presence or absence of surprise in a combat situation can be determined from the record. That would be surprise per se. Subjective judgement must be applied to determine the degree of surprise. In the case of Shiloh, though, complete surprise is indicated.

Corinth, #192: The entries in the following data cells of the original data base are reversed for the attacker and defender for the Battle of Corinth. Entries given for the attacker actually pertain to the defender and vice versa. The data cells are NAMA, NAMD, COA, COD, X $\phi$ , Y $\phi$ , CX, CY, WINA, and Success. Revisions have also been made for ACHA, ACHD, RESOA, and RESOD. These changes are shown in the tables addressing the Consistency Problem Reports in Volume II of this study. New data has been developed for WOF. This data is shown in the tables addressing Task 5, Clarification of the Width of Front Data, in Volume IV of this study. Entries in all other data cells for this engagement do not change.

Guadalajara-Brihuega, #255: SECA, SECD (Vol. IV, p. 37, Table 7). "The values given don't seem to agree with the narrative description." The narrative description correctly describes the frontal attacks along the axes of the Strada di Francia and the Brihuega-Torija road that resulted in penetrations by the

Italians, and recorded under PRIA and PRID. These frontal attacks were made by the Italian right and left, respectively. The Republican counterattack, which was made principally by the Republican right, was also a frontal attack. The envelopments recorded under SECA and SECD were secondary attacks, meant to be initiated after the main attacks had effected penetrations. Only SECD, the Republican envelopment of the Italian strongpoint at Brihuega, was successful.

Fourth Isonzo, #299: WX (Vol. IV, p. 122, Table 2). HERO used the value "FT/WT" in its Season descriptor; CAA used "FT". This battle was fought predominantly in the fall, but extended into winter. If it is desired to use one season descriptor, then "FT" is the more appropriate.

First Somme, #304: WX (Vol. IV, p. 137, Table 2). HERO used "ST/FT" in its Season descriptor; CAA used "ST". This battle too, was fought in two seasons. If it is desired to use one value, then "ST" is the more appropriate, since the greater part of the battle was fought in the summer.

First Somme, #304: ARTYD (Vol. IV, p. 138, Table 3). The HERO entry was "400+". Researcher's notes indicate that 400 was the number of heavy guns only. The number of light and medium artillery guns is not known. The entry is misleading and should be replaced with a "?".

Ypres III, #319: WX (Vol. IV, p. 149, Table 2). The HERO entry is "ST/FT"; CAA used "ST". This was another battle that extended from one season into another. If it is desired to use one value for the season descriptor, then "FT" is the more appropriate.

Tenth Isonzo, #322: WX (Vol. IV, p. 149, Table 2). The HERO value is "SpT/ST" for a battle fought predominantly in the spring; CAA used "Spt" ["ST", CAA code]. "SpT" would be the more appropriate descriptor if it is desired to use one value.

Eleventh Isonzo, #323: WX (Vol. IV, p. 149, Table 2). HERO used a "ST/FT" Season descriptor; CAA used "ST". This battle was fought over two seasons, 14 days in summer, and 15 days in fall. If it is desired to use just one value, then "FT" would be the more appropriate.

Buzancy Ridge, #361: NAMA (Vol. IV, p. 199, Table 2). The problem is not with NAMA; the NAMA for Berzy le Sec, #360, and this engagement are correct. Both of the attacking regiments belonged to the same division, the US 1st, which was commanded by General Summerall. In those instances in which researchers could not identify the names of unit commanders they entered the name of the next highest commander. The correct COA for Berzy le Sec, #360, is Colonel Babcock. The correct COA for Buzancy Ridge, #361, is Colonel Parker.

Picardy, 1918, Phase I, #362: RESOD (Vol. IV, p. 204, Table 7). HERO entered the value "WDL". HERO believes that a loss rate of 4.4%/day in personnel and 6.7%/day in artillery guns by a force of army group size is not inconsistent with the assignment of "WDL" for RESOD. The entered value should stand.

Remilly-Aillicourt, #382: COD (Vol. IV, p. 211, Table 1). It is indeed inappropriate to list a lieutenant general as the commander of a battalion, though he may have been the next highest identifiable commander. A "?" should be inserted for COD.

Engagements #386-#393 (all North African battles): TERRA (Vol. V, p. 7, Table 2). HERO entered "FB", "RB", "RgB", or combinations of the preceding, and, for Sedjenane-Bizerte, #391, entered "RgM" as the value of TERRA; CAA would use the "D" (=desert) suffix instead of the "B" (=bare) or "M" (=mixed) suffixes for these TERRA values. HERO believes that the use of the "B" or "M" suffixes is appropriate for TERRA in these cases, since the terrain, although superficially exhibiting "desert" characteristics, is better described as bare or mixed. For example, a terrain analysis of the El Alamein area, where engagements #386-#390 were fought, would show a narrow coastal sector of dune overlaying limestone rock; south of this is a region of rock with a patchy, superficial covering of drift sand; further south, on the verge of the Qattara Depression, is the only region of true desert.

El Alamein II, #387: RESOD (Vol. V, p. 11, Table 7). HERO entered the value of "WDL," indicating that the defender withdrew with serious loss. The value entered should stand. The materiel losses of the German-Italian Panzer Army in this battle were very serious, with 591 of the 593 tanks of the army lost in 13 days of combat. The loss of artillery guns was also serious, but the exact number is not known.

Engagements #521-#548: (all engagements on Okinawa): LOCN (Vol, VI, pp. 82, 83, 111, 112, Table 1). No entry for LOCN was given under NAME. Insert "Okinawa" at LOCN for each engagement.

Engagements #523, #524, etc.(Okinawa): NAMD (Vol. VI, pp. 82, 83, 111, 112, Table 1). "Japanese unit designations seem inconsistent with the rank of their commanders and with the sizes of their forces as listed in Table 3." In these cases the units named were the largest identifiable elements of the Japanese forces involved in the engagement. The names of the immediate commanders in the various engagements may not have been ascertainable from the record. In instances where this was the case researchers entered the name of the next highest identifiable commander, although that practice was not explained in the original HERO data base report.

Adabiya, #582 (Vol. VI, pp. 180, 182, 184, 186, 188, 190, Tables 1-7). "The Adabiya battle data are not listed in the same battle sequence as established on p. 180, Table 1, of Vol. VI." In

terms of sequence and precedence in time the Adabiya engagement should follow Shallufa I. Its position on each of the seven tables is incorrect. However, all data following the row heading "Adabiya" in each of the tables is data for the Adabiya engagement.

Specific Problem Reports

Dassau Bridge, #4  
Vol. II, p. 16, Table 6

Data Cell	Change From:	Change To:
FORISA	N/x	(blank)/x

Breitenfeld II, #12  
Vol. II, p. 13, Table 3

CARTYA	—	0
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Tuttlingen, #14  
Vol. II, p. 13, Table 3

CARTYA	(blank)	0
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Preston, #26 \*  
Vol. II, p. 43, Table 3

CX	N	300
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Senef, #35  
Vol. II, p. 67, Table 7

RESOA	P, WD	P, S, WD
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Senef, #35  
Vol. II, p. 67, Table 7

RESOD	WD	S, WD
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Enzheim, #36  
Vol. II, p. 67, Table 7

Data Cell	Change From:	Change To:
RESOA	P, WD	P, R, WD

Enzheim, #36  
Vol. II, p. 67, Table 7

RESOD	P, WD	P, R, WD
-------	-------	----------

Sedgemoor, #39  
Vol. II, p. 84, Table 3

CARTYD	—	0.
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Killiecrankie, #40 \*  
Vol. II, p. 84, Table 3

CAVA	—	50
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Killiecrankie, #40 \*  
Vol. II, p. 84, Table 3

ARTYD	(blank)	3
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Killiecrankie, #40 \*  
Vol. II, p. 84, Table 3

CARTYD	(blank)	3
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Walcourt, #41  
Vol. II, p. 84, Table 3

Data Cell	Change From:	Change To:
CAVA	(blank)	?

Walcourt, #41  
Vol. II, p. 84, Table 3

CAVD	(blank)	?
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Walcourt, #41 \*  
Vol. II, p. 84, Table 3

ARTYD	(blank)	28
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Walcourt, #41  
Vol. II, p. 84, Table 3

CARTYD	--	0
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Fleurus, #42 \*  
Vol. II, p. 84, Table 3

CAVA	(blank)	12,000
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Fleurus, #42 \*  
Vol. II, p. 84, Table 3

CAVD	(blank)	11,578
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Fleurus, #42\*  
Vol. II, p. 84, Table 3

Data Cell	Change From:	Change To:
ARTYA	(blank)	70

Fleurus, #42\*  
Vol. II, p. 84, Table 3

ARTYD	(blank)	60
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Fleurus, #42  
Vol. II, p. 84, Table 3

CARTYA	—	0
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Aughrim, #44\*  
Vol. II, p. 84, Table 3

CAVA	(blank)	6,300
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Aughrim, #44\*  
Vol. II, p. 84, Table 3

CAVD	(blank)	4,000
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Aughrim, #44  
Vol. II, p. 84, Table 3

ARTYA	(blank)	?
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Aughrim, #44  
Vol. II, p. 84, Table 3

Data Cell	Change From:	Change To:
CARTYA	—	0

Neerwinden (Landen), #46  
Vol. II, p. 84, Table 3

CARTYA	—	0
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Marsaglia, #47  
Vol. II, p. 84, Table 3

CARTYA	—	0.
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Poltava, #49  
Vol. II, p. 85, Table 3

CARTYD	—	0
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Blenheim, #50  
Vol. II, p. 85, Table 3

CARTYA	—	0
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Ramillies, #51  
Vol. II, p. 85, Table 3

CARTYA	—	0
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Oudenarde, #52  
Vol. II, p. 85, Table 3

Data Cell	Change From:	Change To:
CARTYA	—	0

Malplaquet, #53  
Vol. II, p. 85, Table 3

CARTYA	—	0
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Oudenarde, #52  
Vol. II, p. 88, Table 4

TECHA	X	C.
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Oudenarde, #52  
Vol. II, p. 94, Table 7

RESOD	WDL	WD
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Lobositz, #64  
Vol. II, p. 137, Table 3

CARTYA	—	0
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Kolin, #67  
Vol. II, p. 137, Table 3

CARTYD	—	0
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Rosbach, #69  
Vol. II, p. 137, Table 3

Data Cell	Change From:	Change To:
CARTYD	--	0

Leuthen, #70  
Vol. II, p. 137, Table 3

CARTYA	--	0
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Minden, #75\*  
Vol. II, p. 138, Table 3

CAVA	--	7,000
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Minden, #75\*  
Vol. II, p. 138, Table 3

CAVD	--	9,000
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Plains of Abraham (Quebec), #77  
Vol. II, p. 138, Table 3

CAVA	--	0
------	----	---

Plains of Abraham (Quebec), #77  
Vol. II, p. 138, Table 3

CAVD	--	0
------	----	---

Bergen, #74

Vol. II, p. 139, Table 5

Data Cell	Change From:	Change To:
ACHD	(blank)	6

Liegnitz, #80

Vol. II, p. 140, Table 5

ACHD	(blank)	8
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Plains of Abraham (Quebec), #77

