

# **Ostfront 1941/42**

**Kampfhandlungen im Bereich der  
Heeresgruppe Mitte  
(22.6.41-1.5.42)**

**Notebook 6:**

***„Foreign Military Studies“***

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**“Die Stimme des Blutes deines Bruders  
schreit zu mir von der Erde.“**

**Genesis 4:10**

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**D-137:** “*Winter Battles of Rzhev, Vyazma, and Yuhnov, 1941-42.*” Gen Oberst Otto Dessloch. 1947.

**D-184:** “*Winter Campaign 1941-42: Campaign of 255. ID East & South of Temkino (Dec 41 – Apr 42).*” Genlt. Walter F. Poppe. 1947.

**D-187:** “*The Capture of Smolensk by the 71st Motorized Inf. Rgt. on 15 Jul 41.*” Genlt Wilh. Thomas. 1947.

**D-221:** “*An Artillery Rgt. On the Road to Moscow (Jun – Dec 41).*” Genmaj. Gerhard Grassmann. 1947.

**D-237:** “*XXIII Corps (Oct 41 – Mar 42).*” Oberstlt. Dietrich Lemcke. (Supply in Russia, particularly by air)

**D-240:** “*Advance and Battles of the 110. Inf.-Div. within framework of Ninth Army... Jun to Nov 41.*” Genmaj. Heinz Gaede. 1947.

**D-247:** “*German Preparations for the Attack against Russia (The German Build-up East of Warsaw).*” Genlt. Curt Cuno. 1947. (17. PD crossing the Bug on 22 Jun 41)

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<sup>1</sup> Most of these FMS studies received from the U.S. Army’s Military History Institute, Carlisle Barracks, PA. Several FMS studies are also listed among the holdings of the Karlsruhe Document Collection (KDC) of the Air Force Historical Research Agency (AFHRA).

- D-253:** “*Antitank Defense in the East.*” Genlt. Erich Schneider. 1947. (Lessons from the combat in autumn 1941)
- D-272:** “*Das Inf.-Rgt. 488 in der Wjasma-Schlacht 2.-11.Okt.41.*” Wilhelm Koehler. 1954.
- D-285:** “*The 35th Inf.-Div. Between Moscow & Gzhatsk (Dec 41 – Apr 42).*” Gen Rudolf v. Roman. 1947.
- D-289:** “*The 547th Inf.-Rgt. Advance & Fighting under Winter Conditions (Jan – Mar 42).*” Genmaj. Karl Becher. 1947.
- P-039:** “*March and Traffic Control of Panzer Divisions w/ Special Attention to Conditions in Soviet Russia...*” Burkhard Mueller-Hillebrand, *et al.* 1949.
- P-040:** “*Tank Repair Service in the German Army.*” B. Mueller-Hillebrand, *et al.* 1951.
- P-041a:** “*Organization of the Army High Command.*” B. Mueller-Hillebrand. 1948.
- P-052:** “*Combat in Russian Forests and Swamps.*” Hans v. Greiffenberg. 1951.
- P-059:** “*German Tank-Strength and Loss Statistics.*” B. Mueller-Hillebrand. 1950.
- P-062:** “*Frostbite Problems in the German Army during World War II.*” Genmaj. Alfred Toppe. n.d. (?)
- P-107:** “*Stellungs- u. Abwehrkaempfe eines mot. Gren. Rgts. im Winter 41/42 an der OKA...*” (author/date?)
- P-119:** “*Transportation of Replacements by Post Office Busses to Eastern Front in Winter 41/42.*” Hermann Hans Guenther Keil. 1954.
- P-190:** “*Verbrauchs- u. Verschleissaeetze waehrend der Operationen der deutschen Heeresgruppe Mitte (Jun – Dec 41).*” Genmaj. Alfred Toppe, *et al.* 1953.
- P-201:** “*Personal Diary Notes of the G-4 of the German 9th Army, Aug 41 to Jan 42.*” Genmaj. Josef Windisch. 1953.
- T-6:** “*Eastern Campaign, 1941-42. (Strategic Survey).*” Genlt. Adolf Heusinger. 1947.
- T-7:** “*Comments on Russian Railroad and Highways.*” Genlt. Max Bork. 1953.
- T-28:** “*Battle of Moscow (41-42).*” Gen. Hans v. Greiffenberg, *et al.* n.d. (Greiffenberg was Stabschef of Hr.Gr.Mitte)
- T-34:** “*Terrain Factors in the Russian Campaign.*” Multiple authors. 1950.

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## FOREIGN MILITARY STUDIES<sup>2</sup>

**1. D-034:** *“Diseases of Men and Horses Experienced by the Troops in Russia.”*  
Dr Erich Rendulic. **Mar 47.**

a. **Men:**

Russia has an “exceedingly healthful and vigorous climate.” . . . The people of Russia and of the East in general are greatly plagued by vermin. . . The  flea which was present in large numbers during WWI seems to be dying out. It was encountered very rarely. But the  louse is dangerous. It nests on the human body, in personal effects, and also in dwellings. . . every louse is dangerous. The louse is the carrier of typhus, the most dangerous disease in the East. But even that disease must not be overrated. Isolated cases can appear at any time of the year, but it is most frequent in the spring, when the snow begins to melt. Persons over **50** years of age hardly ever survive it, but the death rate among the young is also high. At that time vaccine could be produced only by a very complicated and expensive process. Since **Nov 41** only nurses and attendants in typhus hospitals, doctors, people in important positions, and those over 50 years of age could be vaccinated; later on the age group was lowered to **45** years. Thus, only a small group was protected. The troops used a delousing powder; it was sprinkled on the body and underwear. But the results were not too promising. (1-2)

. . . during the winter battles of **1941/42** and **1042/43**. . . the villages were of decisive importance in the setting of march objectives and in the disposition of the troops. Quarters were frequently cramped. . . The villages often became the objective of the fighting, as both sides tried to gain shelters against the cold. . . Living in crowded quarters and positions furthered the rapid increase in lice. Although somewhat less during mobile ops, our troops were constantly lice-ridden. This, of course, increased the threat of typhus. During position warfare delousing stations were installed (as a rule one for each regiment, which was not enough); the troops bathed there and received clean underwear, and their clothing, disinfected by heat, was returned to them. . .

There are some regions in Russia where the population is frequently plagued by typhus epidemics. One of these regions is located between Roslawl and Juchnow (on one of the main highways to Moscow). As Cdr of **62. ID**, I was in the area west and NW of Juchnow from the beginning of **Feb 42** to **Jul 42**. During that time the division had about **140 cases of typhus**; this was a small number compared to other divisions. I remember that in some the number reached **300-400**. (2-3)

Another disease is the typhoid fever. All troops were inoculated against it. There were only a few cases of that disease. The danger is in the water which is polluted almost everywhere. In Russia water is available only from rivers or open wells. The water purification equipment, carried by every btn., was inadequate. Filters were used up rapidly and new ones were seldom delivered. The water had to be boiled. In the summer the troops were supplied, wherever possible, w/ increased rations of coffee or tea. Drinking of unboiled water was prohibited under punishment, but many ignored this order and drank water even from swamps. Despite all reasoning, this could not be prevented. Just the same, there were hardly any cases of typhoid fever. (3-4)

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<sup>2</sup> **Note:** These FMS notes are arranged simply in alphabetical and numerical order.

Cases of **dysentery** occurred in only a few instances, although inoculation against it was begun only in the middle of **1942**. The disease had spread among the troops very seriously during the Polish Campaign of **1939**. At that time the cause was undoubtedly the eating of spoiled or unripe fruit. This danger does not exist in Central or Northern Russia, because *practically no fruit grows there*. . . (4)

The trench fever (**Volhynian fever**) confronted us w/ similar problems. In the summer of **1942** it caused the division about **200** casualties over a period of **6-8** weeks. Its cause was also not clearly determined at that time. . . (4)

Rather numerous were the casualties brought on by the so-called "**rodent disease**" (**Nagerkrankheit**). It was transmitted by food that had been contaminated or gnawed on by mice. . . This disease lasts several weeks and causes considerable weakening of the organism. (5)

**Malaria** appears in Central Russia and far into northern Russia. It is more frequent in certain regions. For example, the Roslawl – Juchnow typhus area is also malaria-infested. . . From spring to fall, every man in this region had to take one tablet of **atabrine** every night as a preventative; this remedy does not produce the after-effects of quinine, even if taken for any length of time. There were only a few soldiers who were allergic to atabrine. . . (5)

Inoculations: Initially the German armed forces in the east were inoculated only against typhoid. My pay book shows that I was first inoculated in **1942** against the following: cholera in the spring, dysentery in the summer, and smallpox in the fall. Only a small group, as mentioned above, was inoculated against typhus. . . (6)

b.) **Horses**:

The most dangerous and widespread horse disease in Russia is the **mange**. It is caused by mites, and for a long time remains confined to a small portion of the skin w/o affecting the working capacity of the horse. The lack of remounts made it necessary to retain horses that were mildly inflected by the mange, but certain precautionary measures had to be taken. However, the presence of these horses often caused the disease to spread. In mild cases the troops treated the horses locally by rubbing the infected parts w/ a tar preparation. Before this preparation was supplied, the troops substituted kerosene, available locally and normally used for lighting purposes; although effective, it strongly affected the skin. . . The organic veterinary coy of the division was not adequately equipped for receiving a large number of mangy horses. Only severe cases were turned over to that company, and the most effective and quickest treatment consisted of placing the horse's entire body – except for the head which was left sticking out in the air – into a gas chamber and exposing it to a gas which killed the mites. But the veterinary coy had only one gas chamber; that was not enough. . . More than **1000** of the **5800** horses in my division, the **52. ID** [or **62. ID**?; see above] were mangy in the spring of **1942**. This number decreased considerably during the summer. . . (7-8)

Horses withstood the severe winters well, even though for long periods they had no stables. This can be said also of the fairly heavy breed of French and Belgian horses that were employed as draft horses for the artillery pieces. . . (8-9)

**2. D-035:** “*The effect of extreme cold on weapons, wheeled vehicles and tracked vehicles.*” Dr Erich Rendulic. Feb 47.

a. **Weapons:**

The extreme cold of the winter of **1941/42** showed to our surprise that the mechanisms of rifles and MGs and to some extent even the breechblocks of the artillery became absolutely rigid. It was necessary to apply heat to them carefully to make them fit for firing again. . . It became evident that the lubricants used (greases and oils) froze in the extreme cold and became as hard as stone. . . The troops immediately made various experiments and determined that **kerosene** was cold-resistant and suitable as a lubricant. It was available in the country where it was used for lighting. The only drawback was that as a lubricant it had no lasting properties and had to be renewed frequently. . . At any rate, the result was obtained that the wpns functioned again even in extreme cold. By winter **1942/43** cold-resistant lubricants were available. No other effect of extreme cold on wpns was noted. (1)

b. **Motor vehicles:**

As far as motor vehicles were concerned, it was the same. Completely unaware of the fact that grease and oil had frozen and hardened like stone, we tried at the beginning to make the vehicles start by towing them. The result was that the motor was badly damaged, and the differential was ripped to pieces. It was necessary to thaw out the vehicles by carefully applying heat to them before moving. It took up to **2** hours before the vehicles were ready to start. . . As far as I can recall, cold-resistant greases and oils for the vehicles were not to be had before the winter of **1942/43**. (2)

From the very beginning Chrysantine was available which was mixed w/ the water for the radiator, preventing freezing in temperatures not below **-25 C**. In extreme cold the water had to be drained from the vehicle after driving and had to be brought into the quarters. . . It must be mentioned that in extreme cold the dry batteries of the mobile radio stations also froze. It was necessary to provide esp. good protection for them on the march. (2)

**3. D-036:** “*The Fighting Qualities of the Russian Soldiers,*” Dr Erich Rendulic. Mar 47.<sup>3</sup>

Let it be stated at the very outset: there is no such thing as a homogeneous Russian nation. . . Numerically, the largest groups are the Great Russians and the Ukrainians. They are the ones who determined the peculiarities of the Russian people. . . Of special importance, however, I consider the infusion of Mongol blood during the **300** years of the Tartar domination, since it very definitely put its stamp on the Russian national character. [**Note:** Author then addresses a book by Maxim Gorki which states that the old Russian blood “had been poised by Mongol fatalism.”] This Mongol inclination toward passive resistance was able to exert a definite influence as it met w/ a similar, although much weaker, inclination of the original Slavic blood strain of these two groups. (1-2)

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<sup>3</sup> **Note:** In this study, Gen. Rendulic expressed typically German “racialist” attitudes. For example, he stresses the fatalism, passivity, submissiveness to pain, etc. – all of which he attributes to what he calls the “Russian national character.”

Author speaks of Slavic endurance of suffering and submissiveness to pain. . . He also mentions a “certain inertness and submissiveness to life and fate, little initiative, and in many of them – which is true of all other people to a greater or lesser degree – an easily aroused inclination toward cruelty and harshness which may be considered as part of the Mongol heritage in view of the basically good-natured disposition of the people. (3)

Education and propaganda are additional factors which influence the psychological and spiritual attitude of the people as well as the action of the individual. For nearly a generation, education has been dominated exclusively by the principles and objectives of Bolshevism, thus eliminating all other influences. *This education has brought amazing results.* Besides raising the general educational level, it attempts to imbue youth w/ the ideals of Bolshevism. . . On the wall of every Russian schoolroom, I found a large map of Europe and Asia on which all of Russia was marked in bright red while the rest was shown w/o color. . . The doctrine which youth absorbed by education, had to be instilled into the people at large by means of propaganda. I talked w/ many young soldiers, farmers, laborers, and also women. *All of their thinking was patterned along the same line, and they were all convinced of the infallibility of that which they had been taught.* Only among the older generation in the rural areas, i.e., people who are now around the age of **50** and older, did I find occasional skepticism, and even a blunt rejection of Bolshevism. However, I do not know whether this was always genuine. . . (3-4)

Because of his passive nature, the Russian soldier is not given to offensive and individual combat. In the many battles and engagements in which I participated in Russia in positions ranging from division cdr to cdr-in-chief of Army Groups, *I do not know of one that was decided by the superior initiative and fighting spirit of the Russian infantry.* In an attack – even in mobile warfare – the Russian soldier was able to succeed only when he had overwhelming infantry, artillery, and tank superiority on the entire front, or at certain weak points of an extended line, against which he would then direct his main effort. . . The artillery and mortar units fought exceptionally well. If there was sufficient ammunition, we considered a [infantry] ratio of **1:3** and even **1:4** as bearable when we were in the defense. The Russian high command very early recognized the inferior offensive quality of its infantry. It attempted to make up for this deficiency by a vast increase in artillery and heavy mortars. . . In addition, closely related w/ the lack of initiative and aggressiveness is the fact that the infantry – whenever it did achieve a success – did not take advantage of it, but rather was satisfied, and halted. As a matter of fact, the blame here may also be placed on the Russian command, primarily in the intermediate and higher echelons. . . (7-8)

By comparing the prisoners from the various arms and services, and by interrogating them, we came to the conclusion during the war that – as far as personnel were concerned – the Russian High Command had from the beginning neglected the infantry in favor of the other arms of the service. The cream of the crop, esp. in officers, we found – surprisingly enough – not always in the tank units, but rather in the artillery, and then among the fliers. . . (10)

As far as offensive spirit and initiative were concerned, the same situation existed among the armored forces. They attacked and were commanded methodically. . . (11)

It must be mentioned, however, that instances of real fighting spirit, exceptional aggressiveness, and initiative were also noted. . . Still, such occurrences were not the rule. . . That the Russians were not good as individual fighters was proved also by their pilots, despite the fact that superior personnel was undoubtedly employed in that branch of the service. . . (13)



The strength of the Russians lies in the defense. . . Whenever the Russian infantryman is in his own position, he can withstand the most severe fire. . . and is even ready to resume action as soon as the fire is lifted. . . In the defense, he develops an unheard-of tenacity, right to the bitter end. In counterattacks against penetrations, the infantry, unless numerically far superior, again reveals its inherent weakness. (14-15)]

**16.7.41 [Anecdote]:** The Russian High Command also knew how to use the means of propaganda to stiffen still more the native tenacity displayed by the infantry in the defensive. Characteristic of primitive man is his gullibility and the ease w/ which he may be influenced. Thus, the Russian command was able to propagate the story that the Germans killed all prisoners. The Russian infantryman firmly believed that in his struggle to hold his position he also was carrying on the struggle for his very life, and acted accordingly. . . On **16 Jul 41**, the **52. ID**, which was under my command, thrust into the flanks of three [3] attacking [Russian] divisions near Rogachev. In one phase of the engagement, a small woods was the key to the defenses which the Russians had quickly established on their flanks. The courageously attacking infantry of our division was able to take the small woods only after a third assault, and after the fire of the entire artillery had been concentrated on that area three [3] times. As we entered the woods, we were confronted by the following scene: One position ran along the edge of the small woods, a second line **100** meters back of it. In the trenches and in the terrain between them lay hundreds of dead Russians. A closer investigation revealed that a *large number of them had slit their throats*; numerous razors were lying around. Thoroughly intimidated prisoners who had been captured at other points stated that their comrades had acted in this manner since they were neither allowed to retreat, nor did they want to be captured as they had been told the Germans killed all prisoners. Even if this belief was somewhat shaken during the course of the war, it still continued to exist until the very end. Although this belief was effective in stiffening the tenacity of the defense, it was definitely harmful to the aggressive spirit. (15-16)

Favorable for defensive warfare was also the Russian soldier's extraordinary skill in the digging of trenches and speedy construction of fortified positions. . . (16)

In the beginning, the commissar system was able to make itself felt, esp. in the defense. The commissars were personalities driven by fanatical, political zeal. In addition, they were brave and ready to make any sacrifice. They were attached to cdrs of coys and higher units. Their mission was to enhance the morale of the soldiers, keep tab on their reliability, and to see to it that they carried out their orders. They had absolute power over life and death. It could not be avoided that they soon began to interfere in the tactical command, particularly since tactical orders had to be countersigned by the commissars. Gradually, a strong opposition formed against them in the officers corps, apparently championed particularly by Marshal Timoshenko. In **1942**, the commissar system was discontinued. . . The soldier *stood in mortal dread of his commissar*. I feel convinced that it was the commissar who held together and rescued the Russian Army after its numerous defeats and reverses in **1941**, or that he at least played a decisive role. The commissars exerted an extremely powerful influence on the behavior of the soldiers in combat. This influence, naturally, was weaker in the attack than in defensive ops. In the latter case, the commissar was right back of the lines and shot everyone who turned back. . . "Whenever we were able to take Russian positions w/ less than the usual effort and made an unusual number of prisoners, we could generally take for granted that the commissar had been either killed or evacuated after being wounded." . . (16-17)

As the war progressed, the officers grew into their jobs. In the beginning, their authority was rather limited, and considerably overshadowed by the commissars. . . (18)

The Russian soldier ordinarily possesses a robust constitution, can endure unusual fatigue and privations, and is very frugal. It is particularly striking that despite the fact that an overwhelming proportion of the population is engaged in agricultural pursuits, the Russian soldier has a considerable, almost instinctive talent for technical things (weapons and motor vehicles). (19)

**4. D-054:** “*War Experience in Russia, Chapter IV, Kirov and the 40 km. Gap.*<sup>4</sup> *Experiences as Commandant of Roslavl.* Lt.-Gen. Walter v. Unruh.<sup>5</sup> 1947.

a. Withdrawal of 4. Army:<sup>6</sup>

The positions could no longer be held. Kaluga, Maloyaroslavets, Medyn, Yukhnov, Borovsk, and Mozhaysk were lost to the enemy and much immovable material had to be abandoned. Anxious to set a good example, **4. Army** HQ remained as far forward as possible. GFM v. Kluge had replace GFM v. Bock as C-in-C of the army group. Lt. Gen. Kuebler became v. Kluge’s successor as Cdr **4. Army**. He was flown to the Fuehrer, whom he confronted w/ the untenable situation. Thereupon, General Kuebler was summarily relieved of his command and did not return. General Heinrici, up to this time in command of **43. AK**, which formed the right wing of **4. Army**, now became C-in-C. . . Army HQ withdrew to Spas-Demensk. There, in constant peril of partisan attacks and w/o access – except for bad roads – to either the express motor highway or Yelnya, the HQ was trapped for all practical purposes. . . (2-3)

Ca. **20 km** north of Kirov, I stopped and went to see the commandant of the airfield located about **1 km** east of the railroad. Just then Junkers planes carrying Luftwaffe construction personnel came in for a landing. The men were properly clothed but loaded down by bulky equipment. They had come directly from Berlin, were newcomers to the Russian scene, and looked in amazement at the wintry landscape. Charged w/ defending the airfield, these men were now faced w/ the enemy advance and were thus immediately engulfed by war. Colonel Stahel, commandant of the airfield, was particularly concerned w/ the threat from the direction of Kirov in the south. Since the airfield was not immediately endangered , he turned over the command and the responsibility for defensive preparations to his executive officer, while he himself and a construction coy accompanied me to Kirov. . . [Note: They make the journey to Kirov by train.] Kirov still bustled w/ activity. It was the residence of the deputy cdr of the Landesschuetzen (local defense) battalion which was committed in and around Kirov. The commander, an old gentleman, was a nervous wreck. His deputy was in the same condition. . . The town of Kirov had the appearance of a small fortress afforded natural protection by bodies of water. I ascribed particular importance to this town and felt that it had to be held. . . (3-4)

The return trip was difficult. Burning bad coal and spewing steam and spray from every possible opening, our old Russian locomotive stood on the tracks, ready to depart w/ several open freight cars full of mines, which were to be transported to the express motor highway. . . With machine pistols in our hands, Col. Stahel and I took our places next to the locomotive crew and kept on the lookout. . . The airfield was attacked that very night. The station before Kirov was lost.

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<sup>4</sup> **Note:** According to author of this study, the Kirov gap had not been closed as of end of **Apr 42**. Does not appear doing so was a priority of AGC.

<sup>5</sup> **Note:** Apparently, General Unruh was commander in a rear area “Korueck.” See tail end of FMS D-055 for details.

<sup>6</sup> **Note:** This section on “withdrawal of **4. Army**” conveys the chaos, disorder and even panic that existed at this time – i.e., **Jan 42**.

Measures were taken at Roslavl to evacuate the railroad personnel. Before leaving the station, they burned whatever equipment could not be moved. Frightened by the blaze, all outposts east of Kirov withdrew, because they thought the Russians had already taken the town. The hapless cdr of the Landesschuetzen lost his head completely, and his men were left w/o a leader. A state of panic prevailed. Colonel Stahel was surrounded and could not longer furnish any assistance.

I gave the army cdr a situation report, which he supplemented w/ information about Roslavl. He ordered me to proceed immediately to Roslavl, then, w/ a police coy, to continue by rail to Kirov, and to stop the withdrawal. He attributed particular importance to keeping the bridges across the Snopot and Desna rivers intact. The trip by rail took six [6] hours. Engineer railway troops were preparing the demolition of the Snopot bridge, but I could still prevent them from carrying it out. Fortunately, the men of the Landesschuetzen battalion and of the construction coy could not march very fast, so that I managed to stop them **10** km west of Kirov. I moved the troops into a defensive position and procured a new btn. cdr.

To the south, contact was to be established w/ the **4. PD**, which was located at Lyudinovo. However, the distance was too great and the terrain was impassable w/o skis. This gap was infested w/ partisans. To the north, there was also a big gap of ca. 20 km. It was an almost impossible situation. *Our fighting strength amounted to 200 Landesschuetzen and 100 engineer construction troops*. The weak police battalion was needed elsewhere. Had the Russians continued their advance, they would have thrust into the chaos that was Roslavl, and would thus have closed the express motor highway. But the Russians did not stir and remained in Kirov. I was assigned a secondary mission, which charged me w/ assuming command over the big **40-50** km-wide gap. The only troops at my disposal were the **300** men mentioned above. (5-6)

b. Experiences as Commandant of Roslavl.<sup>7</sup>

We recaptured the airfield north of Kirov, where Colonel Stahel had been surrounded. **4. Army** HQ remained at Spas-Demensk. The Army's right wing, curving back from the airfield in the direction of Dubrova and the Bolva River, formed a front toward the SE. Since the partisans were too strong in either gap, contact thru patrols could neither be established w/ the right wing of **4. Army**, a panzer corps under General Kumme [Stumme?],<sup>8</sup> nor w/ the left wing of the **2. Pz Army**, represented by the left wing of **4. PD** under General v. Langermann-Erlenkamp. However, telephone communications existed. Telephone wires to the left wing of **2. Pz Army** led via Bryansk – Ordzhonikidzegrad to Zhizdra and, in my opinion as well as by all accounts, were tapped by the partisans. Telephone communications w/ the right wing of **4. Army** led via Roslavl and Spas-Demensk. Telecommunications between Roslavl and the CP of the Landesschuetzen battalion were frequently interrupted, because the lines were cut time and again. (7)

Every night Soviet troops poured through the gap south of Kirov, some using motor sleighs, and others had sleds or skis. They moved either in the direction of Bytosh, where the partisans were operating in civilian clothes had their HQ, or, filtering through gaps between the outposts, they

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<sup>7</sup> **Note:** Author's description of conditions in Roslavl illustrative for chaos and disorder that reigned far and wide in winter **41/42**.

<sup>8</sup> Most likely a translation error.

moved north behind our weak front, crossed the express motor highway, and joined General Belov, the local Soviet partisan cdr, in the area north of Spas-Demensk. . . (7)

**1 Feb 42** saw the arrival of an inspection team from the Army High Command Office of Supply and Administration. . . I was directed to attend a conference at Roslavl. At this conference, I described the situation at the front as well as conditions in Roslavl, of which the team had gained a personal impression. Conditions in Roslavl were roughly as follows:

The town held **20,000** civilians, **20,000** rear-echelon troops, and **10,000** Soviet PW's [prisoners]. Among the latter a typhus epidemic had broken out. Owing to the lack of other billeting facilities and to the impassability of the roads other than the express motor highway, the installations of all corps, divisions, and special-purpose units of **4. Army** and adjacent armies, such as army post offices, field bakeries, butcheries, legal sections, fiscal and administrative offices, medical and veterinary units, signal units, convoy formations, field hospitals, and canteens – in other words, every type of installation that had not business at the front – were located in Roslavl. Large motor-vehicle and other kinds of repair shops were operating in this town.

Roslavl was a transit station for all traffic moving to and from the front. The town commandant was an old colonel, who was directly responsible to **4. Army**. . . . All the main thoroughfares and side roads in town were covered w/ deep snow and constantly blocked. . . All billets were overcrowded, including the unheated church. Field hospitals were crowded to capacity and could not receive additional patients. Evacuation of the wounded had come to an almost complete standstill. *The hospital basements were full of corpses which could not be buried*, because the ground was solidly frozen. . . In the beginning of **Feb 42**, Christmas packages for the soldiers at the front lay solidly frozen in front of the post offices, because there was no room inside. In brief, it was a “sad and disagreeable situation.”

By order of the Fuehrer, the general staff officer assigned me the secondary duty of town commandant of Roslavl. . . The town was to be evacuated, since large-scale troop movements were to be routed through Roslavl in the spring. . . Responsibility for the future defense of Roslavl was to rest w/ me, and I was to take all requisite measures. [**Note:** Author goes on to describe what he did – in his words most effectively! – to create order out of the chaos that reigned in the town.] (8-12)

. . . The evacuation of the wounded progressed satisfactorily. . . Soon order was established and sufficient space was available. In the barracks alone, I was able to accommodate **2000** men in heated quarters. The roads were repaired and improved. I had the church vacated and made it available to the community for religious services. Roslavl once more presented a pleasant appearance. . . There were no more traffic jams. . . Roslavl was ready for the troop movements which were to be routed thru the town during the spring offensive. . .

Trips by rail to the front in the direction of Kirov were very trying. I mostly rode on the snowplow w/ the Russian laborers. Enroute, the *locomotives almost invariably developed mechanical troubles*. A travel time of six [6] hours for the **70** km distance to the front could be considered a good performance. The sporadic news from this gap always gave me cause for concern. Indeed, there was no lack of alarming news. Since the few guards and sentries were

always posted in the same place, *the partisans who passed at night called them by name* [!]. This was *proof of how well informed the partisans were*. . . Traffic on the Smolensk-Roslavl railroad now functioned smoothly. Even a railway repair outfit arrived. . . Only the **40 km** gap at Kirov continued to be our problem child. (11-13)

c) The attempted attack on Kirov:

Finally, Army Group took an interest in the closing of the gap and assigned this operation to **2. Pz Army** and **4. Army**. I was asked how much manpower I could muster. This manpower consisted of my **300** men in the line. I could also make two [2] police coys temporarily available, as well as some butchers, bakers and mail clerks [!]. The latter personnel, however, were rather old men; the young men were at the front. This was not an attack force. Out in the open I picked up an abandoned German howitzer minus sights. Just the same, I had it moved up on line. Skis had finally arrived, yet my men were not Bavarians, Austrians, or mountaineers. They knew nothing about skiing. . . In the personnel of the **4. PD** train, which was in its winter quarters, I procured an additional force. . . The train personnel gradually fought their way forward, but the gap remained open. Panzer Corps Stumme was similarly unable to make any headway in the deep snow. The attempt thus came to naught. . . (13-14)

Things did not look any better on the right wing. The **4. PD** was to take Kirov. I discussed the attack w/ General v. Langermann over the telephone. I suggested that he keep close to the villages in view of the cold and the snow. . . With Lyudinovo as the point of departure, the main pressure would have to be exerted by his left wing. . . However, throughout this day I did not notice any advance. General v. Langermann had been unable to capture the village halfway to Kirov [i.e., ca. **10 km** from the latter town]. Since he could not let his troops spend the night in the open, he had returned to the point of departure. By order of Corps, he had put the main weight of the attack in his right wing. There, however, the Russians had thrust into his open flank, and, as a result, the advance was frustrated also in this area. The attack lacked drive and a joint command. This was probably due to the fact that it was considered an operation of secondary importance. Thus it did not produce any results. (14)

[**Note:** The author, General v. Unruh, left Roslavl and the front at the end of **Apr 42** – near the end of the month he had been ordered to report to Fuehrer HQ in Rastenburg for purpose of assuming a new administrative assignment. In Smolensk, he took leave of GFM v. Kluge, whom he “impressed w/ the necessity of doing something about the gap at Kirov.” Hence, gap still not closed at this time.]

**5. D-055:** “*War Experiences in Russia: Chapter III: Kaluga and the 80-km gap.*” Lt. Gen. Walter v. Unruh. 1947.<sup>9</sup>

a. Conditions in and around Kaluga: At the end of **Oct 41** I traveled from Spas Demenskoje by truck on rails from the supply route to Kaluga. . . The railroad had not yet been completed, signals and switches were still missing. . . Kaluga was a nice city, situated on the **200-meter** wide Oka River. . . The city itself was well-preserved. It served as a center for all rear area forces to

<sup>9</sup> **Note:** According to the classification markings on this study, it was only regraded as “unclassified” by authority of E.O. **10501** on **25 Oct 84!** Unsure how this study – which deals w/ right wing of **4. AOK** in **Dec 41** – dovetails w/ **D-054**, where Unruh discusses a **40 km** gap around Kirov. Both gaps – by Kirov and Kaluga – appear to have been between **4. AOK** and **2. Pz AOK**.

the right wing of the army [i.e., **4. AOK**]. That wing was advancing on Tula via Makarowo . . . Located in the city were a regional military government office, a military government detachment, a delousing coy, an ambulance station, a large hospital, and medical units. At the eastern exit there was a PW camp w/ **5000** Russians and an officers' camp w/ **700** Soviet officers. In the vicinity of this camp, there was also a large Russian ammunition depot. . . [Note: Local businesses included fisheries on the Oka – at the piers he saw half-sunk or damaged ships – tanneries, large wood-working mills, a coal mine. Yet all commerce had ceased.] . . . (2-3)

Soon after the unfortunate order of the Fuehrer, prohibiting any retreat and directing that positions be held for the winter, I received, in **mid-Dec 41**, the order of the army cdr to put Kaluga in a state of defense. This was easily ordered by difficult to execute. The wide Oka, major obstacle against an enemy attack, froze over. . . There were no combatant troops available. I designated the delousing coy stationed in Kaluga as guards. I took every soldier I could find. I had the guns which had been left behind, taken to the southern slopes of Kaluga. But there was a shortage of everything. . . (4-5)

On **16 Dec 41**, the army cdr came to me and brought me the news that the **2. Pz Army** had withdrawn from the neighboring area. The operation against Tula had failed. Between the right wing of the **4. Army** and the left wing of **2. Pz Army** (Belew-Odolew) there now yawned a big gap. Into this gap strong Soviet forces were now pouring. They were already reported to have reached Shanino, midway on the railroad line from Tula to Koselsk. . . Kaluga would from now on be of increasing importance for the defense. I was told that I should go there that very day. . . Anything could be expected. . . That very same day I went to Kaluga w/ **30** military policemen. . . (5-6)

On **17 Dec 41**, I drove w/ seven [7] military policemen by truck from Kaluga for a reconnaissance trip in the direction of Shanino. We were equipped w/ shovels, axes, picks, snow chains, ropes and boards. It was **-35 C**. The storm, coming from the east, drove ice into our faces with cutting force. The roads were terrible w/ slippery ice topped by snowdrifts. We called on the villages for aid and, by dint of much pushing and pulling, and even by hitching horses up to the trucks, we moved ahead. The air-line distance to Shanino was only **40** km, but it took **10** hours of hard work and great hardships. However, I was able to ascertain that the Soviets were still in Shanino. Scouting around w/ the aide of cigarettes, chocolate and brandy, I found out that the Soviet troops had come from Tula and were to march on Kaluga tomorrow. . . (6)

b. The 80-km gap on both sides of Lichwin:

When I returned to Kaluga, I received orders from the GFM [v. Bock or v. Kluge?] on **18 Dec 41** to take over the defense of the gap to the **2. Pz Army** also. This gap was **80-km** wide though and the enemy was already approaching Kaluga from the south w/ his advance columns. The bad roads had held him up, otherwise he would already have been in Kaluga, for the Oka was frozen so hard that it had ceased to constitute an obstacle at Kaluga – and south of Kaluga there wasn't a soldier. The **43. AK** [Heinrici] knew what the situation in Kaluga was and already a few units had appeared for its defense in order to *keep open the retreat for this corps as well as that of the 13. AK*. . . (7)

I delegated the defense of Kaluga to an artillery colonel of **13. AK**. . . My staff was detailed to him. To my inquiry, the army cdr replied he could give me no troops for the defense of the **80-km** gap. However, it might be possible that five [5] construction coys were still located at

Lichwin; they had worked on the bridge there. He said I could possibly find some stragglers and that it would be important to hold up the enemy as long as possible, as otherwise the right wing of 4. Army would be lost. An advance by the enemy via Kaluga to Medyn or Juchnow could prove fatal to the entire **4. Army**. . . (7-8)

[**Note:** General v. Unruh then went to Lichwin, starting out at **0500** hrs. on **19 Dec 41**, w/ temperatures at **-50 C**. He took three trucks and **30** military police, his aide, and an interpreter; a coy of Landesschuetzen on **6** trucks followed behind him. They crossed the ice of the Oka and proceeded fast on the wide road thru the forest. They finally reach Lichwin.] The city was still alive. Construction soldiers came back to the town. When asked why, their answers were that the enemy was attacking and they wanted to return to their quarters here in Lichwin. . . The situation was as follows: Five [**5**] construction coys, w/ two weeks service, equipped w/ Norwegian and Dutch rifles w/ about **20** rounds each [!], had advanced to Tscherepot to establish an outpost. They reported that the enemy had chased them out and was following. According to their report two Landesschuetzen coys were still standing guard on the railroad bridge south of Lichwin. . . On the morning of **20 Dec 41**, I posted my **5** construction coys in defensive positions around Lichwin. I fully realized their ignorance of military matters. The sole purpose of the entire maneuver was to deceive the enemy. . . On both sides of the railroad from Lichwin to Koselsk there was a forest which was occupied by **3000** partisans. . . (8-11)

[**Note:** From a reconnaissance, v. Unruh learns that he is faced by three [**3**] Russian divisions, but that the main Russian forces were still pinned down; that their front faced toward Lichwin and that they, therefore, had not been employed in the main thrust toward Kaluga. The right wing of **4. Army** had been pursued by strong forces from Makorowo, but only advanced troops of no great strength had been committed up till now against the flank and rear of **4. Army**. Thus, the right wing of the army was able to effect a very difficult withdrawal from this situation. Any chance of envelopment or complete encirclement by the Soviets, which had seemed very probable, had now passed. (12)

I brought my men a little closer to Lichwin. . . Over this line [i.e., the telephone line from Kaluga], at midnight **28-29 Dec 41**, the order reached me from the army cdr that my mission had been accomplished. The construction coys and my military police were to be transferred to **2. Pz Army**, which had taken over this sector. If it were possible for me to leave now, I was to return to my post at Juchnow ASAP. . . I arrived in Sanosnaja w/ **30** military police on **29 Dec 41** about **2300** hours, ordered cars and drove in the cold winter night forward to Juchnow, where I arrived about **0300** on the morning of **30 Dec 41**. The G-4 of the army was sleeping on my straw sack. He revealed to me that the army was moving to the rear, that the ***right wing had been saved***, and that my HQ would be at Spas Demenskoje. At daybreak I drove there, where my officers and soldiers from Kaluga also arrived. The entire staff of Korueck 339 [HQ army rear area] was beaming, esp. when the thanks of the army arrived during the New Year's Eve party: *Korueck had saved the army's right wing* from envelopment and destruction. There were several medals issued. On my **65. birthday** I myself received from the Fuehrer the clasps to the Iron Crosses I had already earned in **1914**. The name "Korueck" now was a name of honor, whereas the frontline soldier heretofore had looked upon the men of the rear as not quite full fighting men.<sup>10</sup> (13-14)

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<sup>10</sup> **Note:** Not until very end of this study does one discover that General Unruh apparently belonged to this rear area unit (**Korueck 339**). Need to confirm.

**6. D-073:** “*Rocket Projectors in the Eastern Theater,*” Gen.-Maj. Ernst Graewe. May 47.<sup>11</sup>

In **Jul 40** the first projector regiment was organized as a field unit. A medium projector regiment, it consisted of three [3] btns of three [3] batteries each, w/ six [6] six-barrelled **150**-mm projectors per battery. Somewhat later heavy rgts. were organized. . . (1)

Characteristics of the Weapon: Because of their light weight the projectors could be emplaced even under the most adverse soil conditions encountered in Russia. Mud, snow and marshy ground did not restrict in any way the use of even the heavy projectors [i.e., **280**-mm and **320**-mm wpns, etc.]. For that reason, soft meadows and lightly frozen swamps were not avoided but frequently even preferred as sites, because, in the event of enemy fire, the shells buried themselves into the soft ground and caused no damage. The light weight of the projectors – **500** lbs. for the medium and **1000** lbs. for the heavy type – permitted their movement by from four [4] to six [6] men. Positions that were unaccessible to prime movers could now be occupied. (2)

After the Battle of Moscow, the **51<sup>st</sup> Rgt.**, which had lost numerous vehicles, was transferred to the vicinity of Vitebsk for rehabilitation. In **Jan 42**, while still in the process of organization, it was suddenly called upon to organize battleworthy batteries for defense against the major enemy break-through near Toropets. Prime movers for the projectors were either not ready for use, or missing altogether. Only a few trucks were in any kind of serviceable condition. Blizzards and snowdrifts at **-30** C. paralyzed the movements of mot. Formations along the highways. Enemy spearheads were already approaching Vitebsk, Velizh, and Velikye-Luki. (2-3)

Two sleigh batteries were organized hastily. The six [6] projector and **18** ammunition sleighs of each battery were pulled by **75** Russian Panje horses. The batteries were committed for the relief of Velizh as elements of the reinforced corps under the command of General v. der Chevallerie. Additional ammunition (weight per projectile ca. **100** pounds) was carried on trucks in the corps ammunition train, which followed the combat units on the Vitebsk – Surazh – Velizh road after it had been cleared of snow and mines. The light weight of the projectors permitted an advance over the ice of the Dvina in the initial phases of the march; not until later did it become necessary to continue the advance over the road to Velizh. (3)

Only the use of small, low Russian sleighs, drawn by one or two Panje horses, proved to be practicable. Larger sleighs, furnished by German military supply agencies, were too heavy and particularly too wide for the narrow trails that had been broken by the local sleighs. Furthermore, harnesses for the native horses, taken from local sources, permitted only limited loads. Despite the most severe difficulties presented by weather and terrain, the projector batteries, that had been organized as described above, succeeded because of their special maneuverability, in *playing a vital part in the operation for the relief of Velizh*. The four [4] **150**-mm howitzers which were pulled along the same route by **8-10** heavy German horses did not reach their destination, while the two [2] projector batteries w/ **12** **150**-mm projectors, totally **72** barrels, easily overcame the adverse conditions of the Russian winter. . . (3-4)

The projector regiments and brigade had the mission of tipping the scale of battle by means of powerful sudden massed concentrations. . . The projector units were ideally suited for that

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<sup>11</sup> **Note:** According to classification markings, appears this document was not regraded as “unclassified” until **1997**.



type of mission. Within **10** seconds a regiment could fire **324**, and a brigade **648** rounds on a given target. . . Each regiment carried a basic load of **20** salvoes, that is to say, **6480** rounds. . . . (4)

**Vitebsk:** The principle of waiting, keeping cool, and saving ammunition for a sudden, all-out concentration of fire had always proved its worth in the final analysis. An incident which occurred during the advance of **3. PzGr** on Vitebsk in **Jul 41** may serve as an example. From **216** barrels the **51. Rgt.**, then part of the Panzer Group, delivered three [**3**] concentrations of fire on enemy reserves occupying the opposite bank of the Dvina, and enabled our troops to force a crossing near Beshenkovich quickly and w/o suffering undue losses. The hail of **150**-mm shells which saturated the area within **10** seconds had a devastating effect on enemy morale, particularly on the Russian troops in the woods. (5)

**Yartsevo:** During the heavy defensive fighting near Yartsevo in the summer of **1941**, continuous Russian attacks and even partial break-throughs gave rise to very grave situations along the vastly expanded front daily. As a result of transportation difficulties ammunition was scarce. The unit cdrs were desperately calling for support, and yet their request had to be denied w/ an eye to future larger operations. Only when in the course of a major enemy attack on Yartsevo the massed fire of five [5] batteries, totaling **180** barrels, hit the enemy reserves w/ all its fury and smashed the attack, did enemy pressure suddenly cease. (5-6)

**Vyazma:** The projectors were again employed to best advantage during the battles of encirclement at Vyazma in the fall of **1941**. The collapse of Russian attempts to break out of the encircled area was primarily due to the massed fire of **51. Rgt.** The fragmentation of the **150**-mm shells –fired in salvoes of **250** rounds – had a devastating effect on the closely concentrated attacking force. . . (6)

**Tactics: On the March.** In order to have them ready for immediate action in case of resistance along the route of advance, the projectors traveled close to the head of the column. They were always combined w/ tanks. A projector battery was always attached to an advance detachment of the Panzer Division, and a projector battalion to the advance guard. The projectors w/ their strong fire power had the mission of firing one or two concentrations, thus breaking any enemy resistance which might have delayed the swift advance of the tanks. . . The commanding officer [of the advance guard] had the fire power of **18** projectors [i.e., **3** batteries] – a total of **108** barrels – at his disposal for immediate employment. By virtue of their light weight and maneuverability, heavy **300**-mm projector battalions could also move w/ the advance guard and quickly break enemy resistance by firing the dreaded incendiary rockets. . . (7-8)

The speedy and uninterrupted advance of the tanks of **3. PzGr** in **Jun-Jul 41** by way of Minsk – Smolensk toward Vyazma was in part the result of quick section [?] by projector units which had been incorporated into units at the head of the column. (9)

**Antitank Defense:** In spite of the wide dispersion, peculiar to rocket wpns, and the resulting lack of accuracy in the fire [of] the individual projectors, which generally precluded their use as AT wpns, projectors were successfully massed even against tanks. This was illustrated during the fighting for Minsk in **Jul 41**, when an enemy tank attack from the forests south of Minsk was brought to a halt w/ the support of two [**2**] projector batteries. In the course of this action, tanks were hit by the concentration and one tank-turret was shot off. (9-10)

**7. D-078:** “*Winter Fighting of the 253. ID in the Rzhev Area in 1941-42.*” General Otto Schellert.<sup>12</sup>

**Sep 41:** In mid-Sep 41, the **253. ID** prepared for greater mobility after experiencing many difficulties in its advance thru swamps, mud, and sand. It was decided, therefore, to change over from the motorized ammunition and supply trucks w/ their heavy rubber tires to the light, horse-drawn Panje carts locally in use by the Russian peasants. Regimental and division HQs were provided w/ horses and a few motor vehicles. The amounts of ammunition, material, clothing, and personal baggage were also reduced, since the number of troops had decreased thru casualties. After loading tests, the division ordered all of its organic units be equipped w/ vehicles and horses. The division’s motor vehicles remained at a special depot which the division had established at Toropets. The line units initially opposed this change, but conceded later that it was to their advantage. (1)

a. Attack across the Volga and Capture of Selizharovo:

**Oct 41:** In mid-**Oct 41**, after moderate fighting but great terrain difficulties, the division’s main body reached Soblago (about **84** miles NW of Velikie Luki) and the area SW of it. A reinforced battalion had advanced as far as Peno and crossed the Volga. The muddy roads prevented the horse-drawn artillery battalion (**150**-mm howitzers) from following, and it caught up w/ the division only weeks later after freezing weather had set in. . . When the advance began the division had been assigned to **16. Army** on right wing of Army Group North. Then it was transferred to the **9. Army**, to the left wing of AGC. In late **Aug 41** it was reassigned to **16. Army**. At Soblago it was permanently assigned to **9. AOK**. [**Note:** These frequent reassignments between army groups had handicapped the division in receiving supplies, instructions and orders had failed to reach the division on time, mail was overdue, etc.] (1-2)

**Oct 41:** In mid-**Oct 41**, **23. AK (9. AOK)** ordered the division at Soblago to take immediate possession of the Volga crossings near Selizharovo, about **54** miles NW of Rzhev. The march led thru swamps which after heavy rains had turned into a bog. This particular area had no hard-surfaced highways and was sparsely populated; there were a few forest lanes, but they were so full of deep holes that even small horse-drawn vehicles were hardly able to pass. Corduroy roads and crossings over small creeks constantly had to be constructed. All this slowed down the march considerably. Great difficulties were also experienced in building a temporary bridge across the Shukopa River, because of the unfavorable terrain along its banks. Yet all difficulties were overcome. The division’s light equipment now paid off. . . The nightly frost which began in late **Oct 41** aided the division’s advance in the early morning when the roads were still frozen. . . [**Note:** Division reaches and then advances along the Volga, w/o support on its right or left, but w/ two infantry regiments committed in front. . .

Reconnaissance established that the Russians had built a closely knit and deeply echeloned system of fortifications at the Volga. The enemy installations [i.e., bunkers, dugouts, etc.] were difficult to detect because the Russians excelled in camouflage and maintained strict discipline. The division now faced the Russian Volga position which in the summer of **1941** had been

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<sup>12</sup> **Note:** This study is marked on every page as “Draft Translation.” Among other things, it includes some useful observations on German engineering activities, the construction of defensive positions after the advance had halted, and efforts to enhance mobility during winter. Study also points out effectiveness of the much-maligned **37**-mm AT gun when used against bunker positions, the beginning of Soviet attack on far left flank of AGC on **9 Jan 42**, lessons learned in winter warfare, etc. During winter **41/42** over a period of weeks, **253. ID** repelled 120 Soviet attacks!

constructed by thousands of laborers. In fact, the position represented an *intricate maze of deep and wide antitank ditches*. . . [Note: Reconnaissance across the Volga encounters strong fortifications and confirms reports of previous patrols that many more Russian bunkers not identified earlier were located in the woods across the river. The Russian artillery was not very strong, but it was alert. . . Maintaining a steady flow of supplies was the division's main concern. (3-5)

**Oct-Nov 41:** In late **Oct 41**, the commander of **23. AK** held a conference at **102. ID** HQ at Yeltsy (ca. **36** miles NW of Rshév). At this conference, the **253. ID** was ordered to cross the Volga and seize the area around Selizharovo. The **102. ID** was to support the attack by thrusting to the NW and NE. The **634. Medium Art.-Btn.** (mot., **100**-mm guns) was brought up since the divisional artillery had not yet arrived. The division artillery regiment could release only two of its battalions for the attack. [?] . . .

The **IR 464** was to carry out the attack across the Volga. The **IR 473** which had been transferred from the Selizharovo front to Fegelein's **SS Cav.-Bde**, was assembled behind **IR 464**. . . After conducting local reconnaissance in person, the division cdr ordered the crossing to be made about six [**6**] miles SE of Selizharovo. . . The attack began at dawn on **6 Nov 41** and surprised the enemy. The first waves reached the enemy bank on pneumatic floats and immediately attacked the enemy who was occupying higher ground. It soon became necessary to move the crossing site farther downstream to prevent the enemy from shelling the German infantry heavy wps and artillery during the river crossing.

While the Russian artillery fire was not very effective, the German artillery gave good support to the infantry, enabling it to seize the hill positions and to form a bridgehead in minimum time. The construction of a bridge began at once [the Volga was about **400** feet wide]. . . Reconnaissance was carried out from the bridgehead which revealed that many Russian bunkers in the woods bordering the Selizharovo highway were strongly occupied and that at a distance of about ½ mile from the German line the enemy was occupying dugouts, bunkers, and anti-tank ditches.

[Note: Author describes continuing assault of **253. ID**.] After much difficult fighting, and w/ attack in danger of bogging down, **II/IR 464**, led along the railroad by its daring cdr, Captain Grotheer, broke thru the enemy lines and advanced to the Selizharovka River. . . The next morning, other elements of the regiment also pushed on to the water, and fought their way thru to the Selizharovo – Ostashkov highway, capturing bunkers ca. **1** mile NW of Selizharovo. The regiment also seized some villages NE of Selizharovo. By now, however the regiment's strength was exhausted; it was relieved by **IR 473**, which continues the attack. . . Difficult fighting continued. The Russians begin to counterattack. The fighting for the Volga and Selizharovo ended in mid-**Nov 41**.

