

# Appendix I

## German Order of Battle July 4th 1943

### Army Group Center (Field Marshal Günther von Kluge)

2nd PzA (Lt Gen Rudolf Schmidt)

55th IC (General Erich Jaschke)

321st ID

339th ID

110th ID

296th ID

134th ID

5th PzD (reserve)

53rd IC (General Friedrich Gollwitzer)

211th ID

293rd ID

25th PzGD

208th ID

112th ID

35th IC (General Lothar Rendulic)

34th ID

56th ID

262nd ID

299th ID

36th ID

OKH Reserve

8th PzD

305th SD

707th SD

9th A (Col General Walter Model)

20th IC (General Freiherr von Roman)

45th ID

72nd ID

137th ID

251st ID

46th PzC (General Hans Zorn)

7th ID

31st ID

102nd ID

258th ID

47th PzC (General Joachim Lemelsen)

2nd PzD

9th PzD

20th PzD

6th ID

41st PzC (General Josef Harpe)

18th PzD

86th ID

292nd ID

23rd IC (General Johannes Friessner)

216th ID

383rd ID

78th AD

21st Panzer Brigade

sPzAbt 505

sPzAbt 653

sPzAbt 654

sPzAbt 656

StuGAbt 177

StuGAbt 244

StPzAbt 216

StuGAbt 909

Reserve

10th PzGD

12th PzD

4th PzD

**Army Group South (Field Marshal Erich von Manstein)**

4th PzA (Col General Hermann Hoth)

52nd IC (General Eugen Ott)

57th ID

255th ID

332nd ID

48th PzC (General Otto von Knobelsdorff)

3rd PzD

11th PzD

PzGD *Grossdeutschland*

167th ID

2nd SS PzC (General Paul Hausser)

1st SS PzGD *Leibstandarte Adolf Hitler*

2nd SS PzGD *Das Reich*

3rd SS PzGD *Totenkopf*

Army Detachment Kempf (General Werner Kempf)

3rd PzC (General Hermann Breith)

6th PzD

7th PzD

19th PzD

168th ID

198th ID (attached)

11th IC (General Erhard Raus)

106th ID

320th ID

42nd IC (General Mattenklott)

39th ID

161st ID

282nd ID

1st Werfer Regiment

52nd Werfer Regiment

54th Werfer Regiment

4th Anti-aircraft Regiment

StuGAbt 905

StuGAbt 393

sPzAbt 503

*Luftwaffe*

*Luftflotte* 4 (General Otto Dessoloch)

8th *Fliieger* Corps (Maj General Hans Seidemann) - South

*Luftflotte* 6 (Col General Ritter von Greim)

1st *Fliieger* Division (Lt General Deichmann) - North

**Abbreviations**

AD	Assault Division
IC	Infantry Corps
ID	Infantry Division
PzA	Panzer Army
PzC	Panzer Corps
PzD	Panzer Division
PzGD	Panzer Grenadier Division
SD	Security Division
sPzAbt	Heavy Tank Detachment
StPzAbt	Assault Panzer Detachment
StuGAbt	Assault Gun Detachment

## Appendix II

# Soviet Order of Battle July 4th 1943

### **Bryansk Front (Lt General M.M. Popov)**

3rd Army (Lt General A. V. Gorbatov)

41st RC (Maj General V. K. Urbanovich)

235th RD

308th RD

380th RD

269th RD

283rd RD

342nd RD

82nd Separate TR

114th Separate TR

15th Air Army (Lt General N. F. Naumenko)

61st Army (Lt General P. A. Belov)

9th GRC (Maj General A. A. Boreiko)

12th GRD

76th GRD

77th GRD

110th RD

336th RD

356th RD

415th RD

68th TB

36th TR

63rd Army (Lt General V. I. Kolpakchi)

5th RD

41st RD

129th RD

250th RD

287th RD

348th RD

397th RD

## **Central Front (General K. K. Rokossovsky)**

2nd Tank Army (Lt General Rodin)

3rd TC (Maj General M. D. Sinenko)

16th TC (Maj General V. E. Grigorev)

9th TC (attached) (Maj General S. I. Bogdanov)

19th TC (attached) (Maj General I. D. Vasilev)

13th Army (Lt General N. P. Pukhov)

17th GRC (Lt General A. L. Bondarev)

6th GRD

70th GRD

75th GRD

18th GRC (Maj General I. M. Afonin)

2nd GAD

3rd GAD

4th GAD

15th RC (Maj General I. I. Liudnikov)

8th RD

74th RD

148th RD

29th RC (Maj General A. N. Slyshkin)

15th RD

81st RD

307th RD

16th Air Army (Lt General Sergey Rudenko)

3rd Bombing Air Corps

6th Air Corps

6th Fighter Air Corps

48th Army (Lt General P. L. Romanenko)

42nd RC (Maj General K. S. Kolganov)

16th RD

202nd RD

399th RD

73rd RD

137th RD

143rd RD

170th RD

45th Separate TR

193rd Separate TR

299th Separate TR

60th Army (Lt General I. D. Chernyakhovsky)

24th RC (Maj General N. I. Kiriukhin)

42nd RD

112th RD

129th RB

30th RC (Maj General G. S. Lazko)

121st RD

141st RD

322nd RD

55th RD

150th TB

65th Army (Lt General P. I. Batov)

18th RC (Maj General I. I. Ivanov)

69th RD

149th RD

246th RD

27th RC (Maj General F. M. Cherokmanov)

60th RD

115th RB

193rd RD

37th GRD

181st RD

194th RD

354th RD

70th Army (General Galanin)

28th RC (Maj General A. N. Nechaev)

132nd RD

211th RD

280th RD

102nd RD

106th RD

140th RD  
162nd RD  
240th Separate TR  
251st Separate TR  
259th Separate TR

## **Voronezh Front (General N. F. Vatutin)**

1st Tank Army (Lt Gen Katukov)

3rd MC (Maj General S. M. Krivoshein)

1st MB

3rd MB

10th MB

1st GTB

17th TR

49th TB

6th TC (Maj General A. L. Getman)

22nd TB

112th TB

200th TB

6th MRB

31st TC (Maj General D. K. Chernienko)

100th TB

237th TB

242nd TB

5th GTC (Maj General A. G. Kravchenko)

20th GTB

21st GTB

22nd GTB

6th GMRB

48th TR

2nd Air Army (Lt General S. A. Krasovsky)

1st Bombing Air Corps (Col I. S. Polbin)

1st Assault Air Corps (Lt General V. G. Gribakin)

4th Fighter Air Corps (Maj General I. D. Podgorny)

5th Fighter Air Corps (Maj General D. P. Galunov)

6th Guards Army (Lt General I. M. Chistiakov)

22nd GRC (Maj General N. B. Ibiansky)



67th GRD  
71st GRD  
90th GRD  
23rd GRC (Maj General P. P. Vakhrameev)  
51st GRD  
52nd GRD  
375th RD  
89th GRD  
96th TB  
230th TR  
245th TR  
184th RD  
219th RD  
31st AAB

7th Guards Army (Lt General M. S, Shumilov)

24th GRC (Maj General N. A. Vasilev)  
15th GRD  
36th GRD  
72nd GRD  
25th GRC (Maj General G. B. Safiullin)  
73rd GRD  
78th GRD  
81st GRD  
213th RD  
27th GTB  
201st TB  
148th TR  
167th TR  
262nd TR

38th Army (Lt General Chibisov)

50th RC (Maj General S. S. Martirosian)  
167th RD  
232nd RD  
340th RD  
51st RC (Maj General P. P. Andreenko)  
180th RD  
240th RD

204th RD

180th TB

192nd TB

40th Army (Lt General K. S. Moskalenko)

47th RC (Maj General A. S. Griaznov)

161st RD

206th RD

237th RD

52nd RC (Lt General F. I. Perkhovich)

100th RD

219th RD

309th RD

184th RD

86th TB

59th TR

60th HTR

69th Army (Lt Gen V. D. Kriuchenkin)

48th RC (Maj General Z. Z. Rogozny)

107th RD

183rd RD

305th RD

49th RC (Maj General G. P. Terentev)

111th RD

270th RD

35th GRC (Maj Gen S. G. Goriachev)

92nd GRD

94th GRD

93rd GRD

81st GRD

89th GRD

**Southwestern Front (General R. I. Malinovsky)**

17th Air Army (Lt General V. A. Sudets)

**Steppe Front (Col General Konev)**

4th Guard Army (Lt General G. I. Kulik)

20th RC (Maj General N. I. Biriukov)

5th GAD

7th GAD

8th GAD

21st RC (Maj General P. I. Fomenko)

68th GRD

69th GRD

80th GRD

3rd GTC

3rd GTB

18th GTB

19th GTB

2nd GMRB

5th Air Army (Lt General Goriunov)

7th Air Corps

8th Air Corps

3rd Fighter Corps

7th Fighter Air Corps

5th Guards Army (Lt General A. S. Zhadov) (originally Steppe Front)

32nd GRC (Maj General A. I. Rodinstev)

13th GRD

66th GRD

6th GAD

33rd GRC (Maj General I. I. Popov)

95th GRD

97th GRD

9th GAD

42nd GRD (attached)

10th TC (Maj General G. V. Burkov)

178th TB

183rd TB

186th TB

11th MRB

5th Guards Tank Army (Lt General P. A. Rotmistrov) (originally Steppe Front)

5th GMC (Maj General B. M. Skvortsov)

10th GMB

11th GMB  
12th GMB  
24th GTB  
55th GTR  
29th TC (Maj General I. F. Kirichenko)  
25th TB  
31st TB  
32nd TB  
53rd MRB

18th TC (Maj General B. S. Bakharov)  
110th TB  
170th TB  
181st TB  
32nd MRB  
36th GTR

2nd TC (attached) (Maj General A. F. Popov)  
26th TB  
99th TB  
169th TB  
58th MRB

2nd GTC (attached) (Maj General A. S. Burdeiny)  
4th GTB  
25th GTB  
26th GTB  
4th GMRB  
47th GTR

## **Southwestern Front (General R. I. Malinovsky)**

17th Air Army (Lt General V. A. Sudets)

## **Western Front (Col General V. D. Sokolovsky)**

1st Air Army (Lt General M. M. Gromov)

50th Army (Lt General I. V. Bolden)

38th RC (Maj General A. D. Tereshkov)  
17th RD  
326th RD  
413th RD

49th RD  
64th RD  
212th RD  
324th RD  
196th TB

11th Guards Army (Lt Gen I. K. Bagramyan)

8th GRC (Maj General P. F. Malyshev)

11th GRD

26th GRD

83rd GRD

16th GRC (Maj General A. V. Lapshov (initially))

1st GRD

16th GRD

31st GRD

169th RD

36th GRC (Maj General A. S. Ksenefontov)

5th GRD

18th GRD

84th GRD

108th RD

217th RD

10th GTB

29th GTB

43rd GTB

## **Abbreviations**

AAB	Anti-Aircraft Brigade
GAD	Guards Airborne Division
GMRB	Guards Mechanized Rifle Brigade
GRC	Guards Rifle Corps
GRD	Guards Rifle Division
GTB	Guards Tank Brigade
GTR	Guards Tank Regiment
HTR	Heavy Tank Regiment
MB	Mechanized Brigade
MRB	Mechanized Rifle Brigade
RB	Rifle Brigade
RC	Rifle Corps

RD	Rifle Division
TB	Tank Brigade
TC	Tank Corps
TD	Tank Division
TR	Tank Regiment

## Appendix III

# **German Armored Strengths**

<b>Tigers</b>			<b>Approx number combat-ready</b>
9th Army	sPzAbt 505		45
	21st Pz Brigade		31
4th PzA	13th Company, 1st SS PzR		13
	8th Company, 2nd SS PzR		14
	9th Company, 3rd SS PzR		15
	13th Company, <i>GD</i> PzR		14
3rd PzC	sPzAbt 503		45
Total Tigers			177
<b>Mark IIIs &amp; IVs</b>		III	IV
9th Army	2nd PzD	40	66
	4th PzD	15	86
	5th PzD (reserve)	26	76
	8th PzD (reserve)	59	28
	9th PzD	38	44
	12th PzD	36	41
	18th PzD	31	38
	20th PzD	95	56
	21st PzB	8	7
4th PzA			
	3rd PzD	59	24
	11 PzD	79	26
	<i>GD</i>	42	68
	<i>LAH</i>	13	76
	<i>DR</i>	72	33
	<i>TK</i>	63	52
3rd PzC			
	6th PzD	65	28
	7th PzD	62	38



	19th PzD	38	38
Total Mk IIIs & IVs	(includes working only but excludes obsoletes)	841	825
<b>StuGs</b>	(Includes StuGs and all other Assault Gun types)		
9th Army	21st PzB 41st PzC		36
	StuGAbt 177 41st PzC		36
	StuGAbt 185 23rd IC		36
	StuGAbt 189 23rd IC		36
	StPzAbt 216 41st PzC		45
	StuGAbt 244 41st PzC		31
	StuGAbt 245 47th PzC		36
	312th Pz Co 47th PzC		22
	sPzAbt 653 41st PzC		55
	sPzAbt 654 41st PzC		55
	StuGAbt 904 47th PzC		36
	StuGAbt 909 46th PzC		31
4th PzA	StuGAbt 911 48th PzC		31
	<i>GD</i> 48th PzC		35
	<i>LAH</i> 2nd SS PzC		35
	<i>DR</i> 2nd SS PzC		34
	<i>TK</i> 2nd SS PzC		35
3rd PzC	StuGAbt 228 3rd PzC		31
	StuGAbt 905 Corps Raus		32
	StuGAbt 393 Corps Raus		12
Total StuGs			700

<b>Panthers</b>			
4th PzA	<i>GD</i> (working panzers)		192
	Total Panthers		192
<b>T34s</b>	(captured)		
4th PzA	<i>DR</i>		26
	Total T34s		26
Grand Total for both salients			2,761
It is estimated that 250 panzers were destroyed and unrepairable on a best case scenario.			

## Appendix IV

# **Soviet Armored Strengths**

<b>Primary Fronts</b>		<b>Tanks</b>	<b>Assault Guns</b>
<b>Central Front</b>			
2nd GA		455	21
13th Army		258	12
48th Army		124	50
60th Army		65	0
65th Army		120	0
70th Army		120	0
9th TC		165	0
19th TC		168	0
Front Reserves		187	20
Total		1,662	103
<b>Voronezh Front</b>			
1st TA	Includes 3rd MC, 6th TC, 31st TC	625	21
6th GA		134	20
7th GA		216	30
38th Army		106	0
40th Army		113	0
2nd TC		168	0
2nd GTC		200	0
5th GTC		200	0
10th TC		165	21
5th GTA	(available on 7/12)	625	37
Total		2,552	129
It is estimated that 1600 tanks from the primary fronts were destroyed and unrepairable by the end of 7/12.			
<b>Peripheral Fronts</b>			
<b>Western Front</b>			
4th TA		624	28
11th GA		268	12
50th Army		75	12
1st TC		168	16
5th TC		168	16

Front Reserves		350	0
Total		1,653	84
<b>Bryansk Front</b>			
3rd Army		88	12
3rd GTA		695	32
61st Army		98	12
63rd Army		48	12
1st GTC		205	0
20th TC		168	16
Front Reserves		150	36
Total		1,452	120
<b>Steppe Front</b>			
27th Army		92	0
53rd Army		78	0
4th GTC		168	21
1st MC		204	0
Total		542	21
Peripheral sub-totals		3,647	225
Grand Totals of Primary and Supporting Fronts		6,199	354

# Appendix V

## AFV Technical Data

German								
Vehicle	Weight (tons)	L W H (feet)	Main Gun (typical)	Ammo Load	Machine Gun	Max Armor (mm)	Max Speed (MPH)	Range (Miles)
Pz III	25	18' 1" x 9' 8" x 8' 2"	50mm L60	78	7.92mm	50	25	90
Pz IV	26	19' 4" x 10' 9" x 8' 9"	75mm L48	87	7.92mm	50	24	123
Panther	50	22' 7" x 11' 3" x 10' 2"	75mm L70	79	7.92mm	80	28	123
Tiger	63	20' 4" x 12' 3" x 9' 3"	88mm L56	92	7.92mm	102	22	72
StuG III	26	17' 5" x 9' 5" x 6' 4"	75mm L48		None	50	25	95
StuG III	26	17' 5" x 9' 5" x 6' 4"	105mm L28		None	50	25	95
StuG IV	30		150mm L12		None	100	25	123
Marder (III)	12		75mm L46	41	None	35	28	150
Hornisse	26		88mm L71	40	None	30	25	132
Ferdinand	72		88mm L71	44	None	200	12	92
Wespe	12		105mm leFH	32	None	20	25	85
Hummel	25		150mm 18L30	20	None	20	25	132
Soviet								
Vehicle	Weight (tons)	L W H (feet)	Main Gun (typical)	Ammo Load	Machine Gun	Max Armor (mm)	Max Speed (MPH)	Range (Miles)
T34	34	19' 5" x 9' 10" x 8'	76.2mm	100	7.62mm (2)	70	33	185
KV1	52	21' 11" x 10' 10" x 8' 10"	76.2mm L42	114	7.62mm (2)	120	17	155
T70	10	14' 1" x 7' 7" x 6' 8"	45mm	94	7.62mm	60	28	155
SU76	10		76mm	60	None	35	28	180
SU122	34	21' 10" x 10' 6" x 8' 8"	122mm M30		None	45	33	92
SU152	46		152mm		None	60	27	75

# Appendix VI

## Ground forces strengths as of July 4th 1943

<b>German</b>		<b>Approximate Totals</b>
<b>Army Group South</b>		
4th PzA		223,900
Army Kemp		126,000
Total		349,900
<b>Army Group Center</b>		
9th Army		335,000
2nd Army		96,000
Totals		431,000
Grand total		780,900
<b>Soviets</b>		
<b>Voronezh Front</b>		<b>Estimated Totals</b>
38th Army		60,000
40th Army		77,000
6th GA		79,000
7th GA		76,000
69th Army		52,000
1st TA		40,000
35th GRC		35,000
Front Reserve		204,000
Total		623,000
<b>Central Front</b>		
48th Army		84,000
13th Army		114,000
70th Army		96,000
65th Army		100,000