Vol. II, p. 142, Table 6

SURPAA	N	(blank)/x
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*Et?  
SURPAA  
DCP?*

Kunersdorf, #76

Vol. II, p. 144, Table 7

RESOA	(blank)	R, MDL
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Kunersdorf, #76

Vol. II, p. 144, Table 7

RESOD	(blank)	—
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Mason, #78

Vol. II, p. 144, Table 7

RESOA	—	B
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Quebec, #83

Vol. II, p. 165, Table 2

Data Cell	Change From:	Change To:
WX1	WVC	WEC

Trenton, #85

Vol. II, p. 165, Table 2

WX1	WVC	WEC
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Camden, #91\*

Vol. II, p. 167, Table 3

CAVA	-	150
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Camden, #91\*

Vol. II, p. 167, Table 3

CAVD	-	100
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Cowpens, #92

Vol. II, p. 167, Table 3

CARTYD	-	0
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Hobkirk's Hill, #94

Vol. II, p. 168, Table 3

CARTYA	-	0
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Eutaw Springs, #95\*  
Vol. II, p. 168, Table 3

Data Cell	Change From:	Change To:
CAVA	-	412

Eutaw Springs, #95\*  
Vol. II, p. 168, Table 3

CAVD	-	50
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Bunker Hill, #82  
Vol. II, p. 169, Table 4

LOGSA	(blank)	N/(blank)
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Princeton, #86  
Vol. II, p. 173, Table 7

RESOD	WDL	WD
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Jenappes, #97  
Vol. II, p. 199, Table 7

PRIA	F, E	F, E(LF)
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Jenappes, #97  
Vol. II, p. 199, Table 7

SECA	E	E(RF)
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Mount Tabor, #110  
Vol. II, p. 200, Table 7

Data Cell	Change From:	Change To:
RESOA	WDL	WD

Eylau, #120  
Vol. III, p. 11, Table 5

WINA	(blank)	x/x
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Corunna, #123  
Vol. III, p. 13, Table 7

PRIA	A	F
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Vittoria, #133  
Vol. III, p. 19, Table 7

RESOD	WDL	WD
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Bombona, #152  
Vol. III, p. 63, Table 3

CARTYA	—	0
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Pichincha, #153  
Vol. III, p. 63, Table 3

CARTYD	—	0
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Junin, #154  
Vol. III, p. 63, Table 3

Data Cell	Change From:	Change To:
CARTYA	—	0

Junin, #154  
Vol. III, p. 63, Table 3

CARTYD	—	0
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Resaca de la Palma, #158  
Vol. III, p. 72, Table 7

RESOD	WDL	WD
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Custoza II, #170  
Vol. III, p. 92, Table 1

WOF	(blank)	?
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Inkerman, #166  
Vol. III, p. 94, Table 3

CK	1,5187	15,187
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Shilch, #178  
Vol. III, p. 105, Table 2

SURPA	Substantial -A	Complete -A
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Mill Springs, #174  
Vol. III, p. 109, Table 7

Data Cell	Change From:	Change To:
RESOA	R, WDL	R, WD

Mechanicsville, #184  
Vol. III, p. 114, Table 6

LEADAA	(blank)/N	N/(blank)
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Chattanooga, #201  
Vol. III, p. 127, Table 7

PRIA	F, EE	E, E(RF)
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Chattanooga, #201  
Vol. III, p. 127, Table 7

SECA	F, P	E(LF), FE
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Atlanta, #208  
Vol. III, p. 130, Table 3

CARTYD	113	13
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Peachtree Creek, #207  
Vol. III, p. 131, Table 4

LEADA	C/x	C/(blank)
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Spotsylvania, #203  
Vol. III, p. 133, Table 7

RESOA	S,	P, R, S
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Cedar Creek, #212  
Vol. III, p. 133, Table 7

Data Cell	Change From:	Change To:
FESOA	R, WDL	R, WD

Franklin, #213  
Vol. III, p. 134, Table 1

NAMA	US Army of Tennessee	CS Army of Tennessee
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Five Forks, #217\*  
Vol. III, p. 136, Table 3

CY	5,200+	6,000
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Gravelotte-St. Privat, #224  
Vol. III, p. 200, Table 7

FESOD	WD, S	WD
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Ondurman, #234  
Vol. III, p. 213, Table 3

CARTYA	(blank)	0
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Ondurman, #234  
Vol. III, p. 213, Table 3

CARTYD	(blank)	0
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Spion Kop, #239  
 Vol. III, p. 220, Table 4

Data Cell	Change From:	Change To:
LEADA	D	0

Nomonhan: Opening Engagement, #259  
 Vol. IV, p. 43, Table 3

CARTYD	-	?
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Suomussalmi, #261  
 Vol. IV, p. 46, Table 7

PRIA	F, EE	EE
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Suomussalmi, #261  
 Vol. IV, p. 46, Table 7

SECA	F, EE	F
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Le Cateau, #267\*  
 Vol. IV, p. 58, Table 3

CX	(blank)	8,970
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Guise, #268  
 Vol. IV, p. 61, Table 7

RESOD	PD	P, R, WD
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The Curcy II, #271  
 Vol. IV, p. 63, Table 2

Data Cell	Change From:	Change To:
TERRA 1, 2	RM/RM	RM/FM

Gorlice-Tarnow (Opening Phase Only), #295  
 Vol. IV, p. 108, Table 1

NAME	Golice-Tarnow	Gorlice-Tarnow

First Dardanelles Landing, #300\*  
 Vol. IV, p. 123, Table 3

CY	(blank)	3,900

Suvla Bay, #301\*  
 Vol. IV, p. 123, Table 3

CY	(blank)	750

First Sams, #304  
 Vol. IV, p. 138, Table 3

ARTYD	400+	?

1916 Brusilov Offensive, #311  
 Vol. IV, p. 147, Table 7

RESOA	P, S	P

Gaza III, #328  
Vol. IV, p. 175, Table 1

Data Cell	Change From:	Change To:
NMD	The	Tk

Gaza II, #327  
Vol. IV, p. 177, Table 3

MBTA	(blank)	?
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Gaza II, #327  
Vol. IV, p. 177, Table 3

MBTD	(blank)	?
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Gaza III, #328  
Vol. IV, p. 177, Table 3

LTA	—	?
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Gaza III, #328  
Vol. IV, p. 177, Table 3

LTD	—	?
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Gaza III, #328  
Vol. IV, p. 177, Table 3

MBTA	(blank)	?
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**Gaza III, #328**  
**Vol. IV, p. 177, Table 3**

Data Cell	Change From:	Change To:
MBTD	(blank)	?

**Second Somme, Phase I (Somme-Peronne), #330**  
**Vol. IV, p. 177, Table 3**

MBTA	(blank)	?
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**Second Somme, Phase I (Somme-Peronne), #330**  
**Vol. IV, p. 177, Table 3**

MBTD	(blank)	?
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**Second Somme, Phase II (Somme-Montdidier), #331**  
**Vol. IV, p. 177, Table 3**

MBTA	(blank)	?
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**Second Somme, Phase II (Somme-Montdidier), #331**  
**Vol. IV, p. 177, Table 3**

MBTD	(blank)	?
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**Crossing of the Tigris, #325**  
**Vol. IV, p. 180, Table 7**

PRIA	F	RivC
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Gaza III, #328  
 Vol. IV, p. 180, Table 7

Data Cell	Change From:	Change To:
RESOD	WDL	WD

Hill 142, #337  
 Vol. IV, p. 182, Table 2

TERRA 1, 2	RM/RgM/RgW	RM/RgW
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Yvonne and Odette Positions, #333  
 Vol. IV, p. 183, Table 3

LTA	--	0
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Yvonne and Odette Positions, #333  
 Vol. IV, p. 183, Table 3

LTD	--	0
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Yvonne and Odette Positions, #333  
 Vol. IV, p. 183, Table 3

MBTA	--	0
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Yvonne and Odette Positions, #333  
 Vol. IV, p. 183, Table 3

MBTD	--	0
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Chemin des Dames, #334  
Vol. IV, p. 183, Table 3

Data Cell	Change From:	Change To:
LTA	—	?

Chemin des Dames, #334  
Vol. IV, p. 183, Table 3

LTD	—	?
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Chemin des Dames, #334  
Vol. IV, p. 183, Table 3

MBTA	—	?
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Chemin des Dames, #334  
Vol. IV, p. 183, Table 3

MBTD	—	?
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Cartigny, #335  
Vol. IV, p. 183, Table 3

LTD	—	0
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Cartigny, #335  
Vol. IV, p. 183, Table 3

MBTD	—	0
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Hill 142, #337  
 Vol. IV, p. 185, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)

Hill 192, #340  
 Vol. IV, p. 186, Table 7

RESOA	R, WDL	P, R, WD
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Bouresches II, #343  
 Vol. IV, p. 188, Table 2

WK1	Nt Atk	DOT
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Vaux, #347  
 Vol. IV, p. 189, Table 3

LTA	—	?
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Vaux, #347  
 Vol. IV, p. 189, Table 3

LTD	—	?
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Vaux, #347  
 Vol. IV, p. 189, Table 3

MBTA	—	?
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Vaux, #347  
Vol. IV, p. 189, Table 3

Data Cell	Change From:	Change To:
MBTD	--	?

La Roche Wood East, #348  
Vol. IV, p. 189, Table 3

LTA	--	?
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La Roche Wood East, #348  
Vol. IV, p. 189, Table 3

LTD	--	?
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La Roche Wood East, #348  
Vol. IV, p. 189, Table 3

MBTA	--	?
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La Roche Wood East, #348  
Vol. IV, p. 189, Table 3

MBTD	--	?
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La Roche Wood West, #349  
Vol. IV, p. 189, Table 3

LTA	--	?
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La Roche Wood West, #349  
Vol. IV, p. 189, Table 3

Data Cell	Change From:	Change To:
LTD	—	?

La Roche Wood West, #349  
Vol. IV, p. 189, Table 3

MBTA	—	?
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La Roche Wood West, #349  
Vol. IV, p. 189, Table 3

MBTD	—	?
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Noyon-Montdidier, #350  
Vol. IV, p. 189, Table 3

LTA	—	?
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Noyon-Montdidier, #350  
Vol. IV, p. 189, Table 3

LTD	—	?
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Noyon-Montdidier, #350  
Vol. IV, p. 189, Table 3

MBTA	(blank)	?
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Noyon-Montdidier, #350  
Vol. IV, p. 189, Table 3

Data Cell	Change From:	Change To:
MBTD	(blank)	?