The German troops were greatly exhausted, esp. the infantry which had mostly fought w/o artillery support. The occasional commitment of **88**-mm AA guns was of great assistance, and on several occasions they destroyed enemy bunkers w/ direct fire. The **37**-mm AT guns also assisted the infantry and effectively neutralized enemy fire from the embrasures of the bunkers. . . After completing its mission in this sector, the division was ordered to capture Ostashkov. The division, in turn, reported that it was in no condition to undertake this operation because its strength was inadequate. The plan was finally abandoned and the construction of a defensive position ordered. (5-10)

Even before receiving this order, the division had already changed over to the defense. This defensive mission was rendered more difficult by the lack of suitable entrenching tools. The troops, w/o adequate winter clothing and equipment, were left in the woods right where the attack had halted, on ground that was frozen several inches deep and covered w/ snow. The division's sector, which was ca. **40 miles wide**, had to be held by elements of the infantry and engineer units which were greatly depleted. [Author describes division's front in some detail.] Meanwhile, the division's engineer battalion worked full time on the construction of bridges across the Selizharovka River and later on bridges across the Volga at Selizharovo. . . As soon as the Volga froze over, the engineers switched over to constructing an **ice bridge**, which was passable for all vehicles. . . The engineer battalion was also ordered to bring up to the infantry position wooden frames for shelters which had been manufactured according to definite specifications. Two [2] coys of the AT battalion were committed in front. . . (10-11)

After overcoming the initial obstacles, the troops made good progress in constructing the defensive positions; every effort was made to provide them w/ shelter for the impending cold and inclement weather. Fire and observation lanes were cut thru the woods, and, since in the beginning there was a shortage of barbed wire entanglements, branches were used as obstacles. Later on, abatis were set up in the frozen terrain and knife rests [?] placed in the snow. The division ordered that fire positions were to be organized in open terrain, so that the sentries had unobstructed vision and could hear well, especially at night. In the open terrain, the sentries also had an unobstructed field for throwing hand grenades. [Note: Author notes aggressive patrolling activity, which constantly harassed the enemy positions which were close to the German lines; these patrols "considerably improved the morale of the German troops."] (12-13)

**Dec 41:** Early in month, division experiences heavy enemy attacks, which were beaten back, the German infantry receiving excellent artillery support. On orders from higher HQ and for purposes of relief and training, each division was to pull out one inf. regiment and reinforce at least one coy w/ infantry heavy wpns and prepare it for winter mobility w/ skis and sleds. [Note: Division eventually activates one coy on skis from the troops which had been pulled out of the line. Infantry heavy wpns, AT guns, and field kitchens *were provisionally placed on skis or sleighs, radio equipment was placed in insulated boxes*, and other measures were taken to assure the troops' combat readiness in snow and ice. However, due to changes in the situation, these efforts could not be entirely completed. (13-14)

[Note: Author notes that sector of **253. ID** was too great; too few heavy wpns (artillery and infantry wpns.) The severe cold, the deep-frozen ground, and heavy snow frequently forced the German troops to establish a defensive line at the edge of villages and in huts and barns. Since these buildings usually consisted of wood, firing slits for MGs could easily be established; the height of these slits from the ground was determined by the thickness of the layer of snow, so that it had to be at least **3** feet above the ground. (15)

The division was greatly concerned about the gap which existed to the adjacent unit on the left. . . and requested reinforcements for Peno, w/ the result that the recon battalion of the **SS Cav.-Bde** was finally moved up. During the Christmas holidays [!], this recon battalion was attacked by greatly superior forces and wiped out despite its fierce and courageous resistance. The two [2] coys at **IR 453**'s left wing which had been hastily organized were also attacked on Christmas Day by greatly superior Russian forces. . . However, the enemy attack bogged down in the deep snow and failed. This success to some extent restored the morale of the German troops. (15-16)

**Jan 42:** Early in the month there were new indications that the enemy was planning an offensive; the arrival of Russian reinforcements and guns was observed. The division therefore prepared for an imminent attack. The enemy offensive, directed mainly against the regiment's center and left wing [IR 453?], began on **9 Jan 42**. The Russians advanced in dense waves across the frozen Volga Lake which was covered by deep snow. The German artillery fire, especially the heavy artillery battalion's flanking fire, was accurate and contributed materially to check the attack on the enemy's eastern wing. Advancing thru the snow only slowly and w/o cover, the Russians came within German MG range and suffered heavy losses. New waves replaced them. [Note: Germans soon suffer shortages of ammunition; Russians eventually effect a breakthrough in sector of recon battalion of **IR 453**. Yet other elements of the regiment held their positions and blocked the enemy points of penetration. . .

The heavy fighting continued for many days and nights; the German troops distinguished themselves in the fighting and braved the bitter cold of **-40 F.** and more. They endured this cold only because they were frequently relieved and given a chance to get warm in huts and dugouts; at same time, they were also able to thaw their frozen wpns. The Russians suffered even more from the cold despite their winter clothing, since they were out in the open. This explains why the fighting centered mainly around the villages. Gradually, the Russians penetrated the woods behind the German lines, but their attempt to capture Shuvayevo was frustrated by **IR 453's** HQ and supply troops. . . (16-17)

b. Withdrawal from the Volga to the Molodoy – Tud Position:

**Jan 42:** During this fighting the division was ordered to withdraw in the direction of Kholmets (about **36** miles west of Rzhev). Without enemy interference, the German troops east of the Volga moved across the Volga bridge under the protection of a rear guard. After the crossing the bridge was blown up. . . The withdrawal was interrupted by an order from Hitler, strictly forbidding any further retreat. On the following day, it was superseded by an order directing that the retreat be continued. . .

The Hitler order was to have disastrous consequences. The horse-drawn artillery which was already withdrawing had to return to its former position. During a later withdrawal, it never did get out of the deep snow and was forced to destroy its guns. The **634. Art.-Btn. (mot.)** ran out of fuel and was also compelled to demolish its guns and burn most of its prime movers and motor vehicles. The division learned that the **IR 189**. . . had been wiped out in the heavy fighting near Okhvat. Several horse-drawn columns committed separately on the supply route had met the same fate. . . The withdrawal continued under extremely difficult conditions. There were no roads via Kashino to the south, and frequently the German troops had to march thru snowbound woods. Motor vehicles and motorcycles could not get through and had to be destroyed. Due to lack of forage and extreme cold, the horses were unable to pull heavy loads. As a result, *the division lost all but 4 artillery pieces and most of its infantry heavy wpns*. Many horses perished. Still, most of the German wounded were evacuated in time. Despite such difficulties, the withdrawal proceeded systematically and orderly, and was completed around **20 Jan 42**. (17-19)

c. Fighting in the Molodoy – Tud Position:

There was to be no rest for the troops who were greatly exhausted from the exertions of the withdrawal. Despite its diminished combat strength, the division was again assigned a very wide

sector of about **24** miles in its new position. This sector, which adjoined that of the **102. ID**, extended from the Molodoy-Tud salient NW of Kholmets in an arc projecting northeastward as far as the point of intersection between the railroad and the highway ca. **6** miles east of Nelidovo. . . This salient was held although later it was exposed to frequent attacks. [**Note:** Author notes that snow fences (fir trees joined together) were used to improve the key roads in this sector, which had been rendered unusable at times by snowdrifts.] (19-20)

In view of the existing difficulties – large sectors and understrength units – opinions differed as to how the defensive position should be constructed. It was a question whether a continuous line or individual strongpoints were to be established. The system of strong points would afford closer concentration and better control over the troops, as well as closer co-operation w/ the heavy wpns, and a small echelonment in depth. A continuous line, on the other hand, would provide better observation and the possibility of shelling the intermediate area, it would make it more difficult for the enemy to infiltrate behind the German lines; it would also reduce German losses from heavy enemy fire. The division ordered establishment of a continuous line. This, naturally, did not preclude the formation of strong points where necessary; the final aim was to establish a continuous connecting trench between the individual installations which could be reinforced w/ wire entanglements. Experience proved that the best results were obtained w/ this type of construction. . . The division supply came by rail from Rzhev and was unloaded at Mostovaya. . . (20-21)

**Jan 42:** By the end of the month, Nelidovo village and station . . . fell to the enemy. The division ordered **IR 473** to recapture the village, but the attempt failed and the enemy again stood at the division's unprotected flank, since the **246. ID** which was to adjoin the **253. ID** after advancing from Smolensk via Bely was unable to advance beyond Bely, and even had the greatest difficulty in holding the latter locality. . . (22)

**Feb 42:** Author describes division's advance across the Lechesa valley in order to carry out a major operation against the Nelidovo–Bela highway to block Russian traffic. **1. PD** provides some support to division at this time, as two of its Pz.-Gren. battalions were committed SW of Mostovaya (to help stop a Russian advance?). . . About this time, the **253. ID** had its first encounter w/ T-34 tanks, about **20** of which broke into the village of Karpovo after overcoming deep snow w/ surprising ease. The Soviet tanks attacked one of the division's regiments, which had no AT wpns and was equipped only w/ a few AT mines. One battery w/ two **105-mm** guns, located in the western part of the village, combated the tanks that came within its range, but was eventually overrun and destroyed. A temporary panic broke out in the village, but then the German troops rallied and hurled explosive charges from the houses, barns and basements, thus annihilating ca. ½ of the enemy force.

[**Note:** Thereafter, bitter fighting continued for weeks. Division eventually supported by weak elements of **110. ID**. German troops give ground but resist all attempts at an enemy breakthrough.] Supply difficulties were increased by fact that since early **Feb 42** the railroad from Rzhev was continuously disrupted by local enemy penetrations. For weeks the division had to be supplied by air. . . For many weeks the wounded could only be evacuated by air. (22-25)

**27 Mar 42:** The German troops performed above all praise. The division received a well-deserved citation on this day which stated: “In weeks of bitter fighting the Rhenish – Westphalian **253. ID** has repelled 120 enemy attacks which had in part been supported by tanks and has destroyed the main body of several Soviet divisions.” (25-26)

d. Lessons Learned:

Experiences in Winter Warfare

- 1.) The conduct of battle depended largely on the condition of the main arteries of communication and on the speedy removal of snowdrifts.
- 2) Since the frozen ground did not permit digging in, parapets made of snow had to be constructed. The latter connected the positions and, if covered by a layer of ice or reinforced w/ timber, rendered the position bullet proof to some extent. It was necessary also to paint the firearms white and camouflage the emplacements w/ white cloth or whitewashed planks. Gun barrels also required a coat of white paint.
- 3) Initially, frozen MGs also presented a major problem, since anti-freeze was not available. However, it was soon discovered that the MGs would function in extreme cold if they were not oiled after cleaning and were occasionally fired. Besides, the guns were not brought into heated rooms but left under cover outdoors, ready for instant use. In sentry posts recesses were built into the parapets made of snow or the ground in which the guns were kept. (26)
- 4) Special precautions also had to be taken to prevent the breaking down of radio equipment in severe cold.
- 5) Whenever understrength units have to defend a large sector, the commanders, from platoon up, should keep reserves on hand, even if only [a] few selected men. During the Russian campaign, such reserves were usually successful in launching an immediate counterattack against the vastly superior enemy w/ hand grenades, and in driving him from the position which he had penetrated.
- 6) MGs should be continuously switched to alternate positions, so that as soon as a gun has fired it moves to another position. This will deceive the enemy as to strength of the opposing force and prevent the destruction of the MG by enemy fire. (27)

**8. D-098:** *“Horse Diseases during the Eastern Campaign, 1941-45,”* Dr Maximilian Betzler. 1947.

a. General:

The eastern countries have always been considered the main source of various animal epidemics because of inadequate precautionary veterinary measures. Experiences gained during World War I are still fresh in our memories. At that time the horses of the German units, thru contact w/ Russian animals, contracted much-feared contagious diseases, in particular **glanders & mange**, on such a wide scale that units up to entire divisions had to drop out of military operations. Thus, it was once again to be expected that upon entry into Russia, these old, contagious, war-time epidemics would show up primarily among the horses sooner or later. The effect of these epidemics upon operations was not to be underrated. Actually, it became apparent much to our amazement that during the two [2] decades before the war Russian veterinarians had achieved considerable success in eliminating animal epidemics. Glanders, the most feared disease of

horses, also communicable to man and usually curable, appeared on such a small scale that little importance was attached to it. During the second half of the winter **1941/42**, isolated cases of mange, a skin disease, occurred on a tolerable scale, but during subsequent years and esp. in wintertime, it mounted to an exorbitant figure (from **2-10%** of the horses) and spread along the entire Eastern Front. (2)

As the German Army pushed further into Russian territory, it became acquainted w/ piroplasmiasis – a contagious horse disease known already in WWI, principally in the Balkans. . . Even though this disease was localized – it appeared in districts where the carriers of the disease, certain types of ticks, had their local habitat – in some instances it caused considerable losses among the horses. . . On the other hand, contrary to expectations, contagious pneumonia appeared rarely, and then only in a very mild form. . . Although this disease occurred more frequently (after the winter of **1941/42**), and quite often in a severe form, it never really reached the epidemic stages such as we knew in WWI. (2-3)

No new experiences were made w/ regard to other horse diseases, which differed from the observations of WWI, as recorded by the war-time veterinary corps of the German Army from **1914-18**. . . Field Manual (HDV) **56**, Part III, in which the experiences of WWI were incorporated, contains the veterinary measures for preventing and combating animal epidemics in the German Army; they proved entirely satisfactory. (3)

Aside from mange – cause of the worst epidemics of World Wars I and II – no other contagious horse disease spread to the extent that the employment of larger units or even planned military operations were endangered. [Note: Author then goes on to list at some length the measures used to combat horse diseases.] (3-4)

## b. Types of Contagious Diseases:

### I. Mange:

Author addresses experiences w/ this disease, which at the outset occurred only on a small scale during winter **1941/42**. Disease appears to have become a serious concern by the winter of **1942**. From that year on, it remained a “constant scourge” of German Army horses. Thus, it repeatedly proved necessary to refrain from withdrawing badly afflicted divisions from the front and employing them elsewhere. . . No new observations regarding the care and treatment of mange were made beyond the experiences of WWI. The most effective, economical, and rapid treatment consisted of exposing the horses to sulphur dioxide in gas chambers. These gas chambers had been in use in Russia even in peace-time. (4-6)

### II. Glanders:

As mentioned previously, during operations in Russia glanders among horses generally was localized, contrary to all expectations. It occurred only on a small scale w/o ever becoming important. *Entire German armies had not even **one case** of this disease.* . . In view of the small number of cases it may be assumed that glanders was largely brought under control in Russia during the period before the war. . . (6-7)



### III. Piroplasmosis:

This was a horse disease w/ which we had already become familiar during WWI in the southeast, particularly in Rumania; but it had occurred only sporadically and received minor consideration. In the interior of Russia, however, the German Army encountered large, fairly well-defined areas, where piroplasmosis was indigenous and regularly took its toll. Experiences gained by the Russians showed that horses recently brought into these areas became afflicted while native horses displayed immunity. . .

According to Russian veterinary publications, in the areas under discussion the disease occurred twice a year in conformance w/ the life cycle of the ticks, w/ fairly severe symptoms in spring – for that reason the disease is also called “May sickness” – and then once again in a much milder form in autumn. Actually, there were many severe cases of the disease among German horses coming into these infected areas in spring and milder cases in fall. They caused not only large numbers of casualties, but a loss of time as well, since the convalescent period following a severe case of piroplasmosis lasts for months. [Note: Author goes on to discuss treatments, medications used to combat disease, etc. (7-9)]

### **9. D-102:** “*Protection of the Lines of Communication in the East.*” Gustav von Bechtolsheim. 1947.<sup>13</sup>

#### a. Protection of the Lines of Communication in the Baranowicze – Minsk – Borisov Area from 1 Sep 41 – Mar 42:

**707. (Sec.) Div:** During the period in question, the **707. Sec. Div.** w/ HQ in Minsk was entrusted with this mission. The division had been placed in charge of securing the lines of communication throughout White Ruthenia<sup>14</sup> – an area of ca. **90.000** square kilometers. The mission was extremely difficult in this tremendously vast area, because the wartime T/O of the **707. Div.** called for only two [2] infantry regiments w/o any kind of mot. equipment or Paks, one [1] light artillery btn., one [1] engineer coy, one [1] signal coy, one [1] horse-drawn and one [1] mot. supply column. Only occasionally was one or another Landesschuetzen btn. attached to the division. Thus, it was compelled to limit its activity to protecting rail communications and main supply roads leading to the front. (3)

The division had to concentrate its protective efforts in the Baranowicze – Minsk – Borisov area. [Note: In this area it had to protect a number of railroad lines and roads, for example, the railroad leading from Brest-Litovsk via Minsk to Smolensk between the points of Baranowicze – Stolpce – Minsk – Smolevichi (west of Borisov). . . During this period, partisan activities constituted the primary source of danger in sector of **707. Div.** The partisans were mainly located south of the Baranowicze – Minsk – Borisov railroad line. Their principal abodes were [various woodlands in this area.] However, at that time the partisan bands were just being formed and organized. They seldom appeared in groups larger than **100-300** men. For operational purposes, the btns and coys of the division were distributed over the entire region assigned to it (White Ruthenia), concentrating on railroads and roads in particularly endangered sectors. . . (3-4)

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<sup>13</sup> Among issues of interest in this study, is how much greater the partisan threat had become after about **May 42.**)

<sup>14</sup> White Ruthenia = Belorussia.

### Protection of Railroads:

Generally speaking, this activity had to be limited to guarding railroad stations and bridges over rivers and smaller bodies of water. It was performed by outguards [?] and larger guard details posted in small strong points or the railroad stations which had been equipped for defense. For the rest, the division had for all of White Ruthenia only one *improvised armored train* w/ a regular, unarmored locomotive. (4)

### Protection of Roads:

Here again we were [primarily] limited to safeguarding bridges across rivers; bridges across smaller bodies of water could not be guarded because of shortage of troops. Only along wooded stretches of the vital, recently constructed through road from Sluzk to Minsk – the shortest route between Brest-Litovsk and Minsk, leading thru a large wooded area – were individual, more strongly complemented strongpoints established at widely-spaced intervals. (4)

### Partisan activity during this period:

Railroad tracks were blown up throughout the entire period, not only on lines leading through wooded areas, but frequently also in open country. On the other hand, the partisans did not blow any bridges and did not attack or ambush the nearby strongpoints. As of **Dec 41**, the railroad tracks were only blown up in isolated instances. Primarily responsible for that fact were the highly active anti-partisan patrols of the coys which combed their sectors day and night.

Roads, or minor unprotected road bridges, were hardly ever blown up. On the other hand, in woodlands the partisans often mined roads at night – primarily the one from Sluzk to Minsk – and ambushed individual vehicles. . . It might also be mentioned that partisans often raided isolated localities and looted cattle, food, and clothing from the generally peaceful inhabitants. Frequently, the partisans also murdered or shot natives who were particularly friendly toward German troops, among them native mayors who had been appointed by the Germans. (5)

### b. Protection of the Lines of Communication West and North of Bryansk from **May 42** to **Mid-Feb 43**:

During this period, the **707. Div.** was subordinated to **2. Pz Army**, and stationed in the army rear area. Its primary mission was guarding the railroad from Bryansk to Gomel between [*unclear*]. . . and the railroad from Bryansk to Roslawl between Bryansk and Dubrovka. . . It also was charged w/ guarding the Bryansk-Roslawl highway from Bryansk to Dubrovka. . . Larger partisan concentrations, mostly amounting to several thousand men, were constantly encountered in the woodlands south of the Bryansk – [*unintelligible*] railroad. . . and also in the extensive woodlands east of the Bryansk – Shukovka [?] railroad. . . In any event, the partisan situation in these areas [i.e., those noted above and others] constituted a *particularly grave danger* for supply shipments, all of which moved by rail. . . (5-6)

The partisans were very active during this period. Railroad tracks between Bryansk, - - - -?, and U - - - -?, and between Bryansk, Shukovka [?] and Dubrovka were being blown up continually and at times almost daily. . . West of - - - -? and along the northern edge of the woods east of Shukovka the partisans had built air strips on which planes landed at night by the glare of burning

woodpiles, or on which they dropped wpns, ammunition, food, medical supplies, and clothing. . . (5-7)

**10. D-130:** „*Second Army Gets out of the Mud*,“ General Gustav Harteneck. **Jun 47**.<sup>15</sup>

a. Introduction:

The author mentions that one of the challenges of operating on the eastern front was not only the „dearth of roads,“ but the *almost complete lack of building material*.“ Another challenge was the *nature of the soil*, which to a large extent consisted of swamp or deep loam. (1)

b. Zone of Operations:

Fall of 1941 [2. AOK sector]: **2. AOK** sector was bounded by the Kiev – Konotop – Kursk railroad in the south, and by the Roslavl – Bryansk – Orel railroad in the north. The zone of operations east of the line Rylsk – Orel was devoid of woods. It was hilly, and its loamy soil was broken up by largely steep ravines. The latter, w/ their almost vertical walls, constitute formidable natural obstacles. The valleys generally stretch in a north-south direction. Thru them all flow uncontrolled but insignificant streams. Skirted by marshes, and in many instances abutted by steep banks, they constitute far-flung obstacles for combat vehicles. For infantry they present no obstacle, and crossings for combat vehicles can likewise be found or built easily enough in most cases. Only the Desna and Seim Rivers must unqualifiedly be considered obstacles. Traffic conditions in rear army areas and in the combat zone were the worst possible. Although the railroad net was very well developed, it had largely and effectively been destroyed. . . In contrast to the railroad net, the entire sector was w/o a developed road net. . . All major bridges along highways, roads, and railroads had been destroyed. Nearly all highway bridges were built of wood. They were long and sturdy to withstand the severe floods of the uncontrolled rivers. However, the superstructures of these bridges were in most cases limited to gross load carrying capacities of from **3-5** tons. [**Note**: For more on **2. AOK** sector, capacity of roads, railroads, etc., see, 2-4)

**Oct 41** [Rasputitsa]: In 1941 the fall muddy season began in mid-**Oct 41**, after a short period of frost between **5-15 Oct 41** had already brought low temperatures and snow flurries alternating w/ thaws. It was a *muddy season the like of which we had not experienced during World War I, and were not to see again in this war*. At first the country paths and dirt roads, but then also the Roslavl – Orel road, became unusable. . . Only horse-drawn vehicles w/ lightened loads could still move, however laboriously, on the country and dirt roads. . . That unusually severe muddy season lasted for over a month. . . (4)

c. Tactical Situation:

I. Own Situation:

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<sup>15</sup> On the first page of this study it says regraded as „Unclassified“ by authority of DoD Dir. 5200. 1 R on **16 Jan 97**. Author describes impact of „*rasputitsa*“ on **2. Army** conduct of ops; insists that it was the „muddy season“ which saved Russian Army and Russia itself.)

Twin battles of Vyazma and Bryansk had ended victoriously on **20 Oct 41**. **2. Pz Army** now was to form the southern wing of the attack on Moscow, and launch a thrust from the Orel region via Tula. **2. Pz Army** was committed on the right of **2. Army**, which had reached the Oka River by way of Bryansk. **2. Army** was to have the mission of protecting the right flank of **2. Pz Army** by means of an assault against the line Voronezh – Yelets. . . At that time, the pursuit of the enemy defeated at Bryansk had simply bogged down in the mud. . . Units had become intermingled, spread out over long distances, and only small elements had contact w/ the enemy. . . More and more vehicles broke down because of engine and clutch damage. The overworked horses became progressively weaker as days went by. Dead horses lined the roads. . . The sole efficient railroad to Orel was unable to handle the volume of supply shipments. The mud lowered the capacity of motor and horse-drawn supply convoys to such an extent that they were unable to ease the burden on the railroad as heretofore. (4-5)

For the assault on Tula, **2. Pz Army** was to have under its control the best and most capable divisions of its own, as well as of **2. Army**. . . To establish the new chain of command, all troops of **2. Army** were temporarily put under command of **2. Pz Army**. . . **2. Army** resumed its functions in the chain of command toward end of **Oct 41**. (5-6)

**Late Oct 41 [Status of 2. AOK]:** In carrying out their scorched-earth policy, the retreating Russians had burned to the ground the barns of the collective farms, as well as the numerous, large grain ricks, and often even the individual stacks of grain. . . Our troops had reached the limit of their endurance . . . On more than one occasion, the troops had been w/o food for several days, and were living mostly off the countryside. The few provisions that the Russians had not destroyed were dwindling away. . . The horses were so emaciated from the heavy work in the mud and the lack of hard forage that they urgently needed recuperation rests. Losses of horses amounted to considerable numbers. . .

Ammunition supplies were sufficient for a short period of limited activity, but not for an offensive. A replenishment of ammunition was impossible for the time being. Clothing had been worn to shreds. Particularly shoes were in short supply. Winter clothing and equipment was non-existent. The past days of frost and snow had already proved that w/o winter equipment, sharp calks, snow chains, automotive antifreeze (Glysantin), sleighs, and winter clothing, the troops were unable to move or fight once the frosts set in. In summary: our troops were far extended in depth. They had reached the limit of endurance, and were as far advanced as their thin supply line permitted. . .

An offensive on Kursk by way of Lgov [sp?] was impossible even after those preliminaries [i.e., after the cold had made roads usable, proper supplies and winter equipment had been received, etc.], because the numerous, very long bridges along the road and railroad in that direction had – as air recon had revealed – been thoroughly destroyed. The rivers and ravines could not possibly be negotiated w/ the aid of light field equipment. The **Corps Command** *had no bridge trains or organic engineer units*. The numerous rivers and ravines running in north-south direction moreover had steep banks and were easy to defend. (8-11)

## II. Enemy Situation:

After the twin battles of Vyaz'ma & Bryansk the Soviets tried to halt the German pursuit and – by a mobile conduct of warfare – attempted to establish centers of resistance to which their encircled forces were to break through. Opposing the corps of **2. Army** were strong Russian cavalry units w/ tanks (**T 34's**) and hastily organized, fanatical units of workers' militia. . . The muddy season had favored the enemy's conduct of ops, and at the same time had checked our pursuit and sapped

our fighting strength. The Russian cavalry was able to maneuver, even in mud, and lived off the countryside; it fought skillfully and aggressively. . . Radio communications w/ the [still] encircled Soviet troops existed. A large number of units and individuals – particularly from the partial encirclement at Trubchevsk – were thus able to fight their way thru to the Lgov – Kursk region, though w/o heavy wpns and vehicles. (11-12)

d. Decision of 2. Army:

Objectives for **2. Army** included capture of the railroad to Kursk up to Zolotukhino by means of a thrust from Orel; a thrust of **48. PzK** from the Dmitriyev area. Initial objective: capture of Fatezh, to be followed by seizure of Kursk. For this purpose, **95. ID** was to be transferred to the **48. PzK**. All elements of Corps Command **34** which could be made mobile were to follow the panzer corps by way of Fatezh, and reach the Maloarkhang – Elsk area. Upon execution of these missions, our forces were to be *equipped for winter warfare* w/ the aid of the Orel – Kursk railway, and subsequently were to continue the offensive. (13-14)

e. Execution (Capture of Kursk):

We manned two captured Russian armored trains that stood in Orel. One regiment of Corps Command **35**, artillery elements, railroad engineer forces, and flak were loaded on trains at the same place. This railroad combat force pushed south, completely surprising the Russians. After two days of intermittent minor engagements it succeeded in reaching Ponyry [in whose vicinity a supply base was to be set up], and gained complete control of the railroad. At the same time, the mixed force of tracked vehicles of **48. PzK** pushed toward Fatezh. The Usozha bridge, on the road to Fatezh, burned down as our forces approached. [Note: Attacking German force crosses the Usozha River after some serious fighting vs. workers' militias, cavalry and **T-34** tanks; Germans capture Fatezh. Backbone of enemy has been broken.] Only after we committed **95. ID** were our forces able to push toward Kursk by means of a sweeping infantry thrust to the east of the paved road. Heavy fighting preceded capture of the town, which was surrounded w/ strong field fortifications. On **2 Nov 41**, Kursk was ours. East of Kursk the enemy had abandoned a large number of wheeled and tracked vehicles which had bogged down in the mud, and withdrew to the east. (14-15)

At this time elements of Corps Command **34** that could be made mobile, likewise began to get out of the mud. After several minor encounters w/ the enemy, they reached the Maloarkhangelsk area. (15)

With the aid of the rapidly restored railway via Orel to Ponyry, and the paved Orel – Kursk road, we now succeeded in shipping the most essential items of supply to our troops. At least part of the winter equipment was brought up. Thus the troops regained the self-confidence which they had almost lost. . . Numerically weak for its wide frontage, and badly equipped for the winter, yet ready to resume operations once more, **2. Army** on **19 Nov 41** launched the ordered offensive against the Tim – Yelets – Yefremov line. (15)

f. Experiences:

The Muddy Seasons may make terrain and roads impassable for all motorized movements. If vehicles persist in traveling despite unfavorable conditions, the secondary roads as well as the highways w/ their substandard gravel surfaces will be ploughed up to such an extent that they soon become unusable even for four-wheel drive and track-laying vehicles.

Engines and transmissions will be overtaxed, and sooner or later the vehicles break down. (15-16)

g. Effect of the Muddy Season of Fall 1941 on the War against Russia:

„Looking back on the course of the war against Russia, we may state at this time that the *unusually long and severe muddy season* during the fall of **1941 saved the Russian Army**, and thereby Russia.“ (17)

It was the muddy season that caused the German pursuit to break down. It prevented the complete closing of the large encirclements that had developed during the battles of Bryansk and Vyaz'ma. The Russians thus found time to assemble, near these encirclements, covering forces for the troops that fought their way out. Although unable to save their equipment, the Soviets still rescued tens of thousands of trained soldiers, and thereby gained cadres for the newly activated units that appeared on the scene – partly during the winter, but at the latest in the spring. . . Whatever equipment they could not get thru the mud, the troops that broke out of the encirclements had previously hidden so well in woods and swamps that *we were able to salvage only a few items*. At a later date, this equipment served to arm the strong partisan groups. (17)

It was the muddy season that dealt the mortal blow to German war materiel. . . After that setback, our armies in the East were never able to bring their mot. equipment up to its previous level of quantity and quality. The muddy season prevented adequate supply shipments for the crucial Moscow offensive, and made timely shipments of winter supplies impossible. The muddy season also *delayed the Moscow offensive for four [4] decisive weeks*. The Russians, who could rely on the good road and rail net around Moscow, thereby gained time for taking countermeasures. During the muddy season the German soldier on the eastern front *lost his self-confidence* for the first time. He became aware that he was powerless against the overwhelming forces of nature in the vast spaces of Russia. The muddy period shook the faith of even the ordinary soldier in a command that on higher orders had to *ask the impossible of him*. . . Then, as the unusually severe winter of **1941/42** gripped the countryside on the heels of the muddy period, the *morale of command and soldier had become shattered to such an extent* that a second **1812** could be averted only thru the most stringent measures. (17-18)

h. Conclusion:

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**11. D-137:** „*The Winter Battle of Rzhev, Vyazma, and Yukhnov, 1941/42,*“ Gen.-Obst. Otto Desseloch. **1947.**

a. Report of Marshal Timoshenko and General Zhukov on Soviet aims for the winter of 1941-42 (captured Soviet document):

Marshal Timoshenko: „Our intentions are not only to gain ground or crush the enemy's infantry, but also to hit the enemy in his most sensitive spot – his materiel. . . By its almost adventurous and otherwise incomprehensible actions, the German command has incurred the grave risk of

seeing every last piece of its mot. equipment put out of action w/ the first sudden turn in the weather. According to our intelligence, the Germans have no cavalry in the established sense of the word. Their entire strategy is based on mechanized cavalry. For the time being we must hold our lines as long as we can, but as soon as several days of severe cold have broken the backbone of the German offensive, we must immediately go over to the attack. The backbone of the German offensive are tanks and mot. artillery, which can no longer be employed at a temperature of **-20 C**. Zhukov will attack as soon as several days of severe cold have made it safe to assume that enemy mobile ops have become impossible. Our main objective is to destroy the enemy's materiel. . . The Germans will not be able to transport additional war materiel to the Eastern Front before April [1942]. *I have repeatedly emphasized that I consider the **cold, the mud, the thaw, and the swamps our most effective allies.*** (2-3)

b. German Retirement to the Winter Line:

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c. Estimate of the Situation (19 Dec 41):

Author mentions the „enemy's *shortage of heavy wpns,*“ which was „bound to make itself felt. Also notes that the Russian infantry, while superior in numbers, „was not to be rated very highly w/ regard to its combat efficiency.“ (5)

d. Air Situation:

During the course of the winter battles, the Russians employed every last one of their acft against ground targets, billets, roads, traffic congestion, bridges, etc. They even used trainers and obsolete planes utterly unfit for combat flying. . . (6)

Time and again the enemy attacked w/ unrelenting fury and tremendous masses of men and materiel. Ruthlessly he committed his inexhaustible resources of human lives. The defensive battles that grew out of these attacks were as long as they were fierce. The German soldier was expected to possess unheard-of physical and mental stamina. He fought under climatic conditions that were completely foreign to him: temperatures that ranged between **-35** and **-45 C**. during **Jan 42**. . . Finally, the German troops on the Eastern Front had *gone thru six [6] months of continuous warfare. They had passed thru a long period of intense mental strain.* Most of the seasoned officers and NCOs had died in battle. Replacements were inexperienced. (7-8)

e. Composition and Attachments of AGC (from 6 Jan 42):

**VIII Air Corps:** About this unit author notes that it was directly subordinate to the Air Force High Command and instructed to support AGC. Units tactically subordinated to the air corps were:

Bomber Wing „*Bormann*“  
Light - - - - Commands North and South  
**I & II Flak Corps**

## 12. Flak Div.

Air Force Combat Formation  
Air Force Administrative Command Moscow  
(8)

### f. Situation, 4. Pz Army & 9. Army (7 Feb 42):

Author notes that entire east front of these two armies was held and secured w/o noteworthy incidents. (10)

### g. Air Situation:

Author notes that, during nighttime, Russian air transport traffic was very heavy. Soviet acft dropped parachute troops behind the German lines, and ferried arms and ammunition to ground troops that had been cut off in the German rear area. Day after day, **30** transport planes, each carrying **20** parachutists of the Soviet **8. Airborne Bde**, took off from the advance base at Kaluga and dropped their troops in the Besonovo [sp?] area SW of Vyazma. After landing, the paratroops bolstered their ranks w/ partisans, and w/ able-bodies civilians whom the drafted into service. The armament and equipment of the paratroops consisted of automatic rifles, sub-machine guns, explosives, white camouflage coats, skis, and mortars. According to POWs, the parachute troops had the following missions: First, they were to bring together and arm scattered Soviet troops, organize partisan groups, and destroy the railroad station of Izdeschkovo [sp?]. (11)

### h. Enemy Situation (23 Feb 42):

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### i. Commitment of the German Luftwaffe:

**II. Flak Corps:** During the winter battle the Commanding General of the **II Flak Corps** had a manifold mission. In addition to commanding his own AA units, he was ordered as of **6 Jan 42** to direct the ground support formations in close co-operation w/ **4. Pz Army** and **9. Army**. The following aerial formations were under his command:

**4./14. Recon Sqd** (long-range)  
HQ Squadron, **2. Dive Bomber Wing** (short-range recon)  
**III/2. Dive Bomber Wing**  
**II/26. Fighter Wing** (twin-engine)  
**II/2. Training Wing** (ground support)  
**I/52. Fighter Wing**  
**II/51. Fighter Wing**

The Bomber wing „Formation Bormann“ was periodically attached to **II Flak Corps**. Air Force liaison teams were attached to **9. Army**, **4. Pz Army**, and each corps.

The main areas of operation were the narrow corridor between **4. Army** and **4. Pz Army**; the enemy reentrant [huh?] in the Vasiliki sector south of Vyazma; the pocket south of Rzhev; and



the enemy reentrant north of Rzhev. Until **21 Mar 42**, the formations of Ground Support Command „North“ flew a total of **5087** sorties during a period of **56** days. Thirty-eight (**38**) planes on average were ready to take off each day, not counting the planes of „Formation Bormann“ which were attached for several missions. [Note: See narrative for detailed list of equipment and troops destroyed by Command „North,“ which included **82** acft in aerial combat, **76** acft on the ground, **838** motor vehicles, **73** artillery pieces and **44** tanks; they also annihilated enemy personnel amounting to **5** btns and **2** coys. (18-19)

**II Flak Corps** also co-operated w/ **4. Pz Army** and **9. Army**. The following units were attached to the flak corps for tactical and administrative control: **6., 133., 10., 149., 125. Flak Rgts.**, i.e., all Flak units of the Luftwaffe General attached to the Army High Command, which were committed in area of **4. Pz** and **9. Armies**. All GHQ Flak units committed in the area of **2. Army** and **9. Army** were under the tactical control of the Flak Corps and under the administrative control of the Army. During the advance, **II Flak Corps** supported **4. Pz Army**; during the withdrawal, units of **4. Pz** and **9. Armies**. In both cases, its mission was defense against enemy tanks and acft. . . During the advance as well as during the withdrawal the elements of the Flak Corps were *largely engaged in combating ground targets*. (17-20)

**12. D-184:** „*Winter Campaign 1941-42. Campaign of the 255th Inf.-Div. East and South of Temkino, Mid-Dec. 41 to Apr 42.*“ Gen.-Lt. Walter F. Poppe.<sup>16</sup>

a. Introduction:

The **255. ID** marched from the area of Byeloye to Dukhovchina, and arrived between **6-8 Dec 41** in the Vyazma–Gzhatsk sector. . . Since leaving Wlodava on **22 Jun 41**, the division had marched a distance of **1200** kilometers. (1)

Contrary to expectations, the division was not committed as a unit. Mainly, elements of **IR 475** and the **II & III/IR 465** joined **267. ID** which was fighting in the Panova area. Other elements of **IR 465**, including the regimental staff, were scheduled to be transferred by air from Gzhatsk to Klin. While they waited for the planes at Gzhatsk many cases of frostbite occurred. The planes transporting these men changed direction in the air and turned back, because by that time Klin airfield had become a combat zone. Some of these troops likewise were committed in the south. (1-2)

We were surprised by the mobility of the **T-34** tank in the deep snow. This tank had considerable ground clearance and rounded surfaces. (2)

Suitable winter clothing was still largely lacking. To be sure, the division, because of its special mission, had been able to set up clothing repair shops in the rear area, which took care of the most essential requirements – primarily winter clothing for drivers and some infantry forces. However, the available furs sufficed only for combat outposts, and although these men were kept warm, they were deprived of mobility and no longer fit to fight [?]. (3)

About Christmas **1941** the **255. ID** took up positions behind the Ruza River. By this time, the rivers were frozen solid. They no longer constituted an obstacle and were really nothing

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<sup>16</sup> **Note:** This is a „draft translation.“ Regraded „Unclassified“ by authority of DoD Dir. **5200. 1 R** on **3 Feb 97**. Study also includes some useful „hand-written“ maps.

but open spaces which had a deterrent effect. It was possible to cross them w/ heavy artillery. The Russians even moved their tanks across so-called ice bridges (probably reinforced w/ logs). (3)

During that period [i.e., after start of Soviet counterattack in early **Dec 41**], Hitler issued orders that the forces were to hold out at any cost. . . and even in the event these should be annihilated. This order was correct, in view of the heavy snow and the critical situation, for if the entire German front had given way, it would have become impossible to check the collapse of AGC. (3)

b. Operations after 12 Jan 42:

In the new position established at the Ruza River, the **255. ID** was under **9. AK**, **4. Pz Army**. The division succeeded in holding this position, w/ the exception of one local penetration at Akutovo. So far, there had been little evidence of enemy artillery. This was due to fact that, during the summer, the Russians, too, had lost much of their artillery and still had to bring up new units. Moreover, they had as much trouble as we did in moving up supplies on the few roads which were made by packing down the snow. . . (4)

Providing supplies for the wounded and their evacuation to the rear continued to be a very difficult task. At that time, four [4] corps w/ **25** divisions [**4. Pz Army?**] had a daily casualty rate of ca. **800**, who were collected at Mozhaysk. Every vehicle moving to the rear had to take along wounded men. . . (4)

**Jan 42:** By middle of month, the fighting strength of **IR 455** and **IR 465** was reduced by frostbite casualties from **500-600** to **300-400** men [i.e., both rgts were below the strength of a battalion]. Marches took place from afternoon to evening, so as to avoid the severest cold. At night, the troops recuperated while standing, crowded closely together in the few available houses; this constituted their rest. Everything was infested w/ vermin. . . After a while the men began to look into space w/ a blank stare. The *ability of the lower ranks to think deteriorated greatly; most of the men had become **automatons***. Soon it became evident that only part of the artillery would be able to get thru, because the horses had become too weak; there were too many instances where the roads had not been thoroughly cleared, so that the guns sank into the snow. Finally, the best horses were selected to pull three [3] guns; behind the advance regiment, these guns were pulled by **12** horses each. [**Note:** After Soviet **33. Army** had broken through to the west, via the Medyn area south of Temkino, and was approaching Vyazma, the **255. ID** was ordered to move southward behind the front line of a division which was withdrawing to the Shanya position.] (6-8)

**Jan 42:** During this period the division Command Post (CP) was located at Nekrassovo. The lack of space is illustrated by the size of the CP: The forward echelon of the division HQ, the radio station, and drivers, as well as some civilians w/ their farm animals were housed in a room measuring about **6-8** sq. meters. In addition, troops constantly were coming in to warm themselves; it was impossible not to let them in. Supplies twice were brought in by air. . . During that time, the only signal communications at disposal of **255. ID** had been one artillery telephone line and a radio station of the recon btn.<sup>17</sup> (10-11)

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<sup>17</sup> **Note:** This is a significant point. During winter **1941/42** signals communications equipment, like everything else, was often in short supply.

**Feb 42:** Remnants of **255. ID** withdrawn and moved westward to Lukovo and Dubrovka, where they arrived on **8 Feb 42** and were attached to **20. PD**. . . Heavy fighting takes place in village of Pinashino, etc. . . Finally, at the end of **Feb 42**, the Russians employed more artillery. . . In most cases the ammunition supply for either side was brought in on sleds pulled by one or two horses. (12-14)

Winter Conditions:

The exertion and suffering endured in the course of these battles defies description. The only available cover was snow trenches because the ground was frozen hard. At many parts of the front it was impossible to get warm, either by day or night. The forces had neither trench stoves nor wood at their disposal. The Russians immediately fired at any point where smoke appeared in the daytime or even in bright moonlight. At times when the approach routes were under fire, the food sometimes froze in the food containers. At night, the men in the trenches were wrapped in 8 or 10 coats or blankets and slept in holes dug in the snow; after one hour of sleep they were awakened. In the trenches this was called rest. . .

It was impossible to relieve the troops committed at the front. . . At the time [**Feb 42**], the regiments had a strength of about **200 men**, not counting the heavy wpns. . . Evacuation of wounded was very difficult. Closed sleds w/ stoves were not available. As protection against frostbite, the *wounded had to be wrapped in paper*. . . The artillery had to be committed close to localities, because otherwise the pieces could not have been operated or moved. The gun crews had to exercise caution when handling their wpns. If they *touched the steel w/ their hands in the severe cold, the skin came off*. . . Every house counted; if a house burned down it meant a serious loss of heat. . . It was very difficult for us to organize the necessary ski units. Only later, in **Mar 42**, corps organized one ski btn. Men had to be selected on the basis of their skiing ability, w/ the result that many were not from combat units. Accordingly, this ski unit was not very successful in combat. . . (14-15)

**Apr 42:** At the beginning of this month, the muddy season, following the long winter with its many, heavy snowfalls, produced immense quantities of water, so that large lakes were formed everywhere. . . From a tactical point of view, the muddy season was a breathing spell, because it was impossible for anyone to do any fighting; physically, however, it was a considerable strain. . . (17)

**Note:** Author states that the encircled Russian forces [elements of **33. Army**] had ruthlessly confiscated the food of the local inhabitants, who were close to starvation. „Providing food for these people made the supply situation even more difficult.“ (17-18)

**13. D-187:** “*The Capture of Smolensk by the 71st Motorized Inf. Rgt. on 15 Jul 41.*”  
Genlt Wilh. Thomas.<sup>18</sup>

a. Advance and Combat of IR 71 (mot.) 22.6.-14.7.41:<sup>19</sup>

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<sup>18</sup> **Note:** Final section of this study is a very useful overview of the terrain – and challenges presented by – in White Russia.

<sup>19</sup> **Note:** Rgt was component of **29. ID (mot.)**.

**Jul 41:** During the early part of **Jul 41**, the **IR 71 (mot.)** fought further engagements w/ elements of the retreating enemy army in the area around Slonim and subsequently moved via Baranowicze to **47. PzK**, which was fighting in the vicinity of Minsk. **IR 71** was assigned the mission of closing the Minsk „pocket,” on both sides of Fanipol [sp?] 20 km SW of Minsk, in which large elements of the retreating enemy were trapped. During that time, the rgt. captured a total of **35,000** prisoners. (4)

**10.-11.7.41 [Crossing the Dnepr]:** During the night of **10-11 Jul 41**, all vehicles of the rgt., w/ the exception of a few motorcycles, were ordered to the Staroselye area. . . After ca. **30** minutes of artillery preparation on all identified enemy fortifications on the east bank of the Dnepr, the first elements of the rgt. crossed the river at **0500** w/o encountering much enemy resistance. The Dnepr itself was in a defile NW of Star, and thus the rgt. incurred few losses during the night assembly in assault positions behind the railroad embankment along the river. At ca. **0900** on **11 Jul 41**, the rgt. had crossed the Dnepr on motor ferries and assault boats and slowly advanced toward Pronzovka, about **20** km south of Orsha. (5-6)

**12.7.41:** During the morning of **12 Jul 41**, the left flank<sup>20</sup> of the rgt. was again fiercely attacked by an enemy tank column, which was also moving eastward north of Kozlovichi. The rgt. was forced to dismount and, supported by its artillery btn., repel the enemy attack, which to our surprise was supported by infantry. Numerous enemy tanks were destroyed by artillery fire, but in particular by bombing from German airplanes which made an unexpected appearance. The enemy tank attack into the left flank of the rgt. was broken up before reaching serious proportions in the open terrain only by the totally unexpected action of our „Stukas.” Thus, about noon of **12 July 41**, it was possible for the rgt., which had been unable to make contact w/ the **IR 15 (mot.)**, to continue its advance toward Lenino. (6)

**13.-14.7.41:** The rgt. arrived in Lenino at noon, **13 Jul 41**. Unusually difficult terrain, destroyed bridges and numerous streams, as well as swampy meadows delayed the advance. Following a brief rest period along the Gorki – Lenino highway, which was repeatedly interrupted by strafing enemy reconnaissance acft, the advance continued in the direction of Krasnoye. The point of the rgt. encountered strong enemy resistance in Krasnoye during the night of **13-14 Jul 41** and reported the presence of numerous enemy tanks in the town. . . In the early morning of **14 Jul 41**, Krasnoye was attacked by **29. Recon Btn** and the **29. Motorcycle Btn**, supported by **II/AR 29**. After a brief but fierce battle the enemy, covered by tanks, withdrew to the north and NE. . . (7)

b. The Capture of Smolensk on 15 July and Fighting in the City on 16 July 41:

**14.-15.7.41:** By noon, **14 Jul 41**, it was possible to proceed toward Smolensk. The **29. ID (mot.)** was again moving on a highway. The **IR 15 (mot.)**, advancing as the lead element, encountered strong enemy forces in a well-fortified position near Khokhlovo, ca. **15** km SW of Smolensk. **IR 15** attacked immediately but had to suspend the operation in the evening of **14 Jul 41** because of strong enemy resistance and heavy losses. The **IR 71** had closed up to Rasloshena [sp?], **20** km SW of Smolensk during the night of **14-15 Jul** and, protected by outposts, was resting along the route of advance. (7-8)

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<sup>20</sup> **Note:** The German armored and mot. spearheads – well ahead of and w/o support of following infantry – were apparently repeatedly attacked in flanks by Soviet forces, often leading to significant losses among the German forces.

**15.7.41:** In early morning of **15 Jul 41**, the rgt. received orders from division to pass thru Loyeva and continue the advance toward Smolensk on the Loyeva – Balasheva highway. Recon conducted by the rgt. had revealed that strong enemy forces occupied the Loyeva – Balasheva – Smolensk highway and that a penetration of the field fortifications along both sides of the highway would result in heavy casualties. Hence, cdr **IR 71** decided to outflank the enemy field fortifications by swinging still farther east on a dirt road between Troyentyanka and Obrasova, and proceed w/ the „mounted“ rgt. toward Smolensk.

During the creek crossing NW of Obrasova, the rgt. received heavy artillery fire from a heavy enemy battery located on the heights south of Konyukhovo. The rgt. *drove thru the fire*, suffering only minor losses in personnel and vehicles, and continued its advance across the *bare grain fields*, w/ two btns. in front and a third btn. in reserve. The **II/AR 29**, leapfrogging its batteries, was in support. About **1100, 15 Jul 41**, a coy of 2nd Btn. overran the heavy battery on the Konyukhovo heights in a surprise attack. Some gun crew members were taken prisoner, others were able to escape in the dense terrain. In the meantime, the advance continued „mounted“ and came to a temporary halt only as the result of terrain difficulties near the creek bed, directly SW of Smolensk. . .

[**Note:** Due to results of recon – for ex., the southern entrance to Smolensk was strongly defended – cdr of **IR 71** decides to turn right in the vicinity of Mikhnovka and take S. from the SE. . .] Advance proceeds eastwards; w/o meeting the enemy, the units, still mounted, moved thru ravines and difficult terrain on roads which were almost impassable for motor vehicles. About **1600, 15 Jul 41**, still on trucks, the rgt. proceeded on both sides of the Khoslavichi – Nikitina – Smolensk highway, turned left, crossed the creek bed, and approached the southern entrance of Smolensk at about **1700**. Now discovered by the enemy, heavy artillery fire compelled it to dismount and attack the city. After recon by the motorcycle platoon had been completed, the attack on the city was to follow as rapidly as possible to prevent the enemy from taking large-scale countermeasures. (8-9)

At **2000, 15 Jul 41**, after the units had moved into position, the attack was to be carried out as follows: [see text for details]. . . The btns. were to move their assault detachments along the two roads leading to Smolensk from the south and SE, reach first the center of the city (cathedral) and then advance as far as the Dnepr river; later, the remaining forces were to capture the entire city. . . .