60th Army		96,000
2nd TA		37,000
Front Reserves		184,000
Total		711,000
<b>Steppe Front</b>		573,000
<b>Western Front</b>	(estimate)	277,000
<b>Bryansk Front</b>	(estimate)	400,000
<b>Southwestern Front</b>		700,000
Totals		1,950,000
This total represents forces deployed near Kharkov, Belgorod, Kursk, Orel and Bryansk for July and August period. The number shrinks to 1.9 million for just the Voronezh and Central Fronts and direct reinforcements from other Fronts for the first ten days.		
Grand total		3,284,000



# Appendix VII

## Aviation Strengths

(Includes operational aircraft only as of July 4th 1943)

<b>German</b>				
		<i>Luftflotte 6</i>	<i>Fliegerkorps 8</i>	<b>Distant Airfields</b>
Ju 88		134	72	92
Ju 52		167	13	
He 111		0	221	152
Ju 87		0	242	166
Fw 190		0	105	186
Hs 129		0	79	
Bf 109		0	184	31
Misc*		0	63	99
Sub Totals		301	979	726
Grand Total			1,280	2,006
<b>Soviet</b>				
	<b>2nd VA</b>	<b>16th VA</b>	<b>17th VA</b>	
Fighters	389	455	163	
Sturmoviks	276	241	239	
Bombers	206	334	136	
Reconnaissance	10	4	0	
Sub Totals	881	1034	538	
Grand Total			2,453	

\* includes non combat aircraft

# Appendix VIII

## Casualties

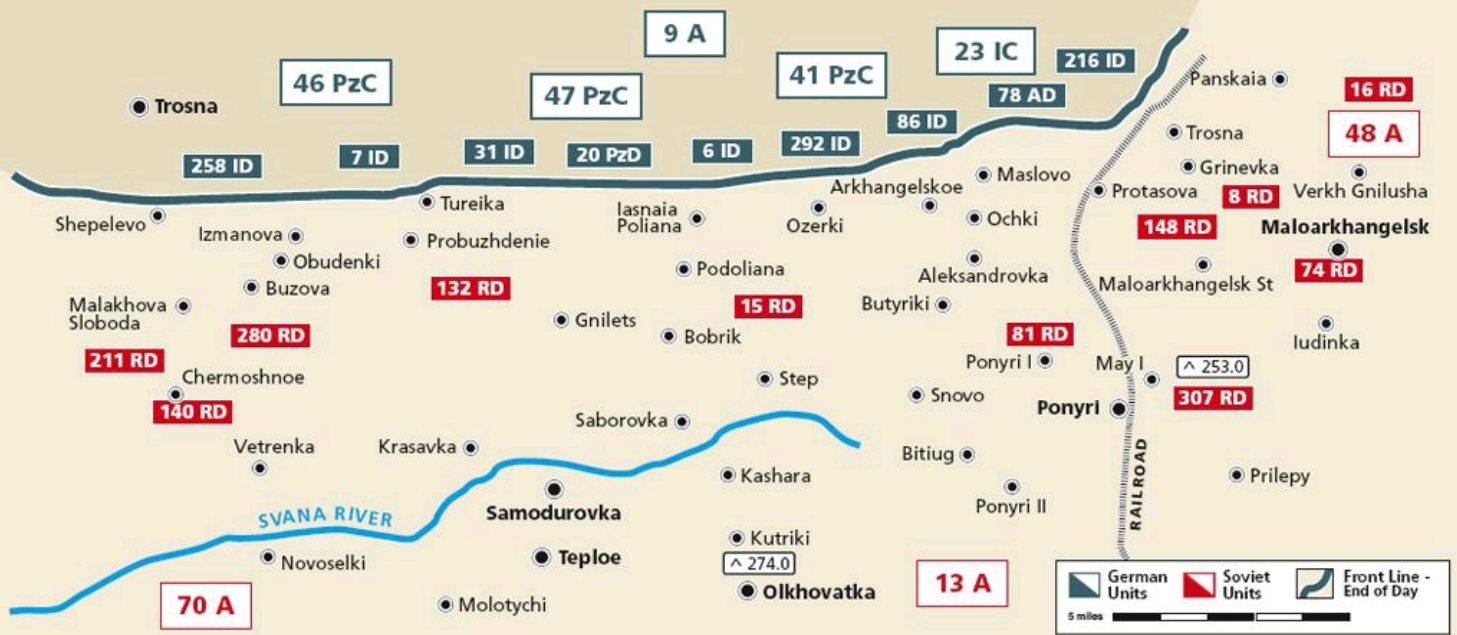
<b>German</b>									
	<b>4th PzA</b>			<b>Corps Kempf</b>			<b>9th Army</b>		
	<b>Killed</b>	<b>Wounded</b>	<b>Missing</b>	<b>Killed</b>	<b>Wounded</b>	<b>Missing</b>	<b>Killed</b>	<b>Wounded</b>	<b>Missing</b>
From 7/5 to 7/12	2,011	10,123	253	1,912	9,517	578	3,977	18,005	851
From 7/13 to 7/31	1,689	7,460	637	1,496	7,528	511	2,294	9,321	1,115
Totals	3,700	17,583	890	3,408	17,045	1,089	6,271	27,326	1,966
Grand total	79,278								
<b>Soviet</b>									
Soviets casualties are estimated at 178,000									
Estimated 5th GTA tank losses on 7/12									
		<b>Participated</b>	<b>Lost</b>						
29th TC		153	77						
18th TC		84	35						
2nd GTC		54	29						
2nd TC		22	11						
1446 Self Propelled Art Reg		19	14						
5th GMC		105	73						
Totals		437	239						
Damaged but repairable tanks are estimated at an additional 160									
The 2nd SS PzC have estimates that range up to 153 panzers destroyed or damaged.									

# Bibliography

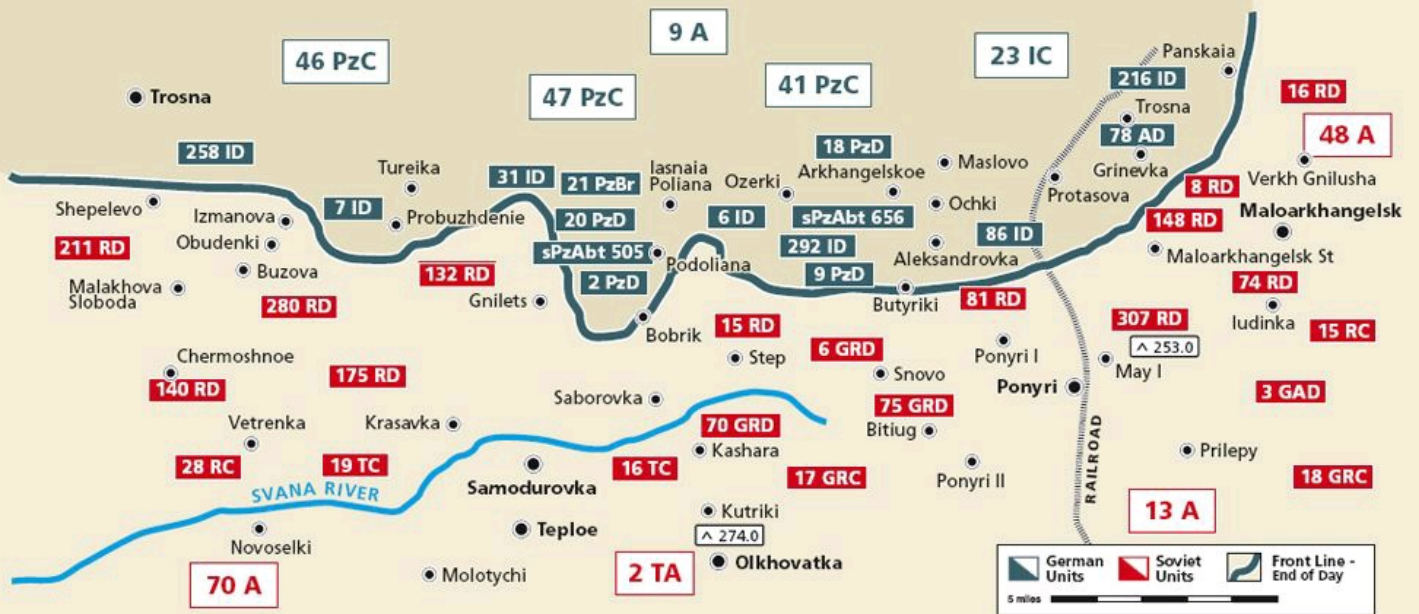
- Agte, P., *Michael Wittmann and the Waffen-SS Tiger Commanders of the Leibstandarte in WWII* Volume 1 (Mechanicsburg PA, 2006)
- Armstrong, Col R.N., *Red Army Tank Commanders: The Armored Guards* (Atglen PA, 1994)
- Barnet, C., *Hitler's Generals* (London, 1989)
- Bellamy, C., *Absolute War: Soviet Russia in the Second World War* (London, 2007)
- Bergstrom, C., *Kursk: The Air Battle, July 1943* (Hersham, 2008)
- Boatner, M.M., III, *The Biographical Dictionary of World War II* (Novato CA, 1996)
- Butler, R., *Hitler's Death's Head Division* (Barnsley, 2004)
- Carius, O., *Tigers in the Mud* (Winnipeg, 1992)
- Citino, R.M., *The Wehrmacht Retreats: Fighting a Lost War, 1943* (Lawrence KS, 2012)
- Clark, L., *Kursk: The Greatest Battle* (London, 2011)
- Cross, R., *Citadel: The Battle of Kursk* (London, 1993)
- Cumins, K., *Cataclysm: The War on the Eastern Front 1941-45* (Solihull, 2011)
- Dunn, W.S., Jr, *Kursk: Hitler's Gamble, 1943* (Westport CT, 1997)
- Erickson, J., *The Road to Berlin: Stalin's War with Germany* Volume 2 (London, 1983)
- Fey, W., *Armor Battles of the Waffen-SS* (Winnipeg, 1990)
- Fowler, W., *Kursk: The Vital 24 Hours* (Staplehurst, 2005)
- Fritz, S.G., *Ostkrieg: Hitler's War of Extermination in the East* (Lexington KY, 2011)
- Glantz, D.M. & J. House, *The Battle of Kursk* (Lawrence KS, 1999)
- Glantz, D.M., *From the Don to the Dnepr: Soviet Offensive Operations, December 1942 - August 1943* (London, 1991)
- Glantz, D.M., *The Battle for Kursk, 1943: The Soviet General Staff Study* (London, 1999)
- Glantz, D.M., *After Stalingrad: The Red Army's Winter Offensive 1942-1943* (Solihull, 2009)
- Goodenough, S., *War Maps* (New York, 1982)
- Healy, M., *Zitadelle: The German Offensive Against the Kursk Salient 4-17 July 1943* (Stroud, 2008)
- Jentz, T.L., *Panzertruppen 2: The Complete Guide to the Creation & Combat Employment of Germany's Tank Force 1943-1945* (Atglen PA, 1996)
- Jones, M., *Total War: From Stalingrad to Berlin* (London, 2011)
- Jukes, G., *Stalingrad to Kursk: Triumph of the Red Army* (London, 1969)

- Jung, H.-J., *The History of Panzerregiment "Grossdeutschland"* (Winnipeg, 2000)
- Keegan, J., *Atlas of the Second World War* (London, 2003)
- Kurowski, F., *Operation Zitadelle, July 1943* (Winnipeg, 2003)
- Kurowski, F., *Panzer Aces* (Mechanicsburg PA, 2004)
- Kurowski, F., *Panzer Aces II* (Mechanicsburg PA, 2004)
- Kurowski, F., *Panzerkrieg: An Overview of German Armored Operations in World War 2* (Winnipeg, 2005)
- Kurowski, F., *Infantry Aces* (Winnipeg, 2006)
- Lehmann, R., *The Leibstandarte III* (Winnipeg, 1990)
- Lochmann, F.-W. et al, *The Combat History of German Tiger Tank Battalion 503 in World War II* (Mechanicsburg PA, 2008)
- Lodieu, D., *III. Pz.Korps at Kursk* (Paris, 2007)
- Mann, C., *SS-Totenkopf: The History of the 'Death's Head' Division 1940-45* (Staplehurst, 2001)
- Manstein, E. von, *Lost Victories: The War Memoirs of Hitler's Most Brilliant General* (London, 1958)
- McCarthy, P. & M. Syron, *Panzerkrieg: The Rise and Fall of Hitler's Tank Divisions* (London, 2002)
- Mellenthin, F.W. von, *Panzer Battles: A Study of the Employment of Armor in the Second World War* (London, 1955)
- Mitcham, S.W., Jr, *Panzer Legions: A Guide to the German Army Tank Divisions of World War II and Their Commanders* (Westport CT, 2000)
- Mitcham, S.W., Jr, *The Men of Barbarossa: Commanders of the German Invasion of Russia, 1941* (Philadelphia PA, 2010)
- Nevenkin, K., *Fire Brigades: The Panzer Divisions 1943-1945* (Winnipeg, 2008)
- Newton, S.H., *Hitler's Commander: Field Marshal Walther Model-Hitler's Favorite General* (New York, 2005)
- Newton, S.H., *Kursk: The German View* (New York, 2002)
- Nipe, G.M., Jr, *Decision in the Ukraine: German Panzer Operations on the Eastern Front, Summer 1943* (Winnipeg, 1996)
- Nipe, G.M., Jr, *Last Victory in Russia: The SS-Panzerkorps and Manstein's Kharkov Counteroffensive, February-March 1943* (Atglen PA, 2000)
- Nipe, G.M., Jr, *Blood, Steel, and Myth: The II.SS-Panzer-Korps and the Road to Prochorowka* (Southbury CT, 2011)
- Overy, R., *Russia's War: A History of the Soviet Effort: 1941-1945* (London, 1998)
- Piekalkiewicz, J., *Operation Citadel: Kursk and Orel, the Greatest Tank Battle of the Second World War* (Novato CA, 1987)
- Porter, D., *Fifth Guards Tank Army at Kursk 12 July, 1943* (London, 2011)

- Porter, D., *Das Reich Division at Kursk: 12 July 1943* (London, 2011)
- Raus, E. & S.H. Newton, *Panzer Operations: The Eastern Front Memoir of General Raus, 1941-1945* (New York, 2003)
- Seaton, A., *The Russo-German War 1941-45* (New York, 1972)
- Showalter, D., *Hitler's Panzers* (New York, 2009)
- Shukman, H., *Stalin's Generals* (London, 1993)
- Spaeter, H., *History of the Panzerkorps Grossdeutschland* (Winnipeg, 1992, 3 volumes)
- Trang, C., *Totenkopf* (Bayeux, 2008)
- Ullrich, K., *Like a Cliff in the Ocean: A History of the 3rd SS-Panzer-Division Totenkopf* (Winnipeg, 2002)
- Weidinger, O., *Das Reich IV* (Winnipeg, 2008)
- Werth, A., *Russia at War 1941-1945* (New York, 1964)
- Zamulin, V., *Demolishing the Myth: The Tank Battle at Prokhorovka, Kursk, July 1943: An Operational Narrative* (Solihull, 2011)
- Ziemke, E., *Stalingrad to Berlin : The German Defeat in the East* (Washington DC, 1968)



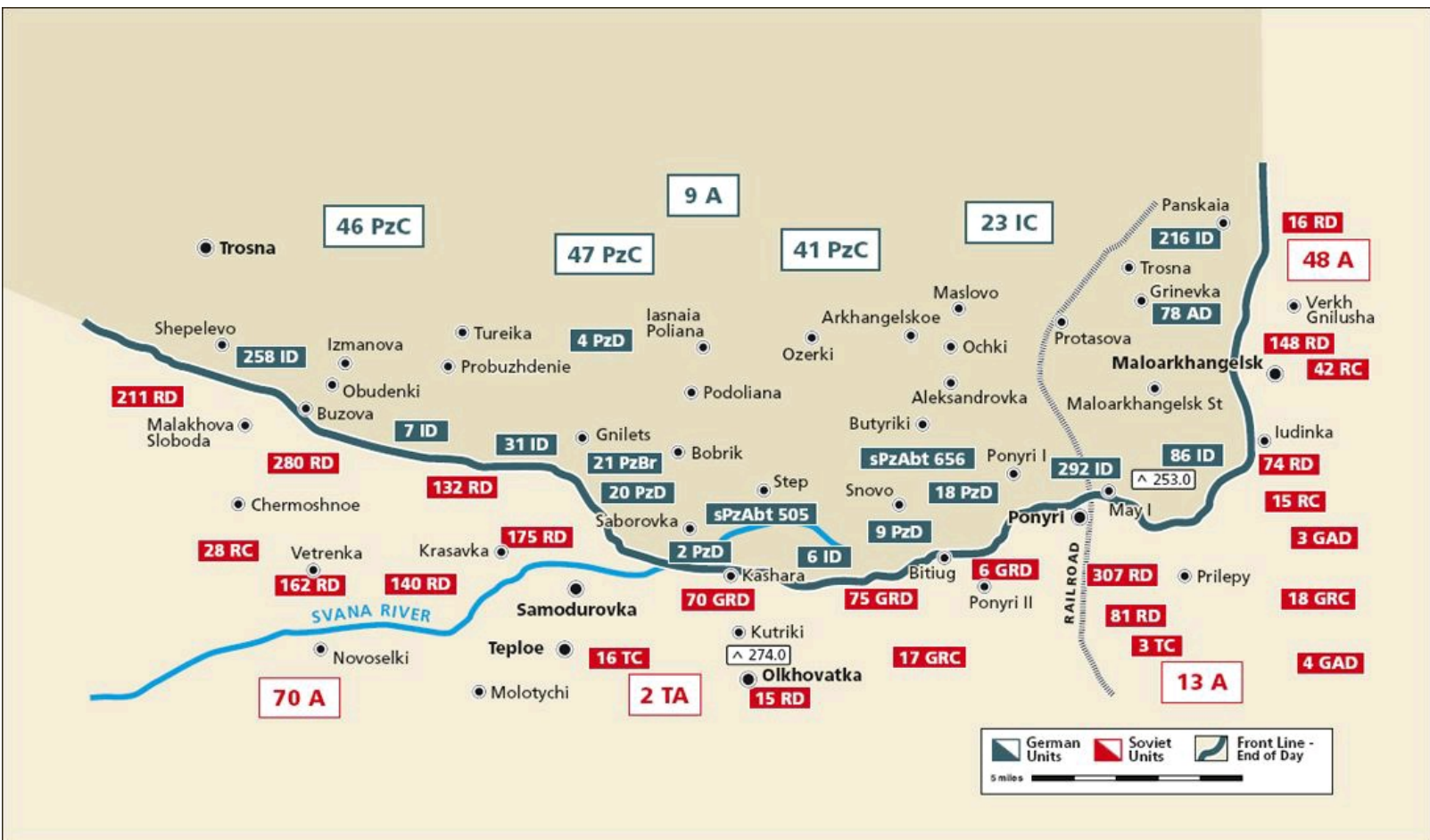
Map 1 Northern Salient, July 4th 1943 – midnight.