Noyon-Montdidier, #350  
Vol. IV, p. 189, Table 3

FLYD	(blank)	?
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North Wood IV (Final Assault), #346  
Vol. IV, p. 191, Table 6

QUALA	(blank)/N	N/(blank)
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North Wood I, The Hunting Lodge, #342  
Vol. IV, p. 192, Table 7

RESOD	VDL	WD, S
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Bouresches II, #343  
Vol. IV, p. 192, Table 7

RESOA	R, WD, S	R, WD
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Bouresches II, #343  
Vol. IV, p. 192, Table 7

RESOD	S	(blank)
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North Wood II, #344  
Vol. IV, p. 192, Table 7

Data Cell	Change From:	Change To:
RESOA	R, WDL, S	R, WD

North Wood II, #344  
Vol. IV, p. 192, Table 7

RESOD	S	(blank)
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North Wood III, #345  
Vol. IV, p. 192, Table 7

RESOA	R, WDL, S	R, WD
-------	-----------	-------

North Wood III, #345  
Vol. IV, p. 192, Table 7

RESOD	S	(blank)
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Vaux, #347  
Vol. IV, p. 192, Table 7

RESOD	R, WDL	R, WD
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La Roche Wood East, #348  
Vol. IV, p. 192, Table 7

RESOD	R, WDL	R, WD
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La Roche Wood West, #349  
 Vol. IV, p. 192, Table 7

Data Cell	Change From:	Change To:
RESOD	R, WDL	R, WD

Aisne-Marne II, #359  
 Vol. IV, p. 194, Table 2

TERRA 1	RIM	RM
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Champagne-Marne, #351  
 Vol. IV, p. 195, Table 3

CTANKD	(blank)	?
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Aisne-Marne II, #359  
 Vol. IV, p. 195, Table 3

LTD	—	?
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Aisne-Marne II, #359  
 Vol. IV, p. 195, Table 3

MBTD	—	?
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Cravancou Ferme-Chaudun, #357  
 Vol. IV, p. 197, Table 6

PORTSA	(blank)/N	(blank)/x
--------	-----------	-----------

Aisne-Marne I, #352  
 Vol. IV, p. 198, Table 7

Data Cell	Change From:	Change To:
RESOD	WDL	WD

Picardy, 1918, Phase I, #362  
 Vol. IV, p. 199, Table 1

NWD	Gr Second & Eighteenth Armies	Ger Second & Eighteenth Armies

Lahayville-Bois de Lamarche, #365  
 Vol. IV, p. 199, Table 1

WOF	1.2-2.0	1.2

St. Mihiel, #364  
 Vol. IV, p. 200, Table 2

WKL	WOT	WLT

Berzy le Sec, #360  
 Vol. IV, p. 201, Table 3

LTA	—	?

Berzy le Sec, #360  
 Vol. IV, p. 201, Table 3

LTD	—	?

Berry le Sec, #360  
Vol. IV, p. 201, Table 3

Data Cell	Change From:	Change To:
MBTA	—	?

Berry le Sec, #360  
Vol. IV, p. 201, Table 3

MBTD	—	?
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Buzancy Ridge, #361  
Vol. IV, p. 201, Table 3

LTA	—	?
-----	---	---

Buzancy Ridge, #361  
Vol. IV, p. 201, Table 3

LTD	—	?
-----	---	---

Buzancy Ridge, #361  
Vol. IV, p. 201, Table 3

MBTA	—	?
------	---	---

Buzancy Ridge, #361  
Vol. IV, p. 201, Table 3

MBTD	—	?
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Picardy, 1918, Phase I, #362  
Vol. IV, p. 201, Table 3

Data Cell	Change From:	Change To:
LTD	—	?

Picardy, 1918, Phase I, #362  
Vol. IV, p. 201, Table 3

MBTD	—	?
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Picardy, 1918, Phase II, #363  
Vol. IV, p. 201, Table 3

LTA	—	?
-----	---	---

Picardy, 1918, Phase II, #363  
Vol. IV, p. 201, Table 3

LTD	—	?
-----	---	---

Picardy, 1918, Phase II, #363  
Vol. IV, p. 201, Table 3

MBTA	—	?
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Picardy, 1918, Phase II, #363  
Vol. IV, p. 201, Table 3

MBTD	—	?
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Picardy, 1918, Phase II, #363  
Vol. IV, p. 201, Table 3

Data Cell	Change From:	Change To:
FLYA	—	?

Picardy, 1918, Phase II, #363  
Vol. IV, p. 201, Table 3

FLYD	—	?
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The Piave, #384  
Vol. IV, p. 286, Table 3

LTA	—	?
-----	---	---

The Piave, #384  
Vol. IV, p. 286, Table 3

LTD	—	?
-----	---	---

The Piave, #384  
Vol. IV, p. 286, Table 3

MTA	—	?
-----	---	---

The Piave, #384  
Vol. IV, p. 286, Table 3

MTD	—	?
-----	---	---

Magiddo, #385  
Vol. IV, p. 286, Table 3

Data Cell	Change From:	Change To:
LTA	—	?

Magiddo, #385  
Vol. IV, p. 286, Table 3

LTD	—	?
-----	---	---

Magiddo, #385  
Vol. IV, p. 286, Table 3

MTA	—	?
-----	---	---

Magiddo, #385  
Vol. IV, p. 286, Table 3

MTD	—	?
-----	---	---

Alamein Bridgehead Expansion, #389  
Vol. V, p. 7, Table 2

TERRA 1, 2	RB/RB	FB/RB
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Dragoni, #409  
Vol. V, p. 37, Table 3

MTD	(blank)	55
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Fornia, #438  
Vol. V, p. 86, Table 3

Data Cell	Change From:	Change To:
CFLYA	-	0

Cisterna, #445  
Vol. V, p. 90, Table 1

WOF	7.75	7.8
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Tarto-Tiber, #456  
Vol. V, p. 100, Table 6

DEEPA	(blank)/N	N/(blank)
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Mortain, #461  
Vol. V, p. 130, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Mortain, #461  
Vol. V, p. 130, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Chartres, #462  
Vol. V, p. 130, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Chartres, #462  
Vol. V, p. 130, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)

Melun, #463  
Vol. V, p. 130, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Seine River, #464  
Vol. V, p. 130, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Arracourt, #467  
Vol. V, p. 130, Table 6

PORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Arracourt, #467  
Vol. V, p. 130, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Metz, #466  
Vol. V, p. 131, Table 7

PRIA	(missing)	F
------	-----------	---

Metz, #466  
Vol. V, p. 131, Table 7

Data Cell	Change From:	Change To:
SECA	(missing)	—

Metz, #466  
Vol. V, p. 131, Table 7

Success	(missing)	(blank)/x
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Metz, #466  
Vol V, p. 131, Table 7

RESOA	(missing)	R, S
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Metz, #466  
Vol. V, p. 131, Table 7

PRID	(missing)	D
------	-----------	---

Metz, #466  
Vol. V, p. 131, Table 7

SECD	(missing)	—
------	-----------	---

Metz, #466  
Vol. V, p. 131, Table 7

RESOD	(missing)	S
-------	-----------	---

Seille-Nied, #470  
Vol. V, p. 134, Table 3

Data Cell	Change From:	Change To:
LTD	(blank)	0

Seille-Nied, #470\*  
Vol. V, p. 134, Table 3

MBTD	(blank)	71
------	---------	----

Morange, #472  
Vol. V, p. 136, Table 6

FORTSA	(blank)/N	N/(blank)
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Morange, #472  
Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Morange-Faulquemont, #473  
Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Basrendorf I, #476  
Vol. V, p. 136, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Baerendorf I, #476  
Vol. V, p. 136, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)

Baerendorf II, #477  
Vol. V, p. 136, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Baerendorf II, #477  
Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Burbach-Durstel, #478  
Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)
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Durstel-Faerbersviller, #479  
Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Sarre-Union, #480  
Vol. V, p. 136, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

**Mochang-Faulquemont, #473**  
Vol. V, p. 137, Table 7

Data Cell	Change From:	Change To:
PRID	D/O, R	D/O, F

**Baerendorf II, #477**  
Vol. V, p. 137, Table 7

PRID	(blank)	D
------	---------	---

**Baerendorf II, #477**  
Vol. V, p. 137, Table 7

RESOD	(blank)	S
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**Singling-Bining, #482**  
Vol. V, p. 142, Table 6

DEEPA	(blank)/N	N/(blank)
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**Sauer River, #483**  
Vol. V, p. 148, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

**Sauer River, #483**  
Vol. V, p. 148, Table 6

DEEPA	(blank)/N	N/(blank)
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St. Vith, #484  
Vol. V, p. 148, Table 6

Data Cell	Change From:	Change To:
FORTSA	(blank)/N	N/(blank)

St. Vith, #484  
Vol. V, p. 148, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Bastogne, #485  
Vol. V, p. 148, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Bastogne, #485  
Vol. V, p. 148, Table 6

DEEPA	(blank)/N	N/(blank)
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Jitra, #487  
Vol. VI, p. 12, Table 7

RESOD	WDL	WD
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Ciechanow, Phase II, #514  
Vol. VI, p. 17, Table 1

NWE	Ciechanow, Phase	Ciechanow, Phase II
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Ciechanow, Phase II, #514  
Vol. VI, p. 17, Table 1

Data Cell	Change From:	Change To:
LOCN	(blank)	Poland

Ciechanow, Phase I, #513  
Vol. VI, p. 20, Table 2

TERRAL	R	RB
--------	---	----

Ciechanow, Phase II, #514  
Vol. VI, p. 20, Table 2

TERRAL	R	RB
--------	---	----

Nikopol Bridgehead, #502  
Vol. VI, p. 22, Table 3

LTD	--	0
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Nikopol Bridgehead, #502  
Vol. VI, p. 22, Table 3

MBTD	--	0
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Brody, Phase I, #506  
Vol. VI, p. 22, Table 3

LTD	--	0
-----	----	---

**Brody, Phase I, #506**  
**Vol. VI, p. 22, Table 3**

Data Cell	Change From:	Change To:
MBTD	—	0

**Assault Crossing of the Vistula River, Phase I, #508**  
**Vol. VI, p. 22, Table 3**

LTA	—	0
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**Assault Crossing of the Vistula River, Phase I, #508**  
**Vol. VI, p. 22, Table 3**

MBTA	—	0
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**The Oboyan-Kursk Axis, Phase II, #495**  
**Vol. VI, p. 24, Table 5**

ACHD	(blank)	5
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**Korsun-Shevchenkivskiy, #501**  
**Vol. VI, p. 25, Table 4**

MOMTA	(blank)	x/(blank)
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**Nikopol Bridgehead, #502**  
**Vol. VI, p. 25, Table 4**

MOMTA	(blank)	x/(blank)
-------	---------	-----------

**Seelow Heights, #515**  
**Vol. VI, p. 26, Table 4**

Data Cell	Change From:	Change To:
INTELA	V	C

**Korsun-Shevchenkivskiy, #501**  
**Vol. VI, p. 28, Table 6**

RESA	(blank)	O/O
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**Kursk Counteroffensive (Southern Sector), #498**  
**Vol. VI, p. 30, Table 7**

RESOD	NDL	R, WD
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**Melitopol, #500**  
**Vol. VI, p. 31, Table 7**