By **2000**, both btns [**II & III/IR 71**] had successfully infiltrated into houses at the extreme southern edge of the city and in this way acquired a usable assembly area. The coys were now organized into strong assault detachments and the attack on the center of the city was launched along the two main roads, running north and south. Frightful confusion reigned in the blacked out city. Fleeing civilians, using every conceivable type of conveyance, pushed their way past enemy mot. vehicles of all types. One assault detachment of **III/IR 71** slipped past a Russian tank in the darkness and succeeded in advancing as far as the cathedral area. A few rounds from the **88-mm** AA gun cleared the streets, and produced sudden, widespread panic, giving the impression that heavy German tanks had penetrated into the city. The **II/IR 71** reached the market square (Hotel Molotov) in heavy street fighting; it suffered severely from MG fire and hand grenades thrown from cellars and windows. (9-10)

The surprised garrison of S. was no longer in a position to offer organized resistance; it fled north across the Dnepr after the part of the city nearest the Dnepr bridge started to burn. At **2400, 15 Jul 41**, both btns reported that they had reached their initial objective, the center of the city,

w/o suffering undue losses. The rgt. then ordered an advance as far as the Dnepr River by **0600, 16 Jul 41.** (11)

**16.-17.7.41:** Meanwhile, **IR 15 (mot.)**, advancing along the Mikhnovka highway, arrived at Smolensk from the west and about **0300, 16 Jul 41**, made contact w/ elements of **IR 71** in the city. . . In the early morning of **16 Jul 41**, elements of both rgt. succeeded in reaching the Dnepr. The **29. Pi-Btn** followed immediately behind the assault waves and upon reaching the Dnepr made necessary preparations for crossing. The btn. immediately began repairing a bridge which was badly damaged. The advance elements of the rgt. crossed the Dnepr in assault boats, and despite enemy resistance succeeded in taking the heights on the northern bank of the Dnepr during the night of **16-17 Jul 41** and in the course of **17 Jul 41**, suffering only light casualties. The rgt. was able to advance to within ca. **1 km** north of a church in the northern part of Smolensk, where the attack came to a halt due to strong enemy counterattacks. . . In the evening of **17 Jul 41**, the **I & II/IR 71** were deployed in a semicircle ca. **1 km** north of this church. . . The rgt. CP was in the immediate vicinity of the church (**III/IR 71** held in reserve). The division CP was located in the Molotov Hotel. Contact w/ **IR 15** on the left had been established. (11-12)

c. Defense against Russian Attempts to Recapture the City, 17.-26.7.41:

**17.7.41: 29. ID (mot.)**, occupying a relatively secure position, now hoped for a short rest after strenuous marches and numerous fierce battles of the previous days. This was not to be. It was obvious that the Russians would not casually accept the capture of Smolensk, in view of the city's importance from the tactical as well as political standpoint. Their intentions were already apparent by **17 Jul 41**, when they launched heavy attacks against the captured positions on the north bank of the Dnepr, all of which were repelled.

During the evening of **17 Jul 41**, the city of Smolensk was under artillery fire from heavy enemy railway guns from the west. Numerous fires broke out w/in a very short time, particularly in the sections along the Dnepr; it was impossible to extinguish them, since the troops were engaged in the defense of the city, and the inhabitants remained completely apathetic. No reserves were available, and inf.-divs. moving up on foot were still far to the rear and were not expected to arrive for another **3-4 days**. Thus, extremely bitter and costly fighting began for **29 ID (mot.)** units, committed along the north bank of the Dnepr, as the Russians harassed the troops night and day, sometimes w/ recon patrols, sometimes w/ more serious operations, and frequently even w/ large-scale attacks supported by tanks and artillery. . . (12-13)

**17.-27.7.41:** Day after day, the Russians continued firing on the city of S. w/ every available wpn, and by this utterly senseless shelling converted the city gradually into rubble and ashes. Miraculously, the cathedral was spared. . . The first elements of the inf.-divs. arrived on **25 Jul 41** and the **29. ID (mot.)** was to be relieved during the night of **26-27 Jul 41**. After taking the city, **IR 71 (mot.)** succeeded in resisting constant superior enemy attacks for **10 days**. . . During the **10 days** of the defense, the **29. ID (mot.)** w/ its two inf.-rgts., the **15 and 71 IR**, held all positions. In the short period from **17-26 Jul 41**, **IR 71** had suffered 600 casualties (KIA and wounded), an indication of the severity of the fighting. Presumably, enemy casualties were equally heavy; **35** destroyed tanks were left in front of the division position. . . While Russian artillery fire fell on the town during the night of **26-27 Jul 41**, the **IR 71** in Smolensk was relieved by another unit. The rgt. had left behind 200 dead. (13-14)

d. Brief Evaluation of the Terrain:

The terrain in which the action took place is typical of White Russia. In general, it is rolling country w/o great elevations. The two [2] main rivers – the upper Beresina and Dnepr – are only **80-100** meters wide in this region, and do not present an obstacle. Nearly all of White Russia is characterized by wooded areas of varying size, and to a great extent by stretches of sandy ground, partly covered by woods, partly consisting of steppes. The region is traversed by many streams and creeks, and particularly swamps. There is comparatively little cultivated land, except near towns. (15)

Depending on the weather, the water level of the large number of creeks and streams is high or low. However, the banks are mostly swampy and motor vehicles can cross only over a few existing bridges. (15)

With the exception of Minsk, there are no large cities. Minsk is a modern Russian city w/ typical new Russian buildings in skyscraper style and little industry. . . The other cities or towns such as Slonim, Baranowicze, Stolpce, Borisov, Tolochin, Kopys and Krasnny are typical, small Russian towns, with little or no industry, and consist mostly of one-story frame houses [**Note:** First three towns listed –S., B., S. – are in Eastern Poland.] (15-16)

A double-track railroad running from Wolkowysk via Slonim, Baranowicze, Minsk, and Borisov toward Smolensk, connects the West w/ the latter city. The railway installations were in surprisingly good condition, and suffered only minor damage, enabling the resumption of ops a few days after the arrive of German troops in each town. This speeded the movement of fuel, ammunition, and rations for the rapidly advancing mot. units of the Army, and units of the Luftwaffe. (16)

The *Minsk-Moscow Autobahn* passed **8** km north of Smolensk. . . This highway, apparently constructed shortly before the war and similar to the German Autobahn, was a *dual, concrete or macadam highway* [?], w/ lanes ca. **10** meters wide. It was used by **2. PzGr** during the advance from Minsk. An Autobahn of this kind is ideal for large-scale, mot. advances, although the troops are completely exposed to enemy air attacks; it is hardly possible to camouflage movements and deep ditches prevent dispersal off the road. (16)

The road net in that region was not well-developed. Only a few first-class roads were in existence, both in an east-west and north-south direction. . . Innumerable water courses, which traverse the region in all directions, also greatly intensify the difficulties away from the main roads, since only a few primitive wooden bridges were available, of which many were in bad condition. (16-17)

Smolensk presented a composite picture of a small, old Russian town and a modern city. Particularly striking were the new buildings such as the hospital, the nurses' training school, a large department store, and the very modern Molotov Hotel. The *old, red brick wall surrounding the city* which is ca. **6** meters high and **2-3** meters wide, was still in existence for the most part and had only few gates. A bridge w/in the city and a railway bridge **3** km east of Smolensk spanned the Dnepr. The city of Smolensk “gave the impression of a prosperous, progressive, modern city w/ an industrial section north of the railway station.” (17)

Within the city, the Dnepr is ca. **100-120** m. wide. On both banks of the river are rising slopes covered w/ buildings, and the cathedral dominating the southern slope. . . As mentioned, the region south of Smolensk is traversed by many deep ravines; vehicles of all types find it

extremely difficult to negotiate the terrain, unless they stay on the roads. A plateau extends north of the city, covered by numerous patches of wood; a large airfield is located there. The collective farms (Kolkhose) in the vicinity of nearly all towns are typical of White Russia. . . The climate of White Russia is marked by hot summers and very cold winters. Temperatures of **86** degrees F. in the summer and **-22** in the winter are normal. (17)

**14. D-221:**<sup>21</sup> „*An Artillery Regiment on the Road to Moscow (22 June to December 1941)*,” Gen.-Maj. Gerhard Grassmann. **May 47.**

The **AR 26** was the divisional artillery rgt. of **26. ID**. It was composed of rgt. HQ and HQs battery (communications & meteorological section), three [3] light btns w/ **12 105-mm** light howitzers each, and one [1] medium btn w/ **12 150-mm** medium howitzers [**48** pieces in all, which was standard for inf.-div. T/O]. The rgt. was horse-drawn; only the meteorological section, the ration train, and the baggage train were motorized. Moreover, the rgt. had several motor cars as transportation for the commanding officers, and several motorcycles for messenger purposes. (1)

By spring of **1941**, after diverse difficulties had been solved, training and equipment finally reached the point where the rgt. constituted a highly efficient fighting machine. One unsatisfactory aspect was the manner of motorization. *No two motor vehicles were of the same type*. Except for the cross-country car of the rgt. cdr, all automotive equipment was of commercial type. The passenger cars had very little ground clearance. During the course of the campaign, we more than once had to send details all the way to the Rhineland before we could make repairs that required spare parts.<sup>22</sup> (2)

**Jun 41:** Shortly before outbreak of hostilities a Fuehrer Order was published, stating that the Fuehrer had decided to attack the Soviet Union to forestall an imminent attack from that quarter on Germany. Up to that time the German troops had been so wont to discount the possibility of an armed conflict w/ Russia, that a large majority believed the rumor that German armed forces had been moved to the Soviet frontier in order to be shipped thru Russia for an offensive against India. [!]

The **26. ID** was under the control of the **6. AK** – the corps on the left wing of **9. Army**. The **6. AK** had a corps artillery cdr, at whose disposal were several well-motorized btns of GHQ artillery. (3)

**ab 22.6.41 [terrible road conditions]:** For the time being, the chief enemy of our advancing forces was deep sand. All the way to Moscow the rgt. found only very short stretches of solid road. Divisional road recon invariably reported much better conditions than the troops later found to be true. It turned out that the roads had been good for the advance scouts, but *became so ploughed up by the heavy vehicles of the leading elements* that the main body had to plod thru deep sand. . .

The advance led in the direction of Marijampole. . . After our capture of M., the rgt. was able to exchange a large part of its damaged Panje carts for the standard type, small horse carts of the

<sup>21</sup> **Note:** Study offers good insight into challenges of a German artillery regiment in keeping its horses fit and alive, given bad road conditions, inadequate supply, etc. Also insights into German artillery tactics, role of forward observers, etc.

<sup>22</sup> I assume the details had to pick up the spare parts in Germany.



Red Army which we found at the local barracks. Following the crossing of the Sesupe, an advance guard was formed from the mot. elements of the division and the GHQ artillery. That advance guard was given the mission of capturing a crossing over the Nieman River, and keeping it open for the division. (4)

The advance continued. Our route of march led past the southern outskirts of Wilno, thru Postawy and Glubkoye, toward the fortress of Polotsk on the Dvina River. The temperatures rose and rose, and ever greater exertions were demanded from the troops. Marches of 45 km per day over the deep sand roads were more than the horses could take, particularly those of the medium btn [150-mm howitzers].

On top of that, our supply shipments of oats became irregular and insufficient. . . Not until the troops had sent several captured trucks on requisitioning trips did the situation improve. Hardly any roughage was left on the land by that time of year; to offer the horses at least some forage, we fed them clover and green oats during the rest periods. That type of forage, however, frequently caused diarrhea.

Watering the horses presented further difficulties. If the march column followed a precise timetable in halting for the noon rest period, and – as was the case in most instances – stopped in the open field or in dry pine woods, mercilessly exposed to the sun, the drivers frequently had to go a long way to get the necessary drinking water. For weeks, therefore, the drivers themselves hardly had time to eat. The achievement of keeping the majority of horses alive and well until fall must be credited solely to the untiring efforts of the drivers, and their unstinting devotion to duty. . . (5)

**13.7.41:** After a large number of horses had suffered attacks of heat prostration, the medium btn could no longer hold its place in the march column. When the light btns of the rgt. reached the outskirts of Polotsk on **13 Jul 41**, the medium btn, its horses thoroughly exhausted, lagged a good day's march behind. (5-6)

Following our earlier procedure of effecting a crossing over the Nieman, we had sent a mot. advance guard ahead to the Dvina River. That advance guard, however, had bogged down in front of Polotsk. (6)

**15.7.41 [Attack on Stalin Line at Polotsk]:** The attack got underway on **15 Jul 41**. Artillery support presented difficulties. Aside from the pillboxes, our guns had only few targets worth firing on. The firing positions of enemy MGs were hard to spot [i.e., they were well-camouflaged]. On that occasion we experienced what later was to be repeated time and again: the infantry requested the artillery to fire the very missions that should have been executed by infantry heavy wpns, particularly the **75-mm** and **150-mm** infantry howitzers. The importance of forward observers became clearly apparent, but even in this first serious engagement the ratio of losses among forward observers [**VB**] and their radio operators was substantial. Our experiences during peacetime maneuvers were confirmed: the **B-** and **F-type** radio sets that were standard artillery equipment were too heavy and bulky, and their performance too much dependent on weather conditions, time of day, and terrain factors. . . The capture of Polotsk marked the first time that major ration stores, primarily oats, fell into our hands. . . The enemy had tried to burn the supplies, but had succeeded only in part. (7)

**Jul 41:** Our further advance led thru Gorodok – Usvyaty – Usmyn to Kresty on the Dvina, that is to say, right across the big bend of the Dvina. The route of march led thru endless forests, and the countryside offered next to nothing in the line of foodstuffs. While the enemy air force had

previously put in only occasional appearances, things were about to change. Until mid-**Sep 41** the Russians staged frequent raids w/ their Ratas [i.e., **I-16** single-seat pursuit acft; first dubbed „Rata“ in Spanish Civil War], which, like the later fighter-bombers, attacked resting German forces, troop columns, and even individual vehicles – many times w/ success. . . Our own fighter acft (Messerschmidt **Me-110s**) were often powerless against the highly maneuverable Ratas. (8)

In Usmyn our march column turned to the SE and headed toward Kresty. In the vicinity of Usmyn, Russian forces suddenly attacked our left flank. . . During the course of the operation we in turn cut off Russian units, some members of which were taken prisoner, while the rest escaped into the vast forests and could not be apprehended despite our most painstaking searches. The escaped Russians established themselves in out-of-the-way villages and soon after the division had passed began to *interrupt its rearward communications by ambushing motorcycle messengers and lone vehicles*. (8-9)

**27.8.41** [Fighting on the Dvina]: The author notes that weeks that followed [ca. beginning of **Aug 41**] saw „continuous hard fighting.“ He describes a major Soviet attack in heavy fog on early morning **27 Aug 41** against **IR 37** [a rgt. belonging to **6. ID**, which had been passed to the tactical control of **26. ID**]. Two btns of the rgt. were overrun. . . The Russians came upon the firing positions of **I** and **IV/AR 26**. Organized for close-quarter defense, our men made a heroic stand, despite the fact that the enemy by-passed some of the positions and completely encircled them. During that fighting, individual medium howitzers fired rounds to within **50 m.** of their [enemy?] positions, w/ result that the enemy gave up further attacks at those points. The cdr of **IR 37** died defending his CP. But the heroic resistance of the firing positions had broken the back of the enemy attack. . . With the effective support of observed fire from our batteries, and accompanied by a new wave of their forward observers, the German counterattack had restored the situation by late evening. Losses in the firing positions of the rgt. were moderate, despite bitter fighting. In the forward observation posts, however, our casualty rate was high. . . The coming days were anticipated w/ serious concern, but the enemy remained inactive. In fact, fighting almost ceased altogether. The division sector turned into a quiet defensive position. . . HQ units began to prepare for spending the winter in that region. (12-13)

During the engagements on the Dvina, enemy artillery had been much more active than ever before. . . Aided by the observation btn w/ its light- and sound-ranging batteries, our artillery conducted systematic counterbattery fire. . . That effort, of course, had to be on a scale commensurate w/ the ever-critical ammunition supply. . . [**Note:** Author points out that the enemy's „new-type artillery“ possessed a maximum range superior to that of the German howitzers Type **18**.] Several of our counterbattery fires and fires directed against bridges over the Dvina were executed w/ the aid of air observation. (13)

Ammunition Shortages: Our ammunition supply was insufficient. During pre-war maneuvers, the expenditure of ammunition had been calculated at *one unit of fire per day of major operations*. For the rgt., that meant **8100** rounds for the light howitzers [i.e., **36** guns in three btns at full strength], and **1800** rounds for the medium howitzers [i.e., **12** guns in one btn]. Nevertheless, when our light howitzers fired only **3000** rounds, and our medium howitzers only **600** rounds – i.e., about **1/3** of a unit of fire – during critical days like **22** and **27 Aug 41**, we experienced serious difficulties. The shortage of ammunition forced us to conduct our artillery ops in far too passive a manner. There was hardly enough ammunition for satisfying requests from the infantry for direct fire support and for neutralizing definitely identified assemblies of enemy forces. . . The ammunition shortage, and later also a shortage of guns and signal equipment coupled w/ a lack of mobility on the part of the artillery completely prevented – apart

from a few exceptions, like the battles of Sevastopol and Leningrad – the translation into practice of the modern principles of leadership set forth in the German instruction manual D 201<sup>23</sup> and taught in the artillery schools. *We were forced to revert to the artillery tactics of days long past.* (For more details see, 14-15)

Forward observers and radio operators of the rgt. gave an excellent account of themselves during the bitter fighting on the Dvina. . . To be sure, our losses among forward observers, and observation post personnel in general, ran into alarming figures. . . The rgt. order that only officers were to be employed as forward observers could be followed only until mid-**Oct 41**. (15)

**Horses:** Our horses were badly exhausted when we reached the Dvina. All our utmost efforts at restoring them to full health paid only moderate dividends. The shipments of oats which we urgently needed for that purpose continued to arrive in insufficient quantities. Deliveries amounted to between 2/3 and ¼ forage ration. . . Replacement horses were sent to the rgt., but they comprised only recuperated horses from the veterinary coy and were not at the peak of health. Particularly scarce were horses for the medium btn. The loads in that unit turned out to be far too heavy for horses under road conditions in Russia. The rgt. had tried to pull the guns w/ captured Russian tractors. But the fuel consumption of those tractors – ca. **300** liters per **100** km – was too great for our limited sources of supply. The prime movers of the GHQ artillery proved to be excellently suited for our purposes. (16)

**Oct 41: 26. ID** subsequently relieved the **6. ID** and, while fighting minor skirmishes, continued the advance toward Rzhev, which it reached on **15 Oct 41**. . . Upon completion of the Volga bridge in Rzhev, the division began its push toward Staritsa. . . Beyond Dudkino [on the Volga, and captured at beginning of offensive] the exertions for our troops had become worse than ever. After we left Dudkino snow had begun to fall during the night, accompanied by heavy frost. The horses constantly fell down because we had no sharp calks for their shoes. . . The horses had no shelter in the thinly-populated woodlands, and were forced to spend the nights in the open air, or at best, in a drafty barn. Our supply shipments of oats stopped altogether. The health of the horses declined rapidly. A light battery that became caught in a snowstorm lost **28** horses from exhaustion in a single day. Things looked somewhat better for the infantry, which was able to use a large number of captured small horses for its lighter loads. The fuel supply of the division was so bad that before reaching Rzhev the greater part of the mot. vehicles of the **14th** AT coys had to be left behind, and the AT guns were provisionally equipped w/ horses for motive power. (18-20)

**20.10.41:** When it developed that the advance was to be continued [i.e., instead of preparing winter quarters], the rgt. cdr on this day reminded the div. cdr that the horses of the rgt. were at the end of their strength. Unless an immediate effort was made toward building suitable stabling facilities, the rgt. cdr continued, and unless the supply [situation] were improved at once, the *time was not far away at which the rgt. would be left **immobilized** in the midst of Russia*. . . Soon thereafter the div. cdr communicated that no deviation could be allowed from the objective of the operation – Torzhek. Because only a negligible amount of ammunition was available and no appreciable supply shipments were to be expected, the Stukas were for the most part to take over the mission of the artillery. (20)

**ab Nov 41:** Author discusses efforts to establish a telecommunications net for the artillery rgt. About radio equipment he writes, „we had trouble w/ charging the storage batteries, particularly since they *rapidly ran down in the cold weather*. . . The onset of the freezing weather saw a

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<sup>23</sup> Ed.: Studie ueber Gliederung u. Feuerleitung starker Artillerie, **1 Jan 39** (Berlin: Reichsdruckerei: **1941**)

certain improvement in our ammunition supply. We were in bad need of such a turn for the better, for the enemy never let up in our division sector. The front line of **IR 39** ran thru close terrain; part of the line was located in the outskirts of a village. Incessant waves of enemy attacks surged against that village day after day and night after night. The houses were set on fire by Russian phosphorous shells. . . Because of the ammunition shortage, we were just as incapable of an active conduct of artillery ops in our present position as we had been on the Dvina [i.e., back in **Aug 41**]. (22-23)

**Fall 1941:** Author notes disillusionment that set in among soldiers, as they realized that those on the home front had no real concept of what situation at front was like: Above all, however the true state of affairs was in conflict w/ several big speeches made in Germany during **Oct-Nov 41**. Members of the rgt. received letters from home which revealed that there the situation was viewed in a light entirely different from the way things stood at the front. Then and there was laid the foundation for the wave of disillusionment that followed on the heels of the German withdrawal – that near collapse of morale which had its roots in the unceasing exactment of ever greater efforts from the troops, the lack of winter clothing, and the breakdown of the supply system in general. The effects of that letdown never were to be completely eradicated. The feeling of military superiority over the Russian that dated from the Battle of Tannenberg [1914] and had sparked German fighting morale in the East already in World War I was shaken, and later yielded in some cases to a very real fear of the Russians. (24)

**Dec 41:** A most serious problem was draft horses. . . Stabling facilities in the zone of ops of our winter positions were the worst possible. The few villages were overcrowded. The horses had to be put up in cold, drafty sheds that could be fixed up only slowly and unsatisfactorily in the cold and snow. Our oats supply continued to be wholly insufficient. Locally available roughage was soon exhausted. . . The horses became infested w/ lice and before long contracted mange. Autopsies of horses frequently revealed pathological deformities of the heart, caused by the over exertions during summer and fall. There was no doubt that under existing conditions in point of shelter the horses would never survive the winter. Rear areas were reconnoitered into which all horses were to be moved except those needed for the transport of ammunition and supplies. First to go were the horses of the medium gun btn., because they were in the worst condition. The horses of the light btn[s] were to follow w/ the first lull in the front. But events moved too fast for that plan to be translated into practice. The overall situation took such a turn that during the second half of **Dec 41** we were forced to bring also the horses of the medium btn. up on line again. (26-27)

**15. D-237:** *„Supply of XXIII Corps on the left wing of Ninth Army in Russia from the beginning of **Oct 41** to **Mar 42**, w/ special consideration of air supply operations during the isolation from supply installations of Ninth Army,“* Obst.-Lt. Dietrich Lemcke. **Jun 47.**

**Part I: 23. AK** from the End of **Sep 41** to the Occupation of the Winter Positions toward the End of **Oct 41**. Combat Ops in these Positions until End of **Dec 41**.

a. Tactical Situation:

1. *Initial Situation on the Dvina River.*

**Sep 41:** After breaking the initial enemy resistance in the frontier region, **23. AK** – deployed on the left wing of AGC – had reached the Toropets area. . . On orders from **9. Army**, the Corps had in **Sep 41** taken up defensive positions along the upper course of the Dvina River, in the Zapadnaya Dvina – Andreapol sector. **23. AK** was committed w/ **206., 256., 251., 102., and 253. ID**, reinforced by weak GHQ artillery elements. (4)

## *2. Pursuit and Attack up to Occupation of Winter Positions.*

**Oct 41:** After a rest period of four [4] weeks, which the troops badly needed after their **750-km** advance, **23. AK** began to push toward Rzhev. . . The marshy terrain and obstacles which the enemy had prepared during our rest period made the advance extremely difficult. By mid-**Oct 41**, **23. AK** had reached the deep and well-fortified bridgehead of Rzhev, and the Volga in the Rzhev – Ostashkov sector. This so-called Volga position had been carefully fortified at the beginning of the war. . . (4-5)

**Oct 41:** With the assistance of the neighboring corps on the right (**6. AK**), **23. AK** took Rzhev toward the end of the month after bitter fighting. The corps had the mission of covering the advance of **9. Army** on Kalinin. From north of Rzhev, it was to protect the **9. Army** against enemy interference from the north, and for that purpose was to convert the newly-won position into a winter line. This position was held until the end of the year. . . (5)

### b. Supply Situation:

#### *1. Terrain, and Traffic System.*

The ops of **23. AK** in the Toropets – Rzhev – Ostashkov area were considerably impeded by the extremely difficult terrain. . . The positions along the Dvina River were located in the western part of a heavily wooded marsh region more than **80 km** deep, which our troops had to cross during the course of the operation against Rzhev. The marshland afforded the defender every opportunity for planting obstacles. Moreover, the operation was timed so unfortunately that it coincided w/ the muddy period of the fall. . . (6)

#### *2. Supply Situation in the Dvina River Position.*

During its stay in the Dvina area, **23. AK** drew its supply from **9. Army** supply bases in Bazary and Toropets, which received their shipments by rail. . . (7)

#### *3. Preparations for the Attack on Rzhev.*

**Sep 41:** Rest period on the Dvina River served two [2] purposes. First, it permitted a reorganization of our troops by means of replenishing and repairing their equipment. Second, we were able to make preparations for crossing the **80-km-deep** swamp area east of the Dvina. By that time, all the unimproved roads – hard-surfaced highways were unknown in that region – had turned to deep mud, and experience had proved that during the next months motor vehicles or heavy horse-drawn vehicles had almost no chance of getting through. Mobility of the troops and supply was of the essence. For that reason, *all unsuitable vehicles, certain heavy wpns, and almost all heavy baggage were stored at a depot in Toropets*. The remaining loads were distributed among light, native horse-drawn vehicles, the artillery received additional draft horses. . . . These measures proved their worth in weeks to come. For time being, the

only motorized transportation retained by the troops were tracked and light wheeled vehicles.<sup>24</sup> (7-8)

#### 4. *Supply during the Operation.*

**Oct 41:** The advance on Rzhev began in moderately cold weather. The main elements of the divisions succeeded in crossing the swamp region; the corduroy roads held. But thaw and rain set in on the third day of the attack, and the corduroy roads, which had been subjected to heavy use during the preceding days, began to give way. With the help of construction troops, the most serious damage was repaired, and for two [2] days we succeeded in maintaining a limited volume of supply traffic. Then the roads broke down completely. Only a few more light trucks w/ ammunition got thru w/ the assistance of GHO artillery prime movers, then all motor traffic ceased completely. Almost all supply units of the five [5] divisions, as well as the convoys of Corps and Army, were bogged down on the so-called supply roads w/ hundreds of motor and horse-drawn vehicles. . . The fighting units meanwhile experienced a serious ammunition shortage. . . (8-9)

#### 5. *Supply Situation at the Time of Occupation of the Winter Positions and thereafter, up to 22 Dec 41.*

**Oct 41:** When we reached the winter position north of Rzhev toward end of **Oct 41**, only a few rounds of ammunition were left for each artillery piece and infantry heavy wpn. . . **23. AK** was completely on its own, and had the additional responsibility of caring for the numerous wounded which were returning from the Kalinin area. Several field hospitals and clearing stations in Rzhev were available for this purpose. (9-10)

**Oct-Nov 41:** The thaws made also the road leading to Rzhev from the south completely unusable. Hence, Corps was forced to dispatch some of the light horse-drawn vehicles of the divisions back to Toropets, a trip of **200 km**, to bring up ammunition and oats. They could not be expected to return before two [2] weeks. Thus, in **Nov 41, 23. AK** was for all intent and purposes cut off from all overland shipments of Army supply. (10)

**Dec 41:** With beginning of the Soviet winter offensive. . . the influx of wounded into Rzhev increased at such a rate that proper care for them was no longer assured. At that point, Army Group decided to fly supplies also to Rzhev. The planes flew from **3-4** missions daily from Smolensk and Orsha to Rzhev. They carried primarily ammunition, and also rations of high nutritional value, arms, medical supplies, and oats. Up to **700** wounded could be evacuated daily on the return flights. . . Not until mid-**Dec 41** did a weak supply traffic begin to function on the Vyazma – Rzhev railroad. . . Additional interruptions of the supply traffic were caused by the partisan bands, which became more and more numerous. Again and again, they damaged and mined the newly repaired railroad lines. . . To be prepared for the snows which were expected w/in the near future, we requisitioned sleighs from local sources and assigned them to the horse-drawn supply trains. (10-11)

### **Part II: 23. AK in the Winter Battle of Rzhev from 23.12.41 to end of Feb 42.**

#### a. Tactical Situation:

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<sup>24</sup> **Note:** Example of how infantry divisions – after experiences of first weeks of campaign – began to lighten their baggage trains to improve mobility.

1. *Fighting up to the Isolation from 9. Army on 3 Jan 42.*

**Dec 41:** On **23 Dec 41** the Soviet winter offensive which had begun on **5 Dec 41** reached the right wing of **23. AK** on the Rzhev – Torzhok railroad line. By the end of **Dec 41**, the attacking Russians had engaged the German front up to the boundary between Army Groups Centre and North at Ostashkov. At the time, **23. AK** was in winter position w/ four [4] inf.-divs. (**256., 206., 102., 253. ID**), on a front of 180 kilometers. The coys had a combat strength of from **40-50** men. The position consisted only of strong points, which were but insufficiently fortified due to shortage of manpower and equipment. Materials for the erection of obstacles were not available, and neither were reserves. (11-12)

**Dec 41-Jan 42 [256. ID]:** On **23 Dec 41**, the Russians launched an attack w/ numerically superior forces against the right wing of **23. AK**. At same time, the Russians directed the main effort of their thrust against the neighboring corps to the right (**6. AK**). Despite fierce resistance, the **256. ID** was dislodged from its line of strong points. The division withdrew toward Rzhev, suffering heavy casualties and substantial losses of materiel. . . Finally, all organized resistance of the division collapsed, and in the early days of **Jan 42** the Russians effected a breakthrough west of Rzhev, at the boundary between **23. AK** and **6. AK**. (12)

2. *23. AK Encircled.*

**9.1.42:** **23. AK** had thus lost all direct communications w/ Army. On **9 Jan 42**, the strong enemy attacks against the left wing of **23. AK** at Ostashkov caused another breach in the lines. . . **23. AK** now refused its flanks and withdrew behind the Molodoy Tud River. . . Now, **23. AK** was completely cut off, and had to rely on its own forces for defense against attacks from all directions. . .

3. *Establishment of Contact w/ 9. Army and Stabilization of the Situation during Feb 42.*

**Jan 42:** Toward end of **Jan 42** attempt made at saving **23. AK** from complete annihilation, and at restoring communications w/ Army. Elements of **6. AK** launched an attack in westerly direction, while weak forces of **23. AK** attacked in easterly direction. The gap between the two corps was closed after bitter fighting, and a narrow connecting corridor was established. This success freed **23. AK** from encirclement, and restored contact w/ **9. Army** forces located around Rzhev. . . (13)

b. Supply Situation:

1. *Supply Operations during the Fighting for the Winter Positions.*

**Dec 41:** **23. AK** had been unable to use the time preceding the Soviet winter offensive for reorganization and stockpiling of supplies. . . Railroads and roads in the Rzhev area were not capable of handling a sufficient volume of traffic, so that even on quiet days the amount of supply shipped from Army fell far below actual requirements. Only a very limited volume of mot. supply traffic could move over the roads, which were at first muddy, and later buried beneath deep snow. Once more we had to employ – partly by the relay method – native wheeled vehicles and sleighs, and it took days to move up supplies to the troops. . . There were days on which the artillery could no longer support inf. ops because each artillery piece had only a few rounds left for the defense of its own position. . . (14)

**23.12.41:** When the Russians [attacked] the right wing of **23. AK** on this day, they met a defender whose positions were inadequately fortified and whose ammunition supply was pitifully low. Moreover, the troops were physically weakened by the cold weather and limited rations. The daily rations had been cut down, and horsemeat had become a fairly common bill of fare. . . No first-aid equipment and no medical supplies were available. The limit of endurance had been reached. The **256. ID** *disintegrated completely* during the last days of **Dec 41**; step by step, the front of **23. AK** had to be withdrawn. . . (14-15)

[**Note:** Author points out that, about this time, the supply situation seemed to „improve somewhat.“] Repairs on the Bazary – Nelidova – Olenin railroad had been completed, and the first supply trains arrived from the west and unloaded at Olenin and Nelidova. These two [2] railroad stations were to be the new supply bases of **23. AK**. No sooner had that line been restored to operation, however, than the familiar pattern of partisan activities – mine laying and demolitions – began to plague us once more. (15-16)

### *2. Supply (by Air) after losing Contact w/ the 9. Army Supply Base.*

**Jan 42:** The Russian breakthrough west of Rzhev took place between **2-3 Jan 42**, and communications between the Army and Corps were severed. . . On **9 Jan 42**, the Russians effected the deep penetration into the left wing of Corps. During the course of this penetration, the enemy had w/in a few days reached and cut the Toropets – Ostashkov & Bazary – Olenin railroad lines, and captured the village of Nelidova. At the latter place, some of our supplies fell into Russian hands. . . . **23. AK** had thus become completely dependent on the scarce supplies which had been stored at Olenin. These supplies, however, were insufficient even for the requirements of the next few days. The troops still had a small supply of small arms ammunition; the expenditure of artillery ammunition was relatively small during those days, particularly since the **253. ID** and the **GHQ artillery** had lost all their pieces in the snow during the withdrawal from the Volga. (16)

**Jan 42:** **23. AK** was completely encircled; all its communications cut. Army ordered supply by air, and soon the planes began to arrive. Until a landing strip could be built for the cargo planes, they dropped *small arms, belted MG ammunition, medical supplies, and concentrated rations*. Within three [3] days the landing strip was completed in the western part of the pocket. Since it could only be built a few kilometers behind the front line, however, the enemy soon took it under observed artillery fire. Enemy shells and fighter planes destroyed a large number of our transport aircraft. Still, the airborne supply ops were conducted w/ no regard for weather conditions; the planes sometimes flew thru blizzards, fog, and even in temperatures as low as **-30 C**. During that time, the ration strength of **23. AK** was from **30,000-40,000** men, who obviously could be supplied only inadequately in this manner. Particularly short items were bread and potatoes, as well as forage for the **15,000** horses in the pocket. During the course of two [2] months, about **1/3** of the horses perished from hunger and exhaustion. Losses were particularly high among the heavy draft horses, but the light native breeds could be used even under the most difficult conditions. The wounded were also evacuated by air. After a few weeks, a second landing strip was completed near Olenin. . . (16-17)

### *3. Stabilization of the Supply Situation after Reestablishment of Contact w/ 9. Army.*

**Jan-Mar 42:** During the last days of **Jan 42**, our counterattacks in westerly and easterly direction succeeded in establishing a narrow communications corridor leading to the elements of Army that were located around Rzhev. However, the supply difficulties had by no means been solved, and



the **23. AK** remained dependent on supply shipments by air for weeks to come. The narrow connecting corridor was w/in the effective range of enemy small arms, and allowed only a limited volume of supply traffic w/ light native sleighs during nighttime. Our casualty rates on those trips were high. Supply shipments by air could be limited, and later discontinued, only after the annihilation of strong enemy forces west of Rzhev enabled us to build a direct road from Olenin to Rzhev, and after we resumed operations on the Rzhev – Olenin railroad in the beginning of **Mar 42**. . . (18)

**16. D-240:** „*Advance and Battles of the 110th Inf.-Div. within the Framework of the 9. Army, from the German Border to the Area West of Kalinin, from Jun – Nov 1941.*“ Heinz Gaede, 1947.<sup>25</sup>

**110. ID:**

**Dec 40:** Organized by **10. AK** area HQ.  
Division of 12th wave.

Organization:

Three [3] inf. rgts. (**252., 254., 255.**)

One Art.-Rgt. (**AR 120**) w/ three light and one medium btn.

The **110. Pi.Btn.** w/ three [3] coys and one bridging column. The **3./110. Pi.Btn.** and the bridging column were motorized.

**110. Signal Btn.** (partly motorized)

The AT coys of the three [3] inf.-rgts. used French half tracks as prime movers. One coy of each inf.-rgt. and one engineer coy moved on bicycles.

Training: 5 ½ months at training camp Munsterlager. Training completed on **1 Jun 41**.

Loading: **21.-22.6.41**

Start of advance: On **24.** or **25.6.41**.

Mission: The division was to follow as army reserve (**32. AK / 9. AOK**) behind the northern wing of the army. (1-3)

**ab 22.6.41:** During the march, elements of the inf.-rgts. and the recon btn. mopped up the terrain and the woods south of Olita; scattered enemy units, some of them up to **1200** men strong and equipped w/ artillery, were present there. The enemy fought obstinately, even in hopeless situations. His positions were expertly constructed, and camouflage was excellent. . . Despite bad roads, hardships caused by hot weather and dust, they covered **30 km/day** and more. Horses and mot. vehicles were affected particularly by the deep sand. Supply presented a problem because of the rapid advance and the inadequate road network. (4)

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<sup>25</sup> **Note:** Document regraded from „Restricted“ to „Unclassified,“ IAW DoD Dir. **5200. 1 R.**, on **3 Feb 97**. This study cited as „Draft Translation.“ This study includes anecdote about war crime committed by the Russians against **3./Pi.Btn. 110** in **Jul 41**. Also, provides a further example of how German inf.-divs. reorganized to enhance mobility.

**Jul 41:** When the **110. ID** approached the Dvina River, it was assigned to a new corps (**23. AK** on **12 Jul 41**). . . On the march, the **255. Rgt. Combat Team** was attacked by a Russian force of ca. equal strength in the thickly wooded swamp area 15 km north of Polotsk. The severe battles, some of them hand-to-hand, resulted in heavy casualties, particularly among the horses of the artillery btn. (**III/AR 120**). . . (4-5)

**17.-19.7.41 [War Crime anecdote]** : In late evening of **17 Jul 41**, the majority of the combat units had reached the area north of Dretun, when the orders were received to rush to the aid of **57. PzK**, which was engaged in battle in the Nevel area. . . The first unit (consisting of the reinforced **IR 254**, **Aufkl.Abt. 110**, and the mot. **3./110. Pi.Btn.**) in a forced march . . . arrived at Nevel in the early morning of **18 Jul 41**, much to the joy of **57. PzK**, which was engaged in heavy fighting. This achievement deserves special mention, because it turned out to be the decisive factor for the successful continuation of the battles fought on **18-19 Jul 41** on both sides of Nevel. Col Schreder, Cdr of **IR 254** (later killed at the Mesha River in **Oct 41**) was mainly responsible for the success by virtue of his dynamic and inspiring leadership of this combat team. After reaching Nevel, Combat Team Schreder (IR 254) was attached to **14. ID (mot.)** and committed on both sides of Nevel . . . to prevent the escape of the Russian forces who were rushing back to the east and NE. . . On these two days, Combat Team Schreder successfully repelled six [6] concentrated breakthrough attempts by strong Russian forces and inflicted heavy casualties on the enemy. The **3./Pi.Btn. 110**, which was committed south of Nevel along the road west of Studenets, was annihilated during these battles. Upon the conclusion of the battles, all dead members of this coy were found near their wpns w/ crushed skulls. Survivors and prisoners testified that the Russians had smashed the skulls of all dead and wounded members of this engineer coy w/ rifle butts or spades. The coy cdr was among the dead. (5-6)

**Aug-Oct 41:** Division transferred first to **40. PzK.**, and later to **6. AK**. . . **110. ID** eventually withdrawn from the front; on mired roads, it reached the Ilino area as **6. AK** reserve. . . During **Sep-Oct 41**, the problem of supplying the units w/ ammunition and food, and esp. w/ oats and fuel, was a difficult one. . . During the few days of rest at Ilino, the division acquired local vehicles, and even the mot. units changed to horse traction. This measure proved successful. (8-10)

**17. D-247:**<sup>26</sup> „German Preparations for the Attack Against Russia“ (*The German Build-up East of Warsaw*).” Genlt. Curt Cuno. 1947.

**Part I:** „The German Buildup East of Warsaw:“

**Jun 41:** **17. PD** arrived in Warsaw from Germany on or about **12 Jun 41**, and immediately assembled in the area of Minsk [sic!?] – Maszowiecki – Kaluszyn. At the same time, the **18. PD** and **29. ID (mot.)** assembled SE and south of Warsaw. These two divisions and **17. PD** formed the **47. PzK**.

To keep the preparations for the attack secret, the regimental insignia on uniforms, the standards, and unit symbols on motor vehicles were removed prior to entraining. In addition, a news

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<sup>26</sup> **Note:** Regraded „Unclassified“ by authority of DoD Dir. **5200. 1 R.** on **3 Feb 97**. Study illustrates extent to which Germans went to conceal their buildup; also provides detailed description of terrain around the Bug River.

blackout was imposed, and outgoing mail was restricted. To prevent enemy radio interception and air recon, radio traffic was prohibited. Movement of units was forbidden during the day. Parked motor vehicles, particularly armored vehicles, were to be camouflaged w/ great care. The movements of local inhabitants were restricted to limited areas around the villages and during designated hours of the day. (1)

a. Terrain and Enemy Situation in Sector of 17. PD:

The terrain over which the division was to advance consisted of rolling country w/ elevations ranging from **132–200** yards. It was intersected by numerous small creeks and streams which ran into the Bug River. The countryside consisted mainly of woods and meadows, and of cultivated land in the vicinity of scattered rural settlements most of which were hidden among clusters of tall trees. . . The low plains near the Bug River was partially covered w/ large marshes. The Bug River was from **55–110** yards wide, had a normal spring water level of **9-12** feet and a moderately strong current. The Bug was a winding river w/ numerous sharp bends. Its banks were covered w/ alder bushes and clumps of trees. . . No bridges existed and the river was not fordable. . . The enemy bank was protected by a weak, continuous wire entanglement along the river. Observation posts were located along the river at various points. Temporary and permanent field fortifications and various strong points were located behind the barbed wire along the banks. . . Artillery positions – some poorly camouflaged and some still in the process of construction – were located in the rear area. . . (3-4)

b. Divisional Plan of Attack:

[**Note:** This section contains detailed breakdown of assault plans, minute-by-minute in several phases.]

First Phase:

H-15 minutes to H-Hour:  
Fire preparation by artillery and rocket projectors. . .

Second Phase:

H-5 Minutes to H-Hour:  
Smoke screen over the crossing site, and crossing of the assault troops on light pontoons.

Third Phase:

H-Hour: Beginning of the crossing by the main body in assault boats, large pneumatic floats, and ferries. . .

Fourth Phase:

Construction of the bridge and approach roads. . . (5-6)

c. Assembly for the attack:

During the nights from **19-21 Jun 41**, the division advanced to the assembly area SE of Yanov Podlaski by way of Siedlce – Mordy – Losyce. . . The movement had been carefully prepared and proceeded during the hours of darkness according to schedule. Advance parties had marked the approach routes and assembly areas w/ luminous signs to insure continuous two-way traffic during the night. . . (7)

**Part II:** „The Attack:“

**21.6.41:** At **2300** hours, the leading elements and engineers moved into their jump off positions. The light river-crossing equipment for the first wave had already been moved forward during the preceding nights. It had been well camouflaged and stacked in such a manner that it would only have to be carried a few feet up to the water when the assault started. The bulk of the engineer equipment was located farther to the rear. . . (7-8)

a. The Crossing:

**22.6.41:** The artillery preparation began exactly at **0345**. Everything moved according to plan. . . Shortly before **0400**, the leading elements crossed the river under cover of a dense smoke screen. They reached the enemy bank w/o suffering any losses and immediately removed the enemy wire entanglement and advanced toward the heights along the river bank. Soon wave upon wave followed in constantly increasing numbers. . . (8)

b. Breakout from the bridgehead:

Due to the initial success of the assault operation, the enemy position had been penetrated more rapidly than had been expected. . .

c. Bridge construction:

At **0600**, the bridgehead had become sufficiently large to preclude enemy action against the planned site of the bridge. The div.-cdr. ordered construction of the bridge. . . German AA units and fighter planes frustrated repeated attempts by Russian bombers to attack the site of the bridge and impede the progress of the ferrying operation. . .

d. Situation at 0930:

As the construction of the bridge neared completion at **0930**, the main body of the **40. PzGrenRgt** [Schuetzen Rgt?], less part of the heavy wpns and motor vehicles, had crossed the river. . . (9)

e. Opening of the bridge:

Shortly after **1000**, armored recon detachments of the **27. Pz.AA** were the first to roll over the bridge, which had meanwhile been completed. They were followed by the main body of the recon btn. at **1130**. The div.-cdr. crossed at **1500**, followed by the armored rgt., the artillery, and the **63. Pz.Gren.Rgt.** (10)

f. Situation on evening of 22 Jun 41:

The div.-cdr's plan for **23 Jun 41** was as follows: Advance at daybreak toward Slonim by way of Pruszana and Roszana w/ all elements of the division which had crossed the Bug River. On **24 Jun 41**, the **17. PD** seized the bridge across the Sczara River at Slonim. (11)

**18. D-253:** “*Antitank Defense in the East*,” Gen.-Lt. Erich Schneider.<sup>27</sup> 1947.

I. Introduction:

Antitank defense played an important, frequently even a decisive role in practically all operations in the East. . . Equipment as well as tactics underwent considerable changes during the fighting in the East. German tanks and assault guns were the most effective wpns in AT defense; next were the SP Paks (AT guns); only in third place came Paks and Flak on conventionally drawn mounts; artillery and AT mines were employed in AT defense w/ great success from the beginning. Close combat AT wpns, particularly the Panzerfaust (recoilless AT grenade and launcher – both expendable), became more and more important during the course of the campaign. (4-5)

**Jun 41:** At beginning of the Russian campaign, German Army equipped w/ technically inadequate AT wpns. The heavy coys of the inf.-rgts. had two [**2**] **50-mm** Paks and four [**4**] to six [**6**] **37-mm** Paks. In the AT btns., one coy was equipped w/ **50-mm** Paks, the others w/ **37-mm** Paks. The latter was known to be obsolescent even before the beginning of the war. The **50-mm** Pak, while fully developed, could not be introduced everywhere on short notice, because German industry was unable to produce in a few weeks the ca. **4000** guns and proportionate quantities of ammunition required for the change-over. (5)

**37-mm Pak:** Employed against the light, thinly-armored Russian tank at first encountered in the East, it was effective at ranges of from **300-500** meters when used against the front; at ranges of from **600-800** meters when used against the side or back of a tank at a **60-degree** angle of impact (American **30** degrees). [?]

**50-mm Pak:** Could pierce the front of the older Russian tank at ranges of from **500-800** meters; and the sides or the back at ranges of from **900-1000** meters. (5)

**Pz III & Pz IV:** The situation was identical as far as the armament of the German **Pz III**'s was concerned, which consisted of the same **37-mm** and **50-mm** guns, respectively. At the start of the Russian campaign, the **Pz IV**'s were equipped w/ a short-barreled, **24-caliber**, **75-mm** gun. They were able to pierce the front of the older Russian tank at ranges of from **600-1000** meters. Despite the technical weakness of their wpns, the German tanks were by far superior to the Russian tanks until approximately **Oct 41** – and knocked out many enemy tanks w/ negligible losses to

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<sup>27</sup> **Note:** Document used in preparation of this study include: „American, German Documents, Diaries, etc.” Study addresses crisis in **Oct 41** w/ **2. PzGr**; strength and weaknesses of German tanks and AT wpns; same for **T-34**; effectiveness of German field howitzer as AT wpn, etc. Report based on author's combat experience in a panzer division.

themselves. It was not until the appearance of the **T-34** in **Oct 41** that a complete change took place in tank warfare and AT defense. (6)

## II. The Crisis in German Tank Warfare in Oct 41 – Operations of **4. PD** at Orel, Woin and Mzensk (2-10 Oct 41):

**3./5.10.41** [Woin: First encounter w/ T-34; destruction of 8 Panzers by T-34s at a range of from 2000-3000 meters]: Town of Orel fell on **3 Oct 41** as result of a surprise attack by **4. PD**. Early in the morning of **5 Oct 41**, during good weather, the division broke thru the Russian rear guard positions on both sides of the Orel – Mzensk road after a brief artillery preparation. The division rapidly thrust forward. . . (7)

**5.10.41**: A few kilometers east of Orel a completely new type of Russian tank suddenly appeared in front of the German Panzers. They were the new **T-34s** w/ their characteristically sharp slanting front plate, long gun barrel, wide tracks, and powerful acft engine<sup>28</sup> notable for its low, roaring sound. At first the **T-34s** did not engage the German tanks. . . Towards noon, the German Panzers crossed the deep-cut Oka valley, which was impassable to tanks, by way of the undefended highway bridge north of Otrada. They were covered by the fire of the artillery, which was moving into position west of the Oka. . . (8)

[**Note**: Author describes the engagement at Woin in great detail. What follows is a summation of his narrative.]