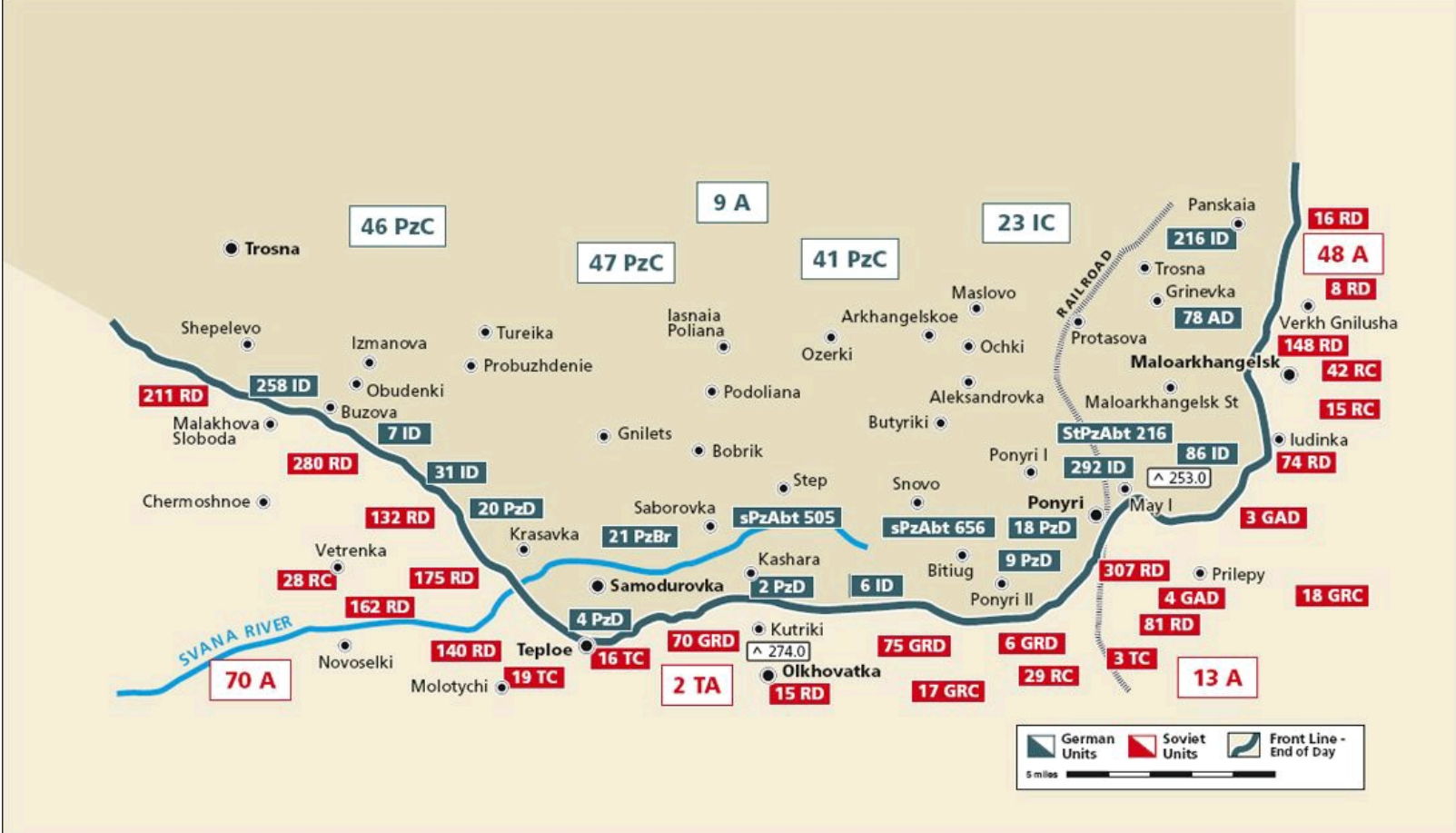
Map 2 Northern Salient, July 5th 1943 – midnight.



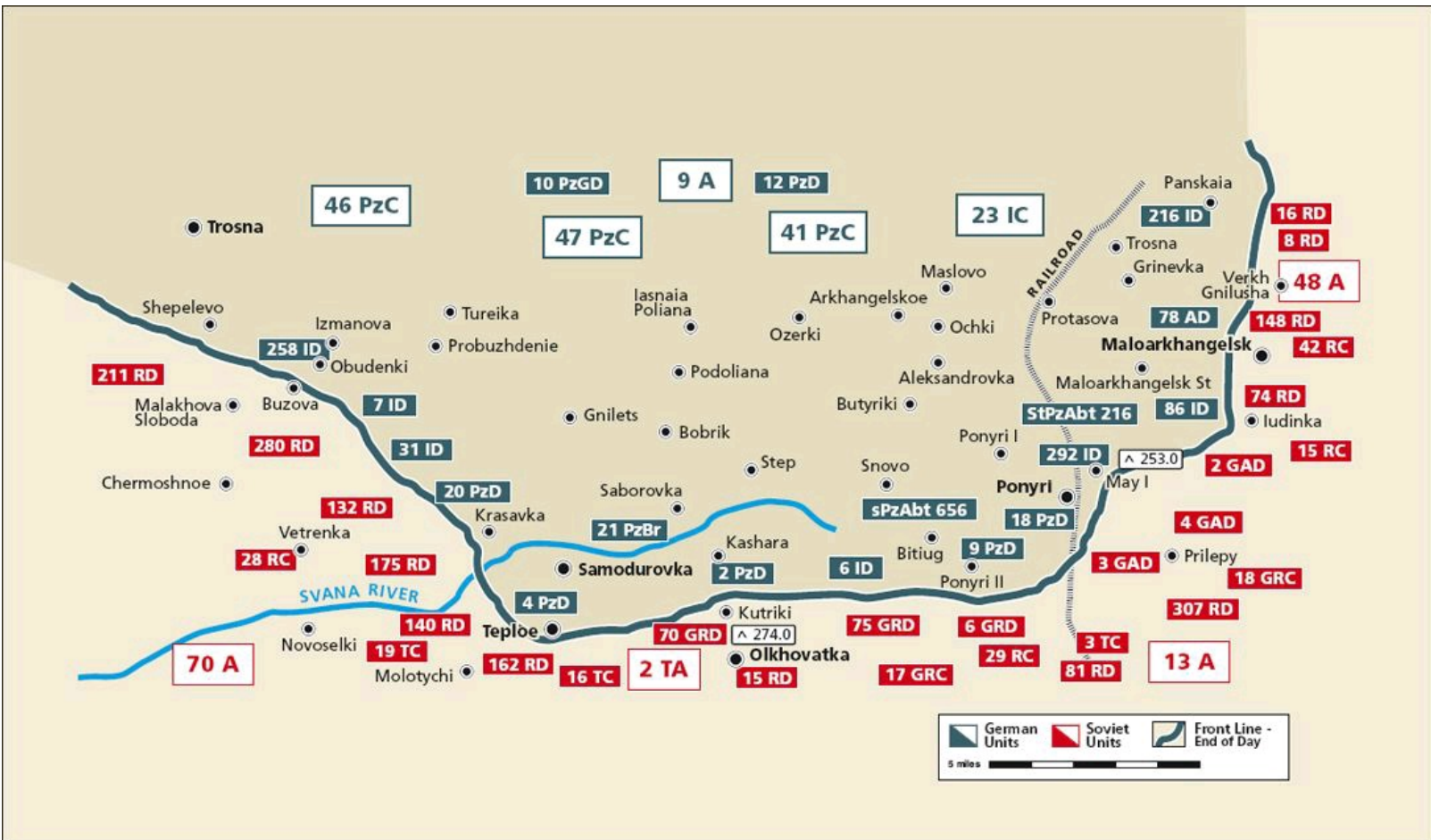
Map 3 Northern Salient, July 6th 1943 – midnight.



Map 4 Northern Salient, July 7th 1943 – midnight.

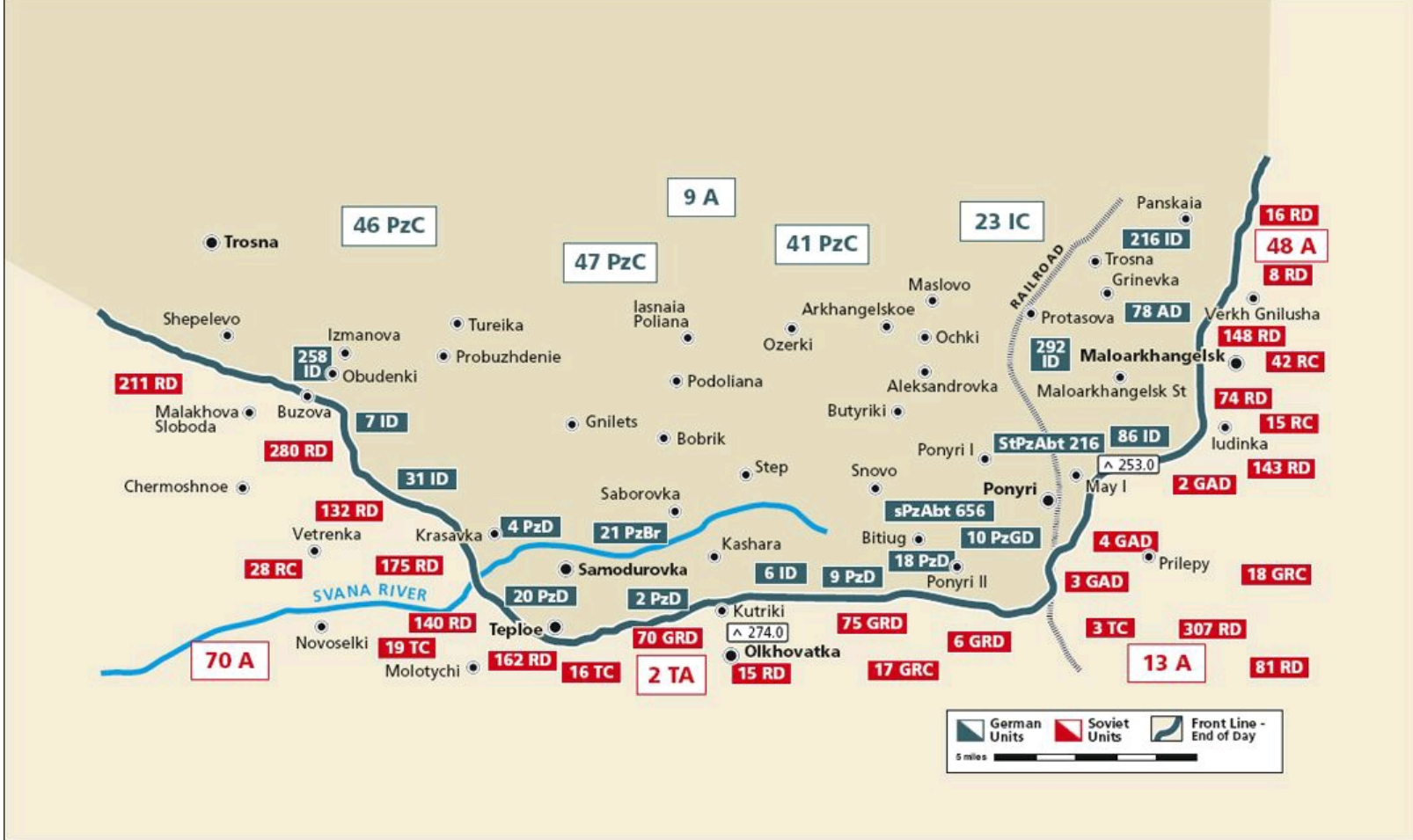


Map 5 Northern Salient, July 8th 1943 – midnight.

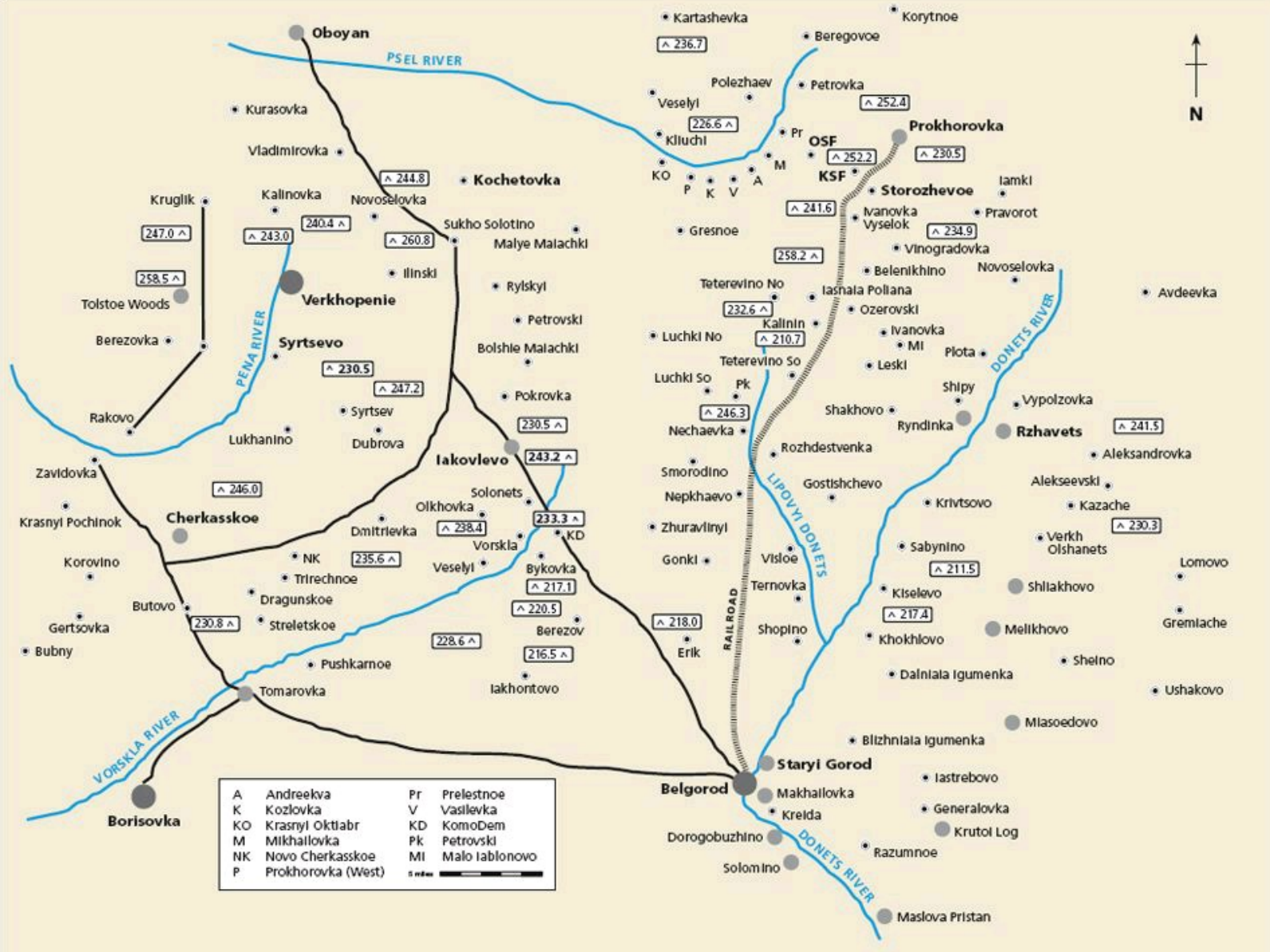


Map 6 Northern Salient, July 10th 1943 – midnight.