RESOD	NDL	R, WD
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**East Prussia, #512**  
**Vol. VI, p. 32, Table 7**

RESOD	NDL	R, WD
-------	-----	-------

**Ciechanow, Phase II, #514**  
**Vol. VI, p. 32, Table 7**

RESOD	NDL	R, WD
-------	-----	-------

Mutankiang, #516  
Vol. VI, p. 32, Table 7

Data Cell	Change From:	Change To:
PRIA	R, RivC	RivC

Kochi Ridge-Onaga II, #526  
Vol. VI, p. 88, Table 4

MEMTA	(blank)/N	N/(blank)
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

QUALA	(blank)	x/(blank)
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

FESA	(blank)	N/(blank)
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

MOBILA	(blank)	x/(blank)
--------	---------	-----------

Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

AIRA	(blank)	x/(blank)
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

Data Cell	Change From:	Change To:
FPREPA	(blank)	x/(blank)

Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

NKA	(blank)	N/(blank)
-----	---------	-----------

Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

TERRA	(blank)	(blank)/x
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

LEADAA	(blank)	N/(blank)
--------	---------	-----------

Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

PLANA	(blank)	N/(blank)
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

SURPAA	(blank)	N/(blank)
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

Data Cell	Change From:	Change To:
MANA	(blank)	N/(blank)

Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

LOGSAA	(blank)	N/(blank)
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Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

FORTSA	(blank)	(blank)/x
--------	---------	-----------

Tomb Hill-Ouki, #523  
Vol. VI, p. 90, Table 6

DEEPA	(blank)	(blank)/x
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Skyline Ridge-Rocky Crags, #524  
Vol. VI, p. 92, Table 7

RESOA	(blank)	P
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Shuri Envelopment, Phase II, #532  
Vol. VI, p. 92, Table 7

RESOA	R, W	P, R
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Advance to the Shuri Line Outposts, #539  
 Vol. VI, p. 121, Table 7

Data Cell	Change From:	Change To:
NESOA	X,	P

Advance to the Shuri Line Outposts. #539  
 Vol. VI, p. 121, Table 7

PRID	D	D/O, F
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Advance to the Shuri Line Outposts, #539  
 Vol. VI, p. 121, Table 7

NESOD	(blank)	R, WDL
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Jenin, #549  
 Vol. VI, p. 136, Table 1

OOD	Lt Col El Khalid	Lt Col El Khalidi
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Jerusalem, #550  
 Vol. VI, p. 136, Table 1

OOD	Brig Ata Al.	Brig Ata Ali
-----	--------------	--------------

Kabatiya, #551  
 Vol. VI, p. 136, Table 1

OOD	Lt Col El Khalidi	Brig Ben Shaker
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Tilfit-Zababida, #552  
Vol. VI, p. 136, Table 1

Data Cell	Change From:	Change To:
OOD	Lt Col El Khalidi	Brig Ben Shaker

Kabatiya, #551  
Vol. VI, p. 136, Table 1

WOF	(blank)	1.0
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Tilfit-Zababida, #552  
Vol. VI, p. 136, Table 1

WOF	(blank)	1.0
-----	---------	-----

Nablus, #553  
Vol. VI, p. 136, Table 1

WOF	(blank)	3.0
-----	---------	-----

Mitla Pass, #561  
Vol. VI, p. 137, Table 1

COA	(blank)	MG Ghoul
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Bir Gifgafa, #564  
Vol. VI, p. 137, Table 1

COA	(blank)	?
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Mitla Pass, #561  
Vol. VI, p. 137, Table 1

Data Cell	Change From:	Change To:
NMD	Is Yaffe Div (-)	Is Yoffe Div (-)

Jerusalem, #550  
Vol. VI, p. 146, Table 7

NESOD	R, WDL	R, WD
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Rafah, #554  
Vol. VI, p. 146, Table 7

NESOD	WDL	R, WD
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Bir Lahfan, #555  
Vol. VI, p. 146, Table 7

NESOD	WDL	R, WD
-------	-----	-------

Abu Agaila-Um Katuf, #556  
Vol. VI, p. 146, Table 7

NESOD	WDL	R, WD
-------	-----	-------

Mitla Pass, #561  
Vol. VI, p. 147, Table 7

NESOA	R, WDL	R, WD
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Bir Hanna-Bir Gifgafa, #562  
Vol. VI, p. 147, Table 7

Data Cell	Change From:	Change To:
NESOD	NDL	ND

Bir Gifgafa, #564  
Vol. VI, p. 147, Table 7

NESOA	NDL	R, ND
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Shallufa I, #581  
Vol. VI, p. 180, Table 1

NWA	Is Adan Div	Is Adan Div (+)
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Suez, #584  
Vol. VI, p. 180, Table 1

NWA	Is Adan Div	Is Adan Div (+)
-----	-------------	-----------------

Suez Canal Assault-North, #569  
Vol. VI, p. 183, Table 3

ARTYA	623	1,223
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Suez Canal Assault-South, #570  
Vol. VI, p. 183, Table 3

ARTYA	571	971
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Kantara-Firdan, #573  
Vol. VI, p. 187, Table 5

Data Cell	Change From:	Change To:
KPDA	(blank)	0.0

Shallufa I, #581  
Vol. VI, p. 186, Table 4

DWEIA	(blank)	N/(blank)
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Suez Canal Assault-North, #569  
Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
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Suez Canal Assault-South, #570  
Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
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Third Army Buildup, #572  
Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
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Kantara-Firdan, #573  
Vol. VI, p. 187, Table 6

FORTSA	(blank)/N	N/(blank)
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Kantara-Firdan, #573  
Vol. VI, p. 187, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)

Egyptian Offensive North, #574  
Vol. VI, p. 187, Table 6

FORTSA	(blank)/N	N/(blank)
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Egyptian Offensive North, #574  
Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
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Egyptian Offensive South, #575  
Vol. VI, p. 187, Table 6

FORTSA	(blank)/N	N/(blank)
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Egyptian Offensive South, #575  
Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
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Deversoir (Chinese Farm I), #576  
Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
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Deversoir (Chinese Farm II), #577  
Vol. VI, p. 187, Table 6

Data Cell	Change From:	Change To:
DEEPA	(blank)/N	N/(blank)

Deversoir West, #578  
Vol. VI, p. 187, Table 6

FOOTSA	(blank)/N	N/(blank)
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Deversoir West, #578  
Vol. VI, p. 187, Table 6

DEEPA	(blank)/N	N/(blank)
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Ismailia, #579  
Vol. VI, p. 188, Table 6

DEEPA	(blank)/N	N/(blank)
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Jebel Geneifa, #580  
Vol. VI, p. 188, Table 6

FOOTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Jebel Geneifa, #580  
Vol. VI, p. 188, Table 6

DEEPA	(blank)/N	N/(blank)
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Shallufa I, #581  
Vol. VI, p. 188, Table 6

Data Cell	Change From:	Change To:
FORTSA	(blank)/N	N/(blank)

Shallufa I, #581  
Vol. VI, p. 188, Table 6

DEEPA	(blank)/N	N/(blank)
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Adabiya, #582  
Vol. VI, p. 188, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Adabiya, #582  
Vol. VI, p. 188, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

Shallufa II, #583  
Vol. VI, p. 188, Table 6

FORTSA	(blank)/N	N/(blank)
--------	-----------	-----------

Shallufa II, #583  
Vol. VI, p. 188, Table 6

DEEPA	(blank)/N	N/(blank)
-------	-----------	-----------

**Suez, #584**  
**Vol. VI, p. 188, Table 6**

<b>Data Cell</b>	<b>Change From:</b>	<b>Change To:</b>
<b>DEEPA</b>	<b>(blank)/N</b>	<b>N/(blank)</b>

**Egyptian Offensive North, #574**  
**Vol. VI, p. 189, Table 7**

<b>RESOA</b>	<b>R, MDL</b>	<b>R, WD</b>
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**Egyptian Offensive South, #575**  
**Vol. VI, p. 189, Table 7**

<b>RESOA</b>	<b>R, MDL</b>	<b>R, WD</b>
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**Deversoir (Chinese Farm II), #577**  
**Vol. VI, p. 189, Table 7**

<b>RESOD</b>	<b>MDL</b>	<b>R, WD</b>
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**Ahmadiyah, #586**  
**Vol. VI, p. 191, Table 1**

<b>NWA</b>	<b>Syr 7th Inf Div ( )</b>	<b>Syr 7th Inf Div (+)</b>
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**Mount Hermon II, #600**  
**Vol. VI, p. 192, Table 1**

<b>OOD</b>	<b>(blank)</b>	<b>?</b>
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Mount Hermon III, #601  
 Vol. VI, p. 192, Table 1

Data Cell	Change From:	Change To:
COD	(blank)	?

Hushniyah, #591  
 Vol. VI, p. 197, Table 5

KPDA	1.7+	1.7
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Naba, #598  
 Vol. VI, p. 200, Table 6

FORTSA	(blank)/N	N/(blank)
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Naba, #598  
 Vol. VI, p. 200, Table 6

DEEPA	(blank)/N	N/(blank)
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Tel Paris, #590  
 Vol. VI, p. 201, Table 7

RESOD	WDL	WD
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Hushniyah, #591  
 Vol. VI, p. 201, Table 7

RESOD	WDL	WD
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Mount Hermonit, #592  
Vol. VI, p. 201, Table 7

Data Cell	Change From:	Change To:
RESOA	R, WDL	R, WD

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Consistency Problem Reports

Dessau Bridge, #4

Vol. II, p. 14, Table 5

Data Cell	Change From:	Change To:
ACHD	10	9

The Lech, #7

Vol. II, pp. 14, 18; Tables 5, 7

ACHD	6	3
------	---	---

RESOA	S	B
-------	---	---

Alte Veste, #8

Vol. II, p. 14, Table 5

ACHA	6	4
------	---	---

Wittstock #11

Vol. II, p. 15, Table 5

ACHA	10	9
------	----	---

Breitenfeld II, #12

Vol. II, p. 15, Table 5

ACHA	10	9
------	----	---

Data Cell	Change From:	Change To:
ACHD	4	3

Rocroi, #13

Vol. II, p. 15, Table 5

ACHA	10	8
------	----	---

ACHD	5	3
------	---	---

Tuttlingen, #14

Vol. II, p. 15, Table 5

ACHA	10	9
------	----	---

Freiburg, #15

Vol. II, p. 15, Table 5

ACHD	7	6
------	---	---

Jankau, #16

Vol. II, pp. 15, 19; Tables 5, 7

ACHA	6	4
------	---	---

PRID	D	D/O, F
------	---	--------

Data Cell	Change From:	Change To:
RESOA	R, A	P, R, A

RESOD	Ps	B, Ps
-------	----	-------

Mergentheim, #17

Vol. II, p. 15, Table 5

ACHA	10	9
------	----	---

Allerheim (Noerdlingen II), #18

Vol. II, pp. 15, 19; Tables 5, 7

ACHD	7	6
------	---	---

SECA	E(RF)	--
------	-------	----

SECD	E(RF)	--
------	-------	----

RESOA	S	P
-------	---	---

Data Cell	Change From:	Change To:
RESOD	WD	P, WD

Lens, #19

Vol. II, p. 15, Table 5

ACHA	10	9
------	----	---

Edgehill, #20

Vol. II, p. 46, Table 7

RESOD	WD	P, WD
-------	----	-------

Marston Moor, #21

Vol. II, pp. 44, 46; Tables 5, 7

ACHD	5	4
------	---	---

PRIA	F	F, E(RR)
------	---	----------

Kilsyth, #23

Vol. II, p. 44, Table 5

ACHA	10	9
------	----	---

ACHD	4	2
------	---	---

Newbury II, #24

Vol. II, pp. 44, 46; Tables 5, 7

Data Cell	Change From:	Change To:
WINA	x/(blank)	(blank)/x

ACHD	5	7
------	---	---

Success	x/(blank)	(blank)/x
---------	-----------	-----------

Naseby, #25

Vol. II, pp. 44, 46; Tables 5, 7

ACHA	6	4
------	---	---

RESOD	Ps	B, Ps
-------	----	-------

Preston, #26

Vol. II, p. 44, Table 5

ACHA	10	9
------	----	---

**Worcester, #28**

**Vol. II, pp. 44, 46, Tables 5, 7**

<b>Data Cell</b>	<b>Change From:</b>	<b>Change To:</b>
<b>ACHA</b>	<b>10</b>	<b>9</b>