Supported by divisional artillery, the German tanks advanced deployed in two waves on the eastern, slowly rising, completely open slope when they suddenly received strong fire from a group of **15-20 T-34s** lined up in a broad front on the hill. The Russian tanks opened fire at a range of from **2500** to **3000** meters and knocked out several German tanks w/in a short period of time. This was a bad surprise, esp. since the strong fire of the German tanks did not show any effect on the enemy even though a number of hits were observed. . . (9)

The German Panzer cdr [cdr of Pz.-Rgt?] eventually decided to break off the engagement; he intended to withdraw behind the Oka to wait for a second Kampfgruppe, and then to resume the attack. However, after conferring w/ artillery cdr, who was anxious to learn the effectiveness of his armor-piercing shells on the new type of tank, decision made instead to fall back w/ the Panzers in a southeasterly direction on the eastern bank of the Oka. The artillery cdr was hoping that the expected Russian tank attack would thus move past the guns of the artillery, which were ready to fire. . . (10)

The two cdrs had a double surprise while returning to their tanks. They discovered they were *moving about in the middle of an excellently camouflaged Russian infantry position*. The fields were covered w/ many small haystacks. Beneath each one of them was a round standing trench occupied by a Russian infantry soldier. The forces occupying them, about one coy, remained completely passive. They surrendered quickly and w/o offering resistance to a handful of men called in from the Panzer crews. . . (10-11)

About this time, the Russian tank attack gets under way. Well-placed German artillery knocks out a half-dozen of the **T-34s**. Members of the Soviet tank crews taken prisoner stated that they had failed to recognize the battery. Moreover, there was no possibility to pass on information

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<sup>28</sup> **Note**: This was later replaced by a high-powered Diesel engine. (25)

about such targets discovered unexpectedly during the course of the battle, as only the coy cdrs of the armored forces were equipped w/ radios. (11-12)

Author next describes destruction of a **T-34** in close combat: When one of the Soviet tanks got stuck while ramming a large prime mover [some of the Russian tanks had reached a position behind the firing German battery], two German officers *jumped on top of the tank, smashed the barrel of the MG w/ a pickaxe, and threw a blanket over the turret and the direct-vision slots. One of the officers then opened the hatchway at the rear of the deck (above transmission compartment) (Grating) and blocked the gears w/ the pickaxe.* Although blinded and immobilized, surrounded by German officers and men, the **T-34** kept on blazing away w/ its gun w/o hitting very much. A gasoline can was emptied over the blanket and the tank set on fire by a hand grenade. Shortly thereafter, the turret hatch burst open and the crew came out and was captured. (12-13)

[Outcome of the engagement]: To be sure, the enemy tank attack east of the Oka had been repulsed. The Russians, however, had checked the German advance and succeeded in changing into definite doubt our previous confidence in our absolute superiority over the Russian tanks. The Russian losses amounted to seven [7] **T-34s**. Of these, **2** had been knocked out by **105-mm** medium [?] guns at a range of about **3000** meters; the other five [5] by armor-piercing shells from the field howitzer Model 18<sup>29</sup> at ranges of from **10** to **200** meters. The German losses, all of them caused by the fire of the **T-34s**, were **8 Pz IIIs & Pz IVs**, one field howitzer Model **18**, and two **88-mm** Flaks. Not even at close range had the German tanks managed to knock out a **T-34**. . . During the night of **5-6 Oct 41**, the Russians retrieved **5** out of their **7** derelict tanks. (13-14)

Towards evening the left Kampfgruppe had reached the railroad and highway bridges across the Oka **4** km north of Otrada. The order for the next day was to continue the attack in the same manner. [**Note:** The tanks for the right and main battle group; the armored infantry formed the left battle group, which had attacked along the railroad line and in the Oka Valley. (7-8)] As reinforcements for AT defense, the **105-mm** medium guns and two [2] **88-mm** Flaks were attached to the advance element of the Panzers. (14)

**6.10.41:** With clear autumn weather prevailing, the **4. PD** once more assembled for attack in two [2] Kampfgruppen. . . Heavy artillery (including a howitzer btn. w/ **210-mm** guns and larger guns) followed behind the right Kampfgruppe [i.e., the Panzers] along the highway. Once more the Oka bridge was crossed w/o fighting. In area of Woin, Germans suffer more tank losses from long-range fire (ca. **3000** meters) by **T-34s** well-concealed among trees and bushes at the edge of a woods. (15)

In this critical situation, the German Panzer Cdr decided to attack. Driving at great speed, the German tanks advanced across the slope at Woin down to the bottom of the valley, and crossed the bridge over the creek under enemy fire. They tried to wheel NW and reach the woods south of the Dumtaschina railroad station, in order to approach the flank and rear of the enemy tanks there. The enemy recognized the danger and began a counterattack, immediately blocking access to the woods. The German Panzers took up the severe fire fight at a range of from **1500 – 2500** meters. *Once more, the greatly superior fire power of the **T-34s** had disastrous results.* One by one, the German Panzers were disabled by enemy hits. The fire from the German tanks had no effect. (15-16)

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<sup>29</sup> **Note:** l.FH or s.FH 18? Later, author refers to “field and medium howitzers.” (15) So, I assume the field howitzer is the l.FH.

**88-mm** Flak at edge of Woin manage to knock out **2** Russian tanks. The fire of **50-mm** Paks had no effect, however. . . There was nothing left to do but to move the Panzers thru Woin to the south, out of the dangerous fire of the **T-34s**, unless we were willing to accept additional and unnecessary losses. This difficult movement was executed successfully but it caused additional painful losses. About **10** German tanks, including two [2] artillery observation-post Panzers, were knocked out. The enemy had lost only **2 T-34s** thru fire from the **88-mm** Flak. As on the previous day, the German Panzers *had not been able to deal a death blow to even one of the enemy tanks*. (16-17)

There was no longer any doubt that the Russian **T-34** was superior in fire power and strength of armor. . . Faced by the **T-34**, the German tanks had to change their tactics. Fire duels at long ranges had to be avoided by all means. Now they had to try to sneak up on the enemy tanks under cover in order to surprise them and fire on them from close range. In view of the failure of the small-caliber Pak (**37-mm / 50-mm**), the defense against enemy tanks had to be left to the few available **88-mm** Flaks, the **105-mm** medium guns, and the division artillery. (17)

**7.10.41:** The mission of **4. PD** was still the same: continuation of the attack in direction of Mzensk, Tula. Immediate objective: Mzensk. In view of the changed situation so far as the tanks were concerned, the div.-cdr. decided to continue the attack w/ the main effort west of the big highway in sector of the reinforced rifle bde [i.e., the other Kampfgruppe], and to hold the tanks back for time being. (17-18)

On evening of **6<sup>th</sup>**, strong combat recon was pushed forward – on a broad front east of the big highway up to the Suscha by the recon btn., and west of the big highway in direction of Mzensk by the rifle bde. . . The riflemen, supported by strong artillery fire, had worked their way forward to Dumtschina railroad station in course of the forenoon. However, when they tried to advance farther along the railroad line they received strong infantry and mortar fire from a position in and south of the woods **1 km** west of Wolkowo. (18-19)

The enemy riflemen had firmly installed themselves in an extensive field in their well-known round and deep standing trenches. The initial field howitzer and mortar rounds fired on them were not effective. Thus, the heavy artillery, one **210-mm** howitzer btn., one medium howitzer btn., and one rocket launcher (Nebelwerfer) btn. (w/ **150-mm** high-explosive shells), placed concentrated observed fire on this position. The heavy and medium howitzers were firing richochets, so that the point of burst of the heavy shells was located **5-15** meters above the position. Large elements of the forces occupying the position fled in panic into the woods under destructive fire from the German MGs. (19)

Meanwhile, the German tanks which had been retained by the div.-cdr. had driven forward undisturbed on the road to Mzensk as far as Podmokroje. There, they engaged Russian **T-34s** north and west of Wolkowo. [**Note:** Through elastic and adroit leadership, and the daring and quick action of the German tanks, the German tanks and infantry eventually penetrate into town of Mzensk; Suscha bridge also firmly in German hands. Author states that additional factors in outmaneuvering the enemy tanks were their shortcomings in recon and in coordinated command.] (20-21)

**7.-10.10.41:** During the street fighting in the evening of **7 Oct 41**, and during the two following days, the **T-34s** *made a poor showing*. Their strength, i.e., their superior firepower at long ranges, could not come into play. The tank battle turned into a close-combat melee in the streets,



in which greater mobility, the speed of loading and rate of fire, and esp. a greater field of vision out of the tanks, gave the German Panzers superior chances. Many **T-34s** were knocked out in the city. The Panzers managed to knock out some of them at close range of less than **500** meters, but the main results were achieved by the German Paks, Flaks, and field guns emplaced in many spots in the city. After two days, the **T-34s** did no longer dare to enter the town. . . Following a brief but intensive fire preparation, the northeastern part of town of Mzensk, stubbornly defended, was taken by an infantry attack. (21)

During the course of these ops, the Russians had brought up strong infantry and armored forces from Tula to defend this important industrial and transportation center. For several weeks past, the hills east of Mzensk had been fortified by a deeply echeloned system of defense positions and mine fields so that it was no longer possible to continue the attack on Tula in the manner applied so far. It had become necessary also on the German side to bring up new forces, esp. artillery. **22 Oct 41** had arrived before it was possible to reassemble the Panzers of the corps and continue the attack. (21-22)

### III. Deductions and Lessons Learned from the Operations, especially w/ regard to Anti-Tank Defense

#### a. The Armor-Piercing Qualities of German Panzer Wpns and Assault Guns:

The appearance of the Russian **T-34s** during the tank battles at Woin had revealed a momentous change in the relative fighting strength of the tanks and AT wpns. The new **76.2**-mm, ca. **50**-caliber gun of the **T-34**, w/ a muzzle velocity of more than **700** meters per second, had far superior ballistic qualities than the German short, **75**-mm, **24**-caliber gun of the **Pz. IV**, w/ its muzzle velocity of **450** meters/second, not to mention the **37**-mm or the **50**-mm gun of the **Pz III**. (22)

**7.10.41:** As early as **7 Oct 41**, the **4. PD** had sent an initial report on the new Russian tank to Berlin and asked for a commission of ordnance experts. This commission arrived at the division two days later by plane. It was composed of representatives of the Inspector of the Panzer Troops, the Army Ordnance Office (Heereswaffenamt), and engineers of the armament manufacturers concerned. Guided by a Panzer cdr who had participated in the fighting, the battlefields were toured to inspect carefully the derelict **T-34s** and German Panzers. It became obvious that far-reaching modifications in ordnance equipment had to be introduced immediately. . . Fortunately, the Army Ordnance Office and armament factories had already taken preliminary steps in this direction. Several pilot models of armor-piercing shells and **75**-mm, **48**-caliber guns w/ muzzle velocity of **700** meters/second had been fully developed and tested. . . Thanks to this far-sighted preliminary work, it was possible to tackle the changes in equipment immediately. Still, it took almost **6** months before the first **Pz IVs** w/ the new long tube reached the front. (22-23)

Assault guns: A similar situation prevailed in the case of assault guns. Originally, these had been requested and constructed to give close support to the infantry during attacks, especially during the last **200** meters of the assault when the division artillery frequently proved inadequate. The assault guns were designed to support penetration and breakthroughs thru the enemy infantry zone by smashing enemy MG emplacements and pockets of resistance by direct fire from positions in the forward infantry lines. Defensive and offensive AT combat missions at first were supplementary duties which, however, during the course of the war gained in importance until they *finally became the main mission* of the assault guns. Thus they were *transformed*

into AT wpns. The appearance of the T-34 made it imperative to equip also the assault gun motor carriages w/ long guns of great armor-piercing power and w/ reinforced front armor. In the meantime, the original mission of the assault guns had been taken over generally, and in a satisfactory manner, by the mortars which proved to be an excellent infantry wpn. (24)

The T-34 also had its weak features. Items to cause concern were the poor visibility out of the tanks to the front and esp. to the sides, as well as the absence of the important command turret affording a good all-around observation. These weak features had become apparent during the very first day of combat. Twice a whole tank btn. drove close past the muzzles of a firing howitzer battery and suffered losses w/o discovering the battery. Moreover, they were insufficiently equipped w/ radio sets. Usually only the coy cdrs had any radio equipment at all. (25-26)

b. The Paks and the Flaks:

So far as armor-piercing effect was concerned, the 37-mm and 50-mm Paks proved to be absolutely insufficient for combat against the new T-34s. . . Anticipating the possibility of such a development as early as 1940, Krupp and Rheinmetall had been ordered by the Army Ordnance Office to construct and test a 75-mm Pak on a split-trail carriage.

Rheinmetall based its construction of the Pak on the above-mentioned 75-mm, 48-caliber barrel w/ a normal armor-piercing high-explosive shell. This resulted in the 75-mm Pak Model 40, which was subsequently adopted. [Note: For more interesting details on this topic see, pp 26-27]

It was further evident that the 88-mm Flak and the 105-mm guns could, w/ their armor-piercing high-explosive shells, easily penetrate even the T-34 at a range of 3000 meters, in one instance even at 4000 meters. . . (27)

c. The Artillery:

The 105-mm armor-piercing shell of the field howitzer Model 18 had proved effective against the T-34 at close ranges up to about 300 meters. The field gun, too, was able to hold its own against the new Russian tank by using this type of shell. . . (27-28)

d. Close-Combat Weapons and Ammunition for Tank Warfare:

In house-to-house fighting and in close combat the poor vision and insufficient armament had proved to be definite shortcomings of the T-34. The German troops, however, lacked suitable means to attack the tanks at close range. At that time [i.e., Oct 41], the troops were familiar only w/ grenade clusters (geballte Ladung) and w/ magnetic hollow charges. It was necessary to push development of new and more effective arms and ammunition. Two wpns under development at the time looked particularly promising – the Panzerschreck (Bazooka) and the Panzerfaust (recoilless AT grenade and launcher – both expendable). The best results were later achieved w/ the Panzerfaust. (28)

#### IV. Conclusion

Typical of the technological level reached by the Russians is the fact that they achieved a temporary superiority only in the fields of the basic components of the tank – armor plate, engines, tracks, and guns – while they constantly lagged behind, and apparently encountered insurmountable difficulties, in the manufacture of such mechanical precision parts as sighting, optical, and radio instruments. (29)

The Panthers, Tigers and King Tigers were being developed as early as **1941**. Not until they had been introduced did the German Panzer force once more receive tanks which not only caught up w/ the technological advances of the Russians, but whose quality was far superior to that of the Russian tanks to the end of the war. . . (29)

During the course of the war, the assault guns and the various models of SP guns became gradually the most important wpns in AT defense. (29)

**19. D-272:** „Das Inf.-Rgt. 488 in der Wjasma-Schlacht 2.-11.Oktober 1941,“ Wilhelm Koehler.<sup>30</sup>

(**Note:** IR 488 belonged to 268. ID.)

**2.10.41:** Das Rgt. war im Rahmen der Div. Armee-Reserve, sodass mit einem Einsatz an diesem Tage nicht zu rechnen war. Um **5.30** Uhr begann das Vorbereitungsfeuer der eigenen Art. u. Inf. Geschuetze, dem bald der Inf.Angriff folgte. Strahlend stieg die Sonne herauf, freudig begriesst nach den Regentagen der letzten Zeit. In der Bereitstellung blieb das Rgt. waehrend des ganzen Tages u. in der Nacht zum **3 Okt 41**.

**3.10.41:** Am **2 Okt 41** war es den vorne eingesetzten Truppen gelungen, den Feind zu ueber-raschen u. die Desna-Stellung zu durchbrechen. Um nahe heran zu sein, wurde das Rgt. in den Vormittagsstunden an die Desna herangezogen. [**Note:** That afternoon, the Rgt. crosses the Desna; later, it is ordered into the area Cholm-Dupletschi, which it reaches between **19.30** and **21.30** hours.]

**4.10.41:** Der Auftrag fuer das Rgt. fuer den **4 Okt 41** ging am **3 Okt 22.30** Uhr fernmuendlich ein. Er setzte das Rgt. zwischen der **78. ID** (rechts) u. dem **IR 468** (links) zum Angriff nach Norden ein. [**Note:** Day of intense, bitter combat ensues. **I/488** suffers serious losses from Gr.W. fire. One coy cdr killed; another wounded. Enemy Widerstandsnester fight tenaciously and have to be cleared one after the other in Nahkampf.] Das Angriffsziel des Tages, das zweimal weiter nach Norden verlegt worden war, war voll erreicht, wenn auch schwere Verluste in Kauf genommen werden mussten. (See table)

**5.10.41:** Die Verfolgung wurde fortgesetzt.

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<sup>30</sup> **Note:** This brief study offers a blow-by-blow account of combat of a German inf.-rgt. in opening days of Operation „Taifun.“ Includes account of harrowing attack by heavy Russian tank that German Pak cannot stop. (The figures in Anlage 1 show serious officer casualties, including one btn. cdr and **3** coy chiefs over this **10-day** period.)

**6.10.41:** Advance, combat continue. Several more villages captured = So war auch heute das Tagesziel glatt erreicht. Zum **1.mal** fiel an diesem Tage Beute in groesseren Mengen an. (See, *Anlage 2*)

**7.10.41** [Das Gefecht bei u. noerdl. Wolotschek]: Day of intense fighting w/ heavy casualties for the rgt. Enemy fortifications and villages cleared; difficult forest fighting, often against heavy enemy tanks; close combat. Stukas intervene w/ effect in the fighting. Cdr of **I/IR 488** killed; Chef of **4./IR 488** wounded. . . Gegen **22.30** Uhr konnte der Rgt.Kdr. dem Div.Kdr. melden, dass der Suedrand der Artescha erreicht u. fest in eigener Hand war. . . Die Waldkaempfe suedl. Dworzy dauerten die ganze Nacht. . . Erst gegen Morgen des **8 Okt 41** flaute der Widerstand des Feindes ab. Mehrere Panzer waren waehrend der Nacht abgeschossen order durch Feuerflaschen [*Molotov cocktails?*] vernichtet worden.

Bei Hellwerden konnte erst der gewaltige Erfolg ueberblickt werden. In der Naehе des Btl.Gef.Standes wurde die Leiche des Kdr. der russ. **9. Div.** [rifle div?] gefunden, der hier im Nahkampf gefallen war. Auch die Fahne der **9. Div.** wurde hier gefunden. Wie sich nach Auswertung der Gefangenenaussagen ergab, war dem Rgt. am **7 Okt 41** im Wald noerdl. u. nordostw. Wolotschek die Masse der russ. **24. Armee** gegenuebergestanden, deren Ausbruchversuche nach Osten siegreich vereitelt worden war.

**8.10.41** [Nikitinka]: Rgt. and other elements of **268. ID** again foil Russian breakout attempts from the pocket, inflicting huge casualties on the enemy. However, rgt. experiences a harrowing encounter w/ some heavy Russian tanks (probably **T-34**, but no type given): Allmaehlich war es dem Feind gelungen, hinter den Panzern bis an den Ortsrand von Nikitinka heranzuschieben. Der le.Inf.Gesch.Zug im Ort hatte den Russen zwar schwere Verluste zugefuegt, dabei aber auch seine Munition verschossen, sodass die Geschuetze zurueckgenommen werden mussten. Die Leute wurden infanteristisch eingesetzt. Beschuss gegen die [fdl.] Panzer mit **3,7cm** Pak war wirkungslos; die Schuesse der le.F.H. trafen auf nahe Entfernung nicht; **2** Treffer auf etwa **1000** m Entfernung prallten an der Panzerung ab. So gelang es einem schweren Panzer an die eigene Panzerabwehr heranzukommen u. in einem Zug 4 le.Geschuetze der **3.Pz.Jaeg.Kp.** zu ueberfahren, die beiden s.Inf.Gesch. zu rammen, u. unbrachbar zu machen, sowie die le.F.H. zu beschaedigen. **1** Pz.Abw.Gesch. der **14.Kp.** fiel durch Volltreffer aus. **2** Panzer, sich gegenseitig deckend, fuhren dauernd am Suedrand von Nikitinka hin u. her u. setzten durch Beschuss mit ihrem Geschuetz *ein Haus nach dem andern in Brand*.

**9.10.41:** An diesem Tag trat das Rgt. erst um **13.00** Uhr den Weitermarsch als Div. Res. hinter dem **IR 468** an u. saeuberte den Raum um die Vormarschstrasse bis zur Linie Iwanowka – Kriwyje – Niwke. Der Feind trieb sich hier in kleineren Trupps herum u. suchte Unterschlupf in den Ortschaften, z.T. auch in dem Bestreben, sich Zivilkleider zu verschaffen. . .

**11.10.41:** An diesem Tag wurde das Rgt. wieder eingesetzt, um rechts vom **IR 468** den Abschnitt der **78. ID** zu uebernehmen. [**Note:** Division now quartered in area Jesikowo – Berjoski – Jakowlewo – Gridino – Rebrowo.]

**Note:** Losses of **IR 488** from **2.-11.10.41** follows:

**Anlage 1: Eigene Verluste (IR 488)**<sup>31</sup>

Datum	Tot	Verwundet	Vermisst	Bemerkungen	Marschstg.km
2.10.41	--	--	--	--	16
3.10.41	--	--	--	--	27
4.10.41	25	108		Chef 12.Kp(t) Chef 11.Kp(v) Ord.Offz.(v)	21
5.10.41	2	8	--	--	15
6.10.41	7	16			16
7.10.41	18	63		Kdr. I.Btn.(t) Chef 4.Kp.(v) Chef 6. Kp.(v)	23
8.10.41	45	93	1	Rgt. Veter.(v) Adj. I.Btn.(v)	15
9.10.41	1				9
10.10.41	--	1			7
11.10.41	--	--	--	--	23
<b>Summe</b>	<b>98</b>	<b>289</b>	<b>1</b>		<b>172</b>

**Note:** Over the same 10-day period, the regiment took 1609 prisoners; killed 765 enemy troops (est.); and wounded 735 enemy troops (est.). Also captured or destroyed large quantities of material. (See, *Anlage 2*)

**20. D-285:** „*The 35. Inf.-Div. between Moscow and Gzhatsk: Winter Withdrawal and Position Warfare, Dec 41 – Apr 42,*” Gen. Rudolf v. Roman.<sup>32</sup>

**Dec 41:** In early days of the month, the 35. ID, as spearhead of the German drive, was only 35 km away from the Kremlin, the center of the Russian capital. After months of heavy battles, the division, a component of 5. AK, had broken through the outer defense ring of Moscow during the muddy season w/o additional support, and in its drive toward Klin cut the Moscow – Leningrad railroad and highway. After crossing the land bridges between the lakes at Solnechnogorskiy, the division turned SE, in battle against armored bdes, Guards, infantry, and cavalry divisions. In bitter cold weather, through deep snow and partly impassable wooded terrain, it reached the line Alabushevo – Kryukovo (end of the Moscow streetcar line) – crossroads at Matushkino – Lyalovo – Radumlya. . .<sup>33</sup>

Because of the great successes that had brought the division so close to Moscow, the morale of the troops was high. Although the combat strength of the coys had been reduced to about 35 men as a result of the fighting. . . On **2 Dec 41**, fresh divisions attacked our **35. ID**. . . The following

<sup>31</sup> (t) = tot / (v) = verwundet.

<sup>32</sup> **Note:** Sources for study = a) Personal; b) American, German Documents; Diaries; Notes and Diary, etc. Study illustrates how many German divisions were slowly pushed back from one defensive line to another, yet w/o disintegrating in the process. Study also points out the vital role of the artillery in these defensive battles. Between **4 Mar – 20 Apr 42**, the division withstood **221** enemy attacks from coy to division strength, **78** of them supported by tanks!

<sup>33</sup> **Note:** The spellings for many of the villages are, no doubt, suspect!

days brought further, equally unsuccessful Russian attacks in the same area. The situation of the division became more difficult; the combat strength was reduced further, not only thru battle casualties, but also because of sickness and frostbite. . .

Numerous malfunctions of wpns, ranging from rifle to heavy guns, occurred because the troops were *not acquainted w/ their proper maintenance in cold weather*. Furthermore, the required winter oil was not at all available or only in insufficient quantities, and the tempered parts of the wpns became brittle and cracked in the cold. (2-3)

**6-12.41:** Army Group Center orders that German forces west of Moscow withdraw to a shorter and strategically more favorable line. The area Mironzevo – Strelino on the Istra is designated as the new MLR<sup>34</sup> for the division. The **106. ID**, also of **5. AK**, on the left, and the **11. PD** on the right, were to hold the Istra position. The disengagement from the enemy and the withdrawal to the new position proceeded under heavy fighting and great enemy pressure. The attacks were carried out by fresh Siberian troops. (4)

**10.12.41:** In the absence of a continuous frontline, the enemy attacked the villages which had become the keypoints of the defense due to the weather, from the flanks and rear. On **10 Dec 41**, after crossing the Kliasma River [sp?], he succeeded w/ strong support, especially from heavy mortars and AT guns, in encircling the bulk of **IR 109** at Lyalovo. The cdr of **III/IR 109** decided on his own to use the compass and proceed through the snow-covered and enemy infested woods, thus avoiding the route of withdrawal which had been blocked by the Russians. In this manner, he was able to lead the btn. w/ all vehicles out of the encirclement and to take it to a new position w/o loss of men and equipment. On the same day, **II/IR 111** was completely encircled in Matushkino. The btn. cdr decided to break out at nightfall and to take along all wounded and the entire equipment. The undertaking was successful. (4-5)<sup>35</sup>

**13.12.41:** The Russians attacked the Istra position w/ strong forces. . . Now the defense was to be shifted to the Kalishna area. The division retreated in phases under great difficulty; the enemy exerted heavy pressure w/ tanks and infantry in large numbers. On **13 Dec 41** he attacked the still not fortified Kalishna position near Gorki w/ strong tank and infantry forces. Realizing that the loss of Gorki, the main strongpoint of the position, would jeopardize the Kalishna defenses, the field replacement btn and some division HQ personnel were quickly moved up and committed in that area. The garrison of Gorki was thus able to hold out until evening. Then the town was abandoned after a heroic stand, in which heavy losses of men, wpns and equipment were incurred. However, the time gained thru this effort permitted the development of a switch position [*Riegelstellung*] behind Gorki, and made possible the continued defense of the Kalishna position. (5-6)

**Mid-Dec 41:** On **14 Dec 41**, the Russians continued the attack, this time w/ the main effort from the direction of Gorki. . . The Kalishna position as a whole could no longer be held, and the division, still a part of **5. AK**, had to fall back behind the Ssestra sector to establish a new line. . . The division was at the end of its strength, after marching at night and fighting by day. The concept of rest or sleep had become unknown. Still, *the Russian breakthrough attempts were always foiled, and the continuity of the front preserved*. In addition to Gorki, the heavy engagements in and around Opukhovo, Sverchkovo, Krivzova, Rakhmanova, Sergeyevka, Shchestino, and Stepankov [*spellings suspect!*] were noteworthy achievements. Still, the

<sup>34</sup> MLR = Main Line of Resistance (i.e., HKL).

<sup>35</sup> **Note:** Examples of mid-level cdrs exercising individual initiative to save their troops. German doctrine encouraged such behavior.

casualties were heavy. The coys now had on the average only **1 officer, 3 NCOs, and 12 riflemen** or machine gunners. Seasoned and experienced btn. and coy cdrs were mostly killed or wounded. Despite best intentions and boldness, the young officers replacing them did not possess the experience required in such trying situations. . .

Evacuation of the wounded caused great difficulties but was fully accomplished. The still serviceable ambulances w/ sufficient fuel were used to move the clearing station further to the rear. Thus, the wounded had to be transported from the front to the clearing station on sleds; this procedure required exhaustive organization to reduce the dangers that arose from the transportation of the seriously wounded in cold weather. Heated shelters had to be set up several kilometers apart, warm beverages and alcohol and an adequate number of blankets had to be available for the wounded, etc.

The rear guards had a very difficult task during those days; *they carried the large burden of the fighting*. Frequently, they had to stop and delay the pursuing enemy, while other Russian elements were already attacking their flanks or rear. Then they had *to fight their way out, or pass through the enemy lines at night* to join their own forces. During the withdrawal to the Ssestra, the rear guard, mainly from **IR 111**, held out until it was encircled. (6)

**18-19.12.41:** During this night, after defending the Ssestra sector for several days, the division disengaged from the enemy in order to establish a new position behind the Lama River SW of Volokolamsk. The position of the division was located on the Lama River between Kruykovo and Svoroshchinkino. Because of the many wooded areas, characteristic of this region, this position afforded limited visibility and was difficult to defend w/ the depleted combat strength. Since the beginning of **Dec 41**, the division had suffered casualties amounting to **50** officers and ca. **500** men. . .

Meanwhile, the division had occupied the Lama sector according to plan. . . The men of the division worked w/ great eagerness to fortify the Lama position, which finally was to stop the enemy. Cutting of trees for the improvement of fire lanes, mine laying, construction of MG positions, and the building of primitive shelters for protection against the barbaric cold, were the most important tasks carried out during a lull in the fighting. (7-9)

**21.12.41- 5.1.42:** On **21 Dec 41**, after systematic recon in force w/ units up to btn strength, the enemy launched further heavy attacks on the position of the division. On **27 Dec 41**, the Russians succeeded in penetrating the sector of **106. ID**, adjacent to the left, on a wide front, thus threatening the north flank of the division. . . To avert a threat to the north flank of the division, **II/IR 111** had been ordered to Timonino as early as **24 Dec 41**. That btn held the town until **2 Jan 42** against superior enemy forces which attacked around the clock in regimental strength w/ tank support. The foe was constantly beaten back w/ heavy casualties. Four [**4**] local Russian penetrations were wiped out by counterattacks under the personal leadership of the daring btn cdr. . .<sup>36</sup>

Meanwhile the Russian assaults on the division continued. . . (but were repelled). . . The **106. ID** was not able to mop up the Russian penetration. The **35. ID** had no other choice but to extend its left wing to the north – between Birkino – Akssenova – to keep the Russians from falling into its rear. . . The engineers worked day and night w/ all available personnel to prevent the enemy from using his preferred tactics of by-passing villages and attacking from the flank. . . On **3 Jan 42**,

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<sup>36</sup> **Note:** Such “daring” mid-level cdrs played major – decisive? – role in saving Army Group Centre from annihilation during winter of **1941/42**.

the Russians attacked Birkino on a wide front. . . Spearheaded by almost invulnerable **T-34** tanks, the Russians eventually entered the town, and despite strong resistance, destroyed position after position. Massed infantry entered the village. German losses mounted, since everyone now was in the snow-covered open fields. On **4 Jan 42**, the cdr of Birkino issued the order to withdraw.

In this situation all hopes were placed on the promised reinforcements, of which the division was to receive **400** men. Unfortunately, only **230** men arrived because the balance of the men were assigned elsewhere by Army Group.

After loss of Birkino a new position had to be established during the night. . . The engineers, supported by anyone who could handle a tool, made remarkable progress during the night, despite the solidly frozen ground. By morning, **16** shelters, **19** mortar and MG emplacements, and **21** foxholes were completed. . .

The villages behind the MLR again were under fire from Russian artillery and multi-barrel rocket launchers. Timoshevo and Kosino were gradually and systematically destroyed. Losses were heavy since the houses were densely occupied because of the cold. A dispersal to the rear became more and more difficult, because the area was only thinly populated, and even the villages some distance from the front were overcrowded. (10-13)

**6.1.42:** On this day, the deeds of the division [i.e., **35. ID**] were announced by the German News Service [DNB]. The news that their accomplishments had been publicized resulted in great satisfaction among the troops. The supply situation also improved somewhat. Through untiring efforts, the supply services succeeded in bringing up at least bread and the special Christmas rations (apples, baked goods, etc.). Mail from home, postmarked about mid-**Nov 41**, also arrived. (13)

**8.-13.1.42:** On **8 Jan 42**, the artillery observers reported large scale movements near Volokolamsk. These could not be attacked because of the daily disruption of the traffic on the Rzhev – Shachovskaya railroad, and the consequent ammunition shortage. Dispersed enemy elements, *still behind German lines after the battle of Vyazma*, were primarily responsible for these interruptions.

On **10 Jan 42**, the enemy launched the expected offensive on the entire **5. AK** front after heavy artillery preparation. The division, suffering comparatively light casualties, successfully repulsed seven [7] enemy assaults, launched despite deep snow. . . The main effort of the enemy attacks was directed against the unit on the left. The situation became critical. The loss of Goloperovo created a gap in the line, which the Russians attempted to widen for a breakthrough. . . When elements of these forces – among them cavalry – attacked the left wing of **35. ID**, the I/IR 111, was especially outstanding. Attacked from all sides, the btn defended Bolvasovo w/ great courage. Hard pressed by the enemy, the btn withdrew toward Chubarovo [sp?] only on orders from the division.

A tank coy of **5. PD**, which now replaced **11. PD** as the right neighbor, was quickly committed, and arrived just in time to prevent further pursuit of the btn by cavalry and tank forces. It was a *grotesque sight when the enemy cavalry on horseback attacked the tanks*. Naturally, they suffered heavy casualties. (14-15)

**14.-24.1.42:** On **14 Jan 42**, the Russians launched several major attacks. Eight [8] times they assaulted w/o success along the entire 15-kilometer long front that now stretched from Krutykovo



through Terentyeva – Timoshevo – Kosilno – Shidanovo – to Lunkyanovo-Beli. . . The division still hoped that it would be spared a further withdrawal. Since occupying the Lama position, it had repelled heavy attacks. Only when the division was forced to extend its wing to the west after the enemy had penetrated the line of the unit on the left, it had to give ground. Now the lines were so thinly spread and weakened that several positions could no longer be held. . . The great danger of a break in the lines was therefore indicated.

On afternoon of **14 Jan 42** the order from Army High Command finally came through, calling for a general withdrawal of the whole front that same night. The objective of this movement was a hastily prepared position east of Gzhatsk. To gain time for the improvement of these positions, intermediate lines were to be held so as not to reach the Gzhatsk position until **24 Jan 42**. During the night of **14/15 Jan 42**, the division moved back to the line Safatovo – Lukyanovo – Kobylino. The Rusa River was crossed the following night, **15/16 Jan 42**, and a position on both sides of Nedanovo was occupied. On **16 Jan 42**, the Russians crossed the Rusa under the cover of smoke screens, and attacked the position near Grasnaya Gora. Although they entered the village, they were thrown out again. . .

The following days brought further retrograde movements. [Note: The **35. ID** moves from one phase line to the next.] On the night of **20/21 Jan 42** the temperature was **-60 F.**, the lowest thus far. In that weather, the line withdrew gradually toward the area east of Gzhatsk, until the division reached the final winter position on **24 Jan 42**. . . The division was able to delay the pursuit of the enemy. This was possible primarily due to the efforts of the **35. Pi Btn**. After crossing the Rusa, strong elements of the btn remained w/ the rear guards and worked hard to block the roads and thus ease enemy pressure. The division reached the new MLR w/ high morale. (15-17)

**24.1.42:** The accomplishments of the division prior to occupation of the Gzhatsk position were most praiseworthy. *Even before launching the operation against Moscow the division was in such condition, that an offensive limited to 50 km was deemed as the maximum potential.* Now, since the beginning of **Sep 41**, the division had again lost **80** officers and **2047** NCOs and men in combat, as well as ca. **1000** men from frostbite. . .

The entire division now had the one desire that the Gzhatsk position remain as the final winter line. The division was assigned the sector extending from Rylikovo to Durovo. . . On the right was **252. ID**; on the left first **23. ID**, later **342. ID**. (19)

**Feb 42:** Despite the difficulties in the rear area, supplies of all kind arrived during this month, including clothing, gifts of all types, post exchange items, office supplies, articles from the large wool and fur collections in Germany, reading material, and last but not least, a large amount of mail. (20)<sup>37</sup>

**4.-8.3.42:** Early in **Mar 42**, air recon and enemy conduct indicated a strengthening of the enemy forces which faced the division. After a heavy artillery preparation, which began at **0615** hours, **4 Mar 42**, the enemy attacked along the entire front. [Note: Narrative continues with discussion of combat in following days.] The constant Russian attacks, conducted w/ numerically superior forces for five [5] days, brought numerous crises and weakened the resistance of the division greatly. Casualties mounted hourly. Severe cold weather prevailed, w/ temperatures down to **-40 F.** and occasional heavy snowstorms. . . [Yet] request to Corps for reinforcements were generously granted.

<sup>37</sup> Note: Around this time (late **Jan 42** or early **Feb 42**), division subordinated to **9. AK**. (20)

**10.3.42:** On this day, the Russians continued to attack w/ far superior forces, supported by heavy artillery fire, medium and heavy tanks, and under continuous commitment of the Red Air Force. Numerous reliable statements by prisoners indicated that it was a large-scale breakthrough attempt toward Gzhatsk. . . The enemy again and again succeeded in making local gains through persistent day and night attacks. In tenacious and obstinate counterattacks, under high losses, *we were always able to regain the original MLR*. In these successful battles, the cdr of **IR 109**, and the cdrs of **II/109**, **II/IR 34**, and **I/IR 461** [this btn not part of **35. ID**] played a prominent part. Once again, divisional HQ personnel, supply troops, and the artillery had to be committed as infantry to strengthen the MLR. (20-22)

**11.-13.3.42:** On **11 Mar 42**, a detailed report covering the course of the battles to date was transmitted to higher HQ. As a result of this Corps report, the division was mentioned in the Wehrmacht communiqué of **13 Mar 42**. (23)

**Note** [Roll of Artillery in Defensive Battles]: The division artillery had a special part in the [successful] defensive battles. The *daily expenditure of ammunition went as high as 5100 rounds*. Recognized enemy concentrations were constantly destroyed, and attacks were stopped by well-directed artillery fire. In that way it was still possible to hold the MLR. The forward observers again performed well under most difficult conditions. . . (23)

**Mar-Apr 42:** Russian attacks continue, despite heavy losses. Minor penetrations occur repeatedly, but are cleaned up in counterattacks. Division now sometimes effectively supported by Stuka attacks. . . From **7-10 Apr 42**, the division withdraws from a protruding part of the MLR to a prepared switch position. . . In mid-**Apr 42** the Russian attacks let up, and come to a complete halt about **20 Apr 42**. The advent of the thaws w/ the resulting muddy season made any combat ops impossible. . . The winter battles of **35. ID** had come to an end. The great enemy offensive launched w/ 7 inf.-divs., 6 inf.-bdes., and 2 armored bdes, that was to force a breakthrough to Gzhatsk, was repelled. The local gains were out of proportion to the high [Soviet] losses. According to front line estimates and prisoner statements, **10,000** Russians had been killed.

The German casualties were not low either. They amounted to **68** officers and **3472** NCOs and men killed, wounded, and missing since **4 Mar 42** [i.e., from that date to ca. **20 Apr 42**]. Of these, **39** officers and **1803** NCOs and men were from **35. ID** (the rest from the attached elements of other divisions). . . From **4 Mar – 20 Apr 42** the division withstood **221** attacks [!] from coy to division strength – **78** were tank-supported – as well as **135** strafing and bombing attacks. (24-25)

**Tactical Note:** Ability of division's terribly weak elements to repulse enemy attacks greatly assisted by its efforts to maintain a reserve for purpose of conducting these local counterattacks, despite the resulting exposure of the front line. This effort "proved effective." Every platoon leader had pecially selected, capable and daring men ready for that purpose. Such reserves could also be found in proportionately larger numbers at coy, btn., rgt., and div. CPs. Their strengths depended on the situation, casualties, etc. However, they were always available. (25-26)

**21. D-289:**<sup>38</sup> „*The 547. Inf.-Rgt. Advance and Fighting under Winter Conditions. 1 Jan – 18 Mar 42.*” Gen.-Maj. Karl Becher.

A. Activation and Composition of IR 547 at Mlawa (Poland):

Operation “Rheingold” began on **22 Dec 41**. (“Rheingold” was code name for activation of operational reserves to be employed in Caucasus offensive.) The replacement units had to make available the troops that had previously been earmarked for this operation. . . The training center at Mlawa was selected as the assembly area for the troops furnished by Wehrkreis I. The assembly had to be completed by **31 Dec 41** and was accomplished on schedule. The units furnished by Wehrkreis I formed **IR 547**. [**Note:** T/O for the rgt. follows.] (3)

Some officers and men had been wounded in the East and in other theaters of operations; after convalescence they had been assigned to replacement btns. Part of the rgt. was composed of men w/o previous combat experience. The average age of the NCOs and men was about **33-35** years. With the exception of a small minority, the officers up to coy cdrs had previously seen combat in the East and in other theaters. The average age of these officers was **35** years. All btn cdrs were reserve officers who had not yet seen frontline service in this war. . . The average age of the btn cdrs was **48** years. (4)

(**Note:** Next follows brief discussion of wpns and clothing. Regiment equipped in part w/ **MG 34**, and in some cases w/ **MG 08**. Initially, the regiment was entirely w/o submachine guns and semi-automatic rifles. . . When the regiment was activated, the clothing was inadequate for winter warfare. (4-5)

B. The Regiment Advances from Mlawa to Treuburg:

The march was to begin on **31 Dec 41**, w/ Treuburg as the [initial] objective. The regiment moved out at **2200** on this day, as the first unit of **328. ID**. . . The regiment arrived in Treuburg on **6 Jan 42**, and was quartered in the villages around the town. . . (5)

C. Preparations at Treuburg:

The regiment remained in vicinity of Treuburg from **6-14 Jan 42**. During that time, the wpns, equipment, and clothing were replenished. The regiment was uniformly equipped w/ the **MG 34**. Submachine guns were issued to platoon and squad leaders. Ammunition was issued to give the regiment a full basic load. The **11./IR 547** was provided w/ ski equipment; moreover, each HQ and one squad of each coy received full ski equipment. Warm underwear was issued to the entire regiment. Almost every man received a fur jacket or other clothing to protect him against the cold. . . The local vehicles were exchanged for field carts, **Type 41**. . . The regiment was now equipped more uniformly and considerably better than at the time of its activation. On **13 Jan 42**, it was ready to resume the march. (5-6)

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<sup>38</sup> **Note:** This study “written from memory.” Combat activities described in this account are not really important; other topics – experiences of long march to front, nature of winter fighting, etc. – may be of some value.

#### D. March from Treuburg to Surazh:

##### 1. March Route:

On **15 Jan 42**, the regiment, as part of **328. ID**, resumed its advance to the northeast. The march route was as follows: Treuburg – Suwalki – Wilno – Minsk – Borisov – Orsha – Smolensk. At Orsha the regiment was relieved from attachment to **328. ID** and placed under **59. AK**. The rgt continued its march from Orsha via Vitebsk to Surazh, where it arrived on **6 Mar 42**. The rgt initially occupied quarters NE of Surazh. (6)

##### 2. The March (quarters, food, training, experience):

The regiment marched **30-40** km a day and required almost two [2] months to complete the distance [!]. Every fourth day was a day of rest. During the march the men were billeted in wooden barracks which the Organization Todt had erected along the roads. . . Quarters were usually **30-40** km apart. As a result, the rgt was always spread out over an area of **100-120** km. . .

During the march the units carried rations for men and horses. . . The food for the men was adequate; rations for the horses were inadequate. The allowance of **3 ½** kg of roughage for mounts and light draft horses, and **4 ½** kg for heavy horses did not suffice to keep the horses going under the heavy strain. The fact that the roughage (hay and straw) was issued in insufficient quantities had a very unfavorable effect on the horses. Their efficiency deteriorated quickly, and the casualty rate was fairly high.

The men received further training during the march. Each day, combat exercises were held along the march route on btn. or rgt. level. In some of the exercises, live ammunition was used. . . The **11./IR 547** and the ski-equipped squads received ski training under normal and under simulated combat conditions. . . (7-8)

##### 3. Summary and Experiences:

The rgt., w/ the exception of the horses, endured the long and exhausting march well. Severe frost w/ temperatures at **-40** F. and heavy snowstorms seriously impeded the progress of the unit. To prevent frostbite, rest periods during the march had to be curtailed; halts could be made only at places which offered protection from the wind. . . During severe snowstorms the men applied a protective ointment to their face to prevent chapping of the skin. (8)

The regiment lost **200** men during the entire march. The number of casualties ranged from **5-15** men per coy. These men suffered from colds, frostbite, and sore feet, and some were the victims of accidents. The percentage of casualties during the march was not unduly high and did not exceed the normal rate. (9)

The march took a heavier toll among the animals. The rgt. lost **20%** of its horses. This heavy loss rate was due to the fact that the animals received insufficient food, that they had not been adequately conditioned for the march, and that the shelters were inadequate. (9)

#### E. Preparations for Impending Operations:

(Exchange of wheeled vehicles for sleds)

During its stay near Surazh, the regiment was given three [3] days by **59. AK** to prepare itself for impending operations. The deep snow made it impossible for wheeled vehicles to move anywhere except on highways. The regiment had to change over to sleds and was issued **500** small and **100** large sleds by **59. AK**.

The sleds were distributed as follows:

[**Note:** See text for details. For example, each of the **12** inf.-coys was issued **16** small sleds; they were also issued **5** of the large sleds each. The **14./IR 547** [i.e., the AT coy] received **10** small and **15** large sleds. The sleds were pulled by horses of the regiment and by horses from the horse pool. The small sleds were pulled by one or two panje horses (larger sleds pulled by **2-4** horses, depending on load).] (9-10)

Text continues w/ details of how the sleds – of the supply columns, coys and HQ units – were loaded. (11)

Camouflage suits were issued to the **11./547**, the ski-equipped squads of other coys, and to HQ personnel. These units also were assigned akjas (boat-shaped sleds) to transport MGs and ammunition. This gave the rgt. greater cross-country mobility. However, clothing for the men was still inadequate for the impending operations. Camouflage suits and felt boots were required for the entire regiment. On **9 Mar 42**, the regiment reported that it was ready for commitment (11-12)

#### F. The Regiment Attacks from Surazh to Razkoviny as Part of Bde “W” (10-18 Mar 42):

##### 1. Introduction:

During the offensive at end of **Feb 42** and in early **Mar 42**, the **330. ID** of **59. AK** had taken Demidov, while the **205. ID** had seized the eastern section of Velizh (east of the Dvina river). Strong Russian reinforcements and the severe winter weather prevented the continuation of the attack. On **9 Mar 42**, the **330. ID** was deployed around Demidov, while **205. ID** was inside of Velizh, as well as south and west of that city. (12)

##### 59. AK positions:

Between the two [2] divisions there was a large gap which could not be closed or observed. Through this gap the enemy moved mobile ski detachments which harassed our supply lines or threatened and even attacked our units and HQ behind the front. The **205. ID** experienced great difficulties in supplying the reinforced regiment which was deployed at Velizh and had been encircled by the enemy. Contact w/ the regiment could only be maintained across the frozen Dvina river. . . (12)

In view of this situation, **59. AK** decided to launch an attack from Surazh. . . Contact between the two [2] divisions was to be established and enemy interference eliminated. Colonel “W” was placed in charge of the attack. **Bde “W”** was organized w/ the following subordinate units:

**IR 358 (205. ID)**

**IR 547**

Two **105mm** batteries  
Special labor unit from Org. Todt.

The bde was ready for action on **9 Mar 42**.

## 2. Preparations (9 Mar 42):

(**Note:** Of interest here is author's point that a **105mm** battery, mounted on sleds, was sent to Surazh for attachment to the rgt.) (13)

## 3. Advance and Attack (10 Mar 42):

As ordered, the rgt. moved out at **0500** on **10 Mar 42**. . . The rgt. advanced thru very difficult terrain. The highway was covered w/ **1** to **1 ½** meters of snow. The roads were completely snowed in and could barely be identified. The wind had caused snowdrifts up to **4** meters [!] in depressions and in the villages. Temperatures of **-40** F. still prevailed. During the night from **9/10 Mar 42** there was a severe snow storm which obstructed all observation. Men and horses could only move w/ the greatest effort. *Men frequently sank into the snow up to their waists*. Some vehicles and horses had to be dug out. The rgt. required **5** hours to cover a distance of **8** kilometers. . . The **50-mm** AT guns could not be loaded on sleds; instead, they were equipped w/ improvised skids and thus were more difficult to move. . . Despite their best efforts, the snow clearing detachments of the Todt Organization were unable to keep the route open for the advancing rgt. (13-14)

(**Note:** Discussion of the attacks on this day follows. Some hand-to-hand fighting takes place in village of Borki. Heavy losses on both sides. **II/547**, which had attacked Borki, lost **55** officers and men from enemy action and frostbite. . . **III/547** advances on Oserenki, which the enemy had fortified; assault detachments have to take the houses in the village one by one. The 3<sup>rd</sup> Btn. suffers **38** casualties to combat and frostbite.) (14-15)

## 4. Summary of Events and Experiences on 10 Mar 42:

On this day, after a very exhausting march thru a wilderness of snow w/o roads, further complicated by heavy snowstorms and temperatures of **-40** F., the regiment had covered a distance of **30** km and had taken Borki and Oserenki in costly battles. . . **93** officers and men had been lost in the fight at those two villages; an additional **80** men had become frostbite casualties. (16)

## 5. Attack on 11 Mar 42:

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## 6. Attack on 12 Mar 42:

[**Anecdote:** Annihilation of **III/547**]<sup>39</sup>

In the early morning, the **I/547** moved out of the positions it had reached during the night, and advanced on Bulina which was taken around noon after heavy fighting. . . The **III/547** followed

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<sup>39</sup> **Note:** The author attributes this tragic event to "negligence." No doubt, inexperience also played a part, for none of the btn cdrs had any WWII combat experience.

as far as Bulina and then moved toward Hill **162**, where it was to protect the flank of the regiment for the advance the next day.

Unable to find protection from the weather, the btn left a security detachment at Hill **162** and moved on to Ossova and Skugriv, w/o reporting it to the rgt. The btn cdr entered the above villages after nightfall and occupied quarters. Apparently, no thorough recon was conducted nor were security precautions taken. During the night the btn paid dearly for its negligence. As it approached, the Russians hid in basements, stables, barns, and attics. In the early morning they attacked. The btn cdr and his staff, **3** coy cdrs and **200** men were killed or captured. One officer and **150** men succeeded in eluding the enemy, and withdrew to Bulina. The btn was utterly defeated and unable to participate in any further fighting. (18)

7. Attack on 13 Mar 42:

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8. Summary of Events and Experiences (13 Mar 42):

What I find significant in this section is author's statement that "we obtained excellent results by loading MGs, AT guns, and artillery on sleds. These wpns now could keep up w/ the men in the difficult terrain despite numerous complications. The **50**-mm AT guns on skids could not keep up w/ the other wpns. . . and always lagged far behind." (20)

9. Defense on 14 Mar 42:

Important in this section is the comment: "The regiment had ordered not to open fire until the enemy had approached to w/in **500** m. The bolts of the MGs and rifles had been wrapped in cloth and the men carried them in their pockets to prevent them from icing up in the cold weather." (21)

10. Support for IR 358 in attack on Ratskoviny (15 Mar 42):

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11. Holding the Position (16 Mar 42):

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12. Estimate of the Situation after the Capture of Ratskoviny:

**Bde W** had not yet completed its mission – reaching the Demidov – Velizh road and establishing contact w/ the **330. ID** on the right and w/ the **205. ID** on the left. The mission could no longer be accomplished due to following factors:

**Note:** Details not important. (23-24)

13. **Bde "W"** is Dissolved; Changeover to Position Warfare:

On **18 Mar 42**, Bde W was dissolved. The **IR 358** returned to the **205. ID**. The **IR 547** replaced the **IR 358** at Ratskoviny and was assigned following sector for defense [see text for details of its defense sector]. (24)

#### 14. Conclusions:

- The **IR 547** had covered a distance of **1200** km in barely two months marching **30-40** km per day. Despite issues noted above, the men survived the rigors of the march well [unlike the horses];
- Still greater demands were made on the men during combat from **10-18 Mar 42**;
- The men frequently went w/o food and were forced to spend nights in the open w/o the possibility of finding shelter;
- Evacuation of battle and frostbite casualties was difficult;
- The enemy defended only in the fortified villages. The enemy had very skillfully established his defensive positions in the villages. Houses, stables, and barns had been prepared to serve as strongholds. The buildings had been equipped w/ embrasures. The vicinity of the embrasures had been reinforced w/ logs and earth to make them invulnerable to small-arms fire. The soil underneath the buildings was not frozen and could be used for that purpose. The enemy had set up observation posts in attics which were invulnerable to small-arms fire. . . Furthermore, the enemy occupied warm quarters and was protected against the weather;
- These positions could be successfully attacked only by AT guns or by artillery. Frontal assault mostly resulted in numerous casualties for us, and frequently failed. Only raiding parties, supported by AT guns, and equipped w/ hand wpns could take these positions, and even they always suffered numerous losses;
- These enemy positions could have been seized w/o major losses only if good artillery or tank support had been available. The regiment had neither. (24-25)

**22. P-039:**<sup>40</sup> *“March and Traffic Control of Panzer Divisions w/ Special Attention to Conditions in the Soviet Union and Africa,”* Gen.-Maj. H.B. Mueller-Hillebrand, *et al.*, **1949**.