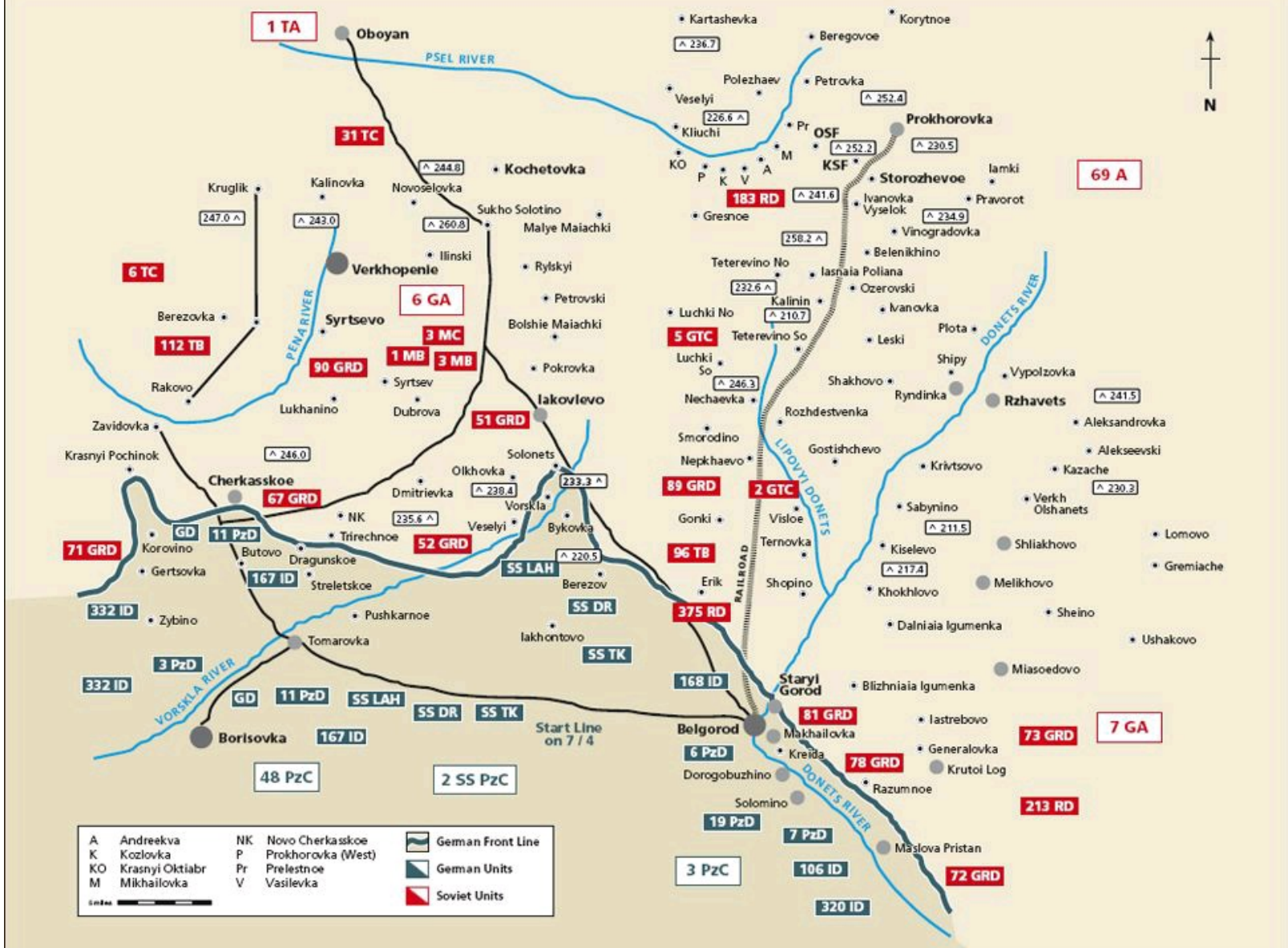




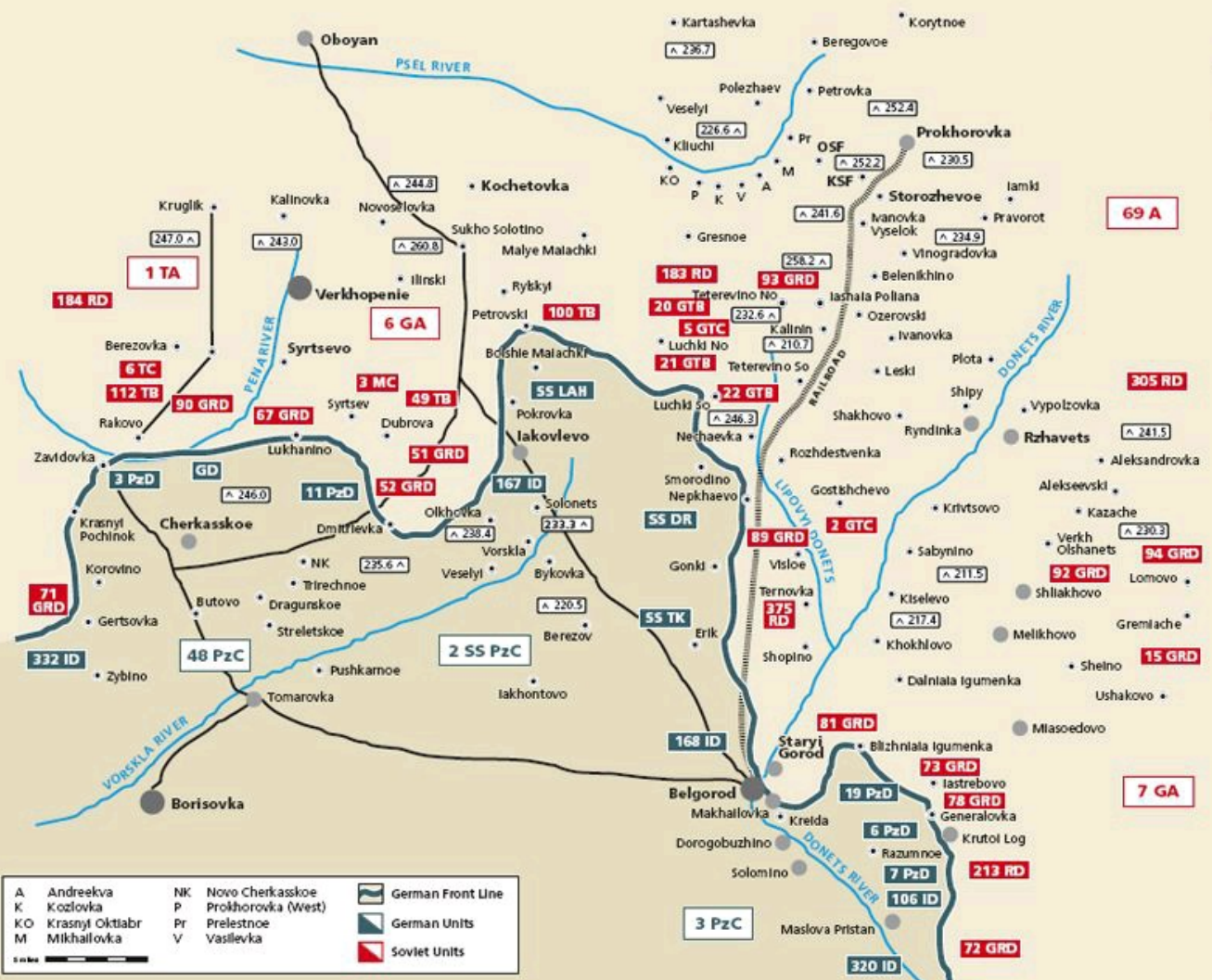
Map 7 Northern Salient, July 12th 1943 – midnight.



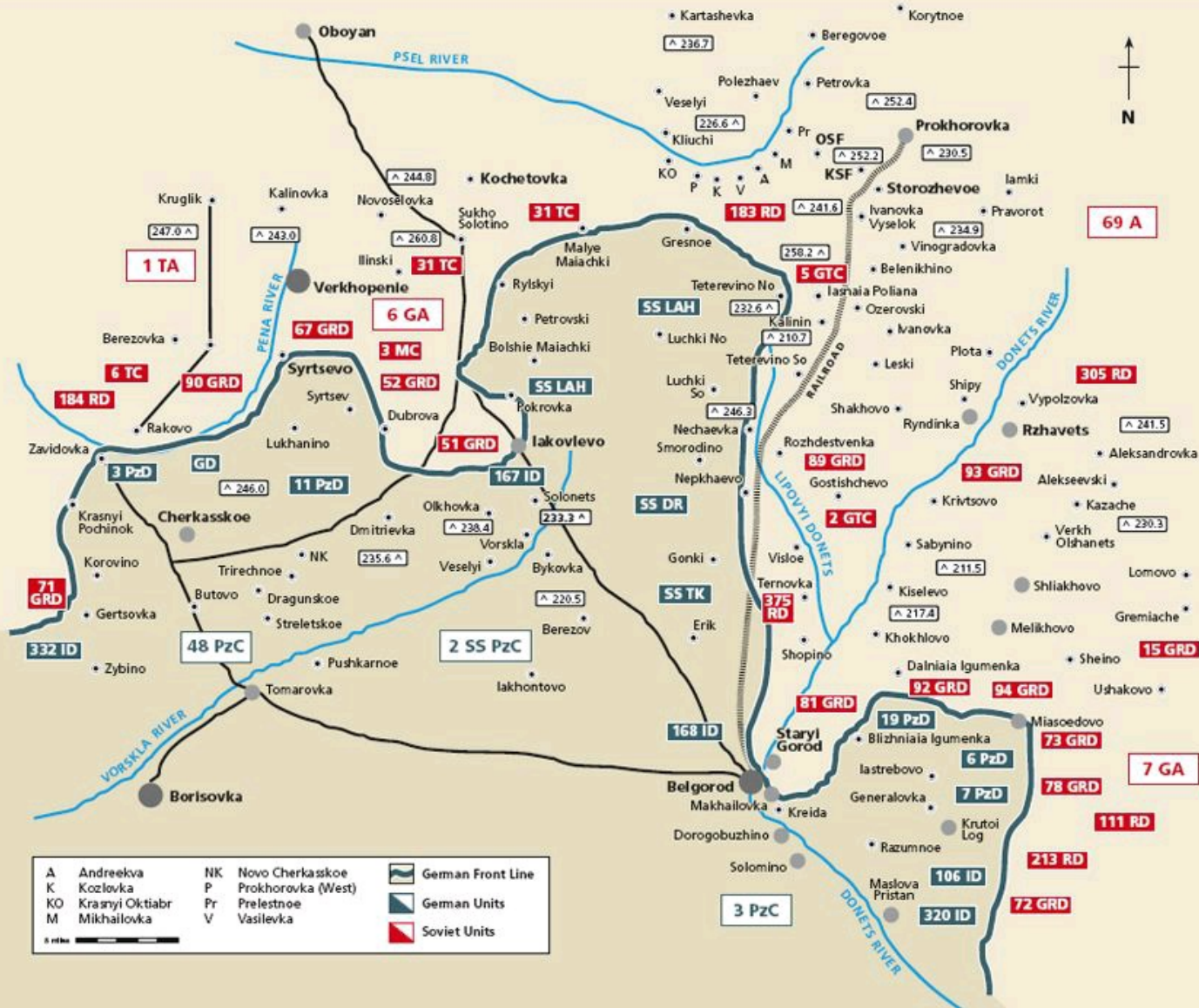
Map 8 Southern Salient, topographical.



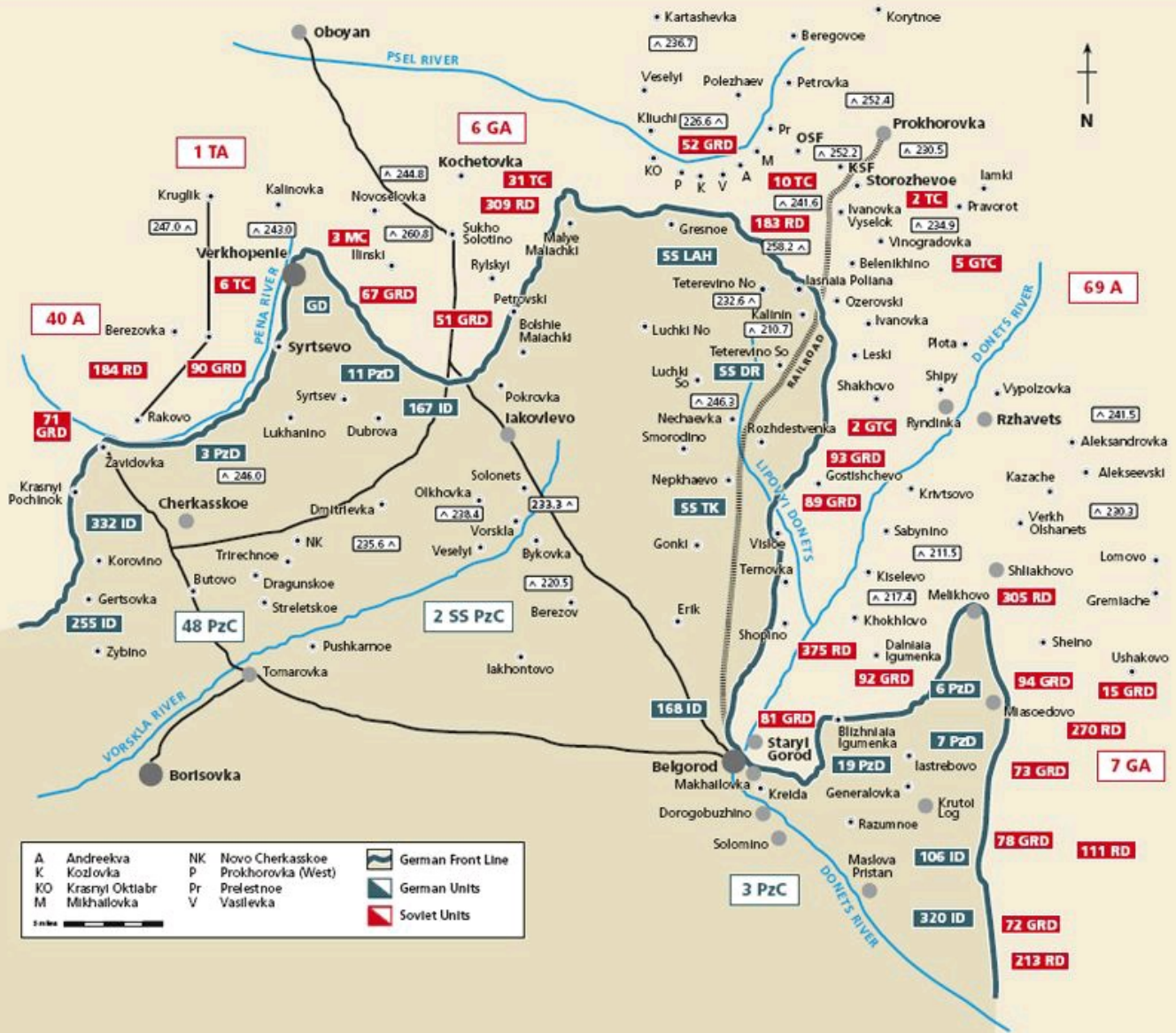
Map 9 Southern Salient, July 5th 1943 – midnight.



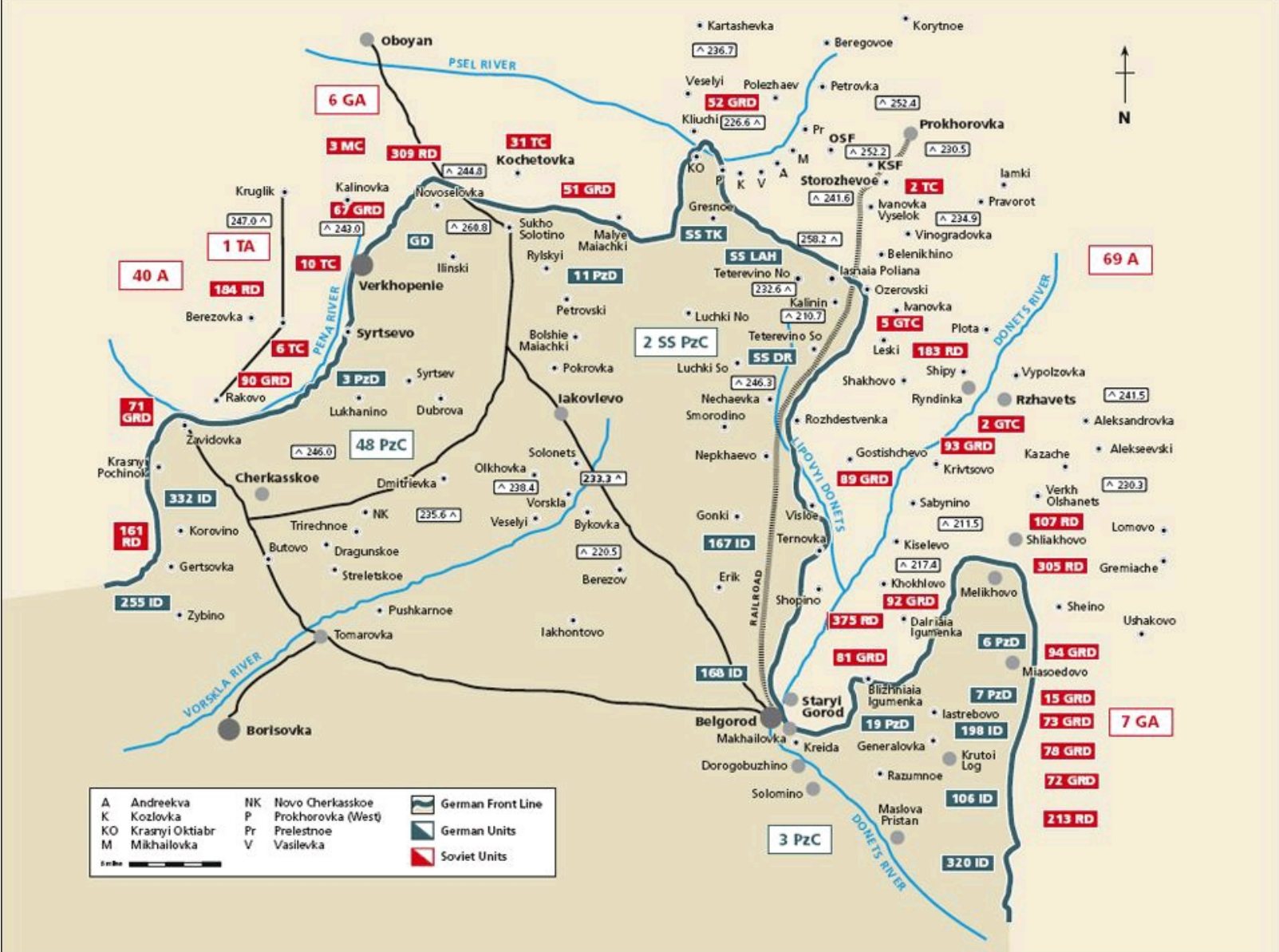
Map 10 Southern Salient, July 6th 1943 – midnight.