<b>ACHD</b>	<b>5</b>	<b>4</b>
-------------	----------	----------

<b>RESOD</b>	<b>WDL</b>	<b>P,WDL</b>
--------------	------------	--------------

**The Raab, #31**

**Vol. II, p. 62, Table 5**

<b>ACHD</b>	<b>10</b>	<b>9</b>
-------------	-----------	----------

**Enzheim, #36**

**Vol. II, pp. 63, 67; Tables 5, 7**

<b>WINA</b>	<b>x/blank</b>	<b>x/x</b>
-------------	----------------	------------

<b>ACHA</b>	<b>9</b>	<b>6</b>
-------------	----------	----------

Data Cell	Change From:	Change To:
ACHD	5	6

Success	x/blank	x/x
---------	---------	-----

RESOA	P, WD	P, R, WD
-------	-------	----------

RESOD	P, WD	P, R, WD
-------	-------	----------

Fehrbellin, #38

Vol. II, pp. 63, 67; Tables 5, 7

ACHA	10	9
------	----	---

RESOA	B, Ps	B
-------	-------	---

Data Cell	Change From:	Change To:
RESOD	WD	WDL

Sedgemoor, #39

Vol. II, p. 87, Table 5

ACHA	5	2
------	---	---

ACHD	8	7
------	---	---

Killiecrankie, #40

Vol. II, p. 87, Table 5

ACHA	10	8
------	----	---

ACHD	5	2
------	---	---

Walcourt, #41

Vol. II, p. 87, Table 5

ACHA	5	4
------	---	---

Fleurus, #42

Vol. II, p. 87, Table 5

ACHA	10	9
------	----	---

Data Cell	Change From:	Change To:
ACHD	4	3

The Boyne, #43

Vol. II, p. 87, Table 5

ACHA	10	9
------	----	---

Steenkerke, #45

Vol. II, p. 87, Table 5

ACHA	6	3
------	---	---

Meerwinden (Landen), #46

Vol. II, p. 87, Table 5

ACHA	10	8
------	----	---

ACHD	4	3
------	---	---

Marsaglia, #47

Vol. II, p. 87, Table 5

ACHA	10	9
------	----	---

ACHD	4	2
------	---	---

Zenta, #48

Vol. II, p. 88, Table 5

Data Cell	Change From:	Change To:
ACHA	10	9

Poltava, #49

Vol. II, p. 88, Table 5

ACHA	6	4
------	---	---

Blenheim, #50

Vol. II, p. 88, Table 5

ACHA	10	9
------	----	---

Ramillies, #51

Vol. II, p. 88, Table 5

ACHA	10	9
------	----	---

ACHD	4	3
------	---	---

Oudenarde, #52

Vol. II, p. 88, Table 5

ACHA	10	9
------	----	---

Data Cell	Change From:	Change To:
ACHD	4	3

Peterwardein, #54

Vol. II, p. 89, Table 5

ACHA	10	9
------	----	---

ACHD	4	2
------	---	---

Mollwitz, #55

Vol. II, pp. 115, 117; Tables 5, 7

WINA	x/(blank)	(blank)/x
------	-----------	-----------

RESOA	R, WD	P, R, WD
-------	-------	----------

Chotusitz, #56\*

Vol. II, p. 117, Table 7

PRID	D/O, F	D/O, F, E(LR)
------	--------	---------------

RESOA	R, WD	P, R, WD
-------	-------	----------

Dettingen, #57

Vol. II, pp. 115, 117; Table 5, 7

Data Cell	Change From:	Change To:
ACHA	8	6

ACHD	4	3
------	---	---

RESOD	R, WD	P, R, WD
-------	-------	----------

Hohenfriedberg, #59

Vol. II, p. 115, Table 5

ACHA	10	9
------	----	---

Culloden, #63

Vol. II, p. 128, Table 5

ACHA	4	3
------	---	---

Prague, #65

Vol. II, pp. 139, 143; Tables 5, 7

ACHD	6	4
------	---	---

Data Cell	Change From:	Change To:
PRID	D/O,F	D

RESOA	B, Ps	R, B, Ps
-------	-------	----------

Kolin, #67

Vol. II, pp. 139, 143; Tables 5, 7

ACHD	9	8
------	---	---

RESOD	Ps	B, Ps
-------	----	-------

Hastenbeck, #68

Vol. II, p. 139, Table 5

ACHA	7	5
------	---	---

ACHD	4	3
------	---	---

Rossbach, #69

Vol. II, p. 139, Table 5

ACHD	10	9
------	----	---

Crefeld, #71

Vol. II, pp. 139, 143; Tables 5, 7

Data Cell	Change From:	Change To:
ACHA	9	8

ACHD	6	5
------	---	---

RESOA	B	P
-------	---	---

Hochkirch, #73

Vol. II, p. 139, Table 5

ACHA	10	9
------	----	---

Bergen, #74

Vol. II, p. 139, Table 5

ACHD	(blank)	6
------	---------	---

Plains of Abraham (Quebec), #77

Vol. II, p. 140, Table 5

ACHA	5	3
------	---	---

Maxen, #78

Vol. II, p. 140, Table 5

Data Cell	Change From:	Change To:
ACHA	10	8

Bunker Hill, #82

Vol. II, p. 169, Table 5

ACHD	6	5
------	---	---

Quebec #83

Vol. II, p. 169, Table 5

ACHA	5	4
------	---	---

ACHD	8	7
------	---	---

Trenton, #85

Vol. II, p. 169, Table 5

ACHA	10	9
------	----	---

Freeman's Farm, #87

Vol. II, pp. 169, 173; Tables 5, 7

WINA	(blank)/x	x/x
------	-----------	-----

Data Cell	Change From:	Change To:
ACHD	7	5

Success	(blank)/x	x/x
---------	-----------	-----

RESOA	S, WD	P, S
-------	-------	------

RESOD	(blank)	R, S
-------	---------	------

Monmouth Court House, #90

Vol. II, pp. 169, 173; Tables 5, 7

WINA	(blank)/x	x/x
------	-----------	-----

ACHD	7	6
------	---	---

Data Cell	Change From:	Change To:
Success	(blank)/x	x/x

Cowpens, #92

Vol. II, pp. 169, 173; Tables 5, 7

ACHA	6	2
------	---	---

ACHD	10	9
------	----	---

RESOA	R, A	P, R, A
-------	------	---------

Guilford Courthouse, #93

Vol. II, p. 170, Table 5

ACHA	7	6
------	---	---

ACHD	7	5
------	---	---

Eutaw Springs, #95

Vol. II, pp. 170, 174; Tables 5, 7

ACHA	6	4
------	---	---

Data Cell	Change From:	Change To:
ACHD	8	5

PRID	D	D/O, F
------	---	--------

RESOA	R/WD	P, R, WD
-------	------	----------

RESOD	--	P
-------	----	---

Valmy, #96

Vol. II, pp. 195, 199; Tables 5, 7

ACHA	4	3
------	---	---

ACHD	5	4
------	---	---

RESOA	S, WD	S
-------	-------	---

Lodi, #102

Vol. II, pp. 195, 199; Tables 5, 7

Data Cell	Change From:	Change To:
ACHA	10	8

PRIA	F, P, RivC	F, RivC
------	------------	---------

SECA	--	E(RF)
------	----	-------

Neresheim, #104

Vol. II, pp. 195, 199; Tables 5, 7

WINA	x/x	x/(blank)
------	-----	-----------

*ATK WITHDREW FROM FIELD*

Success	x/x	x/(blank)
---------	-----	-----------

*NARRATIVE SHEETS  
"IT WITH #  
OR AWAY  
PARTICLE"*

Pyramids, #108

Vol. II, pp. 196, 200; Tables 5, 7

ACHA	10	9
------	----	---

Data Cell	Change From:	Change To:
PRIA	D/O	F

PRID	D	D/O, F
------	---	--------

SECA	F	--
------	---	----

Stockach I, #109

Vol. II, p. 200; Table 7

RESOA	R, WD	P, R, WD
-------	-------	----------

Novi, #112

Vol. II, p. 196; Table 5

ACHA	6	7
------	---	---

ACHD	4	3
------	---	---

Jena, #118

Vol. III, P. 11, Table 5

ACHA	10	9
------	----	---

Eylau, #120

Vol. III, pp. 11, 13; Tables 5, 7

Data Cell	Change From:	Change To:
WINA	(blank)	x/x

*DEPENDER  
WITHDRAW FROM THE  
FIELD.*

PRID	D/O	D/O, F
------	-----	--------

Success	x/blank	x/x
---------	---------	-----

RESOA	S	P, R, S
-------	---	---------

RESOD	S, WD	P, R, WD
-------	-------	----------

Aspern-Essling, #125

Vol. III, pp. 11, 13; Tables 5, 7

ACHA	5	7
------	---	---

Data Cell	Change From:	Change To:
ACHD	4	5

PRID	D	D/O, F
------	---	--------

RESOA	S	P, R
-------	---	------

RESOD	S	P, R, WD
-------	---	----------

Talavera, #128

Vol. III, pp. 17, 19; Tables 5, 7

WINA	x/x	(blank)/x
------	-----	-----------

ACHD	5	6
------	---	---

PRID	D	D/O, F
------	---	--------

Data Cell	Change From:	Change To:
Success	x/x	(blank)/x

RESOA	R, WD	P, R, WD
-------	-------	----------

RESOD	--	P, R
-------	----	------

Fuentes de Onoro, #130

Vol. III, pp. 17, 19; Tables 5, 7

WINA	x/x	(blank)/x
------	-----	-----------

Success	x/x	(blank)/x
---------	-----	-----------

Leipzig, #138

Vol. III, p. 25, Table 7

PRID	D/O, P	D/O, F
------	--------	--------

Success	(blank)/x	x/(blank)
---------	-----------	-----------

Data Cell	Change From:	Change To:
RESOA	R, WD	P

RESOD	P	R, WD
-------	---	-------

Boyaca, #150

Vol. III, p. 64, Table 5

ACHA	10	9
------	----	---

Carabobo, #151

Vol. III, p. 64, Table 5

ACHA	10	9
------	----	---

Bombona, #152

Vol. III, p. 64, Table 5

ACHA	8	7
------	---	---

ACHD	8	6
------	---	---

Fichincha, #153

Vol. III, pp. 64, 66; Tables 5, 7

ACHA	6	3
------	---	---

Data Cell	Change From:	Change To
ACHD	9	8

RESOD	Ps	B, Ps
-------	----	-------

Junin, #154

Vol. III, p. 64, Table 5

ACHA	10	9
------	----	---

Ayacucho, #155

Vol. III, p. 64, Table 5

ACHD	10	9
------	----	---

San Jacinto, #156

Vol. III, p. 64, Table 5

ACHD	10	1
------	----	---

The Alma, #165

Vol. III, p. 97, Table 7

PRID	D	D/O, F
------	---	--------

RESOD	WD	R, WD
-------	----	-------

Data Cell	Change From:	Change To:
-----------	--------------	------------

Inkerman, #166\*

Vol. III, pp. 95, 97; Tables 5, 7

ACHD	4	5
------	---	---

RESOA	R, WD	P, R, WD
-------	-------	----------

First Bull Run (First Manassas), #171

Vol. III, pp. 107, 109; Tables 5, 7

ACHA	3	4
------	---	---

ACHD	5	6
------	---	---

PRID	D/O	D/O, E(RF)
------	-----	------------

RESOA	R, WD	P, R, WD
-------	-------	----------

Data Cell	Change From:	Change To:
RESOD	--	B

Wilson's Creek, #172

Vol. III, p. 109, Table 7

PRID	D/O	D/O, F
------	-----	--------

RESOA	R, WD	P, R, WD
-------	-------	----------

RESOD	--	P, R
-------	----	------

Mill Springs, #174

Vol. III, p. 109, Table 7

RESOA	R, WDL	R, WD
-------	--------	-------

RESOD	Ps	B, Ps
-------	----	-------

Fort Donelson, #175

Vol. III, pp. 107, 109; Tables 5, 7

ACHA	7	4
------	---	---

Data Cell	Change From:	Change To:
ACHD	4	7

PRID	D/O	D/O, F
------	-----	--------

RESOA	P, WD	P, R, WD
-------	-------	----------

Pea Ridge, #176

Vol. III, pp. 107, 109; Tables 5, 7

ACHD	6	7
------	---	---

PRID	D/O	D/O, F
------	-----	--------

RESOA	R, WD	P, R, WD
-------	-------	----------

RESOD	P	--
-------	---	----

Kernstown, #177

Vol. III, pp. 107, 109; Tables 5, 7

Data Cell	Change From:	Change To:
ACHA	6	4

ACHD	8	7
------	---	---

PRID	D/O	D/O, F
------	-----	--------

RESOA	R	R, WD
-------	---	-------

RESOD	WD	P
-------	----	---

Seven Pines (Fair Oaks), #183

Vol. III, p. 113, Table 5

ACHA	5	4
------	---	---

Mechanicsville, #184

Vol. III, p. 113, Table 5

Data Cell	Change From:	
ACHA	6	5

Gaines's Mill, #185

Vol. III, pp. 113, 115; Tables 5, 7

WINA	x/(blank)	(blank)/x
------	-----------	-----------

ACHD	5	6
------	---	---

RESOA	R	P, R
-------	---	------

South Mountain, #190

Vol. III, p. 121, Table 5

RESOA	P, Ps	P
-------	-------	---

Antietam (Sharpsburg), #191

Vol. III, pp. 119, 121; Tables 5, 7

WINA	x/(blank)	(blank)/x
------	-----------	-----------

PRID	D/O	D/O, F
------	-----	--------

Data Cell	Change From:	Change To:
Success	x/(blank)	(blank)/x

RESOA	R, S	P, R, S
-------	------	---------

RESOD	WD	R, S
-------	----	------

Corinth, #192

Vol. III, pp. 119, 121; Tables 5, 7

WINA	x/(blank)	(blank)/x
------	-----------	-----------

ACHA	7	5
------	---	---

ACHD	6	7
------	---	---

Success	x/(blank)	(blank)/x
---------	-----------	-----------

Data Cell	Change From:	Change To:
RESOA	B, Ps	P, R, WD

RESOD	WD	--
-------	----	----

Perryville, #193

Vol. III, p. 119, Table 5

ACHD	6	5
------	---	---

Fredericksburg, #194

Vol. III, p. 119, Table 5

ACHD	10	9
------	----	---

Murfreesboro (Stones River), #195

Vol. III, pp. 125, 127; Tables 5, 7

ACHA	6	5
------	---	---

Success	(blank)/x	x/x
---------	-----------	-----

Brandy Station, #198\*

Vol. III, p. 127, Table 7

PRID	D/O	D/O, F
------	-----	--------

Data Cell	Change From:	Change To:
RESOA	P, WD	P, R, WD

RESOD	--	P
-------	----	---

The Wilderness, #202

Vol. III, p. 133, Table 7

PRID	D/O	D/O, F
------	-----	--------

RESOD	R, S, WD	R, S
-------	----------	------

Spotsylvania, #203

Vol. III, pp. 131, 133; Tables 5, 7

WINA	x/(blank)	(blank)/x
------	-----------	-----------

PRID	D/O	D/O, F
------	-----	--------

RESOA	S,	P, R, S
-------	----	---------

Data Cell	Change From:	Change To:
RESOD	S, WD	S

Cold Harbor, #205

Vol. III, pp. 131, 133; Tables 5, 7

WINA	x/x	(blank)/x
------	-----	-----------

RESOD	S, WD	S
-------	-------	---

Globe Tavern, #210

Vol. III, P. 133, Table 7

PRID	D	D/O, F
------	---	--------

RESOD	S	P, R, S
-------	---	---------

Opequon Creek (Third Winchester), #211

Vol. III, p. 133, Table 7

PRID	D	D/O, F
------	---	--------

RESOD	WDL	P, R, WDL
-------	-----	-----------

Froeschwiller (Woerth), #221

Vol. III, p. 200, Table 7

Data Cell	Change From:	Change To:
PRID	D	D/O, F

RESOD	WD	R, WDL
-------	----	--------

Spichern, #222

Vol. III, pp. 198, 200; Tables 5, 7

ACHA	6	7
------	---	---

RESOA	P, Ps	R, P, Ps
-------	-------	----------

Isandhlwana, #230

Vol. III, p. 214, Table 5

ACHD	4	3
------	---	---

Ulundi, #231

Vol. III, p. 214, Table 5

ACHA	4	3
------	---	---

Majuba Hill, #232

Vol. III, p. 214, Table 5

Data Cell	Change From:	Change To:
ACHD	4	3

Tel el-Kebir, #233

Vol. III, p. 214, Table 5

ACHA	10	9
------	----	---

Adowa, #235

Vol. III, p. 214, Table 5

ACHD	5	2
------	---	---

Modder River, #236

Vol. III, p. 222, Table 7

PRIA	F	F, E(RF)
------	---	----------

RESOA	R	P
-------	---	---

RESOD	WD	R, WD
-------	----	-------

Paardeberg, #240

Vol. III, pp. 220, 222; Tables 5, 7

Data Cell	Change From:	Change To:
WINA	(blank)/x	x/x

ACHA	7	5
------	---	---

Success	(blank)/x	x/x
---------	-----------	-----

RESOA	R	R, S
-------	---	------

RESOD	--	S
-------	----	---

Liaoyang, #244

Vol. IV, p. 14, Table 7

PRID	D/O	D
------	-----	---

The Sha-Ho, #245

Vol. IV, p. 14, Table 7

Data Cell	Change From:	Change To:
PRID	D/O	D/O,F

RESOD	--	P, S
-------	----	------

Sandepu, #246

Vol. IV, pp. 12, 14; Tables 5, 7

WINA	x/(blank)	(blank)/x
------	-----------	-----------

PRID	D/O	D/O,F
------	-----	-------

Mukden, #247

Vol. IV, pp. 12, 14; Tables 5, 7

ACHA	9	7
------	---	---

ACHD	7	4
------	---	---

Data Cell	Change From:	Change To:
PRID	D	D/O,F

RESOD	WD	R, WDL
-------	----	--------

Kumanovo, #248

Vol. IV, p. 26, Table 7

PRID	D/O	D/O,F
------	-----	-------

RESOD	WD	R, WD
-------	----	-------

Prelip, #250

Vol. IV, p. 26, Table 7

RESOD	WD	R, WD
-------	----	-------

Monastir, #251

Vol. IV, pp. 24, 26; Tables 5, 7

ACHD	5	2
------	---	---

RESOD	WDL	R, WDL
-------	-----	--------

Changkufeng-Shachaofeng, #256

Vol. IV, pp. 44, 46, Tables 5, 7

Data Cell	Change From:	Change To:
ACHA	8	7

ACHD	6	4
------	---	---

PRID	D/O	D/O,F
------	-----	-------

Changkufeng-Hill 52, #258

Vol. IV, p. 46, Table 7

PRID	D/O	D/O,F
------	-----	-------

Success	x/x	(blank)/x
---------	-----	-----------

RESOD	WD	P, S
-------	----	------

Nomonhan: Opening Engagement, #259

Vol. IV, p. 46, Table 7

Data Cell	Change From:	Change To:
-----------	--------------	------------

PRID	D/O	D/O,F
------	-----	-------

RESOD	WD	S, WD
-------	----	-------

Nomonham: Soviet Counteroffensive, #260

Vol. IV, p. 46, Table 7

PRID	D/O	D/O,F
------	-----	-------

RESOD	WDL	R, WDL
-------	-----	--------

Suomussalmi, #261

Vol. IV, p. 46, Table 7

PRID	D/O	D
------	-----	---

Alsace-Lorraine I, #262

Vol. IV, p. 61, Table 7

RESOD	WD	WD, S
-------	----	-------

The Ardennes, #264

Vol. IV, p. 59, Table 5

Data Cell	Change From:	Change To:
ACHA	5	3

Mons, #266

Vol. IV, pp. 59, 61; Tables 5, 7

ACHD	6	5
------	---	---

RESOA	P	P, Ps
-------	---	-------

The Ourcq I, #270

Vol. IV, pp. 65, 67; Tables 5, 7

ACHD	7	6
------	---	---

RESOA	S	P, S
-------	---	------

RESOD	WD	WD, S
-------	----	-------

The Ourcq II, #271

Vol. IV, pp. 65, 67; Tables 5, 7

Data Cell	Change From:	Change To:
WINA	x/(blank)	x/x

Success	x/(blank)	x/x
---------	-----------	-----

The Two Morins, #273

Vol. IV, p. 65, Table 5

ACHA	4	5
------	---	---

The Marshes of St. Gond, #274

Vol. IV, p. 67, Table 7

RESOA	R, WD	P, R, WD
-------	-------	----------

RESOD	--	P
-------	----	---

Vitry le Francois, #275

Vol. IV, p. 67, Table 7

RESOA	R, WD	P, R, WD
-------	-------	----------

Data Cell	Change From:	Change To:
RESOD	--	P

The Gap of Revigny, #276

Vol. IV, p. 67, Table 7

RESOA	R, WD	P, R, WD
-------	-------	----------

The Aisne, #277

Vol. IV, p. 67, Table 7

RESOA	R, S	P, R, S
-------	------	---------

RESOD	S	P, S
-------	---	------

Stalluponen, #278

Vol. IV, pp. 88, 90; Tables 5, 7

ACHA	5	3
------	---	---

ACHD	8	6
------	---	---

RESOA	R	R, WD
-------	---	-------

Data Cell	Change From:	Change To:
RESOD	WD	B

Lodz, #286\*