#### Preface

In the German Army of World War II, “March and Traffic Control” was an established concept which was dealt w/ in a manual bearing the same title. . . In view of the rapid developments in the field of motorization, and the special experience acquired in different theaters of operations, the manual *avoided specifying detailed instructions*, and was confined to setting forth basic rules applying equally to all arms services. It was then left to their discretion to issue instructional circulars. During operations, the cdrs *established their own traffic rules*, which were adapted to the great differences in geographical, weather, and traffic conditions prevailing in the different theaters of war. . . . The circular, “The March of Motorized Troops,” issued by the Armored School in **1941**, was used in following report. (8)

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<sup>40</sup> **Note:** Study illustrates just how meticulously precise were the regulations addressing “march traffic and control.” May offer some useful insights into march practices which could be used to “amplify” (add color to) my narrative.



## Part I

### Principles

#### General Principles for all types of Troop Movements

1. Responsibility for march and traffic control rests w/ the individual in charge of tactical commitments. Thus, march and traffic control is expressly defined as an *instrument of troop command*. . .

2. Directions for march discipline were set forth in troop training regulations. Cdrs could thus follow standard operating procedure when moving troops and when drafting their plans. March discipline includes rules concerning distance between units, rate of march, passing, stops to establish contact, rest, etc. . . (10)

#### March and Traffic Control in a Panzer Division

**Note:** The sole responsibility for properly organizing march and traffic control in a Panzer division is borne by the div.-cdr and his general staff officer. (87)

##### 1. March Discipline

While the preceding statements apply to all cdrs and troops, conditions w/in panzer divisions require special measures. March discipline is strictly regulated by training regulations. . .

a. The unit (coy, battery, etc.) march formations are as follows: [**Note:** Mentioned are the “line,” “file,” and “coy column.” See, p. 12]

b. Mounting, Starting, and Stopping. After mounting, men will sit motionless. Upon the signal or command, “At ease,” vehicles will be prepared for starting. As far as possible, starting should be uniform, “from the rear forward.” . . . At the start, all will follow the leading vehicles at speedometer distance. *Minimum distance during movement is 20 meters*. In addition to the driver, each vehicle should have a leader (“Fuehrer”) responsible for the transmission of signals. (12)

The following rules should be observed: Before stopping, signal for reduced speed and to keep to the right. At a stop draw sharply to the right, take advantage of air camouflage [?], turn front wheels to left. Park at least **20** meters apart. Close up to **5** paces only when tactical or traffic conditions so require. Dismount to the right. . . Set up traffic control teams along the march column.

c. Distances. Maintain speedometer distances, but not less than **20** meters. . . The rule about speedometer distances should not be applied too strictly; the type of vehicles, the nature of the roads, and the terrain should be taken into consideration. Between units (coys, etc.) bumper intervals of from **50-150** meters should be left.

d. Speed. The cdr of the march column will determine the top speed, while actual speed during the movement will depend on the road, terrain, weather, and type of vehicles. After starting, *speed should at first be low and then gradually accelerated* after the entire unit is in motion. . . .

e. Columns are normally calculated in minutes. This should not be done too closely. As a rule of thumb it may be assumed that a btn or detachment is ½ hour long. (13)

f. Passing. The vehicle to be passed will pull sharply to the right and motion the other car to pass. Without special permission, columns may only be passed by single vehicles w/ officers, men under orders, messengers, medical officers, technical maintenance sergeants, signal troops, and staff officers. . . (14)

g. -----

h. The Trail Officer: Breakdowns. At the end of each unit, there is the trail officer (an officer or senior NCO). He makes decisions regarding the dropping-out of disabled vehicles, and reports his decisions to the leader (Fuehrer). During stops, he prevents unauthorized passing by other columns. The last vehicle of a column must show a red-and-white flag (at night a lantern). (In practice this rule was observed only in theory, as the last vehicle frequently became disabled or had to change its place.) Disabled vehicles will clear the road, display the breakdown flag, and motion other drivers to pass. The technical maintenance sergeant w/ his repair team will either make minor repairs themselves or order the driver to make them. . . (14-15)

i. -----

j. Night Marches. Intervals should be reduced according to speed and prevailing light conditions. Good road recon and the posting of traffic guides are especially important. Signals will be given by flashlight. The same rules hold for fog. . .

## 2. Leadership

a. Preparations. . . Map materials on road conditions for the purpose of mot. units in Europe during WWII were inadequate. Maps showing width and surface of roads, bridge loads, and such difficult places as defiles, steep slopes, and intersections were available only in single copies, especially w/ regard to roads in Eastern Europe. . . As an expedient, high HQs issued their own road condition maps. The worse the maps are, the more important is road reconnaissance. . . (16)

b. Integration into the march column. . .

c. The March. Larger columns should be split up into several smaller march groups, which will drive at large intervals. . . Because of the various marching speeds, and for the protection of the roads, it will often be advisable to separate the tracked vehicles, i.e., especially the tanks, from the rest of the Panzer division, and to have them proceed by special roads. *This was a **general rule in the Soviet Union**, where auxiliary corduroy or smoothed sand roads made such a separation of wheeled and tracked vehicles a necessity. . . (17-18)*

It was repeatedly shown, especially in Russia, that night marches by mot. contingents require careful recon and preparation. Otherwise, they will result in great fatigue for the troops, high fuel consumption, wear and tear on vehicles, and so forth, considerably reducing the rate of march. If not absolutely essential, night marches should be avoided. . . (18)

d. Halts. Every two [2] hours traffic should halt for **20** minutes. Without receiving special orders to do so, drivers will make use of these halts for the maintenance of their vehicles, as no special stops will be made for this purpose. (18)

e. Rest breaks should be made every **4-5** hours and should last at least **2 ½** hours. . . Whenever possible, the march road should be completely evacuated and the column dispersed in breadth. . . During the halt, vehicles will be refueled and tended to, and minor repairs made. The men should be given an opportunity to rest. . . (19)

f. Tank Marching. With regard to tank marches it should be born in mind that the fuel capacity of tanks allows only a limited range. The supplying of tanks w/ fuel therefore calls for a good deal of planning. . . (19)

### 3. Traffic Control Organs of Panzer Divisions

The Panzer division had as its only professionally trained unit for traffic control an **MP detachment** of some of **50** men, most of whom were transferred from the traffic reserves of the state police to the field forces. During the war they were supplemented by qualified military personnel. These military police also served the division in other police tasks, for instance, as patrols for supervision off-duty discipline. As a rule, some were assigned to the General Staff Officer **Ib** (chief supply officer) for traffic control at food issuing points, as prisoner guards, and similar duties, w/ the result that the whole unit was not available for traffic regulation of tactical movements. . . When operating at full strength, w/o relief and w/o other assignments, a maximum of from **12-15** traffic control teams could be set up; on the whole, however, for various reasons, such as sickness, casualties, vacancies, or furloughs, only **6-8** traffic control teams could be counted on. . . (29)

The MP detachments allocated for purposes of march and traffic control to Panzer divisions had *neither the manpower nor the equipment* to cope w/ these tasks. . . (84)

Another responsibility of march and traffic control personnel is the *precise and extensive marking of roads*. This is particularly indispensable in Russia, in order to save manpower, as well as to prevent driving in the wrong direction because of faulty map data. . . (86)

## Miscellaneous

The soil characteristics of southern Russia (Ukraine) influenced traffic to a great extent. Here is the country of the fertile black earth, which is loamy and greasy. The lack of woods quickly dries up the top soil, a process which is aggravated by the dry summers and the dry air. Mot. columns very quickly smooth out these loamy roads, making their tracks almost appear like an asphalt road, and frequently permitting speeds of from **60-70** km per hour. After a few minutes of downpour, the top soil softens and immediately becomes so soapy and greasy that all traffic must be stopped. . . After a summer downpour, even a very heavy one, the *soil dries out so rapidly* that after about only an hour traffic can proceed again. . . (34)

**23. P-040:** „*Tank Repair Service in the German Army*,“ Gen.-Maj. Mueller Hillebrand, *et al.* **Mar 51.**

## Introduction

The Basic Problem: Centralized vs. Decentralized Tank Maintenance Service.

The basic problem in connection w/ tank maintenance is whether it should be performed principally by installations in the rear – perhaps even by the armament industry in the zone of interior – or whether they [sic] should be carried out as close to the front as possible, i.e., directly within the field units themselves. . . Now if an army is confronted w/ a war which will make considerable demands on its forces over wide areas of land, even the wealthiest nation will not be able to maintain the fighting power of its tank arm w/ a centralized organization. In such a case, maintenance must be performed primarily by the field units themselves. . .

The correct solution must be sought somewhere between the two extremes of a centralized and a decentralized maintenance service. The experience of the German Army led more and more to the realization that it is *hardly possible to put too much of the repair service in the hands of the field units themselves*. The difficulties which arose during the war in connection w/ the tank maintenance service were caused largely by the fact that this rule was not observed consistently enough. By the time that the field maintenance organization had been brought to a point of full efficiency the production of spare parts by industry was no longer sufficient. This prevented the otherwise excellent field maintenance organization from becoming fully effective. The reason for this *serious mistake* was undoubtedly the fact that the government offices which controlled production in the armament industry *failed to realize the importance of the field maintenance service and neglected the production of spare parts in favor of the production of new tanks. Immeasurable harm was caused by this mistake.* (1-4)

**Note:** The importance of the repair service in maintaining the fighting power of an army can hardly be overestimated. . . In this connection the loss of a tank is considerably more serious than the loss of a man, if once considers, for example, that in Russia the *ratio on the German side was 1000 combat soldiers to one tank.* (5)

**Note:** The production of an adequate number of spare parts will normally take priority over the manufacture of new tanks. The necessity for this becomes perfectly clear if one recalls the example cited earlier, according to which each tank had to undergo major repairs more than three

[3] times during a six-weeks campaign.<sup>41</sup> Experience has shown that about **70%** of such repairs require installation of new spare parts. . . (7)

## **Part I**

### The Development of the Tank Maintenance Service in the Course of the War

#### Section 1: Difficulties

The difficulties which would have to be faced during a war as far as the maintenance of tanks was concerned were not fully realized before the war. Soon defects became evident which became more acute [as the war continued]. These defects were encountered in the following fields:

- a. The field units did not have enough maintenance services. It is true that the tank rgts had one maintenance coy each. . .
- b. The maintenance equipment, machines and special vehicles were not sufficient as to number and type to satisfy demands.
- c. The available personnel was not sufficiently trained. . .
- d. The need for spare parts had been underestimated . . . the stocks which had been prepared were not sufficient. (9-10)

#### Section 2: The Campaigns up to 1941

At the beginning of the war the above-mentioned defects did not become apparent in all these fields, and w/ the same degree of acuteness, but were revealed only in the course of time and to an ever increasing extent. The maintenance system was at first organized in a „centralized“ manner; it was operated on the principle that the field units were to carry out only minor repairs themselves and that seriously damaged tanks were to be returned to the plants of the manufacturers. (12)

**1939-40:** Hardly any defects became evident during the short campaign against Poland in **Sep 39**. Even the campaign against France in **1940** gave rise to only a few difficulties. The campaign lasted only six [**6**] weeks. A large spare tank parts depot had been moved up to the front in Northern France, from which the field units could meet their needs. . . The lessons learned during the campaign were evaluated, improvements were made and the maintenance personnel of the units were reinforced; but on the whole, it seemed that the *former system had proved successful*. (12-13)

**1941:** For the Russian campaign it was believed that the *former principles could be adhered to*, namely that the maintenance system was to be *based chiefly on the installations in Germany*. Additional improvements had undoubtedly been made on the basis of what had been learned up

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<sup>41</sup> **Note:** During the short campaign in France in **1940**, the tank maintenance platoon (Panzerwerkstaetten) of a tank btn w/ ca. **100** tanks had to make **327** major repairs, which means each tank of the btn. had to be sent to the repair shop on an average of more than three [**3**] times during the few weeks of the campaign. (2-3)

to that time. Three [3] large spare parts depots were to be moved up to the army groups at the eastern front. Improved special vehicles, machines and equipment had been developed and introduced for the maintenance and recovery of tanks. In general, however, the command assumed – and the political leaders emphasized this assumption – that the climax of the military ops would have been reached by the fall of 1941, that it would be possible for most of the forces to return to Germany before winter, and that the remaining tank units would have opportunity during the winter to withdraw from active service for a long time and to be re-conditioned in suitable areas. . . This assumption was basically erroneous. (13-14)

### Section 3: The Collapse of the former Tank Maintenance System in the Fall of 1941

**Jun 41:** After the beginning of the Russian campaign, the need for maintenance and thus also the need for spare parts soon increased by leaps and bounds. In addition to the normal wear and tear, the damage caused by enemy fire and mines increased considerably as a result of the close-combat fighting practiced by the Russians. The climatic conditions of the country (heat and dust as well as severe cold) created new technical problems. The lack of suitable quarters for the installation of workshops w/in the country and later the unexpected damages caused by the winter, as well as the complete commitment of all the field units in combat, led to an enormous number of mechanical defects which had to be repaired. Despite the greatest efforts of the field maintenance services, the number of tanks fit for service was reduced to a dangerously low figure. The supply requirements of the Army in all fields (ammunition, engine fuel, hospital trains, etc.) far exceeded expectations. (15)

On the other hand, despite detailed preparations, it was impossible for the railroad service to furnish the rapidly advancing and far-flung armies w/ the necessary transport space. Since, as had been expected [?], the field units captured very little rolling stock, the railroad tracks had to be converted from the wide Russian gauge to the standard European gauge. The systematic destruction of railroad bridges and maintenance shops for locomotives by the retreating enemy was considerable. Transport difficulties became so great that the transport problem presented an additional obstacle, together w/ the enormous demands for maintenance services made by the troops and the limited resources available in Germany. *A fundamental change was necessary. The existing maintenance system had outlived its usefulness.* (15-16)

The maintenance which up to then had been performed in Germany now had to be carried out largely by the field units. [Hence] the following measures were necessary:

- a) the maintenance personnel of the field units had to be greatly reinforced and their efficiency improved;
- b) the troops had to be furnished w/ more efficient maintenance equipment, machines and special vehicles;
- c) additional and modern maintenance services had to be organized for the purpose of taking over part of the repair work which hitherto had been carried out in Germany;
- d) the production of spare parts in Germany had to be increased considerably to satisfy the increased demands of the field units;

e) the ***decentralization*** of the maintenance services – that is what this ***reorganization*** amounted to – required as a result a great number of executives w/ high technical qualifications to direct the maintenance services of the field units;

f) the agencies in Germany, which had hitherto organized the maintenance services, had to ***transfer these functions*** in part to the field commands of the field forces. . . (17)

#### **Section 4: The Reorganization of the Tank Maintenance System**

The ***above-described measures*** were generally ***introduced*** during the period from the fall of **1941** to the summer of **1942**. . .

As soon as it was realized in the fall of **1941** that the maintenance service in Germany was of hardly any value for the field units and that the field units would have to do most of their maintenance work themselves, the fairly large quantity of ***tank spare parts*** which had been stored in Germany [was] quickly shipped to the field units. The spare tank parts which were stored at the permanent repair installations in Germany now had to be quickly loaded on ***trains*** and moved up to the troops. Whereas up to then damaged tanks had been sent to ***their*** repair shops and spare parts depots, the ***procedure*** was now ***reversed***. In view of the large number of different types of tanks this was no minor task. This new procedure presupposed personnel who were fully acquainted w/ this work, especially at the HQs of the field forces. However, such personnel were ***not available***. The result was, that the *trains carrying spare tanks parts were dispatched at random to the three army groups at the eastern front. The outcome of this was that the trains were misdirected, consequently causing great confusion.* Thus, for example, the southern army group received spare parts for tank types they did ***not possess***, but which were urgently needed by the northern army group. . . (19-20)

During the ***severe railway crisis*** in the winter of **1941/42**, it was sometimes hardly possible to get the few available spare tank part transports onto the rails. [**Note:** Changes implemented in **1942**, such as the introduction of the „***spare parts index***“,<sup>42</sup> helped to ensure that the **1942** offensive in the direction of the Caucasus and the lower Volga received adequate support as far as tanks and the tank maintenance services were concerned. (23-25)

#### **Section 5: The Manufacture of Spare Tank Parts**

When the transport situation gradually improved in the spring of **1942**, new difficulties arose. The tank maintenance service now became increasingly a ***question of materiel***, for now, after the transport crisis had come to an end, it became *evident that it was impossible to manufacture as many spare parts as were needed.* (25)

Up to the end of the War it was ***impossible*** to overcome this „new and severe crisis,“ which was deeply rooted and had already existed prior to the War. (26)

[**Note:** Author goes “down into the weeds [!] in discussing tank spare parts procurement, agencies involved, challenges and shortcomings in the process, etc. He notes that prior to the

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<sup>42</sup> **Note:** The purpose of the „spare parts index“ was to give an accurate picture of the various types of tanks in each tank unit, its spare parts requirements and the shipments received by it. . . The organization and operation of the index required a simple, reliable and fast-working ***message system***. (23-24)

war, and for some time during the war, the Ordnance Inspectorate in the General Army Office of the Army High Command was the agency in charge of procuring tanks, spare parts, etc. He also avers that “from the very beginning, the number of spare tank parts actually delivered was by no means equal to the actual need.” . . . (26-30)

All the efforts of the interested agencies to coordinate the production of spare tank parts w/ the manufacture of new tanks were of no avail. Promises were made but only partially kept. Even in peacetime, the officers of the Ordnance Inspectorate in charge of procurement viewed the problem of tank repairs in the event of war with great concern. . . During the war the lack of spare tank parts was not at first as great as had been feared, because the campaigns in Poland, France and Yugoslavia were only of short duration and there were long intervals of time when the armored forces did not see any action. (30)

The production of tanks increased constantly from the end of the French campaign in **1940** to the beginning of the Russian campaign in **1941**, but again this was *not accompanied by a corresponding increase in production of spare parts*. Moreover, the subsequent changes in design of current tank models made it quite difficult to plan the supply of spare tank parts. . . (30-31)

However, one improvement was at least achieved: At the beginning of the Eastern campaign, the tank units *were given a fairly adequate number of spare parts w/ their initial issue*. . . [Yet] the protracted fighting led to an extremely high degree of wear and tear on the tanks, which was altogether disproportionate to the production of spare parts. . . Efforts to bring about the urgently needed increase in the production of spare tank parts did not have the desired effect. What was the reason for this? (31)

[**Note:** The narrative continues w. M.-Hillebrand discussing the problems created by Hitler’s appointment of a “Reich’s Minister for Armaments and Ammunition” in **Mar 40**. He was a civilian directly responsible only to Hitler. Apparently, establishment of this position [ministry] had to do, in part, w/ Hitler’s ongoing desire to *weaken the top-level military command positions for political reasons and because of his hatred of the officer caste*. . . This ministry – despite urgent pleas from the Ordnance Office [under Ordnance Inspectorate?] and the Army General Staff (Chief of Army Supply and Administration) - continued to neglect production of spare tank parts. . . . Even the severe crisis in the fall of **1941** at first failed to bring about any fundamental changes in favor of the increased production of spare tank parts. For more details see, 31-35)

**Jun 42:** With the beginning of the great offensive in **1942**, in which ca.  $\frac{3}{4}$  of all available tanks participated, the expected wear and tear on tank materiel began again. It was not until then that Hitler and the Armament Ministry [as it was now called] could be induced, under the pressure of the catastrophic repair situation, to *sanction the drastic measures which had been so urgently needed for at least a year in order to increase the production of spare tank parts*. However, the damage could no longer be repaired. Up to the end of the war the production of spare tank parts did not reach the necessary volume. Enormous losses in tanks and fighting power. . . were the result. Many tactical reverses at the front and many defeats were caused by this now irreparable mistake. (34)

**Fall 42:** It was not until the fall of **1942** that the Armament Ministry in response to the urgent request of the military agencies and the reports from the front decided to create new production facilities for manufacture of spare tank parts. The following three [3] steps were introduced:



[See text for details.] These measures brought perceptible relief after **1943**. By then, however, the tide had turned against Germany. (36-37)

Additional measures to increase the efficiency of the tank maintenance service were subsequently adopted by the Armament Ministry. Thus, a “Special Committee for Maintenance and Spare Parts” was created toward the end of **1942**. At about the same time, the production of spare parts and the maintenance services in all branches of the armament industry *were given **priority over the manufacture of new equipment***. . . (38)

[Anecdote]: Despite these measures, more and more serious mistakes were made in actual practice. For example, a new type of heavy tank, the “**Tiger**,” was sent into action at the front in **1942** although only one additional transmission, one engine, etc., for every 10<sup>th</sup> tank was manufactured for maintenance purposes. The result was, that almost *all of the tanks at the front were out of action in a very short time*. . . Despite this experience, the same mistake was repeated a short time later in the manufacture of the new “**Panther**” type (**43** tons). . . The Panther, too, was sent to the front w/ a completely inadequate supply of spare parts. (For more details see, 38-39)

#### Section 6: The “Gross K” Plants

An additional measure intended to improve the tank maintenance services was the establishment of large tank maintenance plants. As soon as the collapse of the tank maintenance system had become obvious in fall of **1941**, and after an attempt had been made to provide speedy relief by transferring the maintenance services from Germany to the front, Hitler gave orders to establish 3 large tank maintenance plants (“Gross K Werke”).<sup>43</sup> The idea was that the field forces which had advanced far to the East would be followed by large maintenance plants, which would carry out a general overhaul of badly damaged tanks (and motor vehicles) according to modern working methods and thus eliminate the necessity of returning them to Germany. This principle was undoubtedly sound. (42)

The “Deputy of the Fuehrer for the Motor Transport Service” was appointed to carry out this plan; he was a civilian by name of “Werlin.” The intention, therefore, was not to entrust the Wehrmacht w/ this task but rather a civilian agency, which could utilize the initiative of private firms. Hitler counted on an especially high degree of efficiency from the use of “modern manufacturing methods,” which he did not expect from plants organized on a military basis. (42-43)

The plan was to have motor vehicles or tanks shipped regularly to the Gross K plants in trains devoted exclusively to this purpose. . . The plants were established in the following places:

- a. One in the northern sector at Riga (under supervision of the MAN firm of Nuremberg;
- b. One in the central sector at Minsk (under supervision of the Daimler-Benz firm of Berlin-Marienfelde;
- c. One in the southern sector at Dnepopetrovsk (under supervision of the Krupp firm of Magdeburg).

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<sup>43</sup> “Grosskraftfahrzeugwerke” = Motor Vehicle Maintenance Shops. The plants were under civilian management and operated w/ civilian personnel. (42, 63)

Some of these plants made use of already existing factory installations and some were entirely new. . . To insure the delivery of spare parts, a main depot for spare tank parts was set up wherever a Gross K plant was established. . . The practice of attaching a spare tank parts depot (main depot) to the Gross K plant proved very successful. (43-45)

During the construction of the Gross K plants it became evident that because of their lack of military experience the civilian firms were unable to adapt themselves to the actual conditions in the East and give up the standards of factory construction w/ which they were familiar at home, w/ their peacetime specifications, so to speak, for assembly rooms, living quarters, electric and water systems, etc. This gave rise to unbelievable delays in the construction of the plants, so that owing to the turn of military events, the latter were no longer fully efficient and even partial efficiency was achieved much too late. . . (45)

The quality of the maintenance work suffered from the same difficulties. The civilian firms which supervised the Gross K plants did not possess the experience which would have enabled them to make repairs suitable for field use w/ field-type equipment. Moreover, because of their lack of military experience, they strictly adhered to peacetime methods, which from the purely professional point of view, undoubtedly produced better maintenance, but also required more time and materiel. . . the civilian firms repeatedly rejected the so-called tutelage of the Wehrmacht, the result of which was constant friction between the management of the Gross K plants and the military staffs. . . (46-47)

The removal of a Gross K plant to a new location meant that the work would be interrupted for several months. The transfer of the plants to the rear which became necessary in 1943/44, was only a salvage operation to save personnel and material. . . Because the Gross K plants took much too long to get underway, were the subject of many disputes and proved insufficiently productive, the Army High Command decided in 1944 to establish another Gross K plant of similar size to be operated on a purely military basis. . . The end of the war prevented this experience from becoming fully effective. (47-48)

Besides the Gross K plants, additional tank maintenance shops of a similar type were established during the war. . . (See, p. 48)

### Section 7: Further Developments

Just as before, the greatest bottleneck in the tank maintenance shops and in the field forces continued to be engines, gearshift transmissions, steering gears and side gears. . . Tank maintenance was made more difficult by the *numerous supplementary changes to design*, such as increasing the armament, installing heating and cooling systems, MGs w/ a **360** degree traverse, strengthening the armor, attaching aprons and the like. . . (50-51)

On the other hand, the efficiency of the maintenance services was increased by technical improvements. . . The lack of spare tank parts continued to be the most important obstacle confronting the tank maintenance service. „***This evil caused the troops no end of trouble.***“ Because of the lack of spare parts, many tanks could only be repaired by the tank maintenance coys of the tank rgts after a considerable delay. The field units made every effort to obtain spare parts. Bribery and deception were resorted to in order to secure these coveted items. The tank rgts at the eastern front generally had several trucks out hunting for spare parts from the spare tank parts depots, ordnance offices and manufacturing plants. Often the tank rgts even denied

themselves their already scanty allotment of Post Exchange items and turned them over to the „*spare parts hunting teams*“ to be used as bribes. . . (51-52)

If a certain spare part could not be delivered for some time to come, the field unit was supposed to turn in the respective tanks for maintenance at a Gross K plant or sent it to Germany. However, this meant that the tanks were lost to the troops. In view of the greatly depleted strength of most of the tank units, the latter were naturally reluctant to turn in the tanks, since they still had hope of „procuring“ the spare part somewhere, or else they could make one new tank out of two disabled ones by exchanging parts. If a higher HQ insisted on having the damaged tanks turned in to a Gross K plant, these tanks were *very thoroughly „cannibalized“* beforehand, so that in most cases hardly more than the hull finally arrived at the plant. . . It was very disheartening for the troops to see their valuable wpns wearing out and becoming useless almost every day because some insignificant spare part could not be obtained [i.e., it led to morale problems for the maintenance crews]. (53)

Although, as the result of practical experience, tank maintenance was turned over more and more to the field units in the course of the war, a *development in just the opposite direction* occurred during the last phase of the war. . . especially after the invasion in the West in **1944**. . . [And] the Army was compelled by circumstances to *revert to the former centralized tank maintenance system*. (See, pp 55-56)

## Section 8: Organization and Duties of the Tank Maintenance Installations

### a. The Tank Maintenance Installations of the Field Units.

The maintenance detachment of the tank coy (tank coy comprising from **14-22** tanks).

Strength of the maintenance group about **20** men according to type of tank.

Duties: Servicing, maintenance, minor repairs by soldering and welding.

Maintenance sections or tank maintenance platoon attached to an independent tank btn and a heavy tank btn (**3-4** coys)

Strength: **50-120** men.

Duties: Repairs on medium types, changing engines and transmissions, medium-type welding, etc.

Tank maintenance coy of a tank regiment (**2-3** btns) including signal communication maintenance platoon, wpns maintenance platoon, salvage platoon.

Strength: **120-200** men according to the equipment of the tank rgt.

Duties: Making all repairs which could not be handled by the above-mentioned maintenance installations, w/ the exception of general overhauling of engines and transmissions (grinding cylinders and crankshafts), as well as repairing badly bent and damaged tank parts, for example, hulls which had been badly bent by shell fire or land mines. (61-62)

### b. Tank Maintenance Installations of the Armored Division up to and including the Army Group

The maintenance installations of the armored division were intended for the maintenance of wheeled motor vehicles. Tank maintenance installations were not assigned to the armored division. (62)

Tank maintenance coys and tank recovery coys as *independent units* (General HQ troops) were placed under army group HQ or army HQ according to need by the Army High Command. . . (62)

**24. P-041a:** “OKH Project # 7: *Organization of Army High Command*,” Gen.-Maj. Mueller-Hillebrand, n.d.

Preface (by Franz Halder)

The Army High Command was the top HQ of the German Army. It was responsible for maintaining the Army in a state of preparedness and for directing the operations of the Army. *It exercised no ministerial functions whatsoever.* These rested for the entire Wehrmacht w/ the Wehrmacht High Command, which at the same time was the superior of the Army High Command in matters of military operations. The delimitation of the authority of these two high command HQs had been the subject of an embittered struggle since the appointment of von Blomberg as C-in-C of the Wehrmacht in addition to his function as War Minister. . . (1)

The limitation of the responsibilities of the C-in-C of the Army and the concurrent restriction of the functions of the Army High Command must not be regarded as the mature product of a systematic development. The structure of the Army High Command must rather be regarded as the result – adversely affected by political forces – of a struggle, in which the Army fought w/ inadequate success to retain its traditional position and to fulfill its constitutional mission. . .

The deficiencies could have been overcome even during the War if the *growing brutality of Hitler's dominating personality* had not itself destroyed the command mechanism of the Army. . . The elimination of the C-in-C of the Army from all strategic deliberations and decisions connected w/ politics even before the War, was the beginning; Hitler's ever-increasing personal interference in the command authority of the C-in-C of the Army through oral commands, written directives, and even direct orders to agencies subordinate to the C-in-C of the Army, and the establishment of OKW theaters of operation commencing in Norway, were the continuation; the removal of the C-in-C of the Army and assumption of his authority by Hitler himself [Dec 41] was the climax of a development, which finally led to the extemporary improvisation of the dictator taking the place of a systematic command organization and to makeshift measures, dictated by the exigencies of the moment, replacing the clear principles of leadership. (2-3)

## Chapter II

### Relations between the OKH and the OKW

At the head of the Army was the C-in-C of the Army. The Army High Command [OKH] served as his staff. . . Broadly speaking, the missions of the C-in-C of the Army were as follows:

- a. Organization and command of the Army;
- b. Education and training of the troops and their officers;

- c. Procurement of all requirements in manpower, horses, motor and other vehicles, equipment, clothing, food, and of the funds necessary to this end;
- d. Development and procurement of arms, ammunition and all types of military equipment;
- e. Construction of national fortifications;
- f. Administration of stocks and landed property.

The C-in-C of the Army was responsible to the Fuehrer and Supreme Cdr of the Wehrmacht, whose military staff was the OKW. Thus, the fact that the C-in-C of the Army was responsible to the Fuehrer and C-in-C of the Wehrmacht *by no means implied that the OKH was subordinate to the OKW.* . . (7-8)

Author notes the “personal antagonism” between the C-in-C of the Army, Freiherr v. Fritsch, later v. Brauchitsch, and Hitler, which created an *atmosphere of distrust*. Under these circumstances the problem of the position of the C-in-C of the Army and the contingent problem of the position of OKH in relation to OKW never came to rest. In time, actual development led to the solution that had originally been rejected. However, this development did not come about organically, naturally; *numerous functions of the OKH were gradually taken over by the OKW w/o any fuss.* . . This resulted in strained relations and organizational deficiencies and flaws, which often very harmfully influenced the course of events during the war. . . Some of the chief stages in the course of developments, during which essential functions were taken away from the C-in-C of the Army and thereby from the OKH, and assigned to the OKW, are the following:

- a. Conduct of operations in Denmark and Norway by the OKW in **Apr 40**;
- b. Separation of OKW and OKH theaters of war in **1941**;
- c. The removal of the C-in-C of the Army [**Dec 41**].

By the end of the war, the transfer of OKH functions to OKW was almost completed. . . In their composition the OKW, and within it the Wehrmacht Ops Staff, were not equal to the steadily growing responsibilities. . . Measures to reorganize and expand the OKW therefore were often behind the times. (9-10)

When the invasion of Europe by the Western Allies started in **1944**, the theaters of war of the OKH and those of the OKW balanced each other in importance. In this way, the OKW w/ its Wehrmacht Ops Staff on the one hand, and the OKH w/ its Army General Staff on the other, *became in practice two ops staffs of equal rank w/ rival interests.* . . Only Hitler himself could have brought about a reconciliation of the two rival staffs. The OKH had been reduced from the commanding position in the military sphere which it had still held in **1937**, to a field command HQ of the Russo-German battlefield. The process was a gradual one up to **1941**; from then on it had been rapid. . . (10-11)

The duality of command also extended to the lower levels. (See, p. 12) This lack of clear-cut authority in the organization led to many points of friction, which for the time being could be surmounted w/o great difficulty. But after Hitler assumed the post of C-in-C of the Army in **Dec 41**, the *complexity and confusion mounted steadily.* (12)

The steps leading to these symptoms of disorganization were almost always taken by other than Army agencies, if not by Hitler himself. A few of the measures which had the effects described above are given as follows:

- a. In **1941**, the C-in-C of the Army was deprived of his command authority over parts of the Army through the creation of OKW theaters of war. The forces involved were commanded by the OKW but supplied, organized, and so forth, by the OKH. In view of the confined areas involved, however, command, organization, supply, and so forth, were interdependent, so that a separation of these functions was senseless;
- b. The units of the Waffen-SS were tactically employed by the Army. But although the units fought closely w/ units of the Army, they were not placed under Army command in respect to supplies or disciplinary and legal matters. This led to considerable friction between the higher levels of command of the Army and those of the Waffen SS;
- c. Under orders from Hitler, the Luftwaffe in the autumn of **1942** activated ground combat units, the Luftwaffe field divisions, in large numbers. Similarly to the Waffen-SS units, these were placed under command of the Army for tactical purposes only, w/ the natural result that most of them could never become fully efficient;
- d. In **Mar 40** part of the control over the production of arms, equipment and ammunition was taken from the OKH and transferred to the civilian Ministry of Armaments and Ammunition, in which ministry the OKH had no influence.

(13-14)

#### Chapter IV

##### The C-in-C of the Army

**Aug 39:** After the mobilization, the only agencies directly responsible to the C-in-C of the Army besides the Chief of Army Armaments and Commander of the Replacement Training Army [i.e., General Fromm], were the Chief of the Army Personnel Office and the Chief of the Army General Staff. (21)

**19.12.41:** The dismissal of GFM v. Brauchitsch changed the situation decisively in consequence of the abolishment of the post of C-in-C of the Army. Hitler himself assumed command, and to serve him in this capacity, made the Chief of the Army General Staff [i.e., Halder] directly responsible to him. *All other responsibilities of the C-in-C of the Army were **transferred to GFM Keitel***, to whom the Army Personnel Office, the Chief of Army Armaments and Commander of the Replacement Training Army, and the General acting as special assistant were subordinated.

Theoretically, this seemed to be a simplification of command channels and even a close approach to what many considered the ideal solution, namely, the concentration of the function of Supreme Cdr of the Wehrmacht and C-in-C of the Army in the hands of one man. In practice, however, it proved an intolerable hindrance in the command of the Army, for from now on to the end of the War the command remained shackled by the necessity to obtain Hitler's personal decision even in

matters of the most minor importance. As a military layman and because of his suspicious distrust, Hitler was *not prepared to grant the Chief of the Army General Staff and the highest troop cdrs the widest possible scope in the assignment of missions*, which is the basic condition for the successful command in any armed forces. (22-23)

In addition to his already numerous responsibilities as Chief, OKW, GFM Keitel was not able to exercise adequately the new authority vested in him and formerly vested in the C-in-C of the Army. The ***moral influence*** formerly exercised by the C-in-C of the Army on the officer corps and on the troops was lost and confidence disappeared. (24)

## Chapter VI

### The Army General Staff

The Army General Staff was responsible in peace for operational planning; in war, it was responsible for the planning and conduct of Army ops. The Chief of the Army General Staff was the first assistant and the permanent deputy of the C-in-C of the Army. He supervised the conduct of ops according to directives from the C-in-C of the Army. (31)

#### 1) Operational Branch

- a) In peace: Operational planning and studies; preparatory work for the operational organization of the Field Army;
- b) In war: Strategic command and the issue of operational directives.

#### 2) Transportation Branch

- a) In peace: Preparatory work for transportation during mobilization and concentration; preparations to secure fulfillment of the transportation requirements of the General Staff w/in the armed forces; development and organization of the military transportation system against the eventuality of war;
- b) In war: (Chief of Transportation). Control of transportation for all operations and other purposes of the armed forces; development and control of traffic services in occupied territories; etc.

#### 3. Supply Branch (designated *Quartermaster General* during the war)

- a) In peace: Preparations to regulate the supplies of the Army during war. Preparation of appropriate stipulations for the organization of the supply services, stock piling and production quotas for supply commodities during the war. Collaboration in the preparation of operational studies, supply problems in tactical rides for cdrs and General Staff officers [*bad translation?*]
- b) In war: The supply service of the Field Army; ***military administration*** of occupied territories.

#### 4. Organizational Branch

- a) In peace: The wartime top level command organization [?]; organization of the Army (est. of unit T/Os); mobilization (determining the size and organization of the Army in time of war, mobilization directives); requirements of the Army General Staff on other offices of the OKH in respect to armaments, development of arms and equipment, and so forth. [?]
- b) In war: Tables of organization [T/Os] for units of the Field Army; distribution of replacements for the field forces. . . Furthermore, the Org Br handled the demands of the Chief of the Army General Staff in relations w/ the Chief of Army Armaments and Cdr of the Replacement Training Army in respect to new unit activations, replacement of personnel, rehabilitation, equipment, as well as the fundamental requirements regarding development and production of arms.

(34-37)

**25. P-052:**<sup>44</sup> “*Combat in Russian Forests and Swamps.*” Hans v. Greiffenberg. 1951.

#### Comments on the Treatise by General v. Greiffenberg:

. . . we did not succeed in driving the enemy away from the large wooded and swampy areas by strategic means. On the contrary, we often enough deliberately drove him into these areas in the assumption that he would thereby be precluded from exercising any influence on subsequent operations. This proved to be a fatal error. (2)

When the enemy has been driven into large wooded and swampy areas these areas cannot be closed off like a besieged fortress. Even a numerically superior conqueror has never had men enough to accomplish this task. But eastern forces which have been driven into large wooded and swampy areas can be attacked by tactical means only w/ extraordinary difficulty and it is hardly ever possible to annihilate them completely. A thousand times it was our experience that men from the eastern countries could move about in these regions of impenetrable forests and treacherous swamps w/ all the *instinct and security of an animal*, whereas soldiers who had been reared and trained *in the civilized nations* [!] of the West were able to move about only very awkwardly and were therefore inferior to their opponents in leadership and fighting ability. (2)

**Note:** . . . However this is still far in the future. Until that time I am convinced that there is only one really effective means which can be employed against the dangers of Russian forests and swamps, namely, a system of strategy which will drive the Soviet soldiers away from those areas where they will continue to be superior for the present, maneuvering them into a position for a battle of annihilation in terrain in which western men are equal to them in combat technique and superior to them in materiel. *It is conceivable, that the **modern wpn of the atom bomb** might be an effective instrument for such strategy.* [!!!] (3-4)

Signed: Franz HALDER

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<sup>44</sup> **Note:** Most of this study is a compendium of tactical considerations on how to conduct forest fighting in Russia; however, it contains some basic information on combat in forests and swamps useful for my purposes.



### Military Peculiarities of Russian Forests and Swamps

Besides their tremendous extend, the important feature of the eastern European forest and swamp areas from the point of view of the soldier is the impassability of the terrain and the difficulty of reconnoitering it. . . The greater part of the Russian forest is the *result of natural propagation*. The systematic cutting out and cultivation of the forests is little known, and accordingly the work of opening them up, apart from the large highways, has not progressed beyond a very low level. (8)

The great wooded areas begin in Poland and grow denser as one advances to the East. The forest of Bialowiecy, at one time the game preserve of the czars and later of the Polish government, does not quite fit into the normal picture because by its very definition it is better provided w/ roads. East of Brest-Litovsk extend the broad marshes and forests of the Pripjet region. Adjoining them, the huge tracks of forest around Gomel, Minsk, Briansk, Bonisav, Orsha and Viasma dominate the landscape. North of the causeway of Orsha they continue in the forests of Pototsk and Velikie Luki and the marshy lowlands along the course of the Lovat and the Volkov, all of which were the scene of bloody fighting. . . (9-10)

It is typical of the large Russian forest areas that they are *almost always filled w/ swampy areas*. The general rules for combat in forests and swamps therefore are interrelated in many respects. . . All wooded areas in West Russia lie on level, or, as in the case of the Valdai Heights, undulating terrain. . . (10)

In considering the military peculiarities of the Russian forests and swamps reference should finally be made to the great differences of climate to which the broad area between the Black Sea and the Arctic Ocean is exposed. Over any long period of time, the health of the average European is unable to stand the humid, sultry weather in the marshy regions of the south, the icy damp of the forest ground in the central and northern expanses, or the sudden storms and rapid fluctuations of temperature. The losses suffered by the troops as a result of *rheumatic and intestinal diseases, malaria, swamp fever, frostbite, bad drinking water, the torment of flies and vermin* and many other things frequently equal the number of men killed and wounded in combat. (12-13)

### General Tactical Principles in the Russian Forests and Swamps

#### a. For the Command

Combat in forests and swamps requires firm, cautious and energetic cdrs who know how to cope w/ the peculiarities of this kind of warfare. . . (14)

In forest fighting, cdrs *easily lose control over their troops*. In the advance lines their influence extends only to their immediate surroundings. Limited visibility, the increased noise of combat and the excitement created by fighting at close quarters make it easy to confuse friend and foe, increase the danger of overestimating purely local impressions and thereby aggravate the danger of panics. Forest fighting, therefore, is apt to prove a special strain on the troops. (14-15)

Cartographic material is scanty and unreliable, especially for the interior of the forest and swamp areas. . . (18)

## b. For the Troops

Successful combat against a tough and primitive opponent able to take advantage of the peculiar conditions of forests and swamps, requires troops w/ high fighting morale and thorough training, who have been accustomed to endure physical hardships. In such combat terrain the infantry regains its old and honorable designation as the “Queen of Battles.” The importance of the individual fighting man becomes more strongly evident than during combat in open terrain. *Close combat plays a special role*; while numerical superiority takes second place to personal courage in fighting at very close quarters. Light and heavy infantry wpns, sub-machine guns, assault guns, hand grenades, cold steel, the long hunting knife and, not last, flame throwers are the most usual wpns. (19-20)

It is not a simple matter to recognize even the foremost enemy line in a dense forest. . . Forests ***greatly increase the effects of artillery fire on morale***, whereas they diminish those of infantry fire. The massed use of artillery barrages from positions outside of the forest can be very effective. . . In swampy terrain a considerable part of the explosive effect of artillery is wasted unless time fuzes are available. (21-22)

World War II furnished tactical proof that even tank units can enter the forest areas of the East, especially areas w/ a tolerably good road network and which are less densely wooded. (23)

In wooded areas the air force necessarily suffers from the same limitations as artillery. The lack of observation facilities and outstanding landmarks such as road crossings, railroads and settlements easily lead to unsuccessful missions. In forests, dive bombers can ***make life hell*** for troops w/ weaker nerves, chiefly because of the great effect the screaming of the plunging acft, mingling w/ detonation of the bombs and the crashing of splintered trees, has on morale. Their use, however, requires very accurate co-ordination and determination of targets, as well as synchronization. . . (25)

## Reconnaissance and Observation

Author mentions small, boat-like sleds, like those used by the Finns (so-called “***akkios***”) for mobility in forests and swamps. They offer a “practical means” for hauling arms, ammunition and equipment, or transporting wounded. (30-31)

## Marches and Movements

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## Development and Deployment

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## Attack

Experience has shown that in forest fighting units soon become *very greatly mixed up*, which makes it difficult to command and reduces their striking power. . . (43)

An effort should be made to supply artillery and air support IAW the same rules that apply during combat in open terrain. However, the impossibility of observed fire will often compel one to forego these two arms. It should be borne in mind that experience shows that the material effect of artillery and fliers against forest positions remains somewhat less than their effect on morale. (45)

In swamp fighting it will generally be a question of gaining stretches of road, railway embankments, dikes, or swamp islands situated on a higher level. Here the difficulty lies in approaching these places and overcoming the surrounding free areas of marsh and boggy ground. (47)

If the enemy line has been pierced in forest or swamp areas, this usually will not end the struggle. Only in rare cases will the enemy abandon the contested ground. Experience shows that he will reestablish himself and so force the attacker to dislodge him from his secret recesses and newly-formed strongpoints. . . Experience also has shown that Russian remnant groups, or even individual soldiers, will continue to fight for days or even for weeks in absolutely hopeless situations behind the enemy lines and to endanger rear areas. (48)

## Defense Action

It is also of fundamental importance to remember that the Russian is a past master at infiltration and that he has the ability to establish himself unobserved right under the eyes of a defender. In doing so, he will patiently and frugally accept all the inconceivable hardships of weather. (52)

## Retrograde Movements

Particularly during nights and during the morning and evening fogs, which experience shows last quite a long while in forests and swamps, the movements of retirement cannot be observed either from the air or by ground reconnaissance. (57)

During the beginning of withdrawals, demolition measures in the terrain acquire increased importance. . . The Russians preferred to set time fuzes and bobby traps by the thousands in the evacuated area [i.e., as they withdrew]. Road demolitions of tremendous extent, sometimes carried out in entire rows of group demolitions, rooted up the few existing paved roads. (62)

## Warfare under Special Conditions

### a. At Night or in Fog

The special difficulties of fighting in forests and swamps are increased still further at night and in fog. Therefore, night engagements of any considerable extent should be avoided under these

conditions. In most cases the attack bogs down, the troops fire on each other, the danger of confusion and panic increases and success is withheld. (63)

b. Various Weather Conditions

*Frost facilitates movement and fighting in wooded areas*, and especially in swamps, because the better footing provided by the frozen ground permits the use of the terrain for military purposes to a greatly increased extent. . . Snow, particularly in the form of snow-drifts, can hinder all movements quite considerably. It has to be cleared away and makes necessary construction of special winter roads. *A single heavy snowfall can make all **minefields** useless in one stroke.* On the other hand, it permits use of suitably equipped ski units, which then become perfectly ideal troops for long-range recon and combat missions which have to be carried out quickly across woods and swamps. . . (64-65)

Snow makes camouflage difficult; footsteps and tracks in the forest are easier to recognize. . . The annual muddy seasons in the spring and autumn convert the eastern forests and swamps into impassable obstacles. . . Storms often ***uproot entire areas of forest*** within a very short time and thereby block any passage thru them. (65)

Extensive ***forest fires***, such as frequently break out during dry seasons, may force the military command to make new decisions. (65)

c. The Use of Chemical Warfare Agents

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d. Guerilla Fighting

Extensive wooded and swampy areas are “germ-cells for growing bands of partisans, who here find ideal conditions for their purposes. . .” (66)

Particularly in the extensive forest areas the lack of security toward the end of the war was so great that a ***special partisan warning wavelength*** was included in the radio schedule of the higher staffs in order to give attacked or threatened units and bases a chance to call quickly for help. (67)

The key to success is a *perfectly functioning **intelligence and espionage service***, since in the almost invisible swamps and forests any other means of reconnaissance against this enemy would be useless. (68)

Coercive measures on the part of the occupation troops, such as evacuations, the arrest of hostages, punitive expeditions, *seldom have a decisive effect*. (69)

Hints on Training

The important thing is to ensure that the troops have a proper understanding of and for their training. The art of war is a changeable one! Therefore, in the event of an emergency all new practical teachings must become common knowledge as quickly as possible. During the war the German Army High Command attempted to accomplish this through its Training Branch, the chief duty of which, besides the constant preparation of regulations, was to *evaluate quickly all*

*the practical experience gained in the war.* For this purpose, it dispatched officers and specialists w/ frontline experience in constant rotation to the critical point in the fighting and after every engagement of any size requested the field cdrs to send in short reports on their experiences. It forwarded the knowledge gained in this way thru the fastest channels in the form of concise memoranda, training hints, notebooks, primers, etc., to schools and field units, occasionally even down to the lowest unit. (75-76)

**26. P-059:**<sup>45</sup> „*German Tank-Strength and Loss Statistics*,” Gen.-Maj. H.B. Mueller-Hillebrand.

**1. Types and Armament of Armored Vehicles:**

a. Types of Tank Carriages:

I to IV, **35(t)**, **38(t)**.

b. Tanks:

This section lists the **Pz I** through the Panther and Tiger, etc. Among the many details is the following:

<u>Type</u>	<u>Principal Wpn</u>	<u>Date Introduced to Troop Units</u>
<b>Pz III</b>	<b>50mm tank gun</b> (Kw K 5 cm L 42) <sup>46</sup>	<b>Jan 41</b>
<b>Pz III</b>	<b>50mm tank gun</b> (Kw K 5 cm L 60)	<b>Jan 42</b>
<b>Pz III</b>	<b>75mm tank gun</b> (Kw K 7.5 cm L 24)	<b>Jul 42</b>
<b>Pz IV</b>	<b>75mm tank gun</b> (Kw K 40, 7.5 cm L 43/48)	<b>Apr 42</b>
<b>Pz VI</b>	<b>88mm tank gun</b> (Kw K 36, 8.8 cm L 56)	<b>Jun 42</b>

(pp 3-4)

<sup>45</sup> **Note:** According to M.-H., the principal sources used were the monthly bulletins published by the German Army Ordnance Office under the title, Survey of Army Armament. These served as the official statistical basis for the German Wehrmacht. In addition, the original documents of the Inspector General of Panzer Troops were made available to author.

<sup>46</sup> L = caliber length.

c. Assault Guns and Tank Destroyers:

This section notes that the **Stug III** w/ a 75mm tank gun (Kw K 7.5 cm L 24) was in use in **1940**. In **Apr 42**, a new version was introduced w/ a 75 “cannon” (assault) (Stu K 40, 7.5 cm L 48). (5)

d. Self-Propelled Anti-Tank Guns:

From **Feb-Apr 42**, six [6] types of these SP AT guns were introduced. They were equipped either with 75-mm or 76.2-mm AT guns; except for one (“Nashorn”), which was outfitted w/ an 88-mm AT gun.<sup>47</sup> They were mounted on different carriages, among them the Sfl II, Sfl 38(t), Sfl III or IV. One of these new wpns used captured Russian guns

(**Note:** For details see, p 6.)

e. Performance of Kw K (tank gun) and Pak (AT gun):

**Note:** Table w/ details including, caliber (from 75- to 128-mm), caliber length, muzzle velocity, armor-piercing capability. (7)

**2. Tank Strength:**

In assault guns (Stug) and tank destroyers (Jadgpanzer) the gun is not mounted in a turret, which makes the vehicle lower and less ponderous and saves material and labor. Assault guns and tank destroyers are employed primarily in fire support or as antitank wpns in conjunction w/ other arms. (8)

The self-propelled antitank gun (Pak/Sfl) is simply an antitank gun mounted on a tank carriage and is lightly armored in front and on the sides. It is open on top. The Pak/Sfl is an expedient to compensate temporarily for the lack of production of assault guns and tank destroyers. (8-9)

**Note:** Table shows total tank strength, and tanks employed for Western Campaign of **1940**. Total tanks used in West amounted to **2574**; while overall total was **3374** (as of **1 Apr 40**). (For details see, p 9-10)

**Appendix 1** shows tank/assault gun/self-propelled AT gun strength as of the first of every month from **Jan 41–Feb 45**; this includes tank strength of all units of the Army (Field and Replacement Army) and the Waffen-SS at repair installations, schools, ordnance depots and the like.