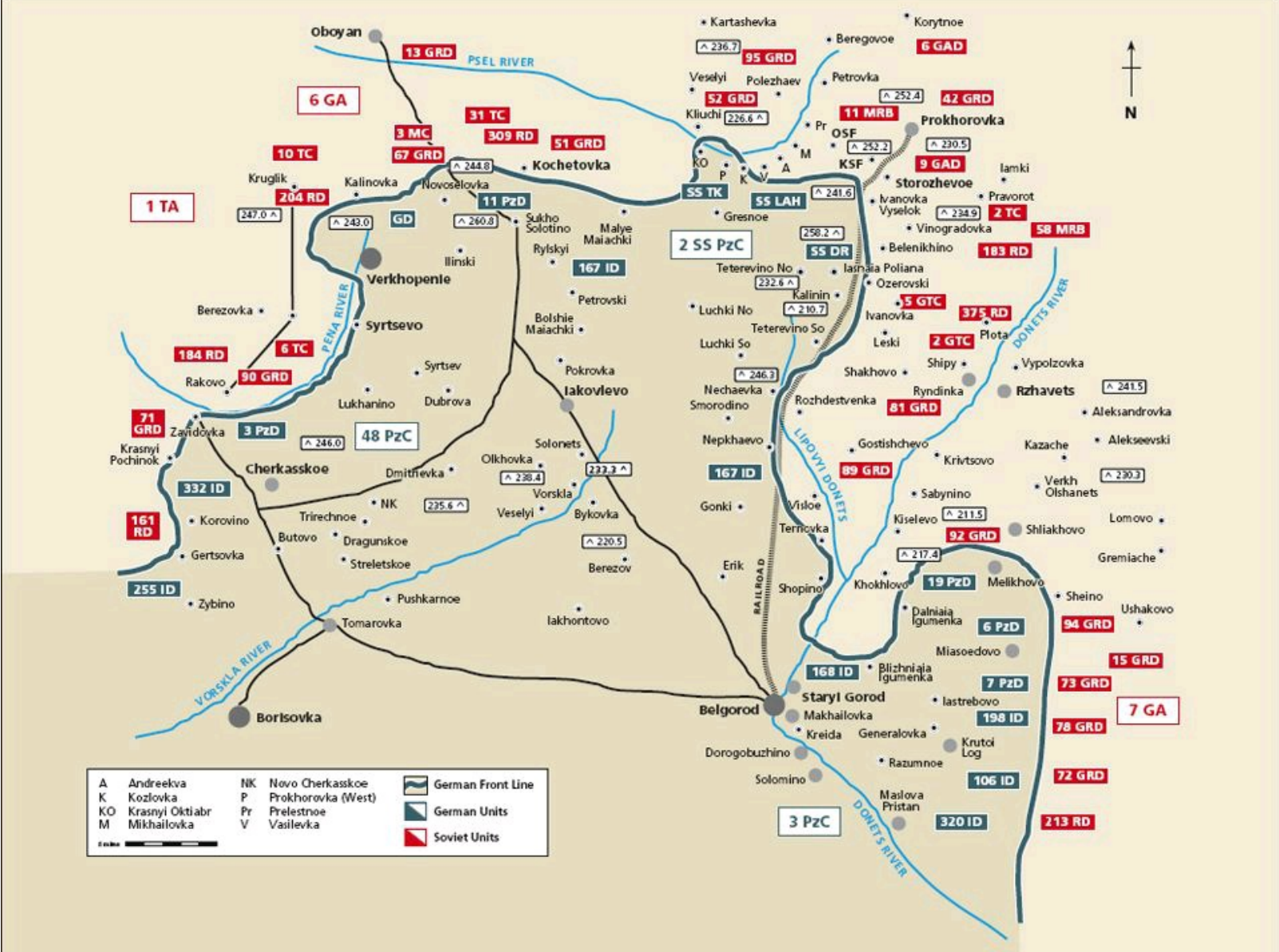
Map 11 Southern Salient, July 7th 1943 – midnight. First major Soviet counter-attack.



Map 12 Southern Salient, July 8th 1943 – midnight. Second major Soviet counter-attack.

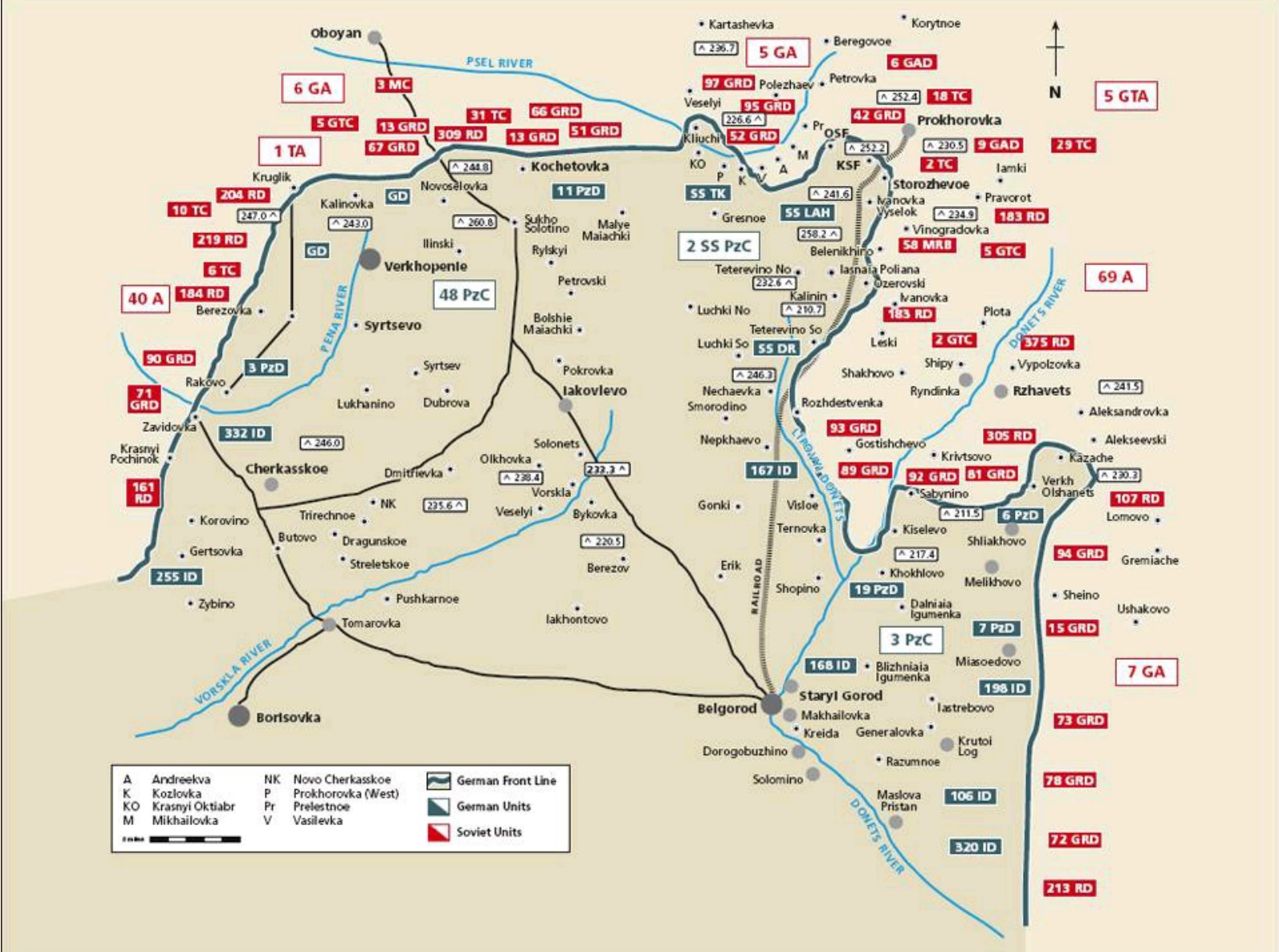


Map 13 Southern Salient, July 9th 1943 – midnight. 4th PzA resumes its attack.

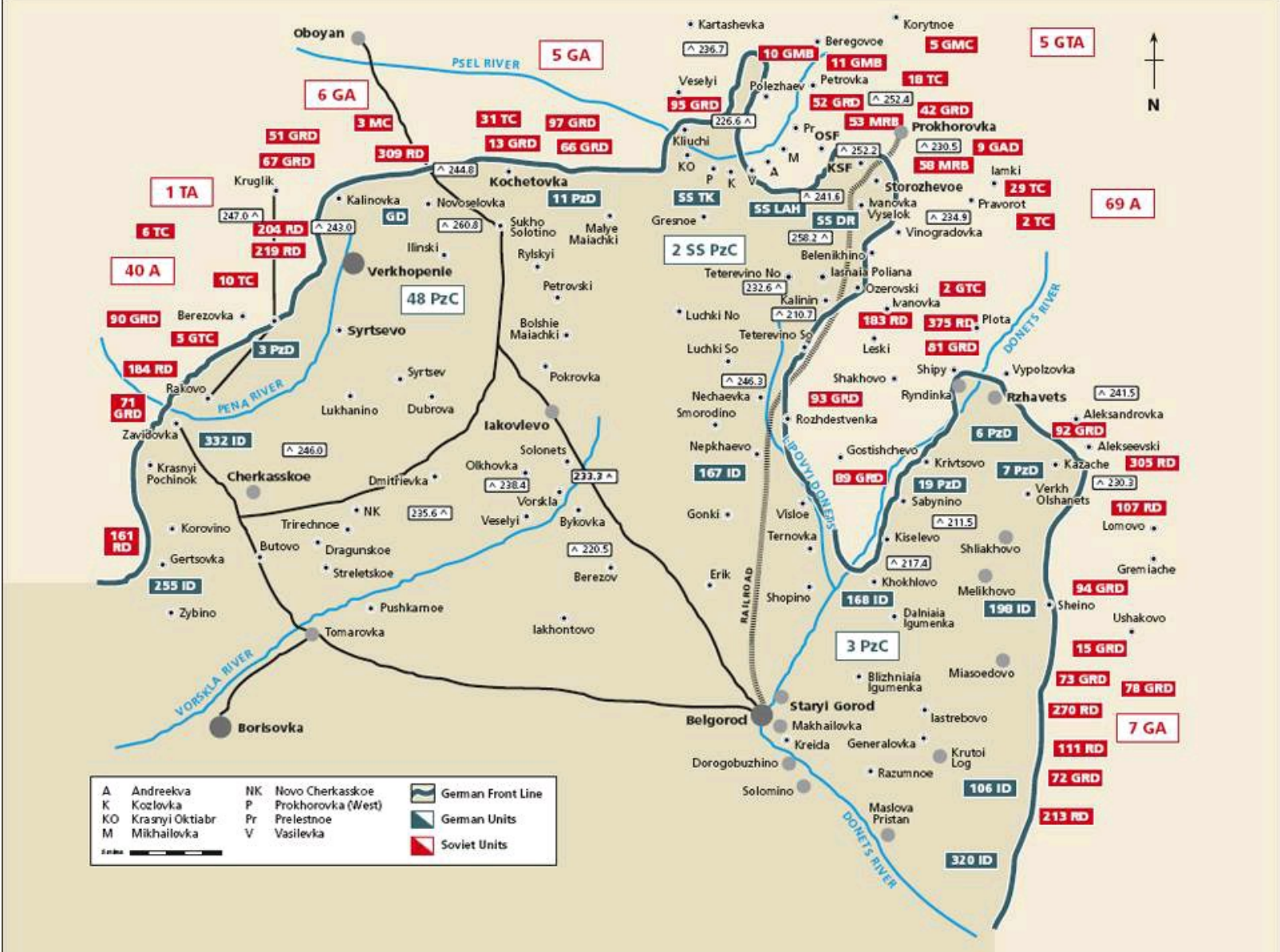


Map 14 Southern Salient, July 10th 1943 – midnight.

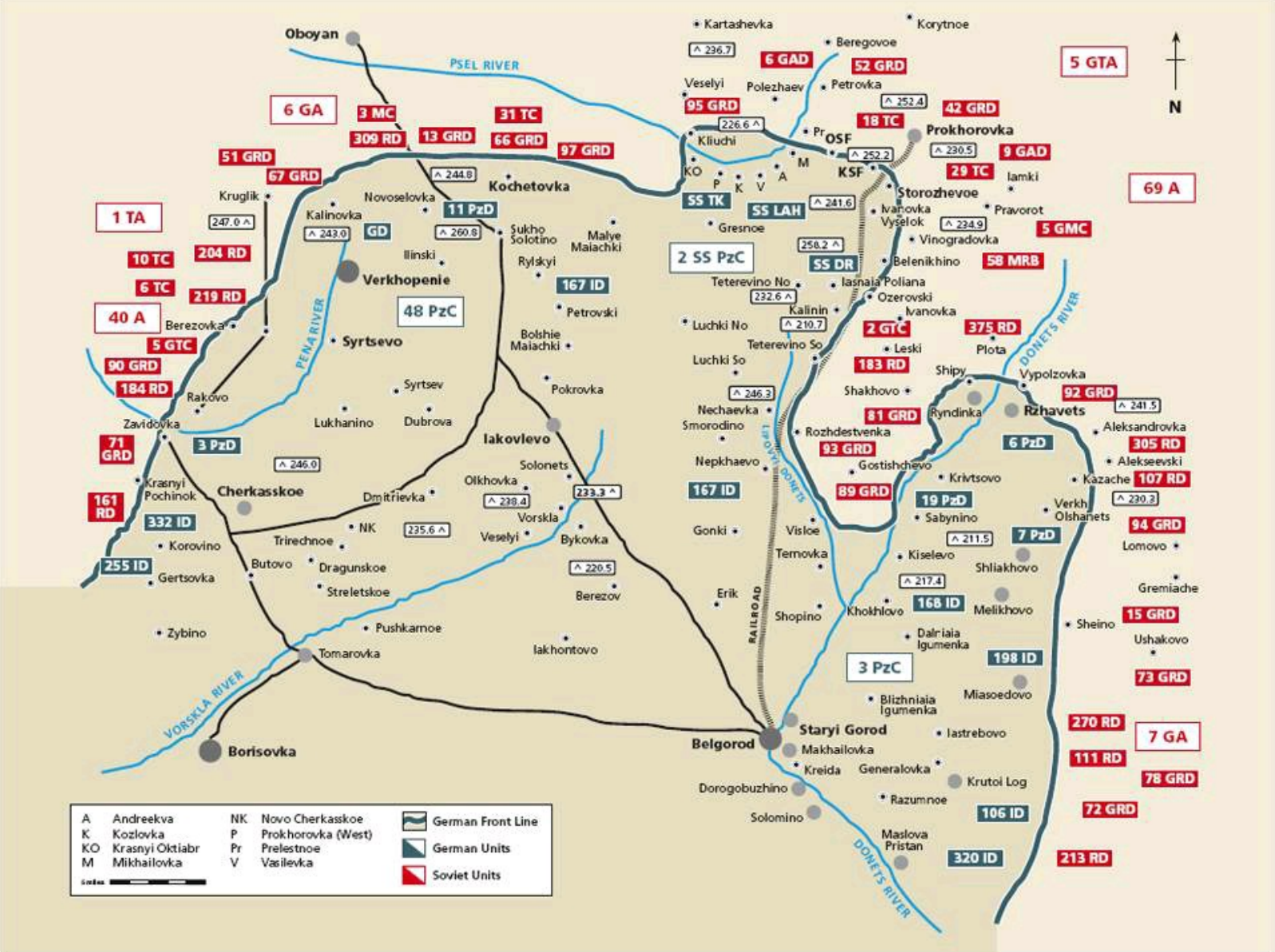




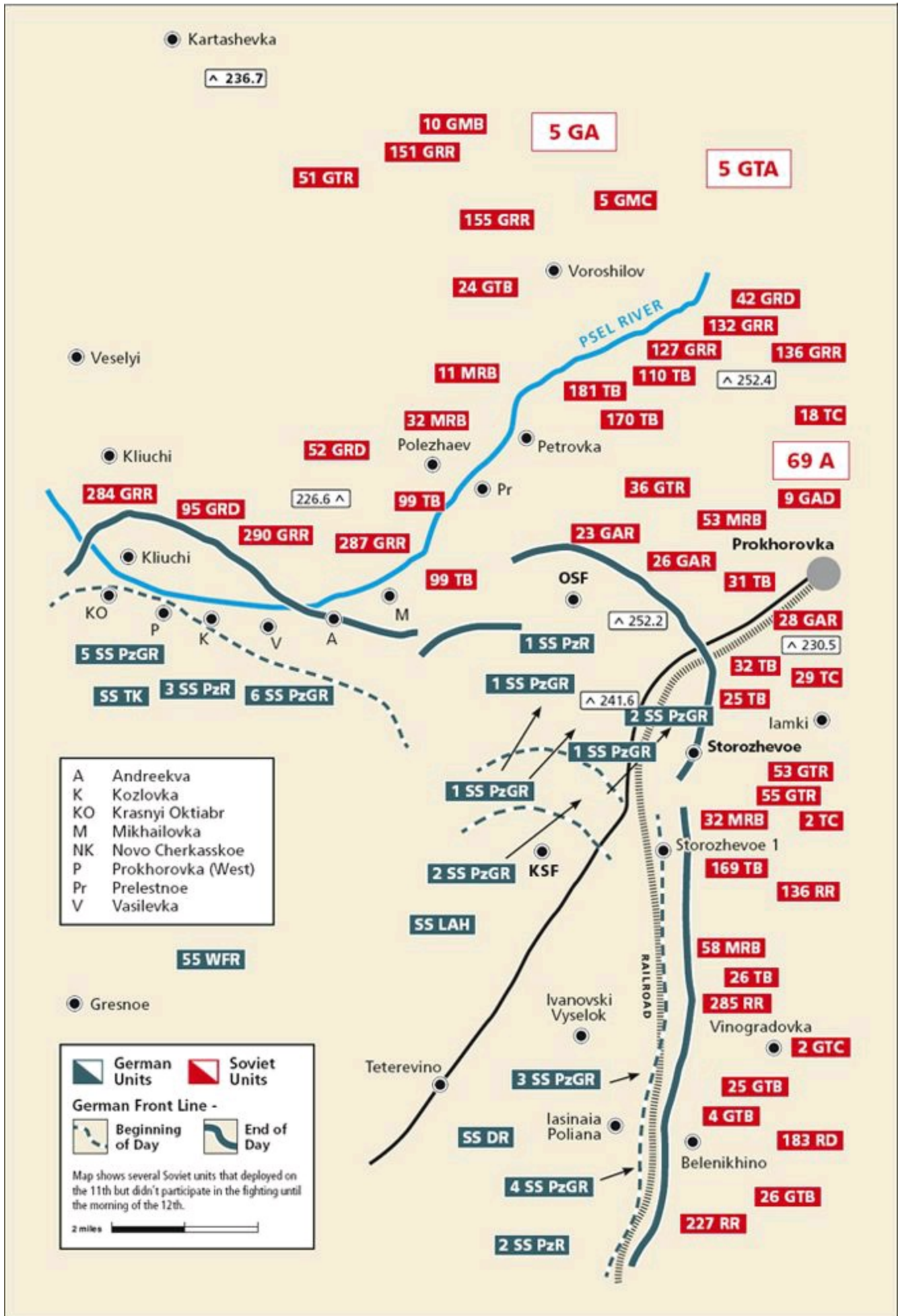
Map 15 Southern Salient, July 11th 1943 – midnight.