Vol. IV, pp. 88, 90; Tables 5, 7

WINA	x/x	x/(blank)
------	-----	-----------

ACHD	7	5
------	---	---

RESOA	P, WD	P, WD, S
-------	-------	----------

RESOD	WD	S
-------	----	---

The Kolubra, #288

Vol. IV, p. 103, Table 5

ACHA	10	9
------	----	---

Neuve Chapelle, #290

Vol. IV, p. 113, Table 7

PRID	D	D/O, F
------	---	--------

Data Cell	Change From:	Change To:
RESOA	R, S	P, R, S

RESOD	S	P, R, S
-------	---	---------

Ctesiphon, #303

Vol. IV, pp. 124, 126; Tables 5, 7

ACHA	3	4
------	---	---

ACHD	5	6
------	---	---

RESOA	R, WD	P, R, WD
-------	-------	----------

Asiago, #313

Vol. IV, p. 145, Table 5

ACHA	5	6
------	---	---

ACHD	6	5
------	---	---

Tenth Isonzo, #322

Vol. IV, p. 151, Table 5

*LEAVE ACHA=5  
# CHANG TO WMA = 4.*

Data Cell	Change From:	Change To:
ACHD	5	4

Gaza II, #327

Vol. IV, p. 178, Table 5

ACHD	10	9
------	----	---

Gaza III, #328

Vol. IV, pp. 178, 180; Tables 5, 7

ACHA	8	9
------	---	---

ACHD	5	4
------	---	---

RESOD	WDL	WD
-------	-----	----

North Wood I, The Hunting Lodge, #342

Vol. IV, p. 192, Table 7

RESOA	P	P, S
-------	---	------

Data Cell	Change From:	Change To:
RESOD	WDL	WD, S

Vaux, #347

Vol. IV, p. 190, Table 5

ACHA	5	7
------	---	---

La Roche Wood East, #348

Vol. IV, p. 190, Table 5

ACHA	6	7
------	---	---

ACHD	4	3
------	---	---

La Roche Wood West, #349

Vol. IV, p. 190, Table 5

ACHA	6	7
------	---	---

ACHD	4	3
------	---	---

Aisne-Marne I, #352

Vol. IV, pp. 196, 198; Tables 5, 7

ACHD	5	4
------	---	---

Data Cell	Change From:	Change To:
RESOD	WDL	WD

Blanc Mont II, #372

Vol. IV, pp. 208, 210; Tables 5, 7

WINA	(blank)/x	x/x
------	-----------	-----

PRID	D/O	D/O, F
------	-----	--------

Success	(blank)/x	x/x
---------	-----------	-----

RESOA	R, S	P, R, S
-------	------	---------

RESOD	S	P, R, S
-------	---	---------

El Alamein II, #387

Vol. V, p. 9, Table 5

ACHD	6	4
------	---	---

Chouigui Pass, #391

Vol. V, p. 9, Table 5

Data Cell	Change From:	Change To:
ACHA	5	3

El Guettar, #392

Vol. V, p. 11, Table 7

PRID	D/O	D/O, F
------	-----	--------

RESOA	R, WD	P, R, S
-------	-------	---------

Amphitheater, #394

Vol. V, p. 25, Table 7

RESOD	--	P, R, S
-------	----	---------

Sele-Calore Corridor, #396

Vol. V, pp. 23, 25; Tables 5, 7

WINA	x/x	(blank)/x
------	-----	-----------

PRID	D/O	D
------	-----	---

Data Cell	Change From:	Change To:
Success	x/x	(blank)/x

Seille-Nied, #470

Vol. V, pp. 135, 137; Tables 5, 7

ACHA	8	7
------	---	---

PRID	D/O	D
------	-----	---

RESOA	P, R	P
-------	------	---

RESOD	WD	R, WD
-------	----	-------

Foret de Chateau-Salins, #471

Vol. V, pp. 135, 137; Tables 5, 7

ACHA	5	6
------	---	---

RESOA	P, S	P
-------	------	---

Data Cell	Change From:	Change To:
RESOD	(blank)	P, R, WD

Sarre-St. Avoird, #475

Vol. V, pp. 135, 137; Tables 5, 7

ACHA	5	7
------	---	---

PRID	D/O	D/O, F
------	-----	--------

Baerendorf II, #477

Vol. V, p. 135, Table 5

ACUA	5	6
------	---	---

Bastogne, #485

Vol. V, pp. 147, 149; Tables 5, 7

WINA	x/x	(blank)/x
------	-----	-----------

ACHD	5	7
------	---	---

PRID	D/O	D/O, F
------	-----	--------

Data Cell	Change From:	Change To:
Success	x/x	(blank)/x

RESOA	P	P, R, S
-------	---	---------

RESOD	WDL	P, R, S
-------	-----	---------

The Pogoreloye Gorodishche Offensive, #491

Vol. VI, pp. 24, 30; Tables 5, 7

ACHA	5	6
------	---	---

ACHD	6	5
------	---	---

PRID	D/O	D/O, F
------	-----	--------

RESOD	WD	R, WD
-------	----	-------

Kursk Counteroffensive (Southern Sector), #498

Vol. VI, pp. 24, 30; Tables 5, 7

ACHD	6	5
------	---	---

PRID	D/O	D/O, F
------	-----	--------

RESOD	WDL	R, WD
-------	-----	-------

Melitopol, #500

Vol. VI, p. 31, Table 7

RESOD	WDL	R, WD
-------	-----	-------

Korsun-Shevchenkovskiy, #501

Vol. VI, p. 31, Table 7

PRID	D/O	D/O, F
------	-----	--------

RESOD	A	R, WDL
-------	---	--------

Brody, Phase I, #506

Vol. VI, pp. 25, 31; Tables 5, 7

ACHA	6	7
------	---	---

Data Cell	Change From:	Change To:
PRID	D/O	D/O, F

RESOD	WDL	R, WDL
-------	-----	--------

Brody, Phase II, #507

Vol. VI, pp. 25, 31; Tables 5, 7

ACHA	6	7
------	---	---

PRID	D/O	D/O, F
------	-----	--------

RESOD	WD	R, WD
-------	----	-------

Assault Crossing of the Vistula River, Phase I, #508

Vol. VI, pp. 25, 31; Tables 5, 7

ACHD	6	5
------	---	---

RESOA	P	R, P
-------	---	------

Data Cell	Change From:	Change To:
RESOD	WD	R, WD

Vistula River Operation, Pulawy, Phase II, #509

Vol. VI, pp. 25, 31; Tables 5, 7

ACHA	7	5
------	---	---

ACHD	4	6
------	---	---

RESOA	R	R, S
-------	---	------

RESOD	WD	S
-------	----	---

Yassy-Kishinev, #510

Vol. VI, pp. 26, 32; Tables 5, 7

ACHA	10	9
------	----	---

PRID	D/O	D/O, F
------	-----	--------

Data Cell	Change From:	Change To:
RESOD	A	R, A

East Prussia, #512

Vol. VI, pp. 26, 32; Table 5, 7

ACHD	5	3
------	---	---

PRID	D/O	D/O, F
------	-----	--------

RESOD	WDL	R, WD
-------	-----	-------

Advance from the Beach, #521

Vol. VI, p. 88, Table 5

ACHA	10	8
------	----	---

Advance through the Outposts, #522

Vol. VI, p. 88, Table 5

ACHA	8	7
------	---	---

Tomb Hill-Ouki, #523

Vol. VI, pp. 88, 92; Tables 5, 7

ACHA	8	7
------	---	---

Data Cell	Change From:	Change To:
ACHD	7	6

PRID	D/O	D/O, F
------	-----	--------

RESOA	P, S	P
-------	------	---

RESOD	WDL	R, WDL
-------	-----	--------

Skyline Ridge-Rocky Crags, #524

Vol. VI, pp. 88, 92; Tables 5, 7

ACHD	6	5
------	---	---

RESOA	(blank)	P
-------	---------	---

Data Cell	Change From:	Change To:
PRID	D/O	D/O, F

RESOD	A	R, WDL
-------	---	--------

Kochi Ridge-Onaga II, #526

Vol. VI, p. 88, Table 5

ACHD	10	8
------	----	---

Kochi Ridge-Onaga III, #527

Vol. VI, pp. 88, 92; Tables 5, 7

ACHA	6	3
------	---	---

PRID	D/O	D/O, F
------	-----	--------

RESOD	(blank)	R
-------	---------	---

Japanese Counterattack, 4-5 May, #528

Vol. VI, pp. 88, 92; Tables 5, 7

ACHA	1	3
------	---	---

Data Cell	Change From:	Change To:
RESOA	R	P, R, WDL

Kochi Ridge IV, #529

Vol. VI, p. 88, Table 5

ACHD	6	5
------	---	---

Shuri Envelopment, Phase I, #530

Vol. VI, p. 88, Table 5

ACHD	7	4
------	---	---

Japanese Counterattack, 24/25 May, #531

Vol. VI, pp. 88, 92; Tables 5, 7

ACHA	8	6
------	---	---

ACHD	8	7
------	---	---

RESOA	R	R, WDL
-------	---	--------

Shuri Envelopment Phase II, #532

Vol. VI, pp. 88, 92; Tables 5, 7

ACHD	9	7
------	---	---

Data Cell	Change From:	Change To:
RESOA	R, W	P, R

Shuri Envelopment, Phase III, #533

Vol. VI, pp. 89, 93; Tables 5, 7

WINA	(blank)/x	x/(blank)
------	-----------	-----------

ACHD	7	5
------	---	---

Success	(blank)/x	x/(blank)
---------	-----------	-----------

RESOA	P, S	P
-------	------	---

RESOD	(blank)	WDL
-------	---------	-----

Hill 95-I, #534

Vol. VI, pp. 89, 93; Tables 5, 7

WINA	x/(blank)	x/x
------	-----------	-----

Data Cell	Change From:	Change To:
ACHA	8	7

Success	x/(blank)	x/x
---------	-----------	-----

Hill 95-II, #535

Vol. VI, pp. 89, 93; Tables 5, 7

ACHA	9	8
------	---	---

ACHD	4	5
------	---	---

RESOA	P, S	P
-------	------	---

RESOD	(blank)	WDL
-------	---------	-----

Yaeju-Dake, #536

Vol. VI, pp. 89, 93; Tables 5, 7

ACHA	10	8
------	----	---

Data Cell	Change From:	Change To:
ACHD	3	5

RESOA	P, S	P
-------	------	---

RESOD	(blank)	A
-------	---------	---

Hills 153 and 115, #537

Vol. VI, p. 89, Table 5

ACHA	10	8
------	----	---

ACHD	3	5
------	---	---

Kabatiya, #551

Vol. VI, p. 146, Table 7

RESOA	B, WD	B
-------	-------	---

Abu Ageila-Um Katef, #556

Vol. VI, pp. 142, 146; Tables 5, 7

ACHA	10	9
------	----	---

Data Cell	Change From:	Change To:
PRID	D/O	D/O, F

RESOD	WDL	R, WD
-------	-----	-------

Jebel Libni, #558

Vol. VI, p. 142, Table 5

ACHA	8	7
------	---	---

ACHD	8	7
------	---	---