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<sup>47</sup> **Note:** According to the detailed monthly production figures in Appendix 3, production of the “Nashorn” did not begin until **Feb 43**. According to same appendix, production of self-propelled AT guns did not begin until **Apr 42**.

Total Armor Strength  
(Jun 41)

Pz I:	877
Pz II:	1072
Pz II/III (flamethrower)	85
35 (t):	187
38 (t)	754
Pz III:	1440
Pz IV:	517
Command Tanks	330
Stug III	377
Total tanks/assault guns:	5641
Operational (both types):	4577

Total Armor Strength  
(Mar 42)

Total tanks/assault guns:	5087
Operational (both types):	3093

Mar 42 figures for tanks alone (excluding assault guns):<sup>48</sup>

**4462 = total**  
**2468 = operational**

**3. Tank Losses and Replacement:**

a. Normally tank maintenance was carried out as far forward as possible. Maintenance crews accompanied the troops to the combat area as far as enemy fire permitted. . . Damaged tanks which could not be repaired w/ the available means by combat units were collected by recovery vehicles and turned over to the maintenance coys of the tank rgts or to other maintenance shops. By evening, btns or rgts had a clear picture as to the number of operational tanks, the number in need of minor repairs, the number in need of major repairs and total losses. These figures were reported through command channels, as well as through maintenance channels. This short standardized report was transmitted by telephone or radio; from division to higher echelon usually by teletype. . . (14-15)

b. Total losses are compiled in **Appendix 2** and are broken down by month and according to tank types beginning w/ **May 41**. These losses comprise all losses at the front, regardless of whether they occurred through enemy action, or fell into enemy hands in damaged, or undamaged state or whether they were the result of “cannibalization” of damaged vehicles in order to render others operational. . .

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<sup>48</sup> **Note:** According to these statistics, the German Army possessed **4200** operational tanks as of **22 Jun 41**; by **Mar 42**, this number had plunged to **2468**.

During the latter part of the war, **95%** of damages were *repaired by the field forces*, and of these at least **95%** within the tank rgt, while only about **5%** of the repairs were made in installations in the Zone of Interior. (15)

German Tank / (Stug) Losses  
(Jun 41-Apr 42)

1941

<b>Jun:</b>	<b>127</b>	<b>(3)</b>
<b>Jul:</b>	<b>736</b>	<b>(8)</b>
<b>Aug:</b>	<b>582</b>	<b>(22)</b>
<b>Sep:</b>	<b>229</b>	<b>(12)</b>
<b>Oct:</b>	<b>234</b>	<b>(20)</b>
<b>Nov:</b>	<b>343</b>	<b>(10)</b>
<b>Dec:</b>	<b>506</b>	<b>(19)</b>
<b>Total:</b>	<b>2758</b>	<b>(95)</b>

1942

<b>Jan:</b>	<b>382</b>	<b>(53)</b>
<b>Feb:</b>	<b>285</b>	<b>(10)</b>
<b>Mar:</b>	<b>61</b>	<b>(25)</b>
<b>Apr:</b>	<b>100</b>	<b>(10)</b>

**Note:** This appendix illustrates that most serious tank losses were incurred during months of **Jul-Aug 41**. However, it appears that the highest overall losses in tanks and assault guns for any one month between **May 41** and **Jan 45** were in **Feb 43** (**1596** tanks, **253** assault guns, **220** SP AT guns) and in **Jul 44** (**1068** tanks, **1056** assault guns + tank destroyers, **335** SP AT guns).

d. Estimate of tank losses and replacement:

For production data see **Appendix 3**.

Despite the very low rate of production of tanks and assault guns, it had been possible to increase the number of panzer divisions from **10** to **20** during the period of **12** months between the end of the French Campaign and the beginning of the Russian Campaign. Some of the panzer divisions, however, had only two [2] btns instead of the usual four [4]. An increase to full strength was planned at a later date.

As a result of this situation, the total number of tanks available at the beginning of the Russian Campaign left virtually no reserves. Monthly production amounted to only **260 tanks**, but this rate was increasing. The Army High Command viewed this development w/ great concern but had been unable to step up production. Still, the Army High Command believed that it could accept this risk and satisfy the requirements for the Russian campaign. It hoped that losses could



be replenished from current production, especially since it erroneously believed that large-scale ops during winter were impossible in Russia. (17)

German Tank / (Stug) Production

1941

**Jan: 180 (44)**  
**Feb: 204 (30)**  
**Mar: 204 (30)**  
**Apr: 246 (47)**  
**May: 276 (48)**  
**Jun: 256 (56)**  
**Jul: 264 (34)**  
**Aug: 312 (50)**  
**Sep: 325 (38)**  
**Oct: 308 (71)**  
**Nov: 348 (46)**  
**Dec: 333 (46)**

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**Total: 3256 (540)**

1942

During this year, production of tanks, assault guns and SP guns increased to **6189**. This broke down as follows:

**4278 (tanks)**  
**788 (assault guns)**  
**1123 (SP AT guns)<sup>49</sup>**

From the beginning of the Russian campaign of **1941** up to the start of the summer offensive in **Jul 42**, approximate losses of **3850** tanks were offset by the production of **4100** tanks. However, an additional number of over **1000** tanks must be added to the losses, since these tanks were no longer fit for service at the front. (18-19)<sup>50</sup>

The production of assault guns surpasses losses to a considerable extent, so that the supply of **400** [actually **377**] available at the beginning of the campaign had increased to **780** by **1 Jul 42**. The self-propelled AT gun was introduced in the spring of **1942** to fill the gap in the production of armor. This was an expedient designed to increase antitank strength at the front. If these vehicles are included in the estimate, a more favorable picture develops, as shown by the following statistics:

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<sup>49</sup> **Note:** According to this appendix, the production of self-propelled (SP) anti-tank guns got underway in **Apr 42**.

<sup>50</sup> **Note:** These figures do not include assault guns.

Number of Operational Tanks, Assault and SP AT Guns  
(Jul 41-Jan 43)

<b>Jul 41:</b>	<b>4694</b>
<b>Dec 41:</b>	<b>4682</b>
<b>Mar 42:</b>	<b>3093</b>
<b>Jul 42:</b>	<b>4557</b>
<b>Jan 43:</b>	<b>6643</b>

(**Note:** Figures in above table are for the 1<sup>st</sup> of every month. For breakout by type – tank, Stug, SP gun – see, 19)

The annihilation of sizable German armored forces at Stalingrad introduced a new phase. Here, as well as during the subsequent German retreat, losses increased immensely. From **Jan-Apr 43** they amounted to:

**2945** tanks  
**461** assault guns  
**425** SP AT guns

The number of operational tanks thus decreased to **2500** during this period. It had become evident that, as a result of the Stalingrad defeat, the initiative had passed to the enemy in the field of material too. . . It was only in the spring of **1944** that the number of available tanks again increased appreciably, so that, for example, in **Mar 44** the tank strength of **Jan 43** was again attained. At the beginning of **Jul 44** the number of available tanks reached its wartime peak of **5800**. However, due to the overtaxing of armored forces which had occurred earlier, the increase in materiel was counterbalanced by a decrease in trained personnel, so that the combat effectiveness of these forces was no longer commensurate w/ the number of tanks available. A steady increase in losses was the result. (20-21)

It was easier to increase production of assault guns and tank destroyers since these wpns required considerably less materiel and labor than did tanks.

In conclusion, and judging by the course of events after **1941**, it may be regarded as an established fact that, although tanks were subject to almost continuous commitment, the *strength of the German armored forces was maintained at a fixed level by monthly production of 10-15% of the overall strength*. (21)

Panzer Politics!:

In **1940**, prior to the French campaign, the monthly production quota for tanks and assault guns was established at **600**; this goal was to be attained in **1943**. At the beginning of **1940**, production was still considerably below **200** [per month]. At the beginning of the Russian campaign the figure was **300**. The program of increasing the number of armored divisions from **10** to **20**, starting in the fall of **1940**, led to a revision of the monthly production quota of **600** tanks. The result was a demand to raise the monthly production quota of tanks and assault guns to **1250**. This demand (in **Jan 41**), which was dependent on the construction of new production facilities, was opposed by the Minister of Armaments, Todt. Todt regarded the demands as exaggerated and impossible to meet by German industry. He obtained an order from the Armed Forces High Command [**OKW**] (Keitel) which prohibited an increase over the old quota of **600**. For the time

being, the Army High Command had to be satisfied w/ this decision and believed that it would be able to conduct the campaign against Russia w/o the increase. . .

In **Jan 42**, the Chief of the Ordnance Office again presented the Army's requirements – **1250** tanks and assault guns per month – to the Minister of Armaments. In the meantime, however, the winter campaign in the East had taken a heavy toll; moreover, further activation of armored divisions had been ordered by Hitler, activation of tank units for the SS had started, and the demands for assault guns had increased considerably. The Minister of Armaments presented the requirements to Hitler, who failed to make a decision, since he was for the moment favorably impressed by events at the front. In addition, his wishful thinking as to the greater effect to be achieved by the more efficient antitank guns, whose employment was imminent, *led him to doubt the future of armor*.

In response to renewed pressure by the Chief of the Ordnance Office through the newly-appointed Minister of Armaments (Speer), Hitler finally was compelled to reach a decision in **Jul 42**. He now exceeded the original demand made by the Army and ordered a monthly production of **1450** tanks and assault guns. The steps which were immediately taken to increase production and to fill this new quota began to show results in the spring of **1943**, as presented in the graphic charts in Appendices **5/6**. (23-24)

**27. P-107:**<sup>51</sup> „*Stellungs- u. Abwehrkaempfe eines motorisierten Grenadierregiments*<sup>52</sup> *in Winter 1941/42 an der OKA noerdlich Orel im Raum Schaschkino – Kriwzowo,*“ author, date?

Auszug:  
Gelaende  
Gelaendebeurteilung  
Stellungsbau unter winterlichen Bedingungen

a. Stellungs-Erkundung u. Einsatz

Als HKL ist die Oka befohlen, vor der jeder fdl. Angriff im zusammengefassten Feuer aller Waffen zusammenbrechen soll. *Eine ideale HKL ist die Oka nicht*, wie wir sie von unseren westlichen Fluessen her gewohnt sind. In einer kaum mehr als **8** Meter breiten, tief in die Schwarzerde eingeschnittenen Rinne mit senkrechten Uferwaenden windet sie sich, dem Beobachter fast unsichtbar, in weit geschwungenen Schlangenlinien durch das etwa **1000** Meter breite Okatal, hier den Westrand auf unserer Seite kurz beruehrend, dort am Ostrand auf der Feindseite verschwindend. Zu Eis erstarrt bis zum Grunde schlaeft sie gebaendigt [*tamed, subdued*] den tiefen Winterschlaf, um in der Fruehjahren-Schneeschnelze ein brausender, das ganze Tal erfuellender Strom zu werden. Jetzt ist die Oka eher *vergleichbar einem ungeheuren Panzergraben*, dessen Eisoberflaeche **2** bis **3** Meter tief unter dem gewachsenen Boden liegt.

<sup>51</sup> **Note:** This FMS was located in Bundeswehr training materials provided me by Dr Juergen Foerster. The document in question is called, “Verteidigung an der OKA, das **LIII**. Armeekorps im Rahmen der **2. Pz Armee** vom **Dez 41** bis **Jan 42**.” Page numbers are from this document. Among other things, this study illustrates how vital it was to form defensive positions around villages, which in this case were used to anchor the HKL. Study also demonstrates the “Erfindungsgabe” of the German troops, who solved many problems via ingenious improvisation; while the Rgt.-Cdr fell back on experience from First World War to overcome challenges of the defense in winter.

<sup>52</sup> **Note:** Need to determine what division is discussed here!

Vielleicht ein wirksames Panzerhindernis, vielleicht aber auch gedeckter Annaerungsweg fuer Freund u. Feind. (131)

In der Fruehe des Vorabends vor dem Weihnachtsfeste ist die gesamte Pz.-Gren.-Div. im Divisions-Verteidigungsabschnitt versammelt. (131)

Dem Gren.-Rgt. mit unterstellter mot. Aufklaerungsabteilung faellt der noerdliche, linke Verteidigungs-Abschnitt der Division zu. Er reicht von Minowo rechts im Sueden bis zur Berezuika-Muendung links im Norden, rechter Fluegel suedl. Minowo, linker Fluegel in Tschegodajewo. Breite des Abschnitts ungefaehr **12 km**, Tiefe ca. **5 km**. Anschluss rechts an das Schwesterreg. der eigenen Pz.-Gren.-Div., Anschluss links an eine Inf.-Div. Letztere steht noch ostwaerts des Oka-Abschnitts in schweren Rueckzugskampf gegen scharf nachdraengenden Feind. ***Stellungskrieg ist Fuehrung u. Truppe noch fremd.*** Sie kennen ihn lediglich aus den Vorschriften u. wenigen Friedensuebungen. In seinem Rgts.-Kdr. besitzt das Rgt. allerdings einen Fuehrer, der an der West- u. Ostfront des I.Weltkriegs **1914-18** als junger Zug- u. Kp.-Fuehrer alle Arten des Stellungskrieges u. Abwehrkampfes kennen gelernt hat. (132)

Hauptproblem ist die Schaffung einer moeglichst lueckenlosen Verteidigungsfront. Fuer **12 km** Abschnittsbreite u. **5 km** Tiefe stehen dem Rgt.-Kommandeur an Kraefte zur Verfuegung:

**3 Gren.-Btn. (mot.)** mit einer Kampfstaerke von ca. **1600 Mann (9 Gren.-Kp., 3 M.G.-Kp.)**

**1 Kradmeldezug (mot.)** mit einer Kampfstaerke von ca. **20 Mann**

**1 Kradschuetzenzug (mot.)** = ca. **30 Mann**

**1 Inf. Pionierzug (mot.)** = ca. **45 Mann**

**1 Nachrichtenzug (mot.)**

**1 Pz.Jaeg.Kp. (mot.)** = ca. **80 Mann (8 – 3,5 cm [3,7 cm?] u. 3 – 5 cm Geschuetze)**

**1 Inf. Geschuetz-Kp. (mot.)** = ca. **80 Mann (1 – 15 cm u. 6 – 7,5 cm Geschuetze)**

Ferner unterstellt:

**1 Aufklaerungsabt. (mot.)** = **350 Mann (2 Kradschuetzen-Kp.)**

Zusammen Kampfstaerke ca. **2 205 Mann**. (131-32)

**1 Panzerspaehwagenkompanie**

**1 Panzerjaegerzug u. 1 Inf.-Geschuetzzug (mot.)**

**Auf Zusammenarbeit angewiesen**

**1 leichte Art.-Abt. (mot) (3 Batterien mit je 4 – 7,5 cm Haubitzen)**

(**Note:** The additional units directly above – Panzerspaehwagenkompanie, etc. – listed *after* total Kampfstaerke figure of **2205** given. Other platoons also listed as „zur Verfuegung des Rgt.-Kdrs. See, p 132)

Der Verteidigungs-Abschnitt des Rgts. wird entsprechend obiger Gliederung in **4 Unterabschnitte** eingeteilt mit einer Breite von je **3 km**. . . In der Front jedes der vorgenannten Unterabschnitte des Rgts. [see p 132] liegt ein Dorf, das zugleich Unterkunft, Basis u. Stuezpunkt fuer die Einrichtung der **4 Unterabschnitte** zur Verteidigung abgibt. Diese **4 Doerfer** bieten sich allein schon durch ihre Lage am Westrand des Okatals, durch ihre Breitenausdehnung von durchschnittlich **1 ½ bis 2 km** u ihre Tiefe von ca. **500 Meter** als Rueckgrat der gesamten Verteidigungsfront an. Zudem

kann in ihrem Deckungs- u. Waermeschutz vom Feinde uneingesehen unverzueglich der Bau der Verteidigungsanlagen in Angriff genommen werden. (132-33)

Mangel an Arbeitskraeften, Schanzgeraet, Stellungsbaumaterial u. nicht zuletzt die Notwendigkeit, in Kuerze ausreichende Abwehrbereitschaft herzustellen, zwingen zu weiser [*prudent, judicious*] Beschraenkung in der Arbeitseinteilung fuer den Stellungsbau. Als erste Massnahme wird daher zunaechst nur der Ausbau der in der Frontlinie des Rgts.-Abschnitts liegenden Ortschaften befohlen. . . (133)

#### b. Winterlicher Stellungsbau

Ein bis zwei halblange Spaten je Gruppe, eine bis zwei Kreuzhacken je Zug, das ist der *gesamte Bestand an Stellungsbaugeraet*. Schlegel [*mallet, club*], Haemmer, Saegen, Naegel, Stacheldraht, Pfaehle, Balken, Dielen [*boards, planks*], Bohlen, *nichts* von allen diesen selbstverstaendlichen Voraussetzungen fuer einen Stellungsbau ist vorhanden. (133)

Die fruchtbare Schwarzerde, sonst weich wie Butter, ist bis zu einer Tiefe von **1 Meter** gefroren, widersetzt sich zunaechst jedem Versuch der Bearbeitung. Ueber ihr liegt eine Schneedecke von **2 ½ Meter** u. mehr. (133)

Laengere Aufenthalt im Freien bei einer Kaelte von **44-48** Grad Celsius ist mangels ausreichendem Kaelteschutz – Winterbekleidung fehlt – unmoeglich, ohne empfindliche Mannschaftsausfaelle in Kauf zu nehmen. (133)

Ratlos stehen Fuehrer u. Truppe vor einer Aufgabe, die auf den ersten Blick unloesbar erscheinen will. Die Zeit draengt. Schon sind vereinzelt Feindbewegungen an den Waldraendern erkennbar, die den Ostrand des Okatals auf der Feindseite saeumen. . . Anforderung von Stellungsbaugeraet u. –Material bei der Division wird mit Achselzucken abgetan. Unser Div.-Kdr. appelliert an die *oft so bewaehrte Improvisationskunst* seiner Regimentskommandeure. Sie soll alles Fehlende ersetzen. . . (133-34)

Doch halt, da gab es in der alten Kaiserlichen Armee eine Vorschrift, benannt „*Pionierdienst aller Waffen*.“ Der Rgt.-Kdr. hat sie einst als Faehnrich vor **27** Jahren auf der Kriegsschule beinahe auswendig gelernt. In dieser Vorschrift war, wie er sich erinnern kann, ein ausfuehrliches Kapitel mit vielen Zeichnungen ueber Schnee-Stellungen. Darin war die Rede von Brust-, Ruecken- u. Schulterwehren, aufgebaut aus Schnee, die vorzueglichen Schutz bieten gegen Beschuss, wenn sie sachgemaess ausgefuehrt sind. (134)

Im I. Weltkrieg, im Jahre **1917**, in den Suempfen des Styr u. Stochod in Wolhynien, wo sich jeden Spatenstich mit Wasser fuellte, hat er als junger Kp.-Fuehrer seine Stellungen u. Unterstaende muhsam auf dem gewachsenen Sumpfboden aufbauen muessen. Das war im Grunde die gleiche Lage wie jetzt, wenn man an die Stelle von Sumpfboden „gefrorenen Boden“ setzt u. an Stelle von Schlamm „Schnee.“ Das Ei des Kolumbus! Nichts einfacher, als Brust-, Ruecken- u. Schulterwehren aus Schnee auf dem gefrorenen Boden aufwerfen u. aufbauen! Dafuer reicht das unzuhaengliche Arbeitsgeraet aus. So rasch wie Schneemaenner von Kinderhand entstehen, werden aus dem in Ueberfuelle vorhandenen lockeren Schnee taeglich fester u. wuchtiger werdende Feuerstellungen fuer Schuetzen, MG, G.Wr, Pz.-Abwehr- u. Inf.-Geschuetze aufgebaut. Das herrliche Baumaterial „Schnee“ gibt selbst den Anreiz, diese Schneestellungen zu vollendeten Schneefestungen mit allem Zubehoer wie Munitions-Nischen, Schuetzendeckungen, Unterschlupfe auszubauen. . . (134)

Das weitere vollendet der russ. Winter ganz von selbst. Die taeglichen Schneestuerme wehen die neugebauten Feuerstellungen, Nester u. gedeckten Verbindungswege oft bis zu Rand zu. Der lockere Schnee laesst sich leicht ausschaufeln nach vorn u. rueckwaerts. Die anfaenglichen mageren Brust- u. Rueckwehren werden dadurch zu Bollwerken, die kein Geschoss, kein Granatsplitter durchschlaegt. Kilometerlang ziehen sich die riesigen Schneewaele der Stellungen auf der Feindseite der Ortschaften hin u. kuenden dem Feind eine Abwehrbereitschaft, die er in so kurzer Zeit nicht erwartet hat. (134)

Hand in Hand mit der Anlage der Schneestellungen geht der Bau eines Fernsprechnetzes im Hochbau. . . Trotz drahtlosem Funk- u. Sprechfunk ist die Fernsprechdrahtverbindung im Stellungskrieg nicht zu entbehren. Das vorzueglich ausgebaute Fernsprechnetzt des Rgts. hatte denn auch entscheidenden Einfluss auf den erfolgreichen Verlauf der spaeteren Abwehrkaempfe. (For details re: construction of telephone net see, pp 134-35)

Als letztes wird nun auch der Bau schussicherer Unterstaende als Schutz gegen leichte u. mittlere Kaliber u. Fliegerbomben in Angriff genommen. Vor ihrer Fertigstellung koennen die ausserhalb der Haeuser liegenden Kartoffelkeller der Ortseinwohner als notduerftiger Schutz angesehen werden. Sie sind so angelegt, dass von einem oberirdisch angebrachten ueberdachten u. mit Tuere versehenen Eingang eine Treppe oder ein Schlepsschacht in einen kleinen, etwa **8** Mann fassenden unterirdischen Raum fuehrt. Dieser Raum hat immerhin eine Deckung von **1** Meter felshart gefrorenen Bodens, die von leichten Kalibern u. leichten Splitterbomben feindlicher Flugzeuge nicht durchschlagen wird. Sehr nachteilig ist, dass diese Keller nur einen Eingang besitzen, der zugleich Ausgang ist. Der nur leicht gedeckte Eingang kann von jedem Kaliber eingeschossen werden. . . Wir begnuegen uns daher [i.e., because they cannot built a second entry-, exitway, due to frozen ground, lack of tools], die Kellereingaenge so gut wie moeglich mit Balken u. Schneeaufwuerfen zu verstaerken. (135)

In den Bauernhuetten selbst gibt es keine Unterkellerung. Sie sind unmittelbar auf dem gewachsenen Boden gebaut, der Fussboden ist gestampfter Lehm. In den beiden einzigen Raeumen dieser Huetten spielt sich das ganze Leben der oft zahlreichen Familien in paradiesischem Zusammenleben mit dem Kleinvieh ab [!]. Das Haupteinrichtungsstueck dieser Huetten aus **Holz oder Backsteinen** mit Blech- oder Strohdachern ist der riesige gemauerte Ofen. Er ist Waermespender, Kochherd u. Schlafstaette. **Seine richtige Bedienung ist eine Kunst**, die gelernt sein will. *Ein zu Viel des Guten an Feuerung durch unsere Soldaten hat schon manche Huette in Flammen aufgehen lassen*, besonders, wenn sie strohgedeckt war. Obdachlosigkeit ist im russ. Winter auch fuer den Soldaten bitter; ja *lebensgefaehrlich*. (135)

Unseren Plaenen fuer den Bau unterirdischer Unterstaende mit mehreren Ausgaengen kommen diese riesigen Oefen sehr zustatten. Infolge der andauernden Waerme im Haus ist das Erdreich unter dem Hausraum *nicht gefroren*. Deshalb werden in groesseren Haeusern mit Blehdach – Haeuser mit Strohdaecher sind dafuer wegen der groesseren Feuergefahr ungeeignet – Unterstaende ausgegraben, die mindestens **2** Ein- bzw. Ausgaenge haben. Einstieg im Haus, Ausstieg ausserhalb des Hauses unmittelbar in die Feuerstellungen. Dadurch ist bei feindlichem Angriff die rasche Besetzung der Feuerstellungen durch die Unterstandsbesetzungen gewaehrleistet. (135)

Eine Hauptsorge ist u. bleibt vorerst der Schutz der Stellungen gegen naechliche Ueber-raschungen des Gegners. Waere Stacheldraht vorhanden, so waere auch dieses wichtige Problem rasch u. einfach zu loesen. In einem Land jedoch, wo in Bauerndoerfern Eisenwerkzeuge u.

Naegel *so gut wie fehlen*, ist Stacheldraht erst recht nicht aufzutreiben. Immerhin wird der Versuch gemacht. Das Ergebnis ist mehr als enttäuschend. Der in tagelanger, weit ins Hintergelände reichender Sucharbeit, mühsam eingesammelte Stacheldraht reicht gerade aus, um eine grössere Viehweide einzufenzen, aber nicht um eine unbemerkte Annäherung des Gegners an unsere Stellungen zu verhindern. Immerhin können wenigstens die besonders gefährdeten Stellen verdrahtet werden. Behelfsmässige Alarmmittel wie klappernde Konservenbüchsen oder Handgranaten, die durch Drahtzug zur Detonation kommen sollen, werden in diesen recht dünnen Drahthindernissen angebracht, um ihre Wirksamkeit zu erhöhen. . . (136)

Neben behelfsmässigen Alarm-Mitteln aller Art, zu denen neben den vorstehend bereits erwähnten, auch Behelfsminen gehören, sind durch findige Bastler ***behelfsmässige Scheinwerfer-Anlagen aus Auto-Scheinwerfern*** da u. dort angebracht, mit denen das Hindernis beleuchtet werden kann. Entscheidend aber ist u. bleibt der richtige Einsatz von leichten oder schweren MG u. von Granatwerfern, die ein lückenloses Sperrfeuer vor die besonders gefährdeten Stellen legen. (136)

**28. P-119:**<sup>53</sup> „*Transportation of Replacements by Post Office Buses to the Eastern Front in Winter 1941/42.*“ Obst.-Lt. Hermann Hans Guenther Keil. Date?

The Rapid Movement of Replacements over Great Distances w/ Improvised Facilities. (How Replacement Btns for the Panzer Divisions were sent to the Front in Post Office Buses from Germany in Winter 1941/42.

#### 1. General Situation:

. . . In spite of an unseasonably early winter, poor road conditions and the low capacity of the railroads, it was necessary to send new forces quickly to the front. For this purpose after **Dec 41**, the so-called „west-east movement“ was introduced. Since the railways in Russia could hardly handle the direct supplies needed at the front, new inf.-divs. were sent by rail *only as far as the Russian border* and then continued to the front on foot. However, other means had to be found for getting the necessary replacements quickly to the badly decimated panzer divisions. For this purpose, it was planned to send six [6] replacement btns for the central sector from Germany by ***Post Office buses***, using Post Office drivers.<sup>54</sup> If I remember rightly, this trip was expected to last two [2] weeks. (1-2)

#### 2. Special Situation

a) Moving a replacement btn by Post Office buses from Jena by way of Vyazma to Sychevka. [**Note:** See text for details; all told, the trip was some **2000 km!**] . . . Duration of movement **12**

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<sup>53</sup> **Note:** This report written “solely from memory” w/o records of any kind. Provides interesting example of extreme measures used to bring reserves to the front. Author also points out that General Krueger, cdr of **1. PD**, was a heavy smoker!

<sup>54</sup> **Note:** It should be noted that the German Post Office not only handled the delivery of mail, but also included the telephone and telegraph services and, in addition, operated a network of passenger bus lines all over Germany. (Editor’s note)

days, w/ stops totalling **6-7** days. Total time about three [**3**] weeks. . . Equipment of replacement btn: adequate. Combat fitness and morale: good. (2-3)

### 3. Description of Movement

**Note:** After Christmas **1941**, Keil learns that he is to command a replacement btn scheduled for the front which would be assembled in Eisenach. The btn was supposed to leave for the front in Post Office buses on **2 Jan 42** at the latest. . . (4-5)

#### Organization of the Btn and Attendant Difficulties

On **30 Dec 41**, he reported to the recruiting district HQ in Eisenach, where he learns that although the buses were already there, the soldiers and officers of the btn had not yet arrived and thus it would be impossible to leave on **2 Jan 42**. . . He then received orders on **1 Jan 42** to assume command of a btn in Jena, which was already organized and which at first had been scheduled for rail shipment. The Post Office buses were sent after him to Jena. (5)

#### Composition and Equipment of the Btn

The composition of the btn included: btn staff [ca. **30** men] ; five [**5**] coys, each w/ one officer as coy cdr, the **5**. coy supplying the replacements for the five [**5**] heavy coys [?]. Strength of each coy: **220-250** men. (5-6)

As far as he recalled, the only wpns of the btn were carbines, several hand grenades per man, and perhaps a few LMGs, but it was otherwise *completely provided w/ winter equipment* for the East Front and in addition carried w/ it a large number of skis from the Goebbels Spende for the **1. PD**. (6)

For the purpose of transporting the enlisted men, the btn had Post Office buses w/ a capacity of **25-30** men each; for the btn. staff, one bus; for each coy, **8-10** buses, of which a few were left empty for use as replacements. They were driven by Post Office drivers. In addition, each coy of the btn was given **3** trucks – one for rations, one for extra gasoline, and one for the field kitchen; besides this, Keil was given **12** or **15** motorcycle messengers, **2** for each coy and the rest for the btn staff. However, they were all light motorcycles. (6)

#### March Order and Departure

After a short address by the general, the btn entrucked and left Jena at **1400** hrs [on **2 Jan 42**, I believe]. . . (7)

#### Execution of the Movement

Early on the second day the movement continued along the Autobahn to Berlin and in the afternoon we reached our march objective, Werder bei Berlin. On this occasion several trucks broke down – including unfortunately a field kitchen. . . Here we had difficulties w/ our gasoline supply. . . (8)



[**Note:** The author continues by briefly describing each day of the movement of his btn toward the front:]

Post Office drivers, by **4.** day, had become accustomed to driving in column. The next day was a day of rest; the missing trucks [which had earlier broken down] arrived, w/ the exception of the field kitchen. They are now in Posen. . . (9)

On **5.** day, they continued along the Autobahn in direction of Warsaw; they left the Autobahn halfway between Posen and Warsaw to reach a former Polish troop training ground, where they were quartered for several days, since the march route had become congested. Several Post Office buses which had broken down between Werder and Posen catch up w/ the btn. *No more vehicles were lost during the rest of the movement.* (10)

On **6.** day of the movement, they continued their movement as far as Warsaw. On **7.** day they reached Brest-Litowsk. „The *winter clothing for our front had been left there*, since it could not be sent any farther because of supply difficulties.“ We reached the Russian border of 1939. The btn was again quartered in a caserne. . . The rest of the movement was well organized. Every day, as a march objective, the btn was assigned a village where another btn, likewise travelling in Post Office buses, had spent the preceding night. Rations, gasoline and living quarters were supplied at each point. For the rest of the way the troops were generally billeted in barracks; we found the billets already heated if we reached our new march objective in the afternoon. (10-11)

On **8.** day of the movement, while continuing along the military highway to Minsk, we saw inf.-divs. in good march order on their way to the front along the secondary roads left and right of the military highway. Together w/ our good system or organization, all this gave a picture of strength and power which made me certain that we would be able to change the situation at the front in our favor again. . . (11)

On **9.** day of the movement we continued to Minsk along the highway w/o being bothered. There we were quartered in a caserne. The city itself had been badly destroyed, since the Russians had set fire to it upon abandoning the city. (12)

On **10.** day of movement we continued our journey along the military highway to Orsha. There were numerous Russian tanks lying here and there along the road which had been knocked out of action during the summer fighting. There were no men available to recover this valuable equipment. The immensity of the country became more and more evident. *Often we did not meet a vehicle or a human being for hours at a time.* As I recall, we were again quartered in a caserne in Orsha. (12-13)

On **11.** day of the movement shortly before reaching Smolensk on the way to Vyazma we came upon the HQ of the Army Group, which was located in a forest near the highway. . . When we continued our trip, we saw batteries facing both north and south close to the road. Here and there infantry was also advancing left and right of the road. The winter night was already beginning to fall. I was, therefore, very glad when we finally approached Vyazma w/o any incidents just as it began to get dark. There we were billeted in an Organization Todt camp. . . I at once reported by telephone to the Army HQ, which was located just behind the front in Vyazma. I received orders to report to the adjutant of Generaloberst Model, our new C-in-C [i.e., **9. AOK**]. About **2200** I arrived in Vyazma and found the adjutant in one of the wooden houses which were common there. I was ordered to release **2** coys immediately to a panzer division east of Vyazma – I think

it was the **20. PD**. . . I myself was to drive to Sychevka the next morning w/ the remaining **3** coys and to conduct them to the **1. PD**, which was stationed south of Rzhev. . . The fact that the situation was no very rosy was indicated by the signal lights which were shooting up in a wide arc around Vyazma. . . (13-14)

The next morning – the final day of the movement – I started off w/ the remaining **3** coys to Sychevka, which was located about **70** km north of the highway. Because of the *enormous masses of snow* on it, only one lane of the highway to Sychevka could be cleared. *In some places mountains of snow towered right and left above the roofs of our buses* [!]. . . The result was that it took hours to reach Sychevka. . . Sychevka had been in German hands again for only **2** days. The encirclement of the Russians who had broken through at Rzhev east of the Sychevka – Rzhev highway had just been completed as a result of the energetic action of General Model. The btn was billeted in a half-destroyed church. . . (14-15)

The next morning. . . I drove to the **1. PD**. On both the right and left side of the highway to Rzhev lay numerous dead Russians, some of them as if mowed down in rows, indicating the bitterness of the preceding fighting. I first met the ops officer of the division, Major Wenk, who later as a general was supposed to lead the army for the relief of Berlin. From him I learned the location of the CP of General Krueger, the div.-cdr. During the ride there I passed through a village which had been completely burned down. Shortly before then, the Russians had dropped bombs and the entire village, which consisted of wooden houses, had gone up in flames. In general, there was absolutely nothing to be seen of the Russian Air Force in daytime. Therefore, this had been a great exception. As a rule, a few old-fashioned, slow flying bombers – which we called „windmills“ – appeared only at night and generally dropped their bombs somewhere in the region very much at random. The sole danger was that if they hit merely one house in a village, *the entire village generally burned down*, for the wooden houses burned like tinder and there was a lack of suitable fire-fighting equipment. (17)

I found General Krueger in a *miserable small farm hut*. I knew him well from the Western Campaign, where he had commanded the **1. Rifle Bde**. The last time I had seen him then he was living in an abandoned French chateau. What a contrast! At least I was glad that I could offer him a few good cigarettes, since I knew he was a heavy smoker. . . (17-18)

In the course of the following day, detachments of the **1. PD** arrived w/ farm sleighs to take away the **3** coys. Skis and luggage were loaded onto the sleighs and the men marched off on foot. They made a sad and unmilitary picture. What was left of our proud division? It was a panzer division w/o almost any tanks and motor vehicles. The Post Office buses and trucks were sent back to Germany and the Post Office bus drivers were glad to leave this rather unsafe region. [!]  
(18)

With the release of the replacements my task was accomplished. When I again reported to Lt.-Col. von Gersdorf about my mission, he informed me that General Model was not expected to arrive for the next few days. However, he immediately established contact w/ Army HQ in a side room. At the conclusion of the conversation he told me: „I congratulate you. You are going to get an independent btn, the remnants of a rgt that was actually supposed to be given to a wearer of the Knight’s Cross.“ [Note: Keil’s btn was stationed south of the Rzhev – Olinin line.  
(16-17)

#### 4. Summary

(1) The main reason why this movement could be carried out w/ Post Office buses was because the *enemy air force was almost completely absent*.

(2) An additional reason was that the route was guarded. Most of the Post Office buses had only one door, so that it took a comparatively long time to leave the bus. Moreover, most of the windows could not be opened at all [!] and some of them only lowered part way, so that it was *not possible to fire from the vehicle itself*. In view of the fact that the enemy situation in some places was unclarified – in the partisan-infested area near Minsk and the dangerous stretch between Orsha–Vyazma – we were lucky that our convoy got through safely.

(3) The system of organization proved successful in every respect. Except for the few days' halt at the Polish training ground, the movement as a whole was *carried out without any friction*. . .

(4) We covered an average of **150-250** km/day. . .

(5) Our movement covered **12** travelling days and, including interruptions, lasted about three [**3**] weeks. . .

(6) The loss of the light motorcycles on the very first day of the movement proved to be a handicap. . .

(7) Summing up once more, it can be said that a prerequisite for the accomplishment of troop movements of this kind is *friendly air superiority*. (19-21)

**29. P-190:**<sup>55</sup> “*Verbrauchs- u. Verschleiss-saetze waehrend der Operationen der deutschen H.Gr.Mitte vom 22.6.-31.12.41,*“ Gen. Rudolf Hofmann & Gen.-Maj. Alfred Toppe,<sup>56</sup> 1953.

#### **I. Kapitel: Vorbemerkungen**

„Die deutsche Wehrmacht trat in den Krieg als ‚armer Mann‘. Unter diesem Gesichtswinkel der Armut sind auch die Ausfaelle an Waffen u. Geraet sowie der Ersatz des Betriebstoffes zu bewerten. Sie trafen die deutsche Wehrmacht viel empfindlicher, weil sie sie nur muehsam u. unvollstaendig zu ersetzten vermochte. . . Zu dieser Begriff der ‚Armut‘ gehoert auch die Erkenntnis, dass die Zahl der deutschen Panzer- u. mot.-Divisionen nicht genuegte; besonders nicht bei einer Operation, die ueber **1.000** km in einem Zuge tief ins Feindesland fuehren sollte.“ (2)

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<sup>55</sup> **Note:** Records available to the authors were naturally highly incomplete; also, the study was completed “unter einem erheblichen Zeitdruck. . . sie began am **23 Jan** u. musste am **15 Mar [53]** abgeschlossen sein.” This study is perhaps the *most valuable* of all the FMS studies I have evaluated; terrific information on all sorts of logistics topics + definitions of key terms. (6)

<sup>56</sup> **Note:** As noted in the German semi-official history of WWII, Vol. IV, p. 1115, Major Alfred Toppe was the “leader of Field Agency North” in **1941**.

Die verhaeltnismaessig wenigen deutschen Panzer- u. mot.-Verbaende waren nach den erfolgreichen Durchbruechen *fast immer zu lange an der Kesselbildung gebunden*, statt unter Ausnutzung des Erfolges in die Tiefe zu stossen u. den Neuaufbau einer fdl. Front rechtzeitig verhindern zu koennen. Waere z.B. nach der Schlacht von Smolensk eine frische zweite, etwa gleichstarke Welle von Panzer- u. mot.-Einheiten zur Verfuegung gestanden, so waere der Ausgang dieses Feldzugs wohl ein anderer gewesen.<sup>57</sup> (2-3)

## **2. Kapitel: Operativer Ablauf**

### **1. Aufmarsch bis 22 Jun 41:**

Bereits im **Jul 40** wurde die **H.Gr. „B“**, spaeter Mitte genannt, nach Posen verlegt u. mit ihr trafen im Laufe des **Aug-Sep 40** die Staebe der **4., 12., u. 18. Armee** zusammen mit etwa **30** Divisionen ein. . . (7)

[**Note:** Authors continue with detailed description of the the assignments of the armies of AGC for „Barbarossa,” 8-9]

Aufmarsch: Die Masse der Angriffsdivisionen wurden in drei [3] zeitlichen Staffeln herangefuehrt. Sie durften aus Geheimhaltungsgruenden im allgemeinen nicht vor **25 Apr 41** die Linie Radom – Warschau – Neidenburg nach Osten ueberschreiten. Der Vormarsch der Inf.-Kps. in die Endunterbringungsraeume lief am **23 Mai 41** an u. musste bis **4 Jun 41** abgeschlossen sein. . . Die Panzer- u. mot.-Divisionen, die mit der Masse in der dritten Staffel vorgesehen waren, blieben moeglichst lange im Reich oder auf rueckwaertsgelegenen Truppenebungsplaetzen.

Es wurden mit Bahntransport herangefuehrt:

- a. In der 1. Staffel (Ende **Mar** bis Mitte **Apr 41**) **7** Korpsstaebe, dabei **2** mot., ferner **12** Divisionen;
- b. In der 2. Staffel (Ende **Apr** bis Anfang **Mai 41**) **10** Divisionen, **1** mot.-Division;
- c. In der 3. Staffel (Anfang bis Mitte **Jun 41**) **3** Korpsstaebe mot., **9** Panzerdivisionen, **6** mot.-Divisionen.

Der Rest der Korpsstaebe mot. u. der Panzer- u. mot.-Divisionen wurden aus grenznahen Raeumen (Raupenfahrzeuge aus Materialschonungsgruenden meist im Bahntransport) auf dem Landmarsch herangefuehrt. Die Panzer- u. mot.-Divisionen durften aus Tarnungsgruenden erst in den letzten vier [4] Naechten abschnittsweise nach vorne in die Bereitstellungsraeume einruecken. Der Aufmarsch dieser Kraefte verlief trotz vieler Schwierigkeiten glatt, sodass die Ueberraschung gesichert war. (10-11)

Insgesamt waren unter H.Gr.Mitte bereitgestellt:

**34** Inf.-Div. (einschl. **3** Sicherungs-Divisionen)  
**9** Pz.-Div.  
**7** mot.-Div.

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<sup>57</sup> **Note:** Of course, for the Ostheer – unlike for the Red Army – there was no second, or even third, echelon to reinforce the first line units.

1 Kav.-Div.

51 Divisionen

Im Antransport zu H.Gr.Mitte befanden sich **6** Inf.-Div. als OKH-Reserve. (11)

2. Grenzschlacht Bialystock-Minsk (22.6.-2.7.41):

. . . Waehrend der Vorstoss der **2 PzGr** unter teilweise krisenhaften Lagen zum Abriegeln der Bialystoker Kraefte u. des groesseren Minsker Kessels im Sueden fuehrte, gelang der Vorstoss der **3 PzGr** im Norden *verhaeltnismaessig schnell u. unter **erheblich geringerem Feindwiderstand***. . . Auch beim Minsker Kessel kam der **9. Armee** u. der **3 PzGr** die geographische Vorstaffelung des Suwalkizipfels zustatten, sodass auch bei Minsk die Nordhaelfte *schneller u. dichter abgeriegelt war* als die langgespannte Suedfront. (12)

2.7.41: Abschlussstand:

**2 PzGr** hat rechts mit **24. PzK** die Beresina ueberschritten u. naehert sich mit Vorausabteilungen dem Dnjepr. **46. PzK** in der Mitte naehert sich der Beresina. **47. PzK** hat Borissow genommen u. die Beresina erreicht. Eine Panzer- u. **2** mot.-Divisionen stehen noch als Abriegelungsfront am Suedrand des Minsker Kessels. (12-13)

**4. Army** hat den Bialystoker Kessel ausgeraemt u. marschiert in Eilmarschen nach Osten, um mit Masse Anschluss an die **2 PzGr** an der Beresina zu gewinnen, mit naechstgelegenen Korps (**9.** u. **7. AK**) zur Abloesung der schnellen Verbaende am Suedrand des Minsker Kessels. (13)

**3 PzGr** ist mit **1** Pz- u. **1** mot.-Division an der Ostfront des Minsker Kessels zur Abriegelung eingesetzt, mit Masse der beiden Panzer-Korps erreicht sie die Linie Okolowo – Glebokie. (13)

**9. Armee** riegelt mit **5.** u. **8. AK** die West- u. Nordfront des Minsker Kessels ab u. schliesst mit den uebrigen Korps in Eilmarschen nach Osten auf. **23. AK** (von H.Gr.Nord) tritt bei Wilna als neuer Verband zu **9 AOK**. (13)

Marschleistungen 22.6.-2.7.41

<u>Truppenverband</u>	<u>durchschnittl. Marschleistung</u>	<u>Anzahl der Tage</u>	
		Im Gefecht	reiner Marsch

2 PzGr:

<b>24. PzK</b>	bis Beresina <b>450</b> km		Masse Gefecht
<b>47. PzK</b>	bis Borissow <b>400</b> km		Masse Gefecht
<b>46. PzK</b>	bis Dukora <b>450</b> km	<b>4</b>	<b>7</b>

3 PzGr:

<b>39. PzK</b>	bis Okolowo <b>350</b> km	<b>8</b>	<b>3</b>
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57. PzK                      bis Glebokie 300 km                      7                      4

**Note:** According to this table – whose estimates are just that – *estimates!* – the infantry divisions of AOK 4 and 9 advanced from 125 – 190 km.(14)<sup>58</sup>

3. Schlacht bei Smolensk (3.-24.7.41):

Text here not of interest.

Marschleistungen 3.-24.7.41

<u>Truppenverband</u>	<u>durchschnittl. Marschleistung</u>	<u>Anzahl der Tage</u>
-----------------------	--------------------------------------	------------------------

2 PzGr: (von Beresina to Smolensk)

24. PzK	300 km	immer Gefecht
47. PzK	250 km	immer Gefecht
46. PzK	300 km	immer Gefecht

3 PzGr: (bis Smolensk)

39. PzK	350 km	4 Tg ohne Gefecht
57. PzK	450 km	4 Tg ohne Gefecht

**Note:** According to table, the infantry divisions of 2. and 9. AOK had advanced from between 350 – 500 km! During this period, most of the infantry units had at least 6-7 days “ohne Gefecht,” where they could march or rest. By this time 4. AOK HQ was running both panzer groups as 4. Pz Army, while the HQ of 2. Army had been activated to command 4. Army’s infantry. (20-21)

**Note:** Author also notes movements of reserve divisions during this three-week period: 256. ID von Reichsgrenze b. Polozk = 375 km (reiner Marsch); 161. ID von Reichsgrenze b. Molodezno = 250 km (reiner Marsch).

H.Gr.Reserve: 5 Div. im Durchschnitt 150 km reiner Marsch von Ausladebahnhof aus. 3 Sicherungsdivisionen im Durchschnitt 250 km Marsch, dabei kleinere Gefechte. (See p 21)

4 a. Abdrehen 2. Armee u. 2 PzGr zur Schlacht von Kiew (25.7-17.9.41):

**Note:** Capture of Gomel and Roslawl:

A. 2. Armee war am 24 Jul 41 in Linie Paritschi –Shlobin – Rogatschew – Propoisk – Szoshabschnitt zur Verteidigung uebergangen, um die rechte Flanke der H.Gr. abzudecken. Der anhaltende russ. Druck aus Richtung Gomel fuehrt zum Entschluss, diese Kraeftegruppe zu vernichten, um so die Suedflanke tiefer zu sichern u. der 2. Armee Bewegungsfreiheit zu

<sup>58</sup> **Note:** Die angegebenen Marschleistungen der Spalte 3 stellen die kilometermaessigen Entfernungen dar; es muss dabei auf dem Gefechtsfeld bei den Pz.- u. mot. Verbaenden ein Zuschlag von etwa 40% bei Inf.-Div. von etwa 20% dazugenommen werden. (15)

schaffen. Wegen Munitionsmangels beginnt der Hauptstoss erst am **12 Aug 41**, statt wie vorgesehen am **5 Aug 41**. . .

Am **15 Aug 41** war die Schliessung des Kessels um Rogatschew – Shlobin gelungen, starke Kraefte des **43. AK** u. **13. AK** fuer Stoss in Richtung Gomel frei. Am **18 Aug 41** ist der Feind im Kessel (russ. **21. Armee**) vernichtet, Gomel am **19 Aug 41** in der Hand des **13. AK**. Der Feind *raeumt nun das Gebiet westlich des Dnjepr zwischen Pripjet – Kiew* und gibt die Grundlage zur Aufrollung der Dnjeprlinie u. zum weiteren Ansatz der **2. Armee** nach Sueden in den Ruecken der bei Kiew stehenden fdl. Kraefte zur Vereinigung der beiden inneren Fluegeln der H.Gr. Sued u. Mitte. (22-23)

B. Am **28 Jul 41** wird **AOK 4** von der Fuehrung der **2 PzGr** u. **3 PzGr** entbunden u. der Stab herausgeloeset. **2 PzGr** wird der H.Gr.Mitte unmittelbar, die **3 PzGr** der **9. Armee** unterstellt. (23)

**2 PzGr** hatt am **27 Jul 41** den Auftrag erhalten, durch Angriff auf Roslawl diesen wichtigen Strassenknotenpunkt zu nehmen u. so die Bedrohung der Suedflanke von Smolensk zu beseitigen. **7. AK** (4 Div.) u. **9. AK** (3 Div.) wurden hierzu unterstellt. . . Am **2 Aug 41** faellt Roslawl, der Suedfluegel suedlich Smolensk ist nach Osten gedrueckt u. damit die aergste Sorge um diesen Brennpunkt behoben. . . (23)

Bevor jedoch die **2 PzGr** zu einem Angriff auf Moskau oder Kiew antreten kann, muss eine weitere Voraussetzung erfuellt werden: die Sicherung der tiefen rechten Flanke bei Kritschew. Die Bereinigung dieser Flanke war ausserdem unerlaesslich um der vor Rogatschew festliegenden **2. Armee** wieder Bewegungsfreiheit zu geben. . . Der Angriff begann am **9 Aug 41** . . . (24)

Am **22 Aug 41** gibt **2 PzGr** das **20., 9.,** u. **7. AK** an **AOK 4** (wieder erneut eingesetzt) ab. . . (24)

C. Im Verfolg der Absicht, mit dem rechten Fluegel der H.Gr.Mitte in den Ruecken der russ. Dnjepr Front vor der H.Gr.Sued vorzugehen, stoesset **2. Armee** am **25 Aug 41** . . . von Gomel nach Sueden auf Tschernigow. . . Am **5 Sep 41** naehern sich die inneren Fluegel der H.Gr.Sued (**51. AK**) u. H.Gr.Mitte (**13. AK / AOK 2**) westl. Tschernigow, das am **9 Sep 41** vom **13. AK** genommen wurde, u. so in enger Fuehlung mit **51. AK** die Nordfront von Kiew abschloss. Die Pz.Gr. Guderian stoesset mit **24. PzK** . . . ueber Romny tief nach Sueden u. erzwingt am **15 Sep 41** bei Lochwitz die Vereinigung mit der von Sueden ueber Glubino nach Norden vorstossenden **1 PzGr**.<sup>59</sup> So wurde hier der gewaltige Kessel der Schlacht von Kiew geschlossen u. fuer H.Gr.Sued der Vormarsch in das Donezgebiet freigekaempft. (25-26)

Schon beim Abflauen der Kesselschlacht wurden aus der Front gezogen u. zur weiteren Verwendung an der Hauptfront der H.Gr.Mitte frei:

**13. AK** - ab **13 Sep 41** mit **17., 98., 260. ID**;  
Hoeh.Kdo **35** - ab **15 Sep 41** mit **112., 45. ID**;

<sup>59</sup> **Note:** In dieser Phase setzte ab **3.9.41** Regenwetter ein, das mehrere Tage anhielt u. wiederum den Zustand der Strassen u. Wege schwer beeintraechtigte. Um ein Bild ueber die Beanspruchung von Mensch u. Material zu geben: Am **15.9.41** verfuegte das **Pz.Rgt. 6** der **3. PD** ueber **1 Pz IV, 3 Pz III,** u. **6 Pz II**; das gesamte Pz.-Rgt. also ueber **10 Panzer**. (25)

**43. AK** - ab **16 Sep 41** mit **131., 134., 293. ID.**  
(26)

(Note: What follows is another table – this time showing the „*Marschleistungen der Suedhaelfte H.Gr.Mitte 25.7.-17.9.41.*” For example, under “B,” “Ab Gomel Richtung Kiev,” **20.8.-17.9.41**, it is noted that **24. PzK** covered **580 km** b[is] Lochwiza; **47. PzK** covered **420 km** b[is] Gluchow – Putiw. See p. 28)

#### **4 b. Stillstand der Operationen an der Front der H.Gr.Mitte (25-7.-17.9.41):**

**Jul-Aug 41:** Hier kommt es in den letzten Julitagen darauf an, den Smolensker Kessel vollends zu schliessen u. die darin befindlichen Feindteile zu vernichten. Am **25 Jul 41** ist den Kessel geschlossen u. am **5 Aug 41** nach spannungsreichen Ausbruchsversuchen, wobei es erheblichen Feindteilen gelingt abzufließen, ausgeräumt. Diese Ausbruchsversuche sind von wutenden Feindangriffen gegen den Jelnjabogen u. beiderseits der Autobahn Smolensk-Moskau begleitet. Die erste Augusthaelfte steht im Zeichen der Abwehr bei oertlichen taktischen Angriffs-handlungen. . .