Map 16 Southern Salient, July 12th 1943 – midnight.

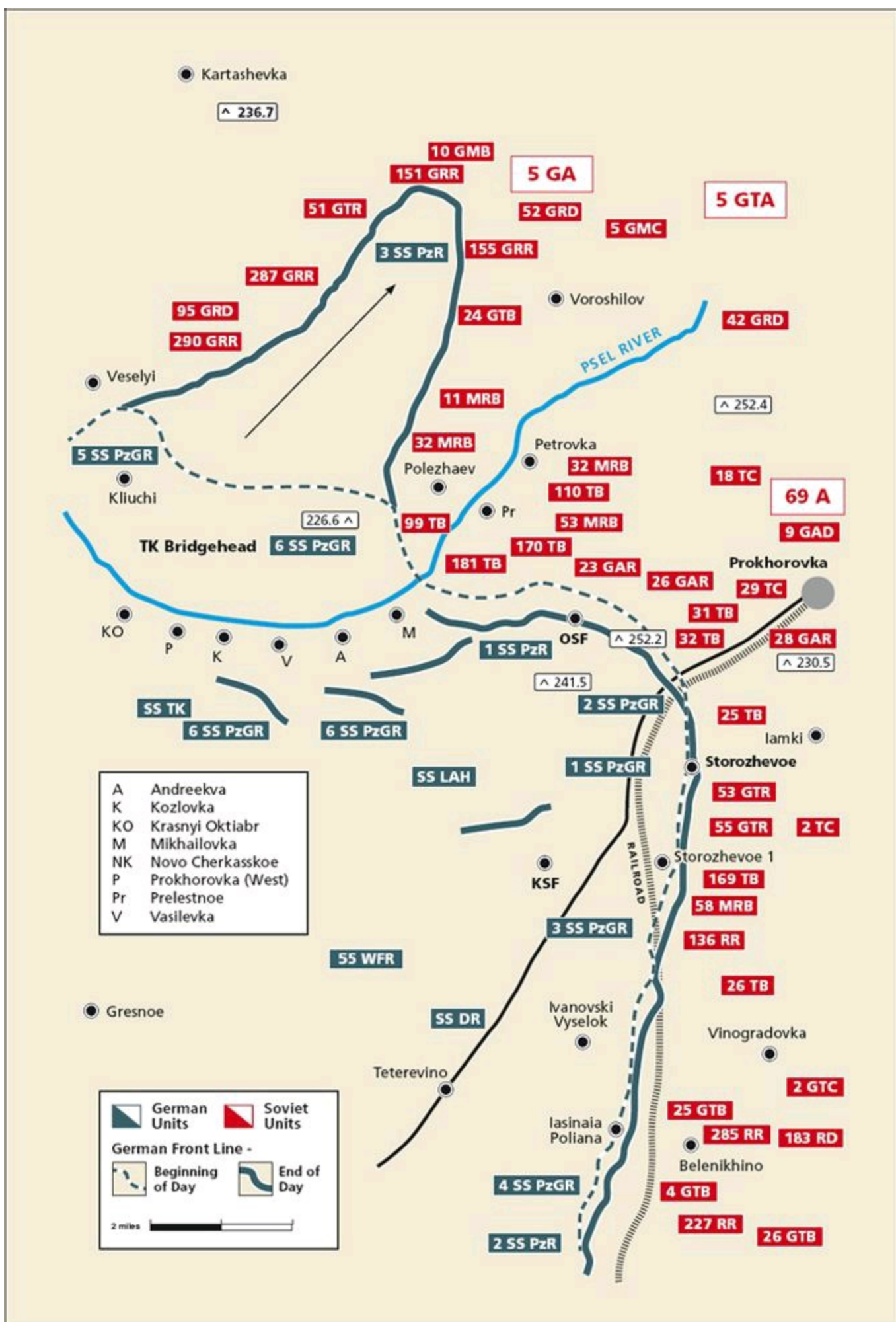


Map 17 Southern Salient, July 13th 1943 – midnight.



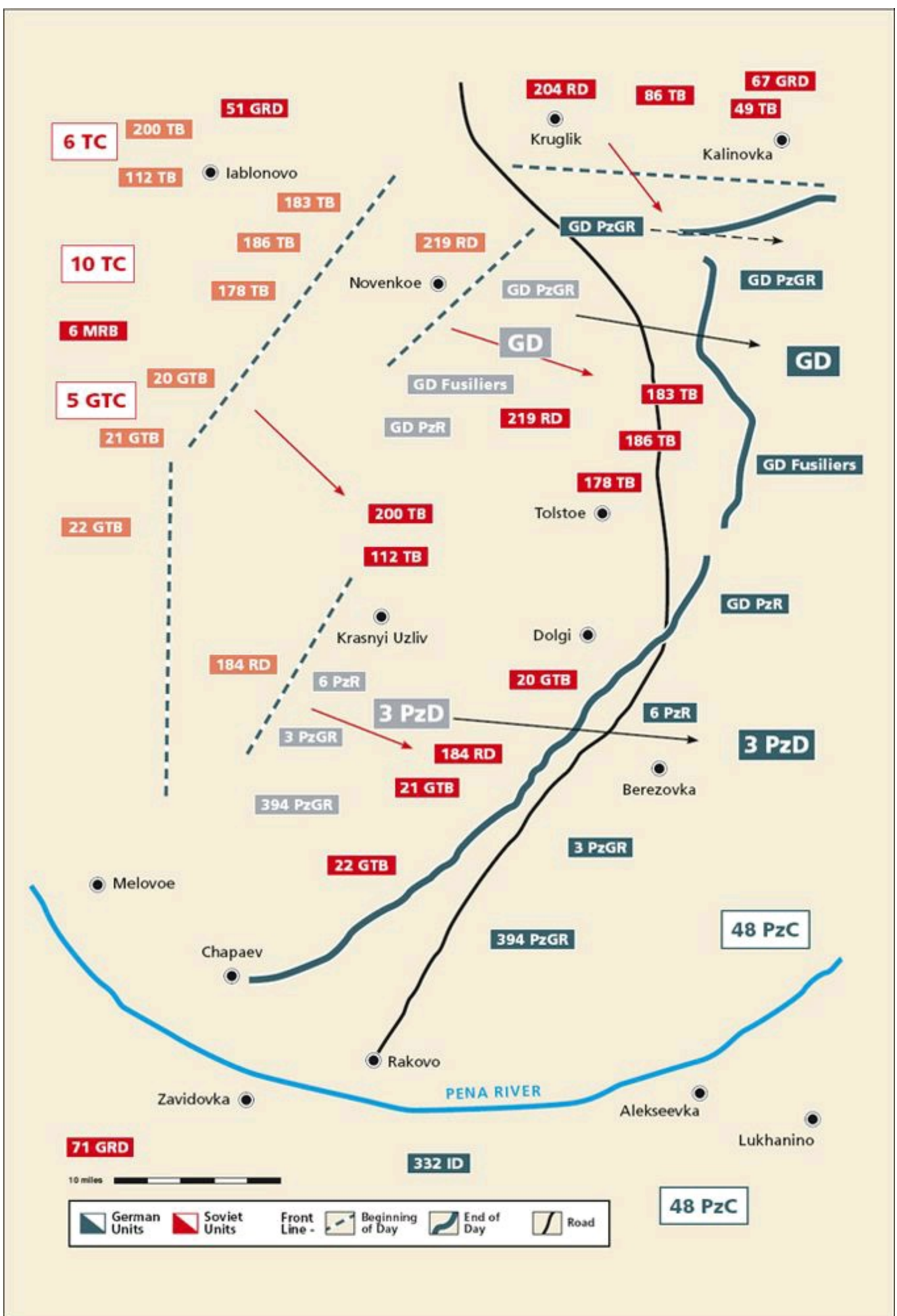
Map 18 Southern Salient, Battle for Prokhorovka, July 11th 1943 – midnight. 2nd SS PzC's attempt to take

Prokhorovka before 5th GTA fully arrived.



Map 19 Southern Salient, Battle for Prokhorovka, July 12th 1943 – midnight. The advance of 2nd SS PzC after

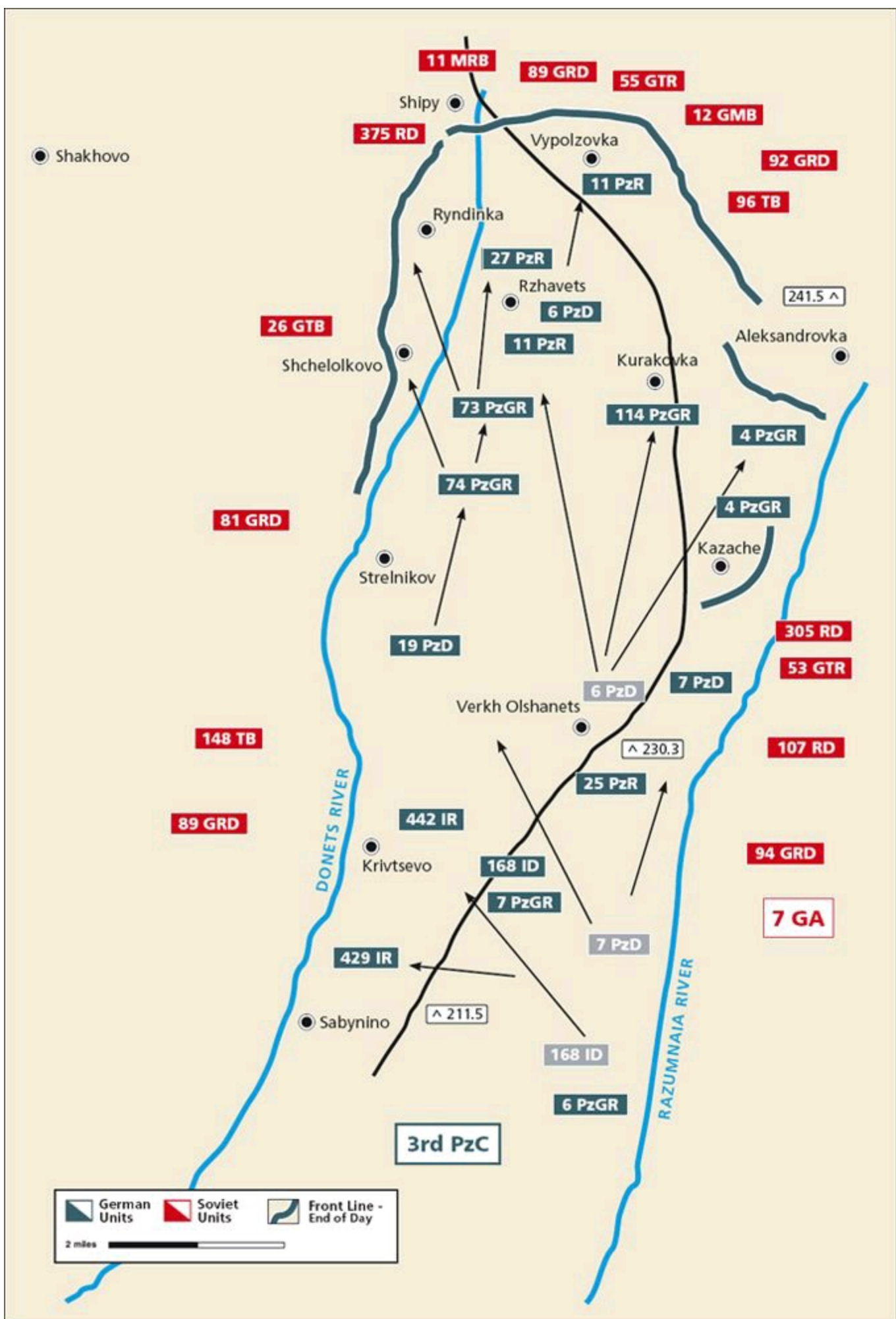
Rotmistrov's assault failed to encircle the Germans.



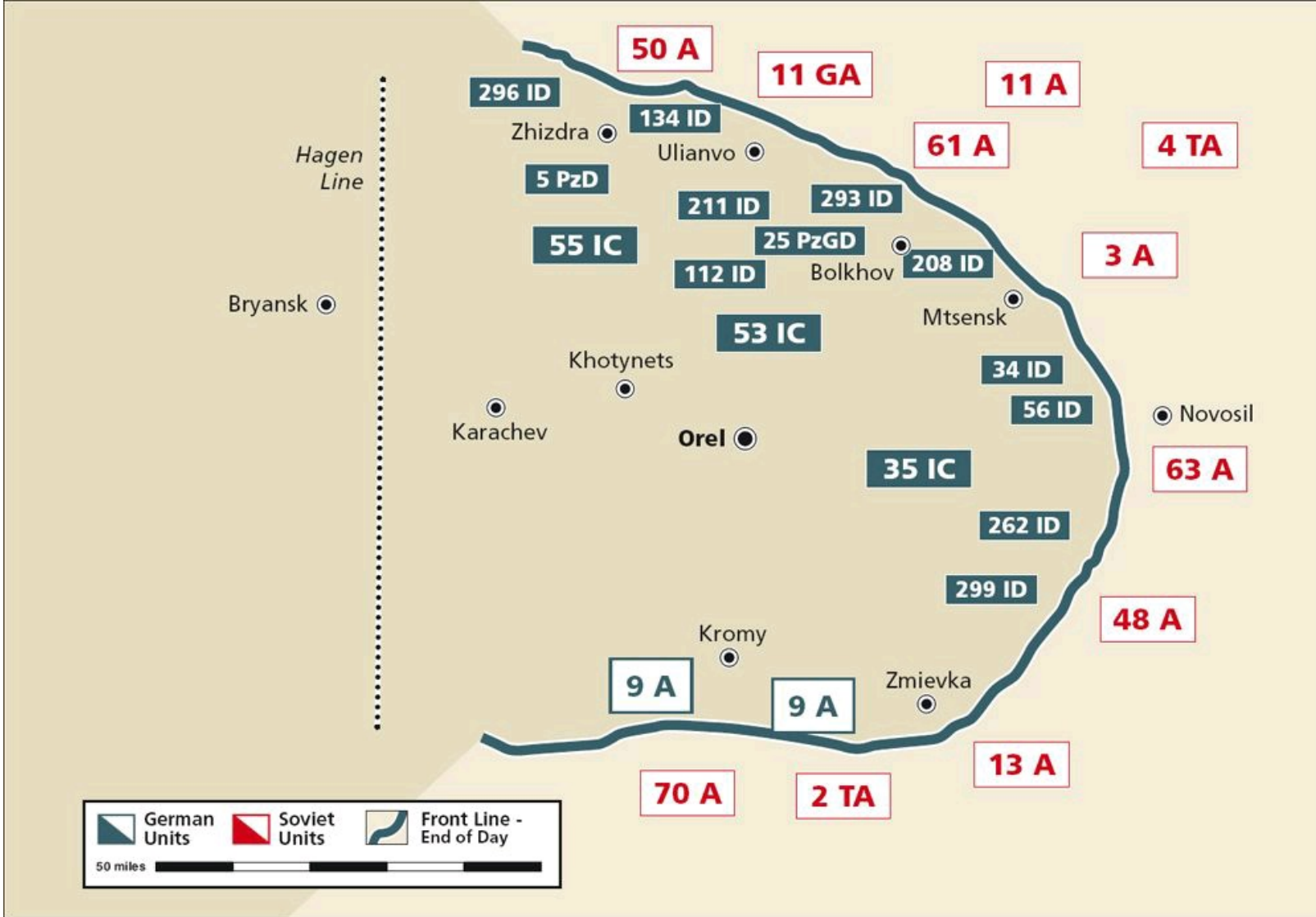
Map 20 Southern Salient, Counter-attack of 1st TA, July 12th 1943 – midnight. The sector retreat of 48th PzC