Bir Hassna-Bir Thamada, #560

Vol. VI, p. 143, Table 5

ACHD	5	3
------	---	---

Bir Hamma-Bir Gifgafa, #562

Vol. VI, p. 143, Table 5

ACHD	6	4
------	---	---

Kerama, #568

Vol. VI, p. 174, Table 5

ACHA	7	6
------	---	---

**Egyptian Offensive-North, #574**

Vol. VI, pp. 185, 189; Tables 5, 7

Data Cell	Change From:	Change To:
ACHD	10	8

PRID	D/O	D/O, F
------	-----	--------

**Egyptian Offensive-South, #575**

Vol. VI, p. 185, Table 5

Data Cell	Change From:	Change To:
ACHD	10	8

**Jebel Geneifa, #580**

Vol. VI, p. 186, Table 5

ACHA	8	7
------	---	---

ACHD	6	4
------	---	---

**Adabiya, #582**

Vol. VI, p. 186, Table 5

ACHA	10	8
------	----	---

Suez, #584

Vol. VI, pp. 186, 190; Tables 5, 7

Data Cell	Change From:	Change To:
WINA	x/(blank)	(blank)/x

ACHA	8	3
------	---	---

PRIA	F	F, EE
------	---	-------

Success	x/(blank)	(blank)/x
---------	-----------	-----------

RESOA	R, WD, S	P, R, WD
-------	----------	----------

Tel Shams, #594

Vol. VI, pp. 197, 201; Tables 5, 7

ACHD	3	5
------	---	---

Data Cell	Change From:	Change To:
RESOD	WD	S

*Sentry Skewed  
WINA = KI?*

After careful review, it is HERO's judgment that the following assessments and values in the designated data cells in the Consistency Problem Reports should stand.

Breitenfeld I, #6: Vol. II, p. 14, Table 5  
ACHA=4

Senef, #35: Vol. II, p. 63, Table 5  
ACHA=8

Aughrim, #44: Vol. II, p. 87, Table 5  
ACHD=4

Sohr, #60: Vol. II, p. 115, Table 5  
ACHD=4

Leuthen, #70: Vol. II, p. 139, Table 5  
ACHA=10

Fleurus, #101: Vol. II, p. 195, Table 5  
ACHA=6

Austerlitz, #117: Vol. III, p. 11, Table 5  
ACHD=10

Auerstadt, #119: Vol. III, p. 11, Table 5  
ACHD=10

Albuera, #131: Vol. III, p. 17, Table 5  
ACHA=6

Belmont, #173: Vol. III, p. 107, Table 5  
WINA=x/(blank); ACHA=6; ACHD=5

Chancellorsville, #196: Vol. III, p. 125, Table 5  
ACHD=10

Le Cateau, #267: Vol. IV, p. 59, Table 5  
ACHD=4

Somme, Flers-Courcelette, #308: Vol. IV, pp. 139, 141; Tables 5, 7  
WINA=x/(blank); ACHA=7; ACHD=5  
RESOA=P,S; RESOD=S

Trentino Counteroffensive, #314: Vol. IV, p. 147, Table 7  
RESOA=P, S; RESOD=WD, S

Eleventh Isonzo, #323: Vol. IV, pp. 151, 153; Tables 5, 7  
WINA=x/(blank); RESOA=P, S; RESOD=WD, S

Meuse-Argonne, Phase I, #366: Vol. IV, p. 202, Table 5  
WINA=x/(blank); ACHA=7; ACHD=4

VERY  
QUESTIONABLE

Port of Salerno, #395: Vol. V, p. 23, Table 5  
WINA=x/(blank); ACHA=6

Campoleone, #425: Vol. V, p. 70, Table 5  
WINA=x/(blank); ACHA=6

Sauer River, #483: Vol. V, p. 147, Table 5  
WINA=x/(blank); ACHA=5; ACHD=4

St. Vith, #484: Vol. V, pp. 147, 149; Tables 5, 7  
WINA=x/x; ACHA=5; ACHD=5; RESOD=WDL

Kuneitra, #585: Vol. VI, p. 197, Table 5  
WINA=x/x; ACHA=6; ACHD=6

Kfar Shams-Tel Antar, #597: Vol. VI, p. 198, Table 5  
WINA=x/(blank); ACHA=8; ACHD=2

General Problem Report Footnotes

Nieuport, #1: The KPDA value is the distance over which the attacker was driven back, i.e., from the battlefield to Leffinge.

Noerdlingen I, #10: Spruener, map 44.

Wittstock, #11: The correct KPDA value is 1.0, shown in Table 5, not 1.5, the value shown in Table 3.

Breitenfeld II, #12: Tingsten, map 2.

Tuttlingen, #14: Spruener, map 44.

Jankau, #16: The correct KPDA value is -2.0, shown in Table 5, not 2.0, the value shown in Table 3.

Lens, #19: Aumale, V: map facing p. 704.

Newbury II, #24: Smurthwaite, map, p. 165.

Fehrbellin, #38: Kausler, map, p. 93.

Marsaglia, #47: O'Callaghan, discussion, p. 177.

Zenta, #48: Czechoslovak Republic, map A.b, p. 272.

Poltava, #49: Ibid., map A.b, p. 271.

Chotusitz, #56: The correct KPDA value is -2.7, shown in Table 5, not 2.7, the value shown in Table 3.

Hastenbeck, #68: Savory, map, p. 27, and discussion, pp. 27-38.

Minden, #75: Ibid., map, p. 161.

Liegnitz, #80: Duffy, map, p. 228, and discussion, pp. 193-194.

Quebec, #83: Flood, map, p. 4.

Freeman's Farm, #87: The correct KPDA value is 1.0, shown in Table 5, not -1.0, the value shown in Table 3.

Bemis Heights, #89: The correct KPDA value is -3.2, shown in Table 3, not 3.2, the value shown in Table 5.

Rivoli, #107: Chandler, Napoleon, map, p. 117.

Hohenlinden, #116: Dodge, Napoleon, I: map, p. 605.

Eylau, #120: Esposito and Elting, maps 73 and 75.

Fuentes de Onoro, #130: Napier, III: map facing p. 147, and discussion, p. 149.

Bautzen, #136: The correct KPDA value is 5.0, shown in Table 3, not 3.0, the value shown in Table 5.

La Rothiere, #140: The correct KPDA value is 1.0, shown in Table 3, not -1.0, the value shown in Table 5.

The Thames, #146: The KPDA value is estimated from the discussion in Stanley, p. 210.

San Jacinto, #156: James, map opposite p. 211.

First Winchester, #180: The correct KPDA value is 1.6, shown in Table 5, not 2.0, the value shown in Table 3.

Port Republic, #182: The correct KPDA value is 1.6, shown in Table 5, not 2.0, the value shown in Table 3.

Seven Pines (Fair Oaks), #183: Esposito, West Point Atlas, I: maps 43a and 43b.

Gaines's Mill, #185: The correct KPDA value is 0.5, shown in Table 3, not 0, the value shown in Table 5.

Chancellorsville, #196: Esposito, West Point Atlas, I: maps 85 and 91.

Spotsylvania, #203: Ibid., maps 127 and 132.

Le Mans, #228: Maurice, map, p. 449, and discussion, pp. 450-464.

Ulundi, #231: Laband and Thompson, map, p. 94, and discussion, p. 95.

Tel el-Kebir, #233: Featherstone, map, p. 151, and discussion, pp. 150-152.

Adowa, #235: Berkeley, sketch map.

Adrianople, #252: Ford, map, p. 37.

Guadalajara-Brihuega, #255: Coverdale, map 5, opposite p. 227.

The Aisne, #277: Buchan, I: map facing p. 278.

Chouigui Pass, #391: HERO, Comparative Analysis, maps, pp. 152, 154.

Arracourt, #467: Cole, The Lorraine Campaign, map, p. 227.

Sauer River, #483: The correct KPDA value is 3.2, not -3.2, which is a typographical error.

The Defense of Moscow, #489: The correct KPDA value is 5.5, not -5.5, which is a typographical error.

Kantara-Firdan, #573: Dupuy, Elusive Victory, map, p. 427.

## Specific Problem Report Footnotes

Preston, #26: See the footnotes to Task 2 for the source of this data.

Killicrankie, #40: According to Smurthwaite (p. 193) and other sources Dundee had one troop of horse; this has been estimated at 50 troopers, which is consistent with assigned strength in the period. Defender artillery strength and losses are from Smurthwaite, p. 194, and Kinross, p. 100.

Walcourt, #41: Defender artillery strength is from Chandler, Marlborough, Appendix A.

Fleurus, #42: Cavalry and artillery strengths are from Bodart, p. 112, and Muller.

Aughrim, #44: Cavalry strengths are from Walton, p. 156.

Minden, #75: Cavalry strengths are from Bodart, p. 231

Camden, #91: Cavalry strengths are estimates based on order of battle and strength data given in Boatner, American Revolution, pp. 159-170.

Eutaw Springs, #95: Cavalry strengths are from Boatner, American Revolution, pp. 350-356.

Five Forks, #217: See the footnotes to Task 2 for the source of this data.

Le Cateau, #267: See the footnotes to Task 2 for the source of this data.

First Dardanelles Landing, #300: See the footnotes to Task 2 for the source of this data.

Suvla Bay, #301: See the footnotes to Task 2 for the source of this data.

Seille-Nied, #470: The correct value for defender main battle tank strength is 71. The lack of an entry in the original data base is a typographical error.

Consistency Problem Report Footnotes

The following sources were used in revising assessments and values for the indicated engagements in the original data base.

Chotusitz, #56: Dupuy, Frederick the Great, pp. 44-46.

Inkerman, #166: Kinglake, VI:64-466, passim.

Brandy Station, #198: Downey, pp. 50-220, passim.

Lodz, #286: Dupuy, Genius, pp. 156-158.