Die Pz. u. Mot.-Verbaende **2 PzGr** waren ab **8 Aug 41** aus der Front geloest, die der **3 PzGr** ab **10 Aug 41** aus der Front geloest, um an Mensch u. Material aufgefrischt zu werden. In dieser Phase wurde am **15 Aug 41** die Abgabe eines Pz.Korps der **3 PzGr (39. PzK)** an H.Gr. Nord . . . befohlen. Aber auch die **2 PzGr** kam nur zu einer kurzen Ruhepause; denn ab **19 Aug 41** stiess das **24. PzK**, ab **22 Aug 41** die Masse der **2 PzGr** nach Sueden zur Kesselschlacht von Kiev. . .  
(29)

Auf dem Nordfluegel der H.Gr.Mitte gelingt es, in Verbindung mit dem Suedfluegel der H.Gr.Nord, die eigenen Linien bis ostw. Toropets vorzudruecken. . . Dies war der Auftakt zu der am **24 Aug 41** vom **OKH** ausgesprochenen Absicht, die westl. der Seenplatte – Waldaihoehen stehenden Feindteile zu vernichten, um hier eine besonders guenstige kraeftesparende Front zu bilden, die eine Flankenbedrohung ausschliessen u. die Ausgangsbasis fuer eine spaetere Operation in ostwaertiger Richtung bilden sollte. . . Die grosse Operation stand unter der Fuehrung der **16. Armee** [H.Gr.Nord]. . . Bis **6 Sep 41** war die Absicht, den Nordfluegel der H.Gr.Mitte bis Linie Sap. Dwina – Andreapol vorzuschwenken, erreicht. (30)

Bei **3 PzGr** blieb in dieser Zeit nur **7. PD, 14. ID (mot.)** u. **Lehrbrig. 900 (22.8.-1.10.41)**, die zur Auffrischung hinter der Front standen. (30)

In diesem Zeitabschnitt litt die H.Gr.Mitte infolge der starken Abgaben nach Sueden u. Norden unter einem bedenklichen Kraeftemangel; ihre Front war sehr breit gedehnt ohne staerkere Reserven in der Tiefe. Die Schwierigkeiten der Versorgung steigerten sich. (30-31)

(Note: Another table = „*Marschleistungen der Nordhaelfte der H.Gr.Mitte, 25.7.-17.9.41.*“ Of note here is the movement of elements of **39. PzK (1 Pz., 1 mot. Div.)** of **3 PzGr** „von nordostw. Smolensk bis suedostw. Leningrad” = **700 km**. Remainder of **39. PzK (1 Pz., 1 mot. Div., Brig. 900)** “ab **22 Aug 41** aus Front gezogen.”

Also **57. PzK** (of **3 PzGr**) „bei Angriffsgruppe Welikije Luki durchlaufend im Gefecht.“ (Zeitabschnitt **25.7.-27.8.41**) Thereafter, **57. Pz** „zum Angriff auf Waldaihoehen bei H.Gr.Nord eingesetzt.“ (Zeitabschnitt **28.8.-17.9.41**) (32-33)



## **5 a. Neugliederung der H.Gr.Mitte Mitte bis Ende Sep 41:**

**1.-10.9.41:** Schon im ersten Septemberviertel haben die sich anbahnenden Erfolge der H.Gr.Mitte u. Sued an Dnjepr u. Desna, sowie der H.Gr.Nord gegen Leningrad *die Grundlage fuer eine entscheidungssuchende Operation* gegen die rote Heeresgruppe Timoschenko Richtung Moskau geschaffen. . . (34)

Die Neugliederung der H.Gr.Mitte sah nach erfolgter Zufuehrung [i.e., of additional forces from Army Groups North and South) folgendermassen aus. (**Note:** See text for details; of note is the formation of a new 2. Army.) (34-35)

Die Bereitstellung fuer den neuen Angriff verlangte *aussergewoehnlich schwierige Querverschiebungen zur Bildung der PzGr 3 u. 4* ueber hunderte von Kilometern. Die Zufuehrung der hierfuer vorgesehenen mot. Verbaende von H.Gr.Nord musste durch das OKH selbst gesteuert werden, um dem vorgesehenen Angriffstermin einhalten zu koennen. Auch das Heranfuehren der Inf.-Kps. nach Abschluss der Schlacht von Kiew zur neuen Ostfront verlangte der Truppe aussergewoehnlich grosse u. anstrengende Maersche ab. Bei den *staendigen oertlichen Abwehrkaempfe* in der Ostfront der H.Gr.Mitte waren zwar geringe Maersche zu Verschiebungen u. Neu-gruppierungen noetig, dafuer *zehrten aber die anhaltenden Abwehrkaempfe an den Kraeften der Truppe*. . . (35-36)

(**Note:** New table = „*Marschleistungen zum Aufmarsch der neugegliederten H.Gr.Mitte (24.9. – 2.10.41)*.“ Of note here:

- a) Most divisions of **2. Armee** covered distances ranging from **240-320** kilometers;
- b) **6. PD** from Leningrad covered **650** km; **1. PD** and **36. ID (mot.)** – also from Leningrad front – also moved **650** km; all three of these divisions assigned to HQ **3 PzGr**;
- c) the **11. PD** – from H.Gr.Sued – covered **620** km, while **20. PD**, **SS “DR,”** and **3. ID (mot.)** covered between **400-500** km; each of these three formations assigned to **4. PzGr** and HQ **4. Army**. See, 37-38)

Author also states that, during this period, H.Gr.Mitte had **2** [regular?] and **4** Sicherungsdivisionen\_ involved in Partisanenbekaempfung. (38)

## **5 b. Schlacht um Wjasma – Brjansk:**

A. Brjansk (30.9.-13.10.41):

### **2. Armee:**

**30.9.41:** An diesem Tage tritt die **2 PzGr** (ab **6 Okt 41 2. Pz Armee** genannt) zunaechst mit **24. PzK** in Front, mit Schwerpunkt entlang der nach Orel fuehrenden Strasse an. . . Die noerdlich der **2 Pz Armee** angreifende **2. Armee** geht mit Suedfluegel (**53. AK**) frontal gegen Brjansk vor, waehrend **43. AK** u. **13. AK** den noerdlichen Umfassungsfluegel bilden. Das immer weiter vorgestaffelte **13. AK** erreicht am **7 Okt 41 Suchinitschi**, waehrend **43. AK** nach Sueden eindreht u. so den Kessel von Brjansk von Norden her zu schliessen begann. (39)

Durch scharfes Vorstoss des **53. AK** auf Brjansk wird am **9 Okt 41** der grosse Kessel *in zwei kleinere Kessel aufgespalten*. . . Am **9 Okt 41** ist der groessere suedliche Kessel ostw. Trubtschewsk um die russ. **3. u. 13. Armee** geschlossen, am **13 Okt 41** der kleinere noerdl. Kessel ostw. Brjansk um die rote **50. Armee**. (39)

**7.10.41:** Schon am **7 Okt 41** konnte die H.Gr.Mitte auf Grund der heranreifenden Erfolge befehlen, dass alle an den Einschliessungsfronten entbehrlichen Teile ungesaeumt zur Verfolgung in Richtung Moskau anzutreten haetten, um dem Gegner keine Gelegenheit zum Aufbau einer neuen Abwehrfront zu bieten. . . (39-40)

#### B. Wjasma (2.-19.10.41):

**2.10.41:** An diesem Tage treten **4. Armee** mit Schwerpunkt bei **4 PzGr** aus dem Raum ostw. Roslawl, **9. Armee** mit Schwerpunkt bei **3 PzGr** um Beresnowo zum beiderseitigen Umfassungsangriff in Richtung Wjasma an. . .

**7.10.41:** An diesem Tage ist der Kessel geschlossen. Am rechten Fluegel der **4. Armee** geht **12. AK** gegen Kaluga, **57. PzK** ueber Juchnow gegen Medyn vor. . . (40-41)

**Note:** In diesen beiden Schlachten, sowohl bei Brjansk wie bei Wjasma hat *die deutsche Fuehrung aus den bisherigen Erfahrungen im Kampf mit dem russ. Gegner die richtigen Schluesse gezogen: naemlich keine Umfassung mit zu grossem Ziel anzusetzen*, weil der Russe sich gegen eine Bedrohung in Flanke u. Ruecken ziemlich unempfindlich zeigte u. lange in der Front hielt. Die auf die bisherigen Umfassungsoperationen folgenden Kaempfe mit ausgebrochenen Feindteilen beanspruchte die Angriffstruppe sehr stark, band lange Zeit die Pz-Verbaende u. kostete so viel Zeitverlust. Im Gegensatz zu den vorausgegangenen Schlachten fuehrte hier die Umfassung mit nahgesteckten Zielen zu vollem schnellen Erfolg: starke Kraefte Timoschenkos waren vernichtet. (41)

(**Note:** New Table = „*Marschleistungen der H.Gr.Mitte (2.10.-13.10.41)*“ (bei **2 PzGr** ab **30.9.41**).“ Of note here:

a) **2. Pz Gr:** Elements advanced from **80–260** km during this time period; longest advance (**260** km) made by **24. PzK** “von Gluchow b. nordostw. Orel.” **47. PzK** advanced **200** km “von Schostka bis Kratschew.”

b) **2. Armee:** Elements advanced from **100–220** km; most ground covered by the **13. AK** “v. suedl Dubrowka b. Kaluga **220** km;”

c) **4. PzGr:** Made advances ranging from **170–265** km; **57. PzK** advanced w/ elements **265** km from Roslawl to Borowsk;

d) **4. Armee:** Covered **100-150** km;

e) **9. Armee:** Covered **100-125** km;

f) **3. PzGr:** Covered **125-270** km.

(42-44)

### **5 c. Schlammperiode Mitte Okt 41 bis Mitte Nov 41:**

Das grosse Ziel Moskau schien zum Greifen nahe. Am **14 Okt 41** befiehlt die H.Gr.Mitte die Fortsetzung der Operationen in Richtung auf Moskau. . . [Note: See text for brief description of each army's assignments.] (45)

In Verfolg dieser Absichten sollte eine neue Kraeftegliederung eintreten, u. zwar:

a. Hoeh.Kdo. **34** u. **35** mit **6** Div. sollten von **2. Pz Armee** zur **2. Armee** treten ( **45., 95., 134., 262., 293., 296. ID**);

b. **43.** u. **53. AK** mit **5** Div. sollten von **2. Armee** zur **2. Pz Armee** treten (**31., 56., 112., 131., 167. ID**);

c. **8. AK** mit **2** Div. sollte von **9. Armee** zur **4. Armee** treten (**8., 87. ID**);

d. **1. Kav.-Div.** herausgeloesst sollte nach Gomel marschieren fuer andere Verwendung.

(45-46)

Schlammperiode: Da wirkte sich die schon im ersten Oktoberdrittel beginnende Schlammperiode immer mehr aus u. *brachte das deutsche Heer um die Fruechte des Sieges*. Alle Bewegungen wurden entscheidend erschwert u. vor allem die 2. Pz Armee voellig lahmgelegt. . . Alle Wege sind grundlos geworden, auch die Hauptstrassen trotz Asphalt u. Steindecken nur ein langgezogenes, schlammiges Trichterfeld mit metertiefen Loechern. . . Trotzdem die Versorgungs- u. Bautruppen an allen Strassen arbeiten, ist es vergebenes Bemuehen. Der muehsam vorgebrachte Triebstoff reicht meist gerade aus, um die Schleppkommandos zu versorgen; dann ist wieder alles verbraucht u. trotz aller Muehe kaum etwas erreicht. Die Truppe naehrt sich einfoermig u. unzureichend von dem, was das Land bietet: Kartoffeln. . . (46)

### **Abschlusslage am 14.11.41:**

(Note: Author delinates the frontage held by each army and panzer group at this time. Among other things, he notes that Army Group Centre was only tenuously linked to Army Group North. See, 47-48)

(Note: New Table = "*Marschleistungen vom 19.10.-14.11.41.*" What is noteworthy here is that, besides problems w/ mud – and later frost – formations of AGC managed to cover ca. **80-200** km in "Marsch" and "Gefecht." See, p 49-51)

### **6. Vorstoss auf Moskau Mitte Nov 41 bis Anfang Dez 41:**

Die entscheidende Frage war, ob vor dem endgueltigen Wintereinbruch noch eine kurze Periode brauchbaren Wetters ausgenutzt werden sollte zum Angriff auf Moskau. Die Verbaende waren kraeftemaessig auf **50%** ihrer Kampfkraft gesunken u. damit an der Grenze der Leistungsfahigkeit angelangt. . . Reserven fehlten. Die gesamten Kraefte der H.Gr. standen linear ohne nennenswerte Tiefe in der Front. . . Andererseits hoffte man, dass der Russe am Ende seiner Kraft

sei. . . Das zu erreichende Ziel Moskau lag **60** km vor der Front. Der Wille, noch einmal das Letzte herzugeben, war bei Fuehrung u. Truppe vorhanden. (52)

(**Note:** Discussion of army assignments for final offensive follows. See, 52-53)

**Note:** Table = “*Marschleistungen Mitte Nov 41 bis Anfang Dez 41.*“

Of note here:

a) **2. Armee:** Hoeh.Kdo. **34 = 180** km Gefecht “von noerdl. Kursk bis Jelez;“ Hoeh.Kdo **35 = 125** km „von Orel bis Jefremoff;“

b) **2. Pz Armee:** **47. PzK = 250** km Gefecht “von nordostw. Kursk bis Kaganowitschi; **53. AK = 140** km Gefecht „von Orel bis ostw. Stalinogorsk;“

c) **4. Armee:** (4 AK / 1 Pz-Kps) an Moskauer Front. Gefechte ohne bes. Marschleistungen;

d) **4. PzGr:** **40-80** km Gefecht w/ following sectors reached: **9. AK** an der Moskwa; **40. PzK** von Rusa bis ostw. Istra; **46. PzK** von Kubinka bis Krasnaja Poljana; **5. AK** von Wolokolamsk bis Krasnaja Poljana.

e) **3. PzGr:** **70-90** km Gefecht w/ following sectors reached: **41. PzK** von Kalinin bis noerdl. Moskau (**90** km Gefecht / **80** km Marsch); **56. PzK** vom Wolga-Staubecken bis Wolgakanal (**70** km Gefecht).

f) **9. Armee:** (3 AK) an Kalininer Nordfront. Laufende Gefechte ohne Maerche.

(56-57)

## **7. Uebergang zur Verteidigung u. Rueckschlag. Anfang bis Ende Dez 41:**<sup>60</sup>

. . . Das Gesetz des Handels ging auf den Gegner ueber.

a. Suedfluegel:

Der weit vorgetriebene Keil der **2. Pz Armee** bot eine Umfassung von drei Seiten geradezu an. Gerade noch rechtzeitig entzog sich in der Nacht **5./6. Dez 41** die **2. Pz Armee** der Vernichtung durch Aufgabe der auf Michailow u. Wenew vorspringende Front, indem sie hinter den oberen Don u. Schat u. anschliessend auf die Linie Jefremoff – Alexin zurueckging.

Bei der suedl. anschliessenden **2. Armee** griff der Russe gleichfalls immer heftiger an u. drohte auf Orel durchzubrechen. Am **8 Dez 41** ging Jelez verloren; am **12 Dez 41** musste Jefremoff aufgegeben werden. Am **13 Dez 41** setzten sich die ruecklaeufigen Bewegungen bei **2. Armee** fort. Am **14 Dez 41** wurde die **2. Armee** der **2. Pz Armee** unterstellt, um durch einheitliche Fuehrung den Zusammenhalt in sich zu wahren. Dies gelang auch, jedoch verlor die **2. Pz Armee** den noerdl. Anschluss an die **4. Armee** bei Alexin, wo ein starker russ. Angriff die Naht der beiden Armeen gesprengt hatte. (58-59)

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<sup>60</sup> **Note:** This section provides a good overview of withdrawals of AGC thru **31.12.41**.

**Ende Dez 41:** Gegen Ende des Monats stand die **2. Pz Armee** mit unterstellter **2. Armee** etwa in Linie westl. Tim – Schtschigry – westl. Liwny – Nowossil – Mzensk – suedl. Belew. Von hier nach Suchinitschi klaffte eine Luecke, hinter der nur Teile der **10. ID (mot.)** u. **216. ID** bei Suchinitschi u. Teile des **40. PzK** bei Mossalsk [sp?] standen. Im Ruecken der **2. Pz Armee** entwickelte sich im Raume um Brjansk aus den Resten der damals eingeschlossenen russ. Kraefte ein grosses Partisanengebiet. . . (59)

b. Mittelstueck:

An der Moskauer Front bei **4. Armee** band der Russe durch laufende starke Angriffe die deutschen Kraefte. Es kam im Laufe des **Dez 41** zu zahlreichen Einbruechen, die nur durch Einsatz der letzten Reserven abgeriegelt werden konnten. Besonders des **13. AK** auf dem Suedfluegel wurde durch Angriffe frischer sibirischer Truppen schwer getroffen u. zurueckgedraengt; hier bildete sich die vorhin erwahnte Luecke zur **2. Pz Armee**, in die der Russe Anfang **Jan 42** ueber Kaluga hineinstiess. Aber i.A. konnte sich die **4. Armee** in Linie noerdlich Kaluga – Malojaroslawez – Borowsk – Naro Fominsk halten. (59)

c. Nordfluegel:

Erheblich schwieriger hatte sich die Lage auf dem Nordfluegel der H.Gr. entwickelt. Nach dem Festlaufen des Angriffs der **3** u. **4 PzGr** wurde von der H.Gr.Mitte die Ausweichbewegung am **6 Dez 41** befohlen u. in der Nacht **6/7 Dez 41** begonnen. **3 PzGr** wurde der **4 PzGr** unterstellt, um auch hier eine einheitliche Fuehrung zu schaffen. Ein fdl. Einbruch in Richtung Klin schuf am **7 Dez 41** fuer **3 PzGr** eine bedrohliche Lage. . . Bei dieser Rueckzugsbewegung verlor **3 PzGr** viele Fahrzeuge u. Waffen; der gesamte Anhang der Truppe (Tross, Heerestruppen, Luftwaaffe, Versorgungsverkehr) *ergoss sich fluchtartig nach hinten*. Eine *Psychose* hatte die Trosse ergriffen, waehrend die Truppe vorne mit der letzten Kraft hielt. . . (60)

Gleichzeitig begannen die russ. Angriffe zunaechst beiderseits Kalinin mit voller Wucht gegen diese vorspringende Nase der **9. Armee**. Die Angriffe dehnten sich in den folgenden Tagen immer weiter nach Westen aus, bis die ganze Nordfront der **9. Armee** unter dem russ. Druck ins Wanken geriet. Unter zaehen Kaempfen u. empfindlichen Verlusten an Mensch u. Material steht die Nordfront am Jahreswechsel [**1.1.42**] in Linie Rusa – westl. Wolokolamsk – 30 km noerdlich Wolokolamsk nach Westen zurueckbiegend auf: noerdlich Rshew – Seenplatte Ostaschkow. (60-61)

Zusammenfassung:

. . . Die russ. Faehigkeit zu improvisieren, besonders auch auf technischem Gebiet war erstaunlich. . . Eine ausschlaggebende Rolle spielte der lange Nachschubweg mit den voellig ungenuegenden Leistungen der wenigen Eisenbahnlinien; der als Aushilfe nicht ausreichende Kraftwagen-Grosstransportraum verzehrte sich immer mehr u. hatte bis zum Ende des Jahres fast  $\frac{3}{4}$  seines Bestandes eingebuesst. (61)

(**Note:** Table = „*Marschleistungen Anfang bis Ende Dez 41.*“ This table gives numbers ranging from **15 – 220** km “Gefecht.” **24. PzK** = **220** km “von suedl. Kashira bis Belew.” For details see, 63-64)

### 3. Kapitel: Personelle Lage

#### 1. Verpflegungsstaerke:

Am **22 Jun 41** betrug die Verpflegungsstaerke der

**4. Armee** einschl. d. **2 PzGr** – **782.000** Koepfe u. **129.000** Pferde.

**9. Armee** einschl. d. **3 PzGr** – **380.000** Koepfe u. **87.000** Pferde.

Aufgeschlüsselt in Divisionen bedeutet das:

#### 4. Armee am 22.6.41:

21 Inf.-Div. zu je **18.000** Koepfen = **378.000** Koepfe

1 Kav.-Div. zu **10.000** Koepfen = **10.000** Koepfe

5 Pz.-Div. zu je **12.000** Koepfen = **60.000** Koepfe

3 mot.-Div. zu je **14.500** Koepfen = **43.500** Koepfe

491.500 Koepfe

Rest = Heeres -, Armeetr., Flak u.  
taktische Luftwaffe

290.500 Koepfe

Gesamtzahl =

782.000 Koepfe

#### 9. Armee am 22.6.41:

13 Inf.-Div. zu je **18.000** Koepfen = **230.000**

4 Pz.-Div. zu je **12.000** Koepfen = **48.000**

4 mot.-Div. zu je **14.500** Koepfen = **58.000**

336.000

Rest = Heeres-, Armeetr., Flak u.  
Taktische Luftwaffe

= 44.000

Gesamtzahl =

380.000

(65-66)

#### 2. Verluste:

Schon am **6 Nov 41** beurteilt **OKH** die Kampfkraft des Ostheeres wie folgt: Die Fehlstellen der Inf.-Div. durch blutige Verluste betragen im Durchschnitt etwa **2500** Mann. Die Ausfaelle bei der Infanterie (**80%** hiervon) entsprechen damit nicht ganz der Gefechtsstaerke eines Inf.Rgts. Die infanteristische Kampfkraft der Inf.-Div. ist also, Krankheitsverluste eingerechnet, um **1/3** gesunken. Die Ausfaelle bei der Artillerie sind wesentlich geringer. Hier kann, einschl. dem durch Pferdeausfaelle bedingten Ausfall von Geschuetzen, mit einer Verringerung der Kampf-

kraft von etwa ¼ gerechnet werden. . . Hiernach ist die Kampfkraft der Inf.-Div. im Durchschnitt nur noch auf **65%** ihrer ursprünglichen Staerke zu veranschlagen. (67)

[**Note:** Insgesamt kann die Kampfkraft der Pz.-Div. nur mehr mit etwa **35%** ihrer normalen Staerke als Pz.Div. geschaezt werden. Details see, p. 67]

Die Verluste der Inf.-Div. mot. u. der selbstaendigen Inf.-Rgter mot. (**IR „GD“** u. **Bde 900**) entsprechen etwa denen der Inf.-Div. . . Sie koennen nur mehr auf etwa **60%** ihrer vollen Leistungsfaetigkeit geschaezt werden. (67)

Unter den Gesamtverlusten faellt der hohe Prozentsatz der Offizierverluste auf: etwa **1** Offizier auf **20-25** Mann. Etwa **1/3** der Offizierverluste sind Tote! (68)

### 3. Ersatz:

#### a. Allgemeine:

Bei Beginn des Feldzuges fuehrten die Divisionen ein Feldersatzbtn. mit, das organisch zu dem Divisionsverband gehoerte. Aus ihm konnten zunaechst die laufenden Ausfaelle gedeckt werden. Dieser Bestand war schnell aufgebraucht. Von den Feldlazaretten in den Armeebereichen wurden wohl die Wiedergenesenen (leicht Verwundete u. Kranke) ihren Divisionen ueber das Feldersatzbtn. wieder zuegefuehrt, aber das war nur ein geringer Prozentsatz des benoetigten Ersatzes. Infolgedessen wurden aus dem Bestand des **B.d.E.** (Bef. des Ersatzheeres) der Ersatz in Gestalt von Marschbataillonen zuegefuehrt. Jede Marschbtn. umfasste **1.000** Koepfe. Die Zufuehrung dieser Marschbtn. erfolgte in vier [4] Wellen.<sup>61</sup>

1. Welle zwischen <b>12.8. - 8.9.41</b>	<b>30</b> Marschbtn.
2. Welle Anfang <b>Sep 41</b>	<b>66</b> Marschbtn.
3. Welle Mitte bis Ende <b>Sep 41</b>	<b>40</b> Marschbtn.
4. Welle Anfang <b>Okt 41</b>	<b>18</b> Marschbtn.
	<hr/>
	<b>154</b> Marschbtn.

Damit war zunaechst der Bestand an ausgebildeten Ersatzmannschaften aufgebraucht. Er deckte gerade den Ausfall nach dem Stand von **7.9.41**, der damals 158.000 Mann betrug. [**Note:** Figures are for H.Gr.Mitte] (68-69)

**23.9.41:** H.Gr.Mitte kuendigte daraufhin am **23 Sep 41** an (in Stichworten): „Mit den letzten **18** Marschbtn. ist die Zufuehrung von ausgebildeten Ersatzmannschaften abgeschlossen, die Bestaende des Ersatzheeres augebraucht. **OKH** wird die Zufuehrung der Wiedergenesenen regeln. Fuer H.Gr.Mitte ist zunaechst die Aufstellung von acht [**8**] Wiedergenesenenbtn. (insgesamt **3.000 – 5.000** Mann) eingeleitet. Verwendungsbereit **3.10.41.**“ Diese **8** Wiedergenesenenbtn. trafen ab **13.12.41** im Gebiet der H.Gr.Mitte an den Eisenbahndpunkten an; von dort erfolgte die Zufuehrung zu den Divisionen, die im Brennpunkt der Kaempfe standen, z.T. auf dem Luftweg. . . (69)

<sup>61</sup> **Note:** Source used here = Dokument **43: AOK 2** Ersatz Nr. **37418/99.** (68)

**1.-31.12.41:** „Uebersicht ueber personelle Abgaenge u. Zugaenge des Ostheeres ab **1.12.41**“ bringt fuer H.Gr.Mitte fuer **Dez 41** folgende Zahlen: a) Abgange: **103.600**; b) Zugaenge **40.800**. Naehere Angaben fehlen. (*Dokument MI 4/14/216*; quoted in, *Toppe*, 69)

**1.-6.1.42:** Um die Jahreswende **1941/42** als aus der Heimat kein oder zahlenmaessig nur ungenuegender Ersatz herangebracht werden konnte, waren alle Armeen zu Aushilfen gezwungen. Man loeste aus den rueckwaertigen Diensten Offiziere, Uffz., u. Mannsch. heraus u. fuehrte besonders ausgebluteten Truppenteilen zu. Das waren meist ganz geringe Zahlen, die hier freige-macht werden konnten.

Als Beispiel fuer diese Improvisation seien zwei Zahlen aus dem Bereich der **9. Armee** angefuehrt. Hier wurden aus Pferdepark, Pferdelazaretten, Kfz-Parken, Baubtn., Veterinaer-untersuchungsstellen, I-Kpnen, Frontssammelstellen, Nachschub-Kol., Baeckerei-Kpnen., etc. herausgeloest:

am **5.1.42:** 3 Offz. / **285** Mann

am **6.1.42:** 4 Offz. / **250** Mann

und dem **6. AK** zugewiesen. Solche Aushilfen waren naturgemaess nur ein „Tropfen auf den heissen Stein.“ (69-70)

b. Zufuehrung des Ersatzes:

Es wurden bis **31.12.41** zugefuehrt:

- a. **12.8.-8.9.41:** **30** Marschbtn. zu je **1.000** Offiziere, Uffz. u. Mannsch., die [in diesem Zeitabschnitt] mit Bahn nach den Endbahnhofen des betreffenden Armeegebiets vorgefahren wurden.

Verteilung:     **AOK 2 = 11 Btn. = 11.000** Mann  
                  **AOK 9 = 9 Btn. = 9.000** Mann  
                  **2 PzGr = 4 Btn. = 4.000** Mann  
                  **3 PzGr = 6 Btn. = 6.000** Mann

(Fuer **2** u. **3 PzGr** besonders ausgebildete Leute aus den Ersatzbtn. der Pz.- u. mot.-Divisionen.)

(**Note:** Narrative continues with same breakout for the **2.-4.** Welle der Marschbtn. Source: *Dokument 43: AOK 2 Ersatz 37418/99*; in *Toppe*, 71-72)

c. Offizier-Ersatz:

Zu Beginn des Feldzuges fuehrte die H.Gr.Mitte eine „**Fuehrungsreserve**“ mit, in der einige Hundert Offiziere aller Waffen u. aller Dienstgrade zusammengefasst waren. Genaue Zahlenangaben ueber Staerke u. Zusammensetzung konnten nicht gefunden werden. Diese „Fuehrungsreserve“ fuehrte die H.Gr. sprungweise mit Autobussen u. Bahn nach; aus ihr wurden die ersten Ausfaelle an Offizieren ausgeglichen.



Der Bestand war sehr schnell aufgebraucht, denn die taeglichen Ausfaelle an Offizieren der gesamten Ostfront betragen:

<b>22.6 - 31.7.41</b>	<b>203,2</b> je Tag
<b>Aug 41</b>	<b>204,2</b> „ „
<b>Sep 41</b>	<b>125,9</b>
<b>Oct 41</b>	<b>119,5</b>
<b>Nov 41</b>	<b>82,9</b>
<b>Dez 41</b>	<b>78,3</b>

Davon fuer H.Gr.Mitte etwa **40%** (geschaezt mit **10%** Genauigkeitsgrad). Das bedeutet, dass im Durchschnitt an der gesamten Ostfront **117,4** Offiziere (also bei H.Gr.Mitte etwa **45** Offiziere), taeglich ausfielen. (73)

Die Offizier-Ausfaelle waren besonders hoch bei der Infanterie, wo schon im Spaetherbst u. Winter **1941** vielfach kein Offizier, sondern ein Feldwebel die Kp. fuehrte. Die Folge war, dass Offiziere aus anderen Waffengattungen frei gemacht u. zur Infanterie versetzt wurden, um hier die wichtigsten Luecken zu schliessen. (74)

**24.11.41 [34. ID]:** Im Zustandsbericht der **34. ID** vom **24 Nov 41** heisst es: „Besonders empfindlich macht sich der starke Ausfall von bewaehrten Fuehrern u. Unterfuehrern bemerkbar. Bei **IR 253** sind z.B. von **9** Schuetzenkompanie-Chefs acht [**8**] durch Verwundung oder Tod ausgefallen. Die neuen Komp.Chefs kennen ihre Kompanien, die sie nur in Stellung sprechen koennen, noch zu wenig. Auch bei der Mannschaft *sind zumeist gerade die Besten nicht mehr da.*“ (Source: *Dokument AOK 4 Ia Anlagen A zum KTB Nr. 9 Nr. 13616/4*, quoted in: *Toppe*, 74)

#### **4. Kapitel: Versorgungsablauf**

##### **A. Versorgungsaufmarsch bis 22.6.41:**

1. Entsprechend der „Aufmarschanweisung Barbarossa“ enthielten die „Anordnungen fuer die Versorgung“ (Teil A, B, C) des **OKH/Gen.Qu.** die Weisungen fuer die Durchfuehrung der Versorgung. (75)

##### **a. Allgemeine:**

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##### **b. Vorbereitungen:**

Die Vorbereitung (Auslagerung der Versorgungsgueter, Bevorratung pp.) war im Bereich der H.Gr.Mitte bis **20.3.41** der **4. Armee** uebertragen worden. Mit dem **21.3.41** uebernahm die „Aussenstelle **OKH / Gen.Qu., Befehlsstelle Mitte**“ den Abschluss der Vorbereitungen u. die spaetere Durchfuehrung der Versorgung. Diese Dienststelle war ein Organ des Gen.Qu. des Heeres u. diesem unmittelbar unterstellt. . . Die Dienststelle fuehrte bis **21.6.41** die Tarn-

bezeichnung: **Stab Eckstein** (Major i.G. Eckstein war der damalige Ober.Qu. dieser Dienststelle.) (75-76)

c. Bestaende an Versorgungsguetern:

(1) Die Truppen waren bei Angriffsbeginn im Besitz einer vollen Ausstattung auf allen Versorgungsgebieten. . . d.h., **1** Munitionsausstattung, **5** Verbrauchss[etze] Betriebstoff, **7** Tages-Verpflegung.

(2) Im Bereich jeder H.Gr. war ein „Versorgungsbezirk“ eingerichtet. Der Versorgungsbezirk Mitte wurde in zwei Abschnitte eingeteilt.

2. Bis zum Beginn der Operationen befanden sich als Vorrat im Versorgungsbezirk [der H.G.Mitte].<sup>62</sup>

Munition: **58.920** Tonnen  
Betriebstoff: **52.000** Tonnen (cbm)  
Verpflegung: **45.800** Tonnen

Die Bestaende waren verteilt auf: **13** Munitions-, **11** Betriebstoff- u. **14** Verpflegungslager. (**Note**: Ein Munitionslager hatte ein durchschnittliches Fassungsvermoegen von etwa **4.500** Tonnen = **10** Munitionszuege). (77)

Diese Mengen entsprachen etwa:

Munition: **2** Ausstattungen fuer alle Waffen; **1** weitere Ausstattung fuer KwK u. Sonderwaffen.

Betriebstoff: **8** Verbrauchssaetze (in Gebinden); **5** weitere Verbr.Saetze z.T. in ortsfesten Lagern, z.T. in Gebinden ausgelagert.

Verpflegung: **20** Tagessaetze.

3. Zusaetzlich zu der in vorst. Zff. **2** aufgefuehrten Munitionsmengen war fuer jede Angriffsdivision (fuer den ersten Durchbruch)  $\frac{1}{2}$  erste Munitionsausstattung – etwa **300** to also – im Angriffsstreifen ausgelagert worden. . . Fuer **9. Armee** belief sich beispielweise diese Menge (einschl. fuer Korps- u. Heeresartillerie u. Verbaende der **3 PzGr**) auf **10.183.7** [Tonnen]. (75)

**17.-18.1.41**: Am **17 Jan 41** wurde der erste Betriebstoff-Zug, am **18 Jan 41** wurden die ersten fuenf [**5**] Munitionszuege fuer die Bevorratung aus der Heimat abgefahren. . . (78)

**Jun 41**: Die Bevorratungen waren im wesentlichen bis Anfang **Jun 41** abgeschlossen [fuer H.Gr.Mitte]. (79)

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<sup>62</sup> **Note**: In Toppe’s narrative, figures for each area – **M, B, V** – are broken out by “Versorgungsabschnitt” **1 & 2**.

**Note:** Fuer jede Panzergruppe befand sich ein Panzer-Ersatzteillager (Inhalt: **400 to**) bei der H.Gr. (79)

## B. Versorgungsablauf:

[**Note:** This section really gets „down into the weeds!“ Of interest is following:

### 1. Allgemeinen.

Die Durchfuehrung der Versorgung hing in erster Linie von den Transportmitteln u. –moeglichkeiten ab. Bei den weitreichenden Operationen wurde die Eisenbahn zum entscheidenden Faktor. Fuer die Ueberbrueckung von Entfernungen galten folgende Rechengrundlagen als Anhalt:

Bei einem verfuegbaren Kolonnenraum von etwa **2.200** Tonnen koennen fuer eine Armee ueberbrueckt werden:

- a. fuer Munition: Ausladebahnhof – Div.-Ausgabestelle = **90** km
- b. fuer Betriebsstoff: Ausladebahnhof – Div.-Ausgabestelle = **130** km
- c. fuer Verpflegung: Ausladebahnhof – Div.-Ausgabestelle = **110** km

Danach waren die Ausladebahnhoefe am weitesten vorn fuer Munition, dann fuer die Verpflegung, als letzte die fuer Betriebsstoff zu waehlen. Diese allgemeine Regel hat auch Gueltigkeit behalten, nicht jedoch der Durchschnittswert fuer das Hoechstmass der ueberbrueckbaren Entfernung. Bereits in den ersten Wochen des Feldzuges mussten Entfernungen von doppelter Groessenordnung ueberbrueckt werden. Sie betrug sogar teilweise das Dreifache, als im Katastrophenwinter **1941/42** die Leistung der Eisenbahn einen nicht vorauszusehenden Tiefstand erreichten. (80-81)

Aufgabe der Armeen war es, mit ihren Versorgungseinrichtungen der kaempfenden Truppe so dichtauf zu folgen, dass die Versorgungswege der Divisionen moeglichst kurze blieben. Versorgungsstuetzpunkte der Armeen wurden in ueberschlagendem Einsatz in Entfernungen von durchschnittlich **100 – 140** km angelegt. (81)

Um das zuegige Vorstossen der Panzergruppen zu gewahrleisten, wurde diesen beim jeweiligen Neuansetzen einer Operation zusaetzlich LKW Transportraum zugeteilt.<sup>63</sup> Seine Hoehe u. Beladung richtete sich nach den operativen Aufgaben u. Zielen der betreffenden Panzergruppe. In zahlreichen Faellen wurde der Inhalt eines derartigen „Handkoffers“ (**1.000** bis **3.000 to**) zur Errichtung eines Versorgungsstuetzpunktes unmittelbar hinter der kaempfenden Truppe der Pz.Gr. verwendet, um sodann durch weitere Arbeitsgaenge die operative Reichweite noch weiter zu erhoehen. . . (81-82)

Da die Leistungsaehigkeit des Grosstransportraumes naturgemaess ebenso begrenzt war, wie die des Kolonnenraumes der Armeen, wurde mit fortschreitenden Operationen die Heimatbasis („Versorgungsbezirk“) jeweils vorverlegt u. aus diesem, soweit erforderlich, einzelne Versorgungsstuetzpunkte vorgeschoben. (82)

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<sup>63</sup> **Note:** Beladung im allgemeinen: **M – B – V**. Dieser Transportraum wurde als „Handkoffer“ bezeichnet, weil sein Inhalt als beweglicher Versorgungsstuetzpunkt gedacht war. (81)

## 2. Die Transportmittel.

### a. Eisenbahn.

Allein schon die Tatsache, dass nicht genug russisches rollendes Material (Lokomotiven u. Gueterwagen) zur Verfuegung stand (Beute), *zwang zum Umbau auf normale Spurweite. . .* (83)

Fuer den Nachschub wurden – gerechnet ohne Luftwaffe – in den Bereich der H.Gr.Mitte hereingefahren:

**Jul 41:** durchschnittl. taeglich - **24** Zuege, d.s. **10.700** to.  
**Aug 41:** durchschnittl. taeglich - **22.7** Zuege, d.s. **10.215** to.  
**Sep 41:** durchschnittl. taeglich - **26** Zuege, d.s. **11.700** to.

Mit dem Einsetzen des Winters u. der sich vermehrenden Partisanentaetigkeit sank die Leistung stetig ab u erreichte ihren Tiefstand in **Dez 41 – Jan 42**. (**Note:** Fuer die Monaten **Okt – Dez 41** konnte kein dokumentarisches Material gefunden werden.) (83)

### b. Lkw. Transportraum.

(1) Nach der Kriegsgliederung verfuegten ueber Lkw. Transportraum:

Inf.-Div.:                **90** to<sup>64</sup>  
Mot.-Div.:              **240** to u. **1** gr.Betr.St.Kd. (**50** to)  
Pz.-Div.:                **360** to u. **1** gr.Betr.St.Kol. (**50** to)  
Armeekorps:            **30** to u. **1** gr.Betr.St.Kol. (**50** to)  
Pz.-od.mot.Korps:     **60** to u. **1** gr.Betr.St.Kol. (**50** to)

(**Note:** Bei den Inf.-Div. kam noch pferdebespannter Transportraum in Hoehe von **180** to hinzu. p. 83)

(2) Je nach Anzahl u. Art der zu versorgenden Divisionen u. je nach den operativen Aufgaben wurde den Armeen Lkw.Transportraum in wechselnder Groessenordnung zugeteilt. Zu Beginn der Operationen verfuegte die Armee bzw. Pz.Gr. ueber:

**4. Armee** = **4.440** to  
**9. Armee** = **2.970** to  
**2. Armee** = **1.645** to (ab **Jul 41**)  
**2 PzGr** = **5.000** to  
**3 PzGr** = **3.240** to  
**4 PzGr** = **3.320** to (ab **Sep 41**)

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<sup>64</sup> **Note:** Check the semi-official German history (DRZW, Bd. IV) to confirm. I believe this source states that over **70** German inf.-divs. had no motor transport at all.

(3) Der „Aussenstelle OKH/Gen.Qu. Befehlsstelle Mitte“ war vom OKH Grosstransportraum in Hoehe von 25.000 to zugewiesen worden, der im Verlaufe des Sommers **1941** um etwa **5.000 to** erhoelt wurde. (84)

### 3. Vorschwingen der Versorgungsbasis:

[**Note:** This section illustrates how the supply depots of AGC were gradually moved eastward behind the advancing armies and panzer groups. See narrative for numerous “status reports” at different time intervals.

**15.7.41:** By now, the supply base had advanced as far as the line Bobruisk–Borissow–Polozk and was consolidated as “Versorgungsbezirk Dnjepr.” As author avers: “Aus dieser Basis konnte eine Operationsreichweite fuer Inf.-Verbaende bis Smolensk, fuer Pz.-Verbaende bis Moskau gewaehrleistet werden. Voraussetzung war allerdings die taegliche Zufuehrung von 6.300 to Nachschubgut mit der Eisenbahn u. von insgesamt **30.700 to** mit Grosstransportraum. Diese Forderungen haben sich jedoch nicht erfuellen lassen.“<sup>65</sup>

**Jul-Aug 41:** In der Hauptstossrichtung der H.Gr.Mitte ueber Smolensk auf Moskau mussten leistungsfaeheige Versorgungsstuetzpunkte vorgetrieben werden. Daher wurde Ende **Jul 41** zunaechst der Stuetzpunkt Orscha u. Anfang **Aug 41** der Stuetzpunkt Smolensk aufgebaut. (85-86)

**10.8.41:** Der Grosstransportraum – seit **4.8.41** nicht mehr zum Abholen von Versorgungsguetern aus der Heimatbasis eingesetzt – konnte um diese Zeit von den Eisenbahndpunkten eine Entfernung von etwa **400 km** ueberbruecken, also bis Moskau.

**Aug-Sep 41:** In diesen Monaten wurde der Versorgungsbezirk Dnjepr zu einer leistungsfaeheigen Versorgungsbasis weiter ausgebaut. Seine Stuetzpunkte waren in einem quadratischen Raum von etwa **400 km** Seitenlaenge verteilt. Er bildete den Rueckhalt fuer die notwendigen Bevorratungen fuer die Herbstoffensive. (86)

**Sep 41:** Die der Front am naechsten liegenden Stuetzpunkte (Gomel u. Roslawl) wurden so stark bevorrattet, wie es der Zulauf von Nachschubguetern zur H.Gr. nur zuliess. Gleichzeitig wurde die Basis Smolensk mit allen Mitteln ausgebaut. (87)

**30.10.41:** Nach Abschluss der Herbstoffensive wurde die Basis bis in die Linie Brjansk – Wjasma – Rshew vorgetrieben. Ueber Brjansk hinaus wurde auch noch Orel als Stuetzpunkt eingerichtet. (87)

**17.11.41:** Bis Ende **Nov 41** hatte sich der organisatorische Aufbau der Versorgung gefestigt, so war die Gesamtversorgung um diese Zeit in die schwierigste Phase eingetreten. Als Engpaesse traten herovr: Munition u. Betriebsstoff. Der Verschleiss an Kraftfahrzeugen war ungewoehlich hoch. Die H.Gr. verfuegte am **17 Nov 41** fuer alle unterstellten Verbaende ueber eine Vorrat von:

**M = 100%** der ersten Munitionsausstattung  
**B = 4** Betriebsstoff-VS (etwa **300 km**)  
**V = 6** TS Verpflegung (etwa **6**)

<sup>65</sup> **Note:** These tonnage figures seem awfully odd to me.

(88)

**Dez 41:** In diesem Monat drohte der Nachschub mit der Eisenbahn zum Erliegen zu kommen. . . Angesichts dieser Lage entschloss sich **OKH/Gen.Qu.** fuer die H.Gr.Mitte zu einer Improvisation: Im Zuge von drei [3] Durchgangsstrassen wurde ein Versorgungsrelais unter dem Befehl eines besonderen Stabes („Leitstab Mitte“) eingerichtet. Der Aufbau der Stuetzpunkte des Relais u. ihre Bevorratung war bis Mitte **Jan 42** abgeschlossen. (88)<sup>66</sup>

## **5. Kapitel: Verbrauchssaetze**

### **A. Betriebsstoff**

#### **I. Allgemeines:**

1. Fuer **100 km** Fahrtleistung war fuer Einzelfahrzeuge u. mot. Einheiten u. Verbaende ein durchschnittlicher Betriebsstoffverbrauch errechnet worden. Diese Menge wurde als „Verbrauchssatz“ (Abkuerzung: V.S.) bezeichnet. Die Verbrauchssaetze galten fuer **Otto-(Vergaser) Motoren**. Dieselmotoren verbrauchten etwa **1/3 weniger** als gleichstarke Otto-Motoren. (89)

Die Angaben wurden ausdruecklich mit „Anhaltswerte“ bezeichnet. Die tatsaechlich verbrauchte Menge war abhaengig von Fahrweise, Wegezustand, Gelaende, Belastung, Motorzustand, usw. Bereits in den ersten Monaten des Russlandfeldzuges ergab sich, dass ein V.S. nur fuer durchschnittl. **75 km** reichte u. spaeter sogar auf **50 km herabsank**. Der Oelbedarf stieg beim Fahren auf schlechten Wegen, im Gelaende, bei Staub u. zunehmenden Verschleiss der Motoren erheblich. (89)

2. Die Anteile an Schmier- pp. -Mittel betragen im Durchschnitt:  
(See, p 89)

3. Nachstehende Angaben vermitteln ein Bild ueber die Hoehe eines V.S. bei Armee, Korps u. Division.

(1) Durchschnittlich betrug **1 V.S.** bei den Armeen:

<b>2. Armee</b>	-	<b>1.300</b> cbm/to
<b>4. Armee</b>	-	<b>1.500</b> “
<b>9. Armee</b>	-	<b>1.500</b>
<b>2. Pz.Armee</b>	-	<b>2.300</b>
<b>3. Pz.Gr.</b>	-	<b>1.600</b>
<b>4. Pz.Gr.</b>	-	<b>2.000</b>

(4) Aufgliederung auf Divisionen (nur Anhaltswert):

Inf.-Div.: **25-35** cbm/to

<sup>66</sup> **Note:** Einzelheiten siehe: “Problem of Supply of Far-Reaching Operations,” MS # T-8.

Kav.-Div.: 45 “  
Mot.-Div.: 160-200  
Pz.-Div.: 200-250

4. Die erste Ausstattung mit Betr.St. umfasste *mehrere V.S.* Sie betrug bei:

Pz.-Einheiten - 4 V.S.  
Aufkl.Abt. - 6,5 V.S.  
uebrige Einheiten: 5 V.S.

(90-92)

## II. Verbrauch

6. Demnach wuerde sich der Gesamtverbrauch [an Betriebsstoff] der H.Gr.Mitte zusammensetzen aus: . . . Gesamt rund **520.000** cbm/to (taeglich **2,693** cbm/to). (**Note:** Toppe provides figures for each army and panzer group. Highest consumption was **2. Pz Army** w/ **111.645** cbm/to. Figures are through **31.12.41?**) (92-93)

### B. Munition

#### I. Allgemeines.

1. Das Munitionswesen im Feldheer umfasste den Nachschub von Munition aller Art. Nahkampf-, Spreng-, u. Zuendmittel, sowie von Leucht- u. Signalmunition.

2. Fuer jede Waffe war eine bestimmte Schusszahl als Grundausrustung festgelegt. Von dieser „ersten Munitionsausstattung“ wurde eine Reichweite von etwa 4-5 normalen Kampftagen – im Grossen gesehen – angenommen. . . (94)

3. . . Der Anteil der Artilleriemunition an der ersten Ausstattung betrug im Durchschnitt etwa **60%** (ohne Korps- u. Heeresartillerie).