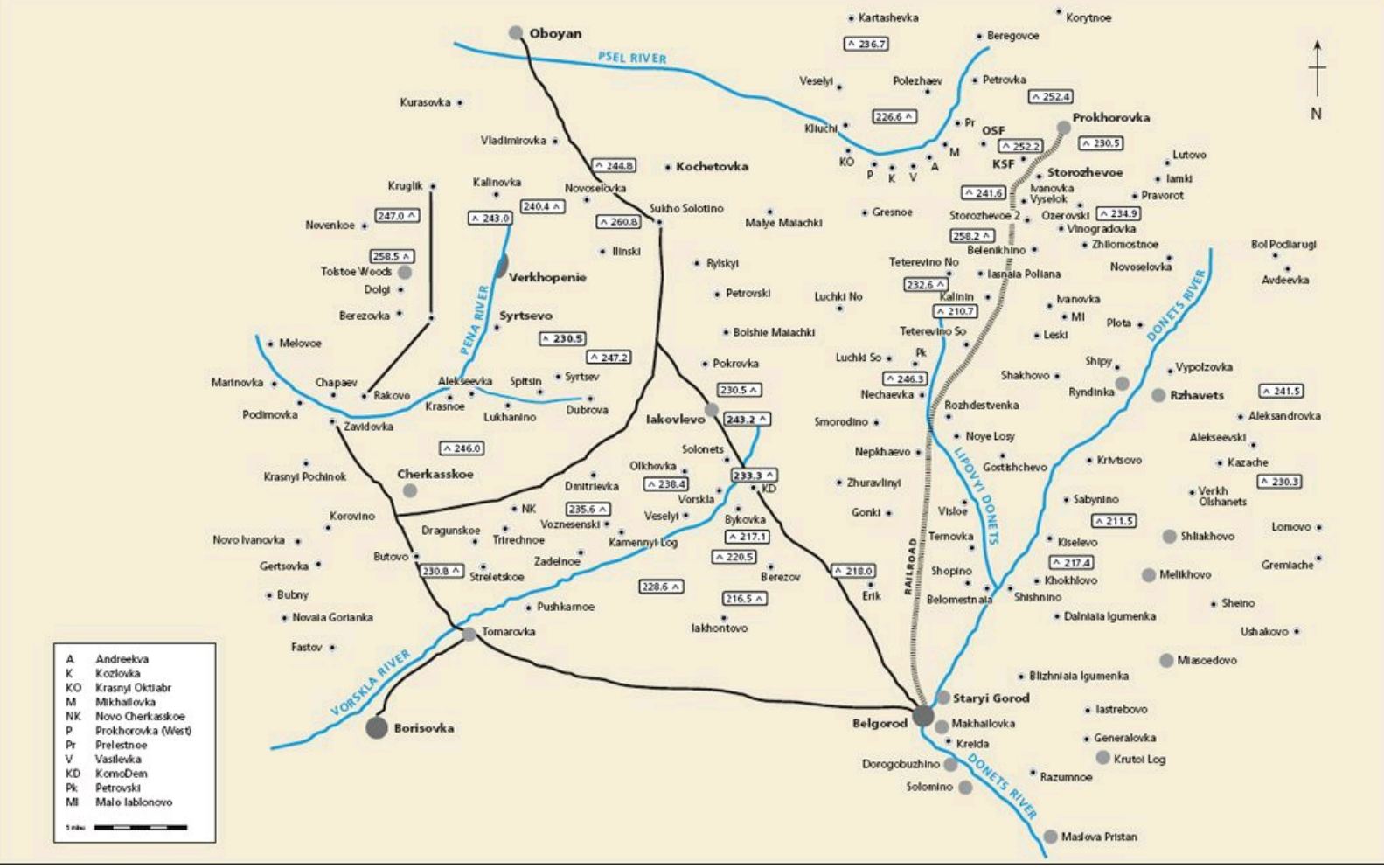
against 1st TA's counter-attack.



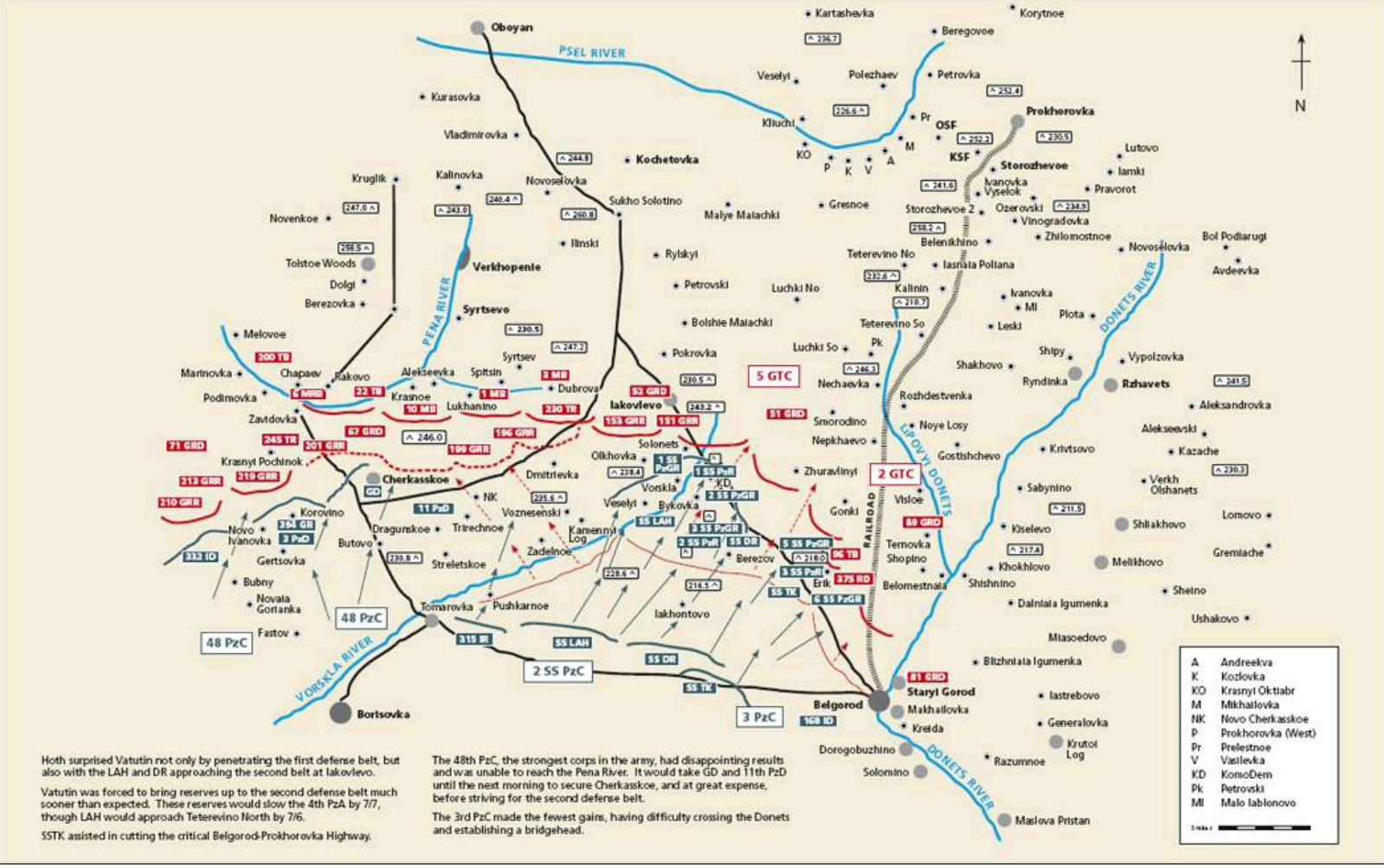
Map 21 Kempf's Offensive, July 12th 1943. 3rd PzC's advance.



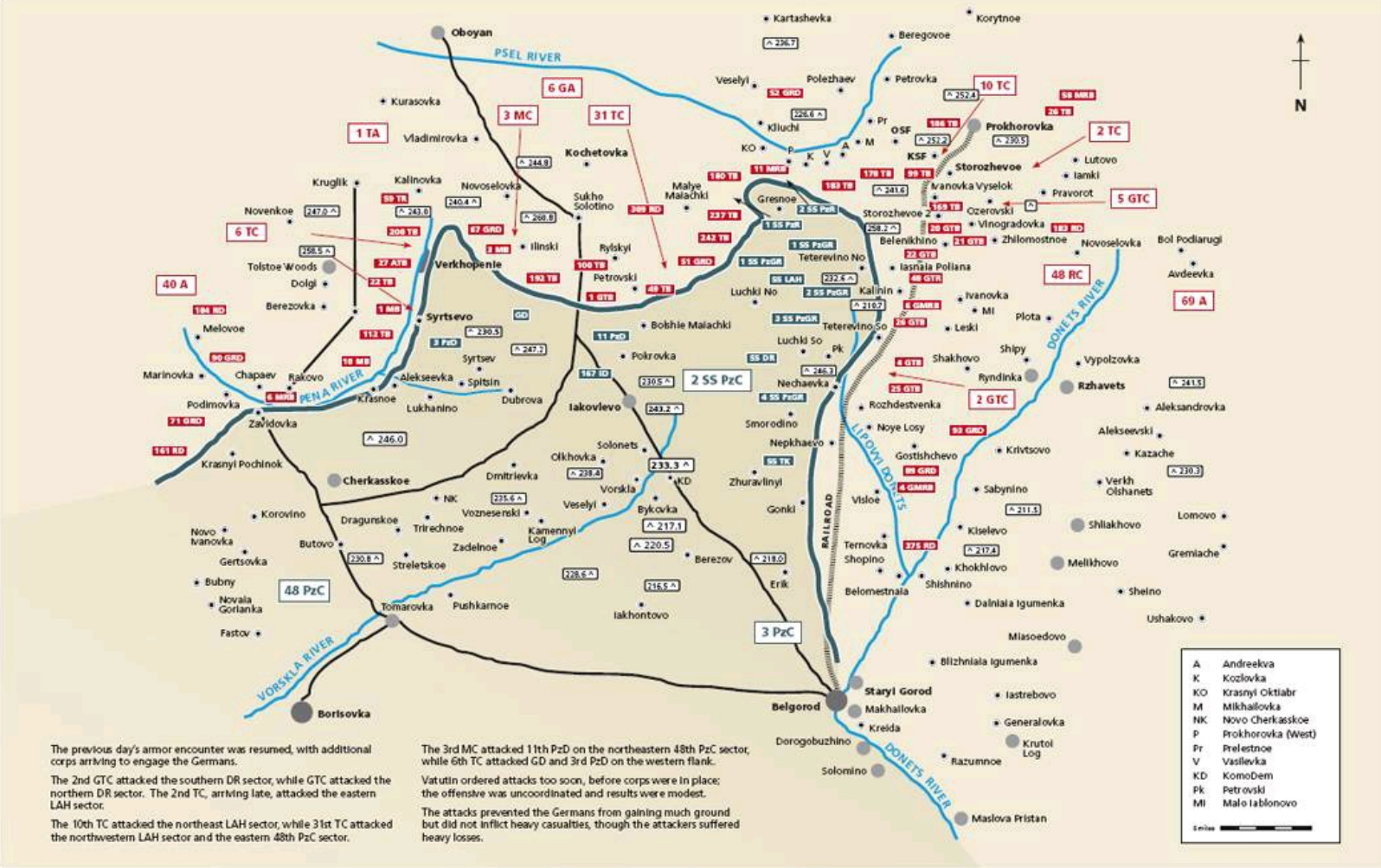
Map 22 Orel Salient, July 11th 1943 – midnight. Deployments at the start of Operation Kutuzov.



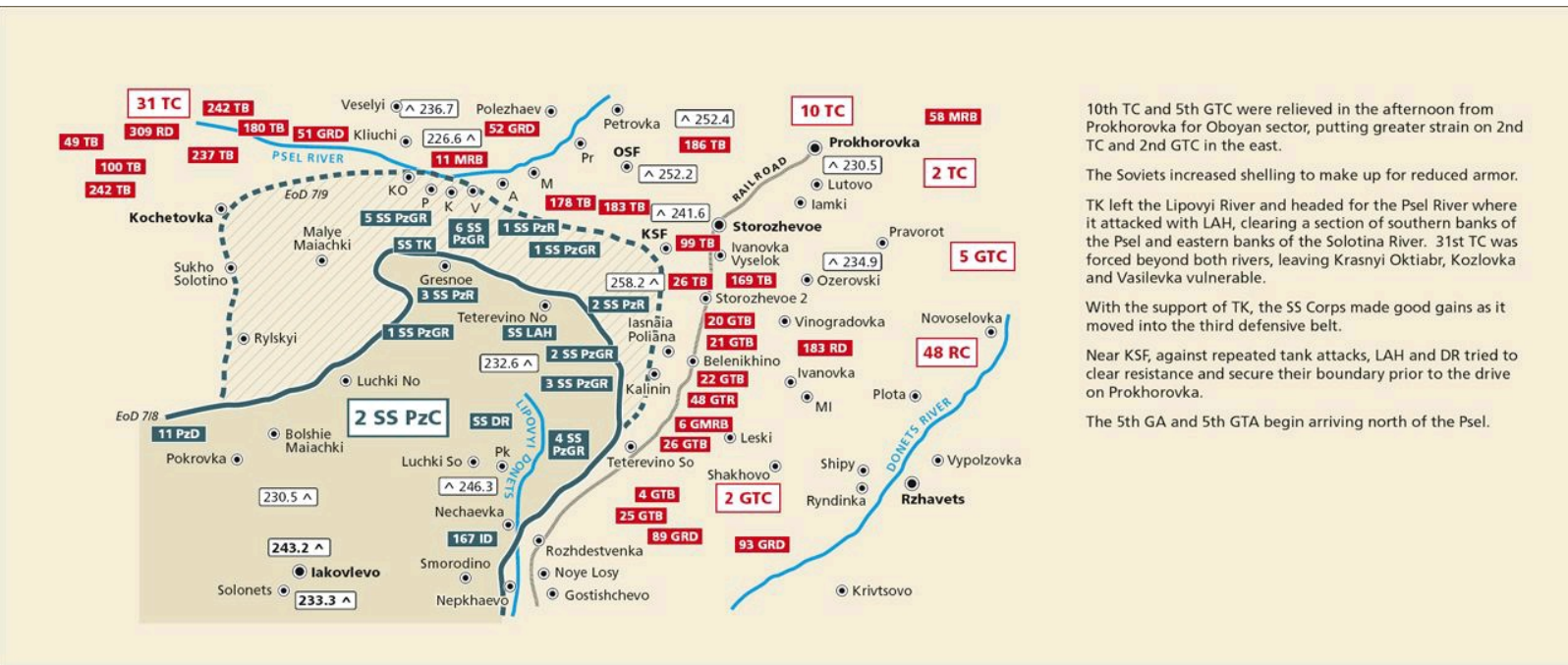
Map 23 Southern Salient, large topographical.



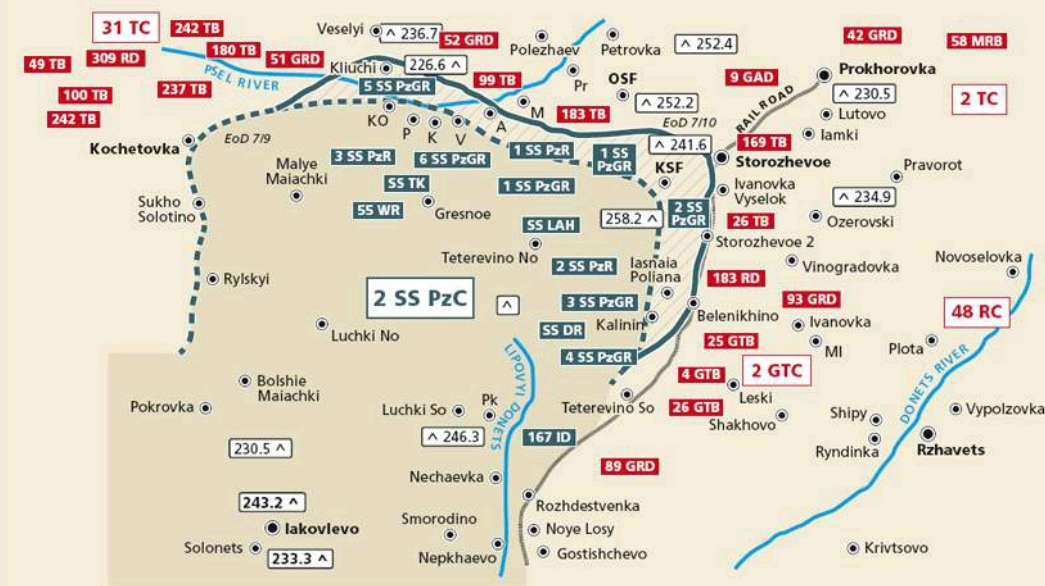
Map 24 Southern Salient, Primary Axis, July 5th 1943. Opening day for 48th PzC and 2nd SS PzC.



Map 25 Southern Salient, July 8th 1943. Soviet armored counter-attack.



Map 26A Southern Salient, July 9th 1943. 2nd SS PzC offensive.



Map 26B Southern Salient, July 10th 1943. 2nd SS PzC offensive.

With 10th TC and 5th GTC moving west, both 2nd TC and 2nd GTC had to shift and expand their sectors northward. They were required to stop LAH and DR from securing Prokhorovka and Storozhevoe.

Starting late, LAH completed capturing KSF before moving on and capturing Hill 241.6. DR remained defensive and protected LAH's flank.

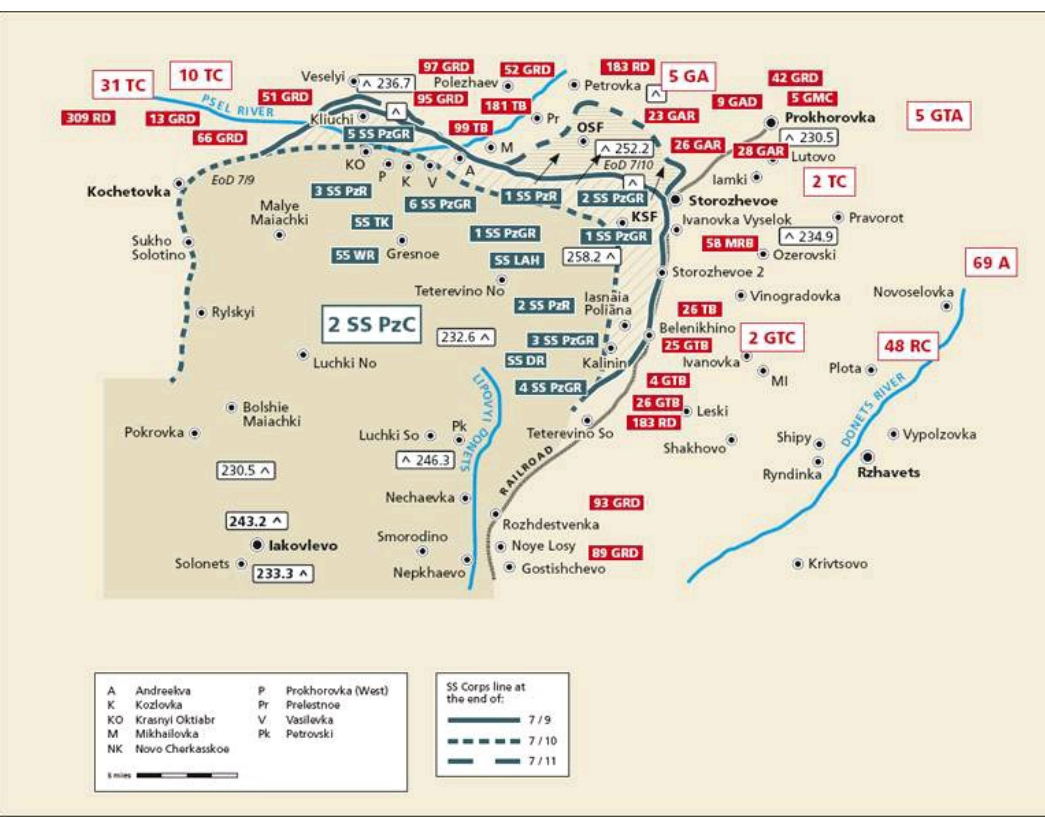
At the same time, TK secured a bridgehead over the Psel, but failed to take Hill 226.6.

The 99th TB attacked along the southern bank of the Psel, trying to recapture lost ground and interrupt TK from further crossings.

Though failing to take all objectives, the SS had established the front line from Kliuchi to the villages south of the Psel, across the corridor, past the railroad tracks to just south of Storozhevoe.

Primary objectives remained Hill 226.6, Hill 252.2, OSF, Storozhevoe and Prokhorovka. With 5th GA and 5th GTA now arriving in greater numbers, these objectives would be more difficult the following day.

LAH's advance on this day was made "easier" with 10th TC and 5th GTC deploying to the west during the previous night. The 48th PzC had a good day and caught up with the SS Corps, evening out the line.



Map 26C Southern Salient, July 11th 1943. 2nd SS PzC offensive.

Attacking from near Hill 241.6, LAH tried for Prokhorovka again. 1st PzGR headed east for Storozhevoe while 2nd PzGR moved along the railroad before shifting toward Hill 252.2. The 1st PzR headed straight for the hill to support the grenadiers.

Despite fierce resistance, LAH took Hill 252.2 and then moved on nearby OSF which was equally difficult to take. By late afternoon, the farm had fallen and LAH immediately began fortifying the hill and farm for the eventual counter-attack.

TK closed in on Hill 226.6 but failed to crest it, while DR made little progress against heavy resistance south of Storozhevoe.

Elements of 5th GA and 5th GTA deployed in the corridor and north of the river, supporting 6th GA in inflicting heavy casualties. 2nd PzGR was struck hard by a flank attack from 169th TB and 26th GAR.

69th Army continued its retreat north, escaping entrapment.

The slow progress the previous three days had been disappointing for Hauser; his divisions had taken a pounding and yet still failed to take Hill 226.6 and the east bank of the Psel, Prokhorovka or Storozhevoe/lamki

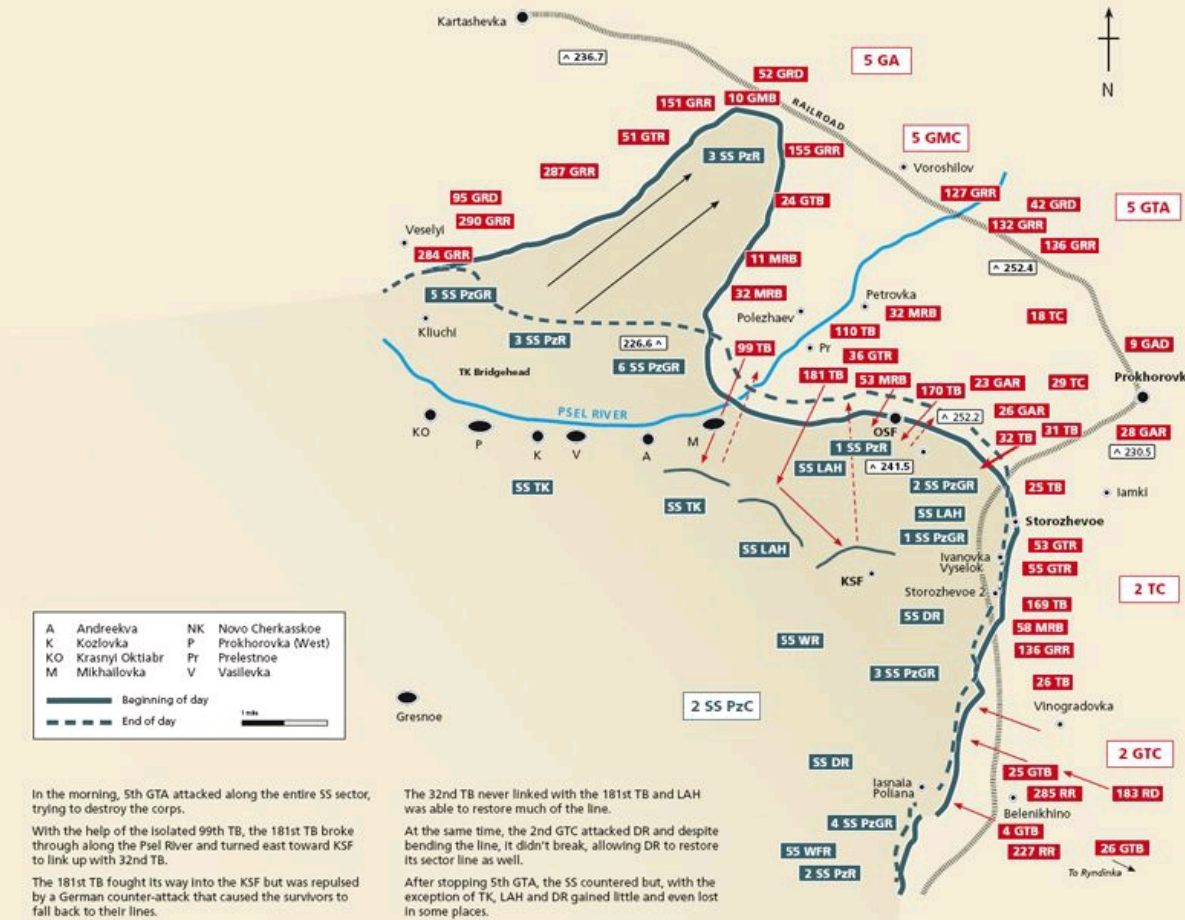
Despite the ominous sign, Hauser was determined to take Prokhorovka and brought up every man, gun and panzer to the line, especially at Gresnoe, Hill 241.6, Hill 252.2 and the TK bridgehead.

Late in the day, a small group of grenadiers fought their way to the edge of Prokhorovka, but were thrown back by a counter by 23rd GAR. This would be the closest LAH ever got to this important rail village.

Late at night, 5th GTA deployed to their launch positions for the next morning.

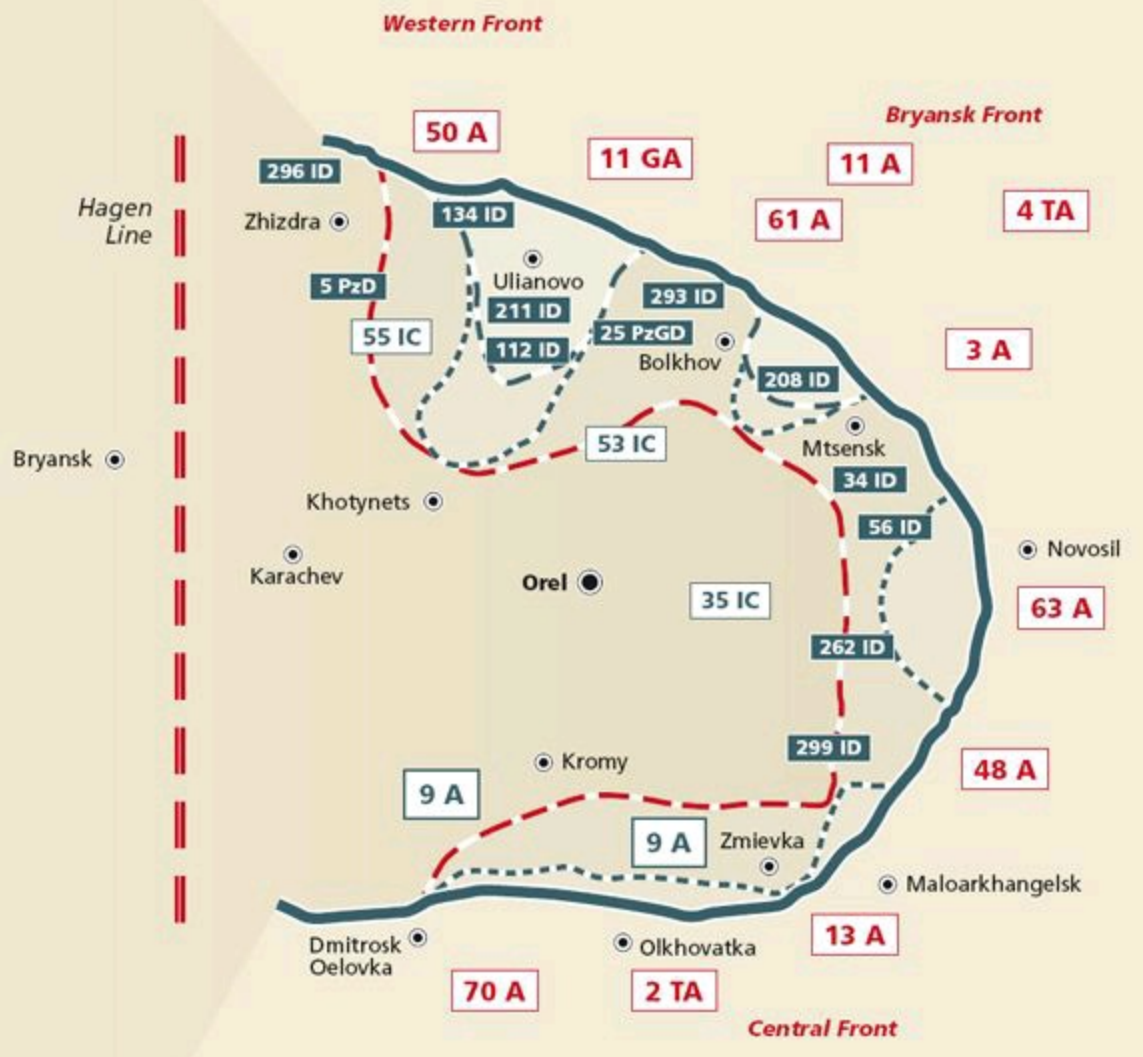
- |    |                  |    |                    |
|----|------------------|----|--------------------|
| A  | Andreevka        | P  | Prokhorovka (West) |
| K  | Kozlovka         | Pr | Prelestnoe         |
| KO | Krasnyi Oktiabr  | V  | Vasilevka          |
| M  | Mikhailovka      | Pk | Petrovski          |
| NK | Novo Cherkasskoe |    |                    |

- SS Corps line at the end of:
- 7/9
  - 7/10
  - 7/11



Map 27 Southern Salient, July 12th 1943. Defense of Prokhorovka.





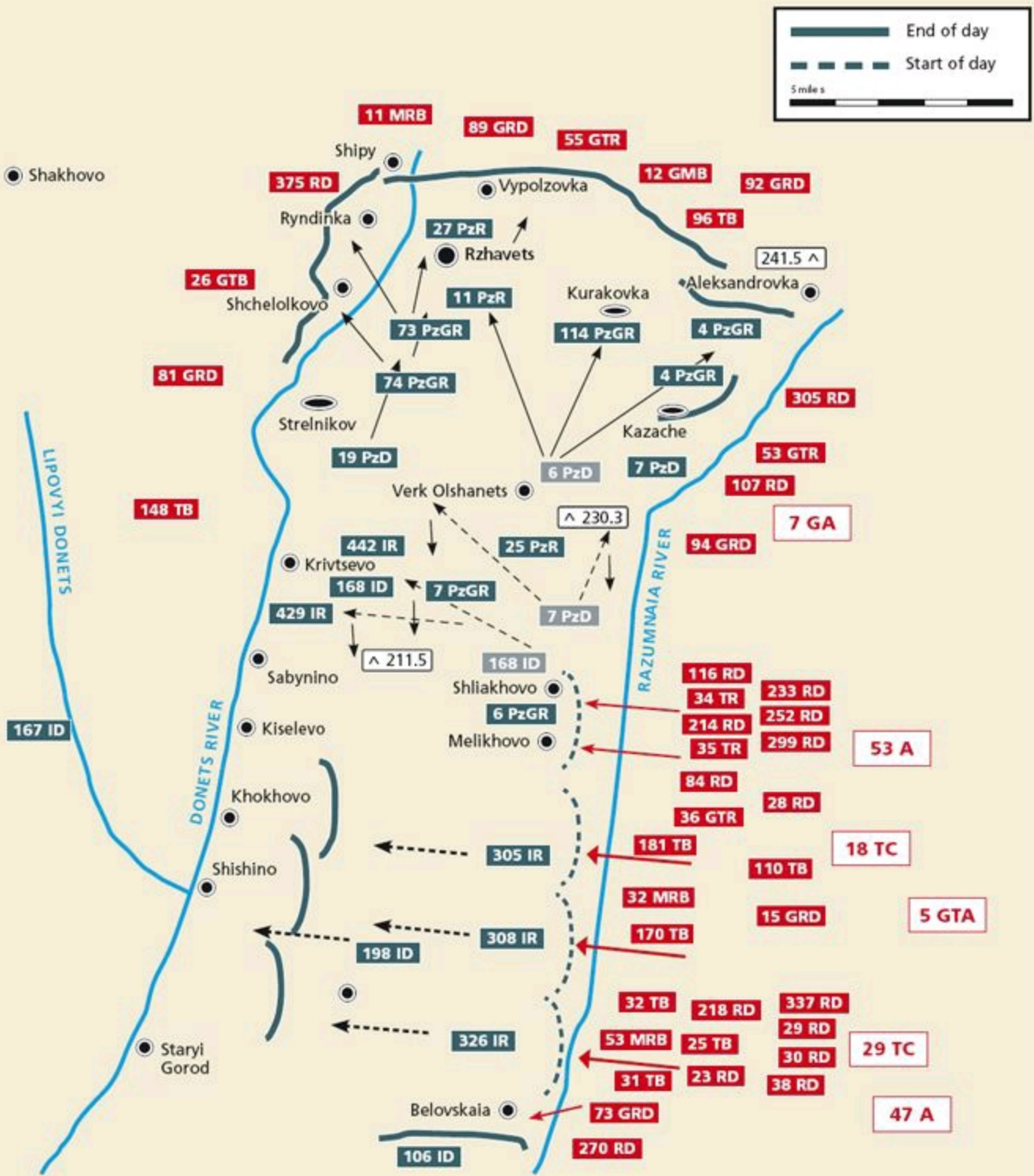
German forces arrive behind Hagen Line on 8/16.  
The Soviets now control the Orel salient.

	7 / 12
	7 / 18
	7 / 21
	8 / 1
	8 / 16

German Units    Soviet Units

20 miles

Map 28 Orel Salient, Operation Kutuzov, July 12th-August 16th 1943.



The offensive opens with a massive barrage and air strike.

In the center, 5th GTA attacks, aiming to tear a hole in the line; flank armies screen the attack to freeze the German line.

The 7th GA and 69th A maintain pressure on the rest of 3rd PzC.

Much of the 18th TC and 29th TC lead the charge; 110th TB and 25th TB linger behind to support 47th A and 53rd A if needed or to support 1st echelon as required.

As the offensive develops, 2nd echelon advances in all three army sectors as 5th GTA heads for the Donets, below the Lipovyri. Repeated air attacks precede the tankers' advance.

Two divisions of 47th A screen 11th IC while the remainder of the army head west, north of Staryi Gorod to support 5th GTA.

53rd A penetrates the line and heads for the Donets for blocking positions of bulk of 3 PzC to the north.

The 168th ID and 7th PzD would shift direction to meet the new threat. The 198th ID would fall back to the Donets while 11 IC would quickly shift line to meet the new danger from the north.

On northern front, Vaturin's armies plus 27th A repulse an SS attack, then launch a counter against the SSTK bridgehead, making TK the prime target, not LAH.

Map 29 Proposed alternate offensive, Southern Salient, July 12th 1943.