4. Die Hoehe der ersten Munitionsausstattung betrug im Durchschnitt fuer:

- a. Inf.- u. mot.-Div.: etwa **600** to
- b. Pz.-Div.: etwa **750** to
- c. Pz.Gruppen: etwa **6-7.000** to
- d. Armeen: etwa **10-12.000** to

(95)

### II. Verbrauch:

Der tatsaechliche Verbrauch an Munition aller Art u. Kaliber betrug bei H.Gr.Mitte fuer die Zeit vom **22.6. - 31.12.41**:

**207.500 to.** (96)

### III. Erfahrungen:

8. Es wird angenommen, dass der Munitionsverbrauch im Bereich der H.Gr.Mitte (besonders ab Mitte **Okt 41**) um etwa **25%** hoeher gelegen haben wuerde, wenn die Transportmoeglichkeiten guenstiger gewesen waere. u. die Truppe, insonderheit die Artillerie, ueber die sollmaessige Waffenzahl verfuegt haette. . . (97)

9. **Note:** This section has figures for consumption of artillery munitions through **30 Sep 41** for entire Ostfront. . . (See, 97-98)

Im Angriff war innerhalb der Munitionsarten das Verhaeltnis, gemessen an Ausstattungen, etwa: Inf.-Munition (ohne Inf.-Gesch.) : Artillerie-Munition = **1 : 5**. In der Verteidigung war der Verschuss an Inf.-Munition hoeher. (98)

### IV. Bemerkungen.

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## **6. Kapitel: Verschleisszahlen**

### A. Allgemeines

a. Unter „Verschleiss“ ist in den nachstehenden Ausfuehrungen der „Totalverlust“ von Panzern, Kfz, Waffen aller Art usw. zu verstehen. Voruebergehende Ausfaelle (Instandsetzung) sind also in diesen Ziffern nicht enthalten. . . (101)

### B. Panzer

1. Soll- u. Iststaerken sind aus Anlage **23** ersichtlich. Hieraus geht hervor, dass bei Beginn des Ostfeldzuges nur bei einzelnen Pz.-Div. die Sollzahlen erreicht worden sind, waehrend fuer die Masse ein Fehl von durchschnittlich **30-50** Panzern bestand. (101)

2. Ueber die Panzerlage an der gesamten Ostfront hatte das **OKH** am **4.9.41** auf Grund der Frontmeldungen folgendes Bild:

Einsatzbereit:	<b>47%</b> der Panzer
In Instandsetzung:	<b>23%</b> der Panzer
Totalausfall:	<b>30%</b> der Panzer

(101)



Gegenueber den Stand vom **4.8.41** hatte sich die Panzerlage trotz des erfolgten Nachschubs, besonders durch Erhoehung der Totalausfaelle von **20** auf **30%** weiter verschlechtert. Durch Zufuehrung von Ersatzteilen u. durch zeitlich ausreichende Auffrischungspausen konnte die Zahl der in Instandsetzung befindlichen Panzer von **30** auf **23%** verringert werden. Die Instandsetzung musste jedoch mit unzureichenden Mitteln (besonders Mangel an Panzermotoren) u. unter unzureichenden Arbeitsbedingungen (Werkstaetten) durchgefuehrt werden. Hinzu kam, dass die instandgesetzten Panzer durch die hohe bisherige Beanspruchung so geschwaecht waren, dass ihre Widerstandsfaeigkeit gegenueber neuer Beanspruchung herabgesetzt sein musste. *Nach den Erfahrungen u. nach dem Urteil zahlreicher Pz.-Divs.- u. Pz.-Rgts.-Kommandeure wurde bei Anlaufen einer neuen Operation nach etwa 100 km mit Wiederausfall von 20-30% der noch vorhandenen u. instandgesetzten Panzer gerechnet.* Das Emporschnellen der Ausfaelle bei **2 PzGr** [Guderian] waehrend der laufenden Operation hat diese Auffassung voll bestaetigt. . . (102)

### C. Kraftfahrzeuge.

**31.12.41:** Infolge der Rueckzugskaempfe, der dauernden Belastung u. Ueberbeanspruchung des Materials sowie die Witterungseinfluesse waren die Ausfaelle bis Ende **Dez 41** weiter angestiegen. Von den insgesamt bei Angriffsbeginn an der gesamten Ostfront vorhandenen rund **500.000** Kraftfahrzeugen waren:

<b>20%</b>	-	<b>100.000</b> Totalausfall
<b>10%</b>	-	<b>50.000</b> nicht mehr reparaturfaehig
<b>40%</b>	-	<b>200.000</b> grundueberholungsbeduerftig
<b>15%</b>	-	<b>75.000</b> durch kleinere u. mittlere Reparaturen wieder fahrbereit zu machen
<b>15%</b>	-	<b>75.000</b> <u>fahrbereit</u>

Obige Prozentzahlen treffen als Minimum fuer den Kfz-Bestand der H.Gr.Mitte (etwa **200.000** Fahrzeuge) ebenfalls zu. (104)

### D. Waffenausfaelle.

**Nov-Dez 41:** Im Bereich der H.Gr.Mitte sind infolge der Entwicklung der operativen Lage sehr hohe Verluste besonders ab **Nov 41** entstanden. Die Ausfaelle im **Dez 41** waren bei Handfeuerwaffen u. MGs etwas auf das Doppelte, bei schweren Inf.-Waffen u. Geschuetzen auf das Dreifache des bis dahin festgestellten Monatsdurchschnittes gestiegen. . . (105)

**Jan 42:** Dieser Monat sah die Zufuehrung von zwei [2] Nachschubzuegen mit Waffen, um den „dringendsten Bedarf decken zu koennen.“ Zum Vergleich: H.Gr.Nord erhielt einen, H.Gr.Sued keinen Waffennachschubzug. (**Note:** Wpns of course also delivered via Luftransport.) (105)

**Mar 42:** In diesem Monat erfolgten weitere besondere Massnahmen fuer den Nachschub an Waffen u. Geraet fuer H.Gr.Mitte. (106)

### E. Reifenverbrauch.

1. Hier sind nur vereinzelte Angaben in den Dokumenten gefunden worden.
2. Aus Meldungen einer Armee der H.Gr.Mitte bei Beginn des Feldzuges geht hervor, dass die Reifenersatzlage bei der Truppe sehr gespannt war. Die Zuweisung von Reifen kurz vor Beginn der Operation durch **OKH** hat die Lage nicht wesentlich gebessert. Es steht fest, dass auf diesem Gebiet *bereits mit Beginn des Feldzuges „von der Hand in den Mund“* gelebt wurde. (Engpass: Kautschuk). (106)
3. Nach einer Berechnung des **OKH/Gen.Qu.** von Anfang **Aug 41** war die Zuweisung von **44.000** Stueck Bereifung durch das **OKW** einschl. der Verwendung von Beutebestaenden nur fuer einen Monatsverbrauch an der gesamten Ostfront ausreichend. (106)
4. Fuer eine Armee (**2. AOK**) wurde festgestellt, dass fuer die Zeit vom **21.6. - 31.12.41** insgesamt: **13.783** Reifen u. **15.846** Schlaeuche an die unterstellten Truppen verausgabt wurden. Die tatsaechliche Verschleiss wird um mindestens **30%** hoeher gelegen haben. (106-07)

## **7. Kapitel: Schlussfolgerungen**

Aus dem Abschnitt der H.Gr.Mitte allein Schlussfolgerungen zu ziehen, ist gefaehrlich u. koennte zu falschen Schluessen fuehren. (108)

### A. Personelle Lage.

2. Im Zusammenhang damit sei die Frage nur angeschnitten, ob es von Haus aus nicht notwendig war, bei einer solchen tief ins Feindesland fuehrenden Operation starke Reserven bereit zu haben, die gewissermassen als zweite Welle nachzufuehren u. nach erfolgreichen Durchbruch – spaetestens nach Smolensk – in Richtung Moskau anzusetzen war. (109)

### B. Versorgung.

4. Das in der Versorgungsfuehrung angewandte System u. die Organisation hat sich fuer die weitreichende Operation vollauf bewahrt. Die Staerke dieses Systems lag in der scharfen Zusammenfassung der mot. Transportmittel, in dem schwerpunktmassigen Einsatz der wichtigsten Versorgungsgueter u. nicht zuletzt darin, dass die alle Gebiete des Nachschubs umfassende Heeresversorgung von Gen.Stab.-Offz. geleitet wurde. Truppenfuehrung u. Versorgung waren dadurch aufs engste verbunden. Die Heeresversorgung war nach deutscher Auffassung die *„Dienerin der Fuehrung.“* Die Fragestellung lautete: „Was muss die Versorgung leisten, um der Fuehrung das Erreichen von Zielen zu ermoeglichen?“ (109-10)

Die hohe Bedeutung des Lufttransportes war bereits vor Beginn des Feldzuges durchaus erkannt. Der Mangel an Transportmaschinen liess jedoch nicht die gewuenschte Entwicklung zu. . . .(111)

5. Die materielle Ausstattung der Truppe hat allen Anforderungen genuegt, ebenso die erste Bevorratung vor Beginn des Feldzuges. [???] Der Verbrauch an Munition u. Betriebsstoff hatte

an sich die Erwartungen nicht uebertroffen. [???] Der Verschleiss an Panzern, Kfz, Waffen, usw. (einschl. Verluste bei den Rueckzugskaempfen) war hingegen hoeher als angenommen worden war. . . (111)

**30. P-201:** „*Personal Diary Notes of the G-4 of the German 9th Army*,” Gen.-Maj. Windisch. Vol. I.<sup>67</sup>

Tagebuchnotizen:

**12.8.41:** . . . 2. 1 Regiment der **102. ID** marchierte auf einem sehr schlechten Weg von Polotsk ueber Dretun nach Newel. **180** Pferde blieben an Erschoepfung liegen. Feldwagen kamen mit **10** Pferden nicht durch. Sie sanken bis zur Achse in den Morast ein. Die Div. will die erschoepten Pferde in Welish gegen Pferde der Armee umtauschen. Die beiden anderen Rgter marschierten auf dem guten Weg. (6)

**13.8.41:** . . . Forderung der Truppe auf Ausgabe zweiter Wolldecken kann nicht voll befriedigt werden. Nach Ansicht des **OKH** muss jetzige Ausstattung reichen. **400.000** Decken koennen jetzt nicht zugefuehrt werden. Die kommende Operation muss noch durchgestanden werden. Dabei koennte auch die zweite Decke nicht mitgefuehrt werden. **2/3** sind mit zweiten Decken ausgestattet. (8)

**14.8.41:** Discussion of Reichsarbeitsdienst [RAD] units [**K 44**, etc.] and their activities behind the front, including: Wegebau, Lagereinrichtung, Barackenb. Schwerarbeiten im Entladen werden durch Gefangene durchgefuehrt. . . Gen.-Maj. Windisch: „Die bevorstehenden Aufgaben werden so schwierig, dass wir auf den RAD in der bisherigen Staerke nicht verzichten koennen.“ (9-10)

**15.8.41:** Das Lazarett Smolensk wurde am **12.8.41** als Feldlazarett vom **8. AK** uebernommen. Das Kriegslaz. 4./531 ist z.Zt. noch in Einrichtung. Am **8.** oder **9.7.41** wurden die Lazarette vom Heeressan. Inspekteur besichtigt. . . . Vermehrung des Personals ist im Gange, da taeglich **800** Verwundete zu behandeln sind. (12)

**17.8.41:** Mun.-Lage erleichtert. V.-Lage am linken Fluegel wird sich auch bessern. . . Heiligenbilder, Kruzifixe, Taschenmesser, Spiegel udgl. werden als Zahlungsmittel fuer die Ernte lieber angenommen als Geld. Ersatzteilmangel sehr gross. . . Zur Partisanenbekaempfung soll verstaerkte Kompanie aufgestellt werden. (13-14)

**18.8.41:** Diary entry for this date includes detailed chart [„Stand vom **18.8.41**“] w/ figures on divisional/GHO artillery strengths, munitions), etc. For ex., chart shows that all divisions of the five [**5**] corps of **9. Army** were outfitted w/ **36** l.FH and **12** s.FH. Also shows figures for the army's organic „Heeresartillerie.“ [Note: In the table, the figures for „Schuesse“ equal one unit of fire for each type of artillery piece. For example, **8100** represents a unit of fire – i.e., the number of shells calculated for use in one day of major operations – for the light field howitzers

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<sup>67</sup> Note: „Fortsetzung des persoenlichen Stenografierten Tagebuches des **O.Qu. 9**.“ This study offers terrific insights into German Army logistics in East. Diary entries covering **Aug-Sep 41** indicate that, despite tremendous and frustrating challenges – inadequate road and rail net, nascent partisan operations, bad weather, etc. – the **9. AOK** for the most part was able to meet the needs of its divisions for food, munitions, POL, etc., during this period. Diary entries also illustrate what a massive logistics operation was involved in supplying an army!

(36 I.F.H. in 3 btns) in an inf.-div.'s artillery rgt. The figure of **1800** signifies a unit of fire for the medium btn. (**12** s.F.H.) of the artillery rgt. Total expenditure of a unit of fire for the entire **9. AOK** – i.e., its **5** corps and organic „Heeresartillerie“ – would amount to **6731** tons. This clarification made possible by data gleaned from FMS **D-221**, „An Artillery Rgt. on the Road to Moscow,“ 14] (16-17)

**19.8.41:**<sup>68</sup> Auf Eisenbahnstrecke Polotsk – Newel anscheinend wieder eine Sprengung. Das ist untragbar. Wir rechnen mit unseren Zuegen u. diese muessen durchkommen! Entsprechender Antrag an **Ia**. Sehr starker Feindangriff mit Einbruechen bei **161.**, **5.**, u. **35. ID.**, offenbar Entlastungsangriff mit Ziel der Rueckgewinnung von Smolensk. Hoher Mun.-Verbrauch zu erwarten. . . **161. ID** hat **9** leichte u. **6** schwere Geschuetze verloren. Lage bei ihr sehr ernst. Hat auch viele Waffen verloren. **5. AK** geht in Sehnenstellung zurueck. Starker Mineneinsatz. (18)

**21.8.41:** Nach Mitteilung von **Ia** bei der s.F.H. starke Verkupferungen<sup>69</sup> u. vermehrt Rohrkrepiierer in Erscheinung, offenbar Ermuedungerscheinungen.<sup>70</sup> (20)

**23.8.41:** Gemeldete Verkupferungen sind evtl. auf Ersatzmaterial zurueckzufuehren. Fuehrungsringe [*rotating bands* / ammo] sind nur noch verkupfert. . . Mangel besteht z.Zt. auch in Zucker u. Rauchwaren. Es besteht ein Vertrag mit Wilno, wonach in **6** Monaten **180.000.000** Zigaretten geliefert werden sollen. . . (23)

**25.8.41:** Pak-Beute aus dem Kessel ist fuer andere Divisionen zu nehmen. . . Cholera-Schutzimpfung wird bis zum erneuten Halt verschoben. (26)

**28.8.41:** Vortrag bei Armeechef ueber Besprechung in Borisow mit Gen.Qu.: **7.** Taeglich werden **65** Zuege aus der Heimat herausgefahren [for support of all **3** armies groups?]. . . **9.** Bei **2 PzGr** musste wegen B-Mangel 1 mot.-Div. auf Fussmarsch angesetzt werden. Sehr schlechte Wege dort. . . **13.** Schwerpunkt in der Versorgung: **2. Army** u. **2 PzGr**. Aber auch Stuetzung des Nordfluegels der **9. Armee**. . . **14.** Nach Smolensk sollen taeglich etwa **3** Zuege fuer **9. AOK** kommen. . . **21.** Jede Div. erhaelt von der Reichsdruckerei in der Woche **20-30.000** Feldpostkarten. (29-31)

**29.8.41:** Ueberfall auf Viehaufkaufstelle Rudnja **27./28.8.41** durch **20-30** Mann, abgewiesen. **2** Posten verwundet. Verstaerkung bei **40. AK** erbeten u. zugesagt. Im umliegenden Wald sollen gegen **30** Partisanen sein. Fuehrungsabt. dringend um das Pol.Btn. gebeten. . . Anforderung an Winterbekleidung ist auf Grund der gegebenen Staerken zu machen. . . Beutewaffen (MG, Pak) fuer Vermessungsabt. u. Entgift.-Komp. sind nach Welish zu schicken. . . **Pz.Jg.Abt. 643 (5. AK)** erhielt am **26.8.41** zwei [**2**], am **22.8.41** sechs [**6** russ. Pak, eine **9.** Pak folgt nach. – **4,5** cm russ. Pak sind sehr erwuenscht. . . **20. PD** fordert Luftversorgung nordwest. Toropez. . . **2** Flugzeuge sind zugesagt. . . (31-33)

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<sup>68</sup> **Note:** While I don't possess Windisch diary entries for **Jul 41**, those from mid-**Aug 41** show some preoccupation – and frustration! – w/ partisan activities.

<sup>69</sup> **Note:** See my special “Vocabulary” for explanation of this term.

<sup>70</sup> **Note:** “Ermuedungerscheinungen” bezieht sich auf das Material nicht die Maenner! Wenn ein Kanon-enrohr tausend oder mehr Geschosse verfeuert hat, wurde das Rohr so viele Male der Hitze u. dem Druck sowie der chemischen Wirkung des Pulvers ausgesetzt. Es kann bei hoher Schussfolge ueberhitzt, gluehend rot u. „weich“ werden. Zu irgendeinem Zeitpunkt „ermuedet“ das Material des Rohres; es verliert „Festigkeit“, „Elastizitaet“, u. bekommt kleine Haarrissee, die dann zum Platzen des Rohres fuehren (Rohrkrepiierer). (Email, C. Nehring to C. Luther, 28.12.08)

**30.8.41:** Luftversorgung **20. PD** wird mit **1** Flugzeug durchgeführt (gegurte MG-Mun.). Um **9.45** Uhr Meldung: „nicht mehr noetig.“ Auftrag an **Bv.T.O.**:<sup>71</sup> Wie ist Bahnzustand von Wel.Luki nach Osten? . . . Feldpostkarten kommen etwas zoegernd, weil nicht genug Papier zur Reichsdruckerei kam. Jedem Mann koennen etwa in naechster Woche **2** Stueck gegeben werden. . . . Schwere Inf.-Waffen der **161. ID** durch Zuweisungen aus dem Vers.-Bez. im wesentlichen aufgefuellt. . .

Besuch des Heeresintendanten:

**1.** Verhungert ist noch niemand, aber **M** u. **B**<sup>72</sup> haben gefehlt. . . **3.** Rauchwaren werden trotz schaeferster Bewachung *staendig gestohlen*. Rauchportionen werden erhoert. **4.** Ueber **2. Decken** entscheidet der O.B. persoendlich. **2.600.000** St[ueck] sind fuer eine Besatzungsarmee von **1.500.000** Mann (= **60** Div.) ausgelagert. Ausgabe erst, wenn Kaempfe zu Ende sind. Der Mann kann keine **2. Decke** mitnehmen. Wo sollen sie gesammelt u. mitgefuehrt werden? **5. 200.000** Paar Socken liegen in Borisow. Ausserdem, laufen nochmals **2.000.000** Paar zur Heeresgr., sodass jeder Mann **1 ½** Paar bekommen koennte. . . **8. 800.000** Hosen sind ungefaehr verfuegbar. . . . **10.** Karbidlampen sind verfuegbar, auch genuegend Karbid. Dagegen wird Petroleum kaum ausreichend vorhanden sein. **11.** Auf dem V-Gebiet ueberall gleiche Klage, dass durch Abhaengen von Zugteilen Abendkost usw. fehlt. – Dauerwurst gibt es nicht, auch nicht Kaese in den erforderlichen Mengen. . . **12.** In der Ukraine sind genuegende Bestaende an Mehl, Hafer, Fett, Vieh. (33-36)

**31.8.41:** . . . **6. AK** erhielt **46** Beute-Kfz zugewiesen, die es sich selbst instand setzen will. . . Beuteersatzteillager in Smolensk ist sehr reichhaltig. Es wird dauernd dort abgeholt. **3. 1222** Pferde wurden im **Aug 41** ausgegeben [as replacements?]. Dabei ist noch das **5. AK** nicht mitgerechnet. . . **5. 162. ID** kommt jetzt schon als Heeresgr.-Res. an. **14.800** Mann u. **5.800** Pferde. . . (36-37)

**1.9.41:** Besprechung mit Armeechef:

**1. Partisanen:**

- a. Bahnsprengungen haben das letzte Mal ueber **1 ½** Tage Verzoegerungen verursacht.
- b. Es muss etwas Durchgreifendes geschehen: **1 I.D.** dalassen u. Durchkaemmen oder Sonderkrafte aus der Heimat holen.
- c. Besser wird die Sache erst, wenn wir Moskau haben, dann fehlt der Kopf. Aber halbe Massnahmen helfen nichts.

**2.** Strasse Wel.Luki–Toropez war vor dem Regen am **31.8.41** gut, danach aber fast unbefahrbar, sodass Zugmaschinen eingesetzt werden mussten. . .

**7.** Qu. der Pz.Gr. meldet **15** Uhr: Die Wegeverhaeltnisse zwischen Wel.Luki u. Newel sind hoffnungslos. Die Eisenb.Pi.Kompanien, die vorfahren sollten, mussten nach Wel.Luki zurueckfahren u. versuchen, mit Bahn durchzukommen. Es regnet weiter. . . **57. AK** beantragt Vorfuehrung von **B** mit Lastenschleppern. (**60** cbm = **50** Fluege). . .

<sup>71</sup> Bv.T.O. = Bevollmaechtigter Transport Organization?

<sup>72</sup> V = Verpflegung. M = Munition. B = Betriebsstoff.

9. Koluft muss von Ia Auftrag erhalten, einen Landeplatz bei Toropez zu erkunden, geeignet fuer **Ju 52** u. Segelschlepper. (38-39)

**2.9.41:** Regen waehrend der ganzen Nacht. . . Bei **40. AK** stehen die Kolonnen alle hintereinander auf der Strasse nach Toropez, koennen wegen des Regens nicht weiter. – **200** to Hafer u. **135** to Mundverpflegung werden gewuenscht. . .

Ersatzteilfrage: Eindruck bei Gen.Qu.: Man kann nicht helfen. Wir muessen im Winter unbedingt in Kasernen kommen, sonst sind die Wagen bis zum Fruehjahr verloren. Warschau ist an sich leer, doch sind vielleicht ueber das dortige Zel. [?] **3-400** to Ersatzteile zu bekommen. In Borisow ist ein staendiges Kommando der Armee, um sogleich Ersatzteile im Empfang zu nehmen, sobald sie eintreffen. Das Abholen der **3-400** to dauert bis Ende **Sep 41**. Die ersten Sendungen koennen vielleicht bis **20.9.41** eintreffen. Das ist schon reichlich spaet. Motore zum Ueberholen muessen nach Deutschland gebracht werden. Austauschmotore gibt es fast nicht. . . B-Lufttransport fuer **57. AK** wird von H.Gr. abgelehnt. . .

Vorderste Teile der **183. ID** durchschreiten heute Newel. Div.-Stab wird am **4.9.41** nach Wel.Luki kommen. Es ist eine Div. **7. Welle 16.500** Mann u. **5.800** Pferde. . . **255. ID** – **4. Welle – 16 000 / 5.000** [Men/horses]. . .

Qu. der Pz.Gr. meldet: Strassenverhaeltnisse sind nach wie vor eine **Katastrophe**. Die Fahrzeuge muessen einzeln mit Zugmaschinen ueber die Huegel geschleppt werden. Erst ab Shishiza soll es besser werden. . . (39-43)

**4.9.41:** **6. AK** hat genuegend V-Ausstattung. Es meldet: Durchfuehrung der Versorgung innerhalb der Divisionen u. Abholung von Guetern durch die Div. ist vielfach durch grundlose Wegeverhaeltnisse bei **206.** u. **110. ID** erschwert. Besserung ab **5.9.41**, sobald Bahnhof Basary mit Eisenbahn erreicht werden kann. . . **86. ID** hat kein Brot mehr. Kol. kommen wegen des Regens nicht heran. . . **100.000** Woldecken werden durch Gen.Qu. zugefuehrt. . . Verschuss bei 8. AK in Nacht **2./3.** u. am **2.9.41: 20.000** l. u. **4000** s.F.H. [!] . . . Meldung an Gen.Qu.: Hoher Mun. Verbrauch bei Artl. verursacht durch mindestens **3-fache Feindueberlegenheit**. Es stehen **7-8** Div. gegenueber mit **5** Artl.-Rgter. Viel Sperrfeuer. (45-47)

**5.9.41:** . . . Wenn die Eisenbahn einigermassen in Ordnung geht, besteht auf keinem Gebiet irgendwelche Sorge. [**Note:** Immediately prior to this comment is discussion of large numbers of supply trains underway or successfully reaching their destinations.] . . . Weg Toropez – Cholm bei Regen nicht passierbar. (**19. PD**). . . Mitteilung an **Bv.T.O.:** Die Bahnverhaeltnisse sind haarstrauebend. . . Die Zusammenarbeit mit den Korps hat sich sehr gut eingespielt, unsere Meldekoepfe etc. arbeiten gut. Alles bedankt sich bei ihnen. Einzig u. allein fehlt es am Eisenbahnbetrieb. . . Bei Hoehe **205** herrscht die grosste Schwierigkeit. Schlepper wurden aus Pretschistaja von der Pz.Gr. herangeholt. . . (51-52)

**6.9.41:** . . . **500 M.G.** eingetroffen. Ausfaelle bei **8.** u. **28. ID** keineswegs erschuetternd (**43** bzw. **46**). Verteilung wird beschleunigt. . . Beutelager: **8. ID** nahm bereits das Brauchbare an sich. (Gran.Werfer). Erbeutete M.G. nicht verwendbar, da Zweibeine fehlen. Gibt es in Witebsk. Ersatzteile fuer russ. Paks wurden hierher gebracht. . . Partisanen muessen bekaempft werden. Haben heute Nacht eine Vermittlung ueberfallen. (54-55)

**7.9.41:** . . . Qu. der Pz.Gr. meldet: In Toropez sind derart grosse Anlagen fuer Versorgung unzerstoert vorhanden, dass er sie dem Gen.Qu. angeboten hat. Er bevorratet zunaechst Basary moeglichst stark. . . Basary – Toropez sind als **1 Stuetzpunkt** zu betrachten, der

dem Gen.Qu. uebergeben werden kann. . . Basary wird kuenfig der Stuetzpunkt der Armee im Norden. . . In Duchowtschina sind **2** Feldlaz., u. **1** Kriegslaz. eingesetzt. Zur Wagenbeschaffung sind wirksam: . . . Neue Aktionen wegen Schlittenkufen u. Schlitten sind eingeleitet.<sup>73</sup> (56-57)

**8.9.41:** . . . **5. AK** erhielt bisher **2000** Rollen Stacheldraht, **8. AK 4200**. . . Antrag an Gen.Qu.: Bevorratung in den Versorg.-Einrichtungen der Heeresgr. mit **s.F.H.** sehr wichtig zum Angriffsbeginn. . . (58)

#### **10.9.41 [Shortage of s.F.H.-Munitions!]:**

Vortrag bei Armeechef:

**1.** In Besprechung bei Gen.Qu./Mun. wurde mitgeteilt, dass nur noch **15 Zuege s.F.H.-Mun.** fuer die ganze Ostfront ausgegeben werden koennen. Erst ab Mitte **Okt 41** ist wieder mit normalem Nachschub dieser Mun.-Art zu rechnen. Daher Befehl Ia/O.Qu. moeglichst mit Fernschreiben noetig:

Nach Mitteilung Gen.Qu. kann erst ab Mitte **Okt 41** wieder mit laufendem, genuegendem Nachschub von **s.F.H.-Mun.** gerechnet werden. Groesste Spar-samkeit im Verschuss dieser Mun.-Art. ist daher fuer die naechsten Wochen geboten, damit fuer die kommenden Operationen ausreichende Bestaende bereit-gestellt werden koennen. Die Truppe ist sofort entsprechend anzuweisen. (58-59)

**11.9.41:** Winterbedarf: Stollen fuer Pferde sind fuer **11. PD** bereits hier, weitere werden in Suwalken geholt. Schneeketten sollten eigentlich bei jedem Kfz. sein. Anforderungen darauf u. auf Frostschutzscheiben mit bes. An. einverlangt. . . (63)

**13.9.41:** **Fliegerkorps VIII** fordert Bereitstellung von **480** cbm B in Wel.Luki u. weiterhin taeglich **100** cbm. . . Fahrzeuge u. Pferde, soweit fuer die zuschuessliche Bevorratung von **1-2** TS Fleischkonserven noetig, muessen dem Land entnommen werden. . . Mun.: Antreten mit voller erster Ausstattung, also **1 ¼** fuer Erreichen der **1.** Stellung. . . B: **5** VS + **1** VS zum Selbstnachholen bei den Div. = **350** km, genuegt vorerst. . . Mit den noetigen Auslagerungen ist sofort zu beginnen, auch ohne Kenntnis der Absichten. Ein Zuviel kommt nicht in Frage. (65-66)<sup>74</sup>

**14.9.41:** **57. AK** braucht **600** cbm B + **15** cbm Motorenoel nach Toropez oder Basary. **1** VS = **320** cbm auf **50** km! Ersatzteile: Der Fuehrer laesst Tag u. Nacht nur Ersatzteile herstellen. Jeder Zufluss von Kfzen nach dem Osten ist gesperrt. . . Die **9. Armee** ist in der schlechtesten Gegend von Russland. Die Operationen haengen davon ab, dass wir den Nachschub fertig bringen. - - - Relaisstationen mit Panjewagen! (66-67)

**15.9.41:**<sup>75</sup> Besprechung bei Gen.Qu. in Borisow in Anwesenheit von Gen. v. Greiffenberg [i.e., Stabschef H.Gr.Mitte].

<sup>73</sup> **Note:** Apparently, **9. AOK** was already preparing for the winter.

<sup>74</sup> **Note:** Discussion here – I assume – concerns preparations for Operation „Taifun.“

<sup>75</sup> **Note:** Major conference on this day addressing logistics for impending offensive. From breadth of discussion, number of topics addressed, etc., one gets great feel for the tremendous challenges involved in

Armeechef:

a. Wintervorbereitung, Befehl, was die Leute machen sollen, vor allem im rueckwaertigen Armeegebiet. . .

Besprechung in Borisow:

Operation der Heeresgr. = letzte entscheidende Operation. Der Ansatz setzt voraus, dass wir unter Ausnuetzung der guenstigen Transportlage beste Vorbereitungen treffen. Diese muessen bis **1.10.41** fertig sein. . .

Versorgungsmoeglichkeiten:

Allein fuer den Aufmarsch [i.e., of armies and panzer groups of AGC] werden **25 000** cbm **B** benoetigt. **4. Armee** mit **4 PzGr** auf Roslawl, in **2.** Linie Smolensk. **9. Armee** mit grosserem Teil auf Smolensk, linker Fluegel an Toropez, das noch eingerichtet werden soll. Hat die schwierigsten Verhaeltnisse gelaendemaessig. . .

Bevorratung: Heeresgr. soll taeglich waehrend der Operation **32 Zuege** erhalten. . . Mun. soll nach Angabe von Gen.Qu. bereits da sein, es kommen noch **90** B-Zuege u. **50** V-Zuege. Vers. Bezirk soll moeglichst weit nach Smolensk vorgeschoben werden. – Bef.St.Mitte meldet einen Bedarf von **40 Zuege** taeglich an.

Betr.St. [Betriebsstoff] : ist der groesste Engpass. Rumaenien liefert keine Ueberschuesse. Es ist mit allen Mitteln jetzt dafuer zu sorgen, dass der B-Verbrauch *gedrosselt* wird. Es muss an jeder Stelle gespart werden. Fahrten sind zusammenzulegen. Sammelabholungen! Truppe ist aufzuklaeren. Im **Okt 41** bekommen wir noch einigermassen genuegend, ab **Nov 41** wahrscheinlich weniger.

V: Spannung hinsichtlich Konserven [i.e., *tinned, or canned food*], daher Befehl, Mittags keine Konserven auszugeben. Das Vieh muss nachgetrieben werden. Daher einen Wirtschaftsladen aufziehen! Dazu gehoeren Vieh-Depots. Diesem Gesichtspunkt ist eine vermehrte Bedeutung beizumessen. *Was dem Lande entnommen werden kann, ist zu entnehmen*. Heimat muss auf **300** Gramm herabgesetzt werden, daher kann aus der Heimat nichts geholt werden. Morgen ist darueber eine Besprechung beim Reichsmarschall [Goering]. . .

[**Note**: Discussion continues over: Zuege. . . Eisenbahndepunkte: Smolensk wird nicht in der Lage sein, alle Zuege aufzunehmen, weil die Auslademoeglichkeiten beschraenkt sind. Daher Zufuehrung von Zuegen ueber Duenaburg nach Witebsk ins Auge gefasst. Weitere Streckenfuehrung. . . Ein Umnageln kommt jetzt nicht mehr in Frage. Weiter Loks koennen der Heimat nicht mehr entzogen werden. . . Bahnhof Wel.Luki gehoert ausschliessl. der Luftwaffe, dem **Geschwader Richthofen**. . .]

Auslagerungen: Genuegende Auflockerung wegen Partisanengefahr u. Luftangriffen. Winterbekleidung dorthin lagern, wo Bewachung ist. . .

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supplying a ca. 2 million-man army group! Conference notes also indicate that preparations for winter also being made.



[**Note:** Discussion over San.Wesen. . . Es sind genuegend Feldlazarette frei zu bekommen! . . . **AOK 9** behaelt je **5** Baekerei- u. Schlaechtereikomp. **AOK 9** erhaelt **1** Feldlaz. von Pz.Gr. **AOK 9** erhaelt **1** Stab einer Kriegslaz.Abt. = **5** Kriegslaz. Ausserdem behaelt es **6** Kranken-transp.Komp. **AOK 9** erhaelt von **AOK 16** **1** Kr.Kw.Zug = **7** Zuege. . .

Transportraum: Bef.St.Mitte soll mindestens **10 000** to erhalten. . .

O.Qu.Pz.Gr. u. Armee: Wir sollen die Versorgung der Pz.Gr. gegenueber der Bef.St. uebernehmen. Die Pz.Gr. bleiben an sich selbstaendig, behalten ihre Einrichtungen, werden aber versorgungsmaessig an die Armeen angehaengt. Die Pz.Gr. ist der Armee unterstellt. . .

Oel: Fuer **Sep 41** bis **Okt 41** gibt es eine **5%**ige Oelzulage. . .

Ersatzteile: Es ist gelungen, mehr Ersatzteile heranzubringen. **AOK 9** wird auf Smolensk angewiesen. Erst Anfang **Okt 41** ist eine gewissen Verbesserung zu erwarten.

Bereifung: Fuer **Sep 41** wird ein Teilkontingent von **2/3** gegeben. . .

Oel: Es gibt nicht mehr Oel. Die missliche Lage ist bekannt. . . Die heute brennenden Mangel-lagen koennen nicht behoben werden. Wenn kein Oel u. Benzin gewonnen wird, muessen ganz einschneidende Aenderungen gemacht werden.

Reifen: In Gummi leichte Besserung eingetreten. Ein Blockadebrecher brachte **4000** to Rohgummi nach Bordeaux. Weitere **10 000** to sollen folgen.

Ersatzteile (Hielscher): Lager Borisov erhaelt **5-600** to Ersatzteile spaetestens Mitte naechster Woche. Darunter befinden sich ca. **250** Zgkw. Ersatzteile. . .

Russ. Beutegeschuetze **7.62** werden bei Gen.Qu. gesucht. . .

Wirtschaftliche Ausnutzung des Landes: Sehr wichtig fuer die Winterunterkunft. Die Masse des Heeres wird diesen Winter in Russland verbringen. Das koennen wir technisch mit der Eisenbahn gar nicht machen. Schwierig ist die Winterbevorratung. *Winterbekleidung, Oefen, Kerzen, Pelzmaentel usw. werden von Gen.Qu. bereitgestellt u. vorgefahren nach Smolensk.*<sup>76</sup> Wo wir den Winter verbringen werden, weiss Niemand. Achten auf richtige Auslagerung! Allgemeines Bild: Teile in dauernder Bereitschaft, in Bewegung, auch Kampfhandlungen. Dann Truppen in der Wirtschaft u. solche Truppen, die stillgelegt werden. *Truppe muss so gut mit allem ausgeruestet sein, dass es auch dem Manne Freude macht.* Das soll zugefuehrt werden.

Das gesamte Ostheer soll aus dem Lande versorgt werden. Einen autarken Wirtschaftsbetrieb einrichten! Kolchosen mit Kriegsgefangenen betreiben, alles machen, was moeglich ist. Sehr schwierig wird die Kartoffelversorgung sein. Wir werden keine Kartoffel zuschieben koennen. . .

Der Wirtschaftsstab Ost hat Betriebe zur Kfz-Instandsetzung im Grossen zu schaffen, ferner fuer solche Sachen, die wir nicht heranschaffen koennen, wie Schlitten, Ski, Kufen udgl. Depots bei den Armeen anlegen!

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<sup>76</sup> **Note:** Not sure this actually came to pass. According to other sources, most winter clothing, equipment, etc. was left behind in Warsaw region.

Was an diesen Dingen an Transport erspart wird, kommt anderen Gebieten zugute. (Unterkunfts- u. Genussmittel). An den Winter denken u. nicht an den Abtransport, der doch nicht kommt! Der Russe kann im Winter auch kaempfen!

IV a: Fleischversorgung aus dem Lande. Konserven gibt es nicht mehr viele. Die Konservenbetriebe sind auf die Haelfte verringert. Brennstoffvorraete sammeln, Torf, Holz, auch wenn man es nicht braucht. Ruinen ausschachten, Oefen, Tueren, usw., Aufgabe der Ortskommandanturen.

IV c: Pferdeersatz: Aus den Marchbatlen weitere **500** Pferde. . .

Lazarette winterfaehig machen! Heizung in Gang setzen. Zimmereinrichtungen verbessern. Die Laz.Basis Mitte bleibt sicher.

(See, 67-77)

**18.9.41:** . . . Rauhfutter wird nicht nachgeschoben. Wirtschaftskdo Hirschberg im Abschnitt Newel wird beauftragt, Rauhfutter fuer **23. AK** nach Toropez vorzuschaffen. . . Schanzzeug fuer Baubatle wird z.Zt. in Wilna verladen. Vet.-Dienste werden in den naechsten **8** Tagen nach vorne geschoben. . . **84 000 Wolldecken** kommen. (78-80)

**19.9.41:** Gleiskettenteile<sup>77</sup> fuer **5. PD** werden in Witebsk ausgeladen u. sind durch **AOK 9** bis Smolensk vorzubringen. Gleiskettenteile fuer **2. PD** sind in Orscha ausgeladen. Vorbringung wie vor. [Note: Entries for this day include discussion over railroad lines, construction of new lines, etc. . . Alle Strecken werden von jetzt ab als Breitspur eingleisig gebaut, weil mit grossen Zerstoerungen gerechnet wird. (80-81)

**20.9.41:** Uebersiedlung der Q.Qu.Abt. nach Smolensk. (82)

**22.9.41:** Truppe ist reichlich mit Mun. ausgestattet, muss aber alles nachfuehren! . . . **1500 Panje-gespanne** [just wagons, or also horses?] werden verteilt: **8. AK (500); 5. AK (360); 6. AK (240); 23. AK (300)**.<sup>78</sup>

**200** l.MG werden von **20** Marschbatlen mitgebracht. Waffenanforderungen: [Note: What follows is fascinating table showing wps lacking and new allocations (Fehl/Zuweis.) for three divisions – **8., 28., 87. IDs** – and remaining shortfalls (nochfehl.). For example, the three divisions still had aggregate shortfalls of l.MG (**426**), l.Gr.W. (**208**), **3,7** cm Pak (**143**), and **5** cm Pak (**22**), etc. . . .

**1** l.D. besitzt:<sup>79</sup>

**435** l.MG

**114** s.MG

**8** l.Gr.W.

**54** s. Gr.W.

**6** s.l.G.

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<sup>77</sup> Note: Is reference here to spare tracks, or to the actual tracked vehicles of these two panzer divisions? I believe the latter.

<sup>78</sup> Note: Numbers only add up to **1400**.

<sup>79</sup> In its KSt.N? (T/O). Maybe not – for figures don't gibe for l.Gr.W! Perhaps figures are simply for one of the three divisions discussed here.

20 I.I.G.  
75 Pak (3,7 cm)

(See, 83-85)

**26.9.41:** O.Qu.-Besprechung in Smolensk bei Meldekopf **531**: mit Qu.d.Korps: . . .

f.) Feldpost: Strecke Orscha gesprengt, schon **2** Tage nur **1**-gleisiger Betrieb – Neue Verfuegung Gen.Qu., dass ***Vorbringen der Post ebenso dringend wie Mun. etc. ist.*** [Note: Text continues w/ minute details on state of logistics preparations – M., V. B., etc. – for corps and divisions.]

**8. AK** glaubt, dass es bei Trockenheit mit Kfzen bis zum Wop vorkommt, sobald es aber regnet, ist es aus. **5. AK** ist gleicher Auffassung. . . **6. AK**: . . . **110. ID** hat sich weitgehend entmotorisiert. Das Unternehmen wird zunaechst nur pferdebespannt gemacht [ref. only to **110. ID?**] (88-90)

**27.9.41:** . . . **23. AK** erhielt vor **8** Tagen neue Zuweisung an Bekleidung. Der Truppe ist bekanntzugeben, dass Winterbekleidung nahe lagert. [!] . . . Post: a. Antrag, Paeckchen Heimat – Front mit **1** kg zuzulassen; b) Beschleunigung mit allen Mitteln.<sup>80</sup> (91-92)

**28.9.41:** Fliegerangriff auf Bahnhof Witebsk u. Polotsk. In Wit. Benzin u. Bombenlager getroffen, einige Stapel **8,8** cm vernichtet. Benzinlager brennt. . . Bahnhof nicht getroffen. Bhf. Polotsk West heute **12** Uhr von russ. Fliegern angegriffen. Gleisanlagen so getroffen, dass derzeit Durchfahrt der Zuege nicht moeglich. Gorodok wurde auch angegriffen. . . Witbesk heute Nachm. erneut angegriffen, Bahnhof unbeschadigt, **1** Gleis getroffen, Betrieb nicht behindert. (92)

**29.9.41:** . . . Winterbekleidung ist nach Mitteilung der Bef.St.[Mitte?] im Anrollen nach Smolensk u. wird zeitgerecht ausgegeben.<sup>81</sup> (93)

**30.9.41:** Reservewaffen sind wieder vorhanden in Pz.B., I.F.H., s.F.H./Kraftzug, **10** cm-K., – im uebrigen werden **400** M.Pi., **250** MG, **80** l.Gran.W., **50** s.Gran.W., **35** Pak **3,7** cm, **13** Pak **5** cm, verteilt auf z.Zt. bestehende Luecken, die damit fast ganz gedeckt sind. . . Truppe hat an Gasschutzgeraet alles geliefert bekommen. . . A.O.Kraft [?]: Anforderungen auf Frostschutzscheiben, Schneeketten laeuft. (94)

**1.10.41:** **6** Uhr Beginn morgen! . . . Armeechef: *Warum dauern Briefe in die Heimat u. zurueck 6-7 Wochen?* (95-96)

**2.10.41:** Angriffsbeginn **6** Uhr.

Es treten an:	<b>4. AOK</b>	<b>9.AOK</b>
Mun.Ausst.	<b>1 ¼</b>	<b>1 ½ u. mehr</b>
<b>B:</b>	<b>3-4</b>	<b>5-6 VS</b>

<sup>80</sup> Note: Windisch's entries on **26./27.9.41** show that German authorities clearly recognized how important was the timely arrival of mail for the soldiers and their morale!

<sup>81</sup> Note: From reading Windisch's diary notes, it becomes more and more clear that German Army did not neglect efforts to prepare for winter. Problem was, after onset of winter weather, and breakdown of rail/road traffic, it was not possible to get winter stocks forward to front.

V:

4-5

6-7 TS

Pferde: In den letzten Tagen wurden nochmals **2 406** Pferde an die Div. ausgegeben, z.T. mehr als angefordert waren; z.Zt. hat die Armee noch rd. **600** Pferde, dazu werden noch **2** Zuege erwartet mit je **300** Pferden = insges. **1 200** Pferde. Wiederhergestellt werden in den naechsten **14** Tagen etwa **300** Pferde gerechnet werden koennen. Mit Hufbeschlagmaterial ist die Truppe vollstaendig ausgestattet. . . (96-97)

**3.10.41:** . . . Partisanen: Strecke Wel.Luki – Basary an **5** Stellen gesprengt. Unsere Kraefte reichen nur aus zur Bewachung der Gefangenen u. der beiden Stabsquartiere des A.O.K. . . **3,7** cm Pak gibt es nicht mehr viele. Es sollen nur **5** cm Pak kommen. Dann entstehen aber Schwierigkeiten hinsichtlich der Zugmittel. Demnaechst wird Anfrage kommen, wieviele russ. Paks in Verwendung sind. Sollen fuer Afrika bestimmt sein. Ein deutscher **Pz IV** schoss auf einen vorausfahrenden russ. Panzer u. hatte keine Wirkung. [!] Die Waffenfertigung fuer das Heer laeuft im **Nov 41** aus. Sie wird fuer Luftwaaffe u. U-Boote eingesetzt. Beschaedigte Waffen etc muessen in grosser Menge zurueckgefuehrt werden. Das Heer *muess sich mit dem behelfen, was aus der Reparatur kommt.* (99-100)

**4.10.41:** Vortrag beim Armeechef:

Mun.Verbrauch: am **2.10.41 = 1678,4** to, davon **1464** to Art.Mun. = **1/8** Ausstattung im Ganzen. Bei Artl. **1/6**, bei Inf. **1/25** Ausst. [Note: What follows is breakdown of shells/tons fired by the five [5] corps of **9. AOK!** For ex., **30,400** shells I.F.H. expended by these corps = **730** tons; **10,523 8** cm Gr.W. shells = **44** tons, etc.] . . .

Verluste am ersten Tag: **80** Tote, **800** Verw. (ohne **5. AK**).  
(100-01)

**5.10.41:** . . . Mun.: I.F.H.-Zug in Rudnja kann noch etwas zurueckgestellt werden. Auch sonstige Mun. im allgemeinen ausreichend vorhanden in Smolensk u. Duchowtschina.<sup>82</sup> Baeckereikompl. **532** in Krasny Bor ausgebrannt durch Partisanen. (103)

**6.10.41:** Stuetzpunkterwaegungen:

1. Cholm ist zweifelos gut, aber die Wege dorthin schlecht, solange nicht Zufuehrung ueber Bely moeglich ist

2. Wjasma der wichtigste Ort.<sup>83</sup> Dorthin fuehren Autobahn, Eisenbahn, Poststrasse, die unabhengig vom Wetter bleiben. Ihr Schutz ist sehr wichtig. Von Wjasma aus fuehren Strassen nach Norden.

3. Das Gleiche gilt fuer Gshatsk u. Mohaisk.

4. Mit Wjasma – Rshew wird zum erstenmal wieder eine brauchbare Querverbindung zwischen den beiden Armeefluegeln gewonnen, die bis dahin mehr oder weniger getrennt operieren muessen.

Kartoffelbedarf: v. **1.10.41-30.4.42**:

<sup>82</sup> Note: Were these the locations of the major ammunition dumps?

<sup>83</sup> Note: Illustrates tremendous strategic value of Wjasma!

Fuer 1 Batl. = 210 to.  
Fuer 1 Rgt. = 840 to.  
Fuer 1 Div. = 3780 to.

Entlausungsanstalten: Smolensk fuer 4000 Mann, die auf Eisenbahntransport verwiesen sind. Kowno, Brest-Litovsk fuer gleiche Zahl, die auf Landmarsch verwiesen sind. (104-05)

**7.10.41**: . . . Vortrag bei Armeechef:

1. Mitteilung der Bef.St.Mitte:

- a. Grosse Lage sehr guenstig. Es bestehen bereits 2 Kessel.
- b. Wegnahme von Brjansk wurde gefordert, um 2. **PzGr** mit **B** versorgen zu koennen.
- c. 167 Zuege stehen jetzt noch zwischen Smolensk u. Minsk.
- g. Ebenso kommt Bescheid, ob zweite Decken u. Handschuhe eingetroffen sind. *Es ist jetzt schon sehr kalt.*
- h. Laufende Zufuehrung von Alkohol wurde dringend erbeten.

2. Versorgungslage dank der guten Witterung u. Auslagerung noch gesichert. Der Tag wird immer kurzer, damit sinkt die Leistung der taeglich moeglichen Verladung usw. Es ist gefordert, auch nachts zu be- u. zu entladen. . .

6. ca. 220 to Ersatzteile sind bis Ende naechster Woche hier, sodass wir gut helfen koennen. . .

9. Ab **8.10.41** wird mit der Einrichtung des Vers.Bez. Wjasma durch IV wi begonnen.

10. Im Gefangenenlager Smolensk sind hinsichtlich V keine Schwierigkeiten zu erwarten. Wir haben bereits 240 to Mehl dort. Durch die landwirtschaftliche Organisation werden zunaechst 100 to Kartoffel besorgt. Bezgl. Heizung folgt Regelung. . . (106-08)

**9.10.41**: . . . Bau der Bahnlinie Basary – Rshew wurde in der Tagesmeldung v. 7. u. **8.10.41** bei Gen.Qu. beantragt. . .

Vortrag bei Chef:

1. Postpaeckchen ab **1.11.41** in unbeschraenkter Zahl bei 1 kg Gewicht erlaubt. Dafuer dann nur noch Nachrichtenpost bis 50 gr. erlaubt. Feldpostleitstelle der Armee wird nach Minsk verlegt, sodass sie ab **1.11.41** dort arbeitsbereit ist. Nach Minsk kommen 2 Wachkomp., von denen 1 voraussichtlich der Armee [i.e., **9. AOK**] gehoeren wird. Aufgabe: Begleitung der Post bis Smolensk.

2. Autobahn ist Voraussetzung fuer die Versorgung. Auf anderen Wegen ist wegen ihres Zustandes u. der Verstopfungen nicht durchzukommen. Es muss alles daran gesetzt werden, dass die Autobahn baldmoeglichst befahrbar wird, auch wenn sie der Heeresgr. gehoert. Entminen! Bei jetzigen Wetter haengt alles davon ab. . .

Wjasma als Stutzpunkt in Einrichtung begriffen. (109-12)

**10.10.41** [Anecdote!]: . . . In Majetzkaja trafen ca. 100 Gefangene ohne deutsche Begleitung ein. Sie hatten ein Schild: „Wo ist die naechste Gef.S.St?“ [!] (113)

**12.10.41:** . . . Winterbekleidung. . . Sie wurde angeblich von Gen.Qu. zu spaet abgerufen, liegt aber schon bereit. . . Winterbekleidung: Auch die **4. Armee** hat noch keinerlei Winterbekleidung empfangen. Der erste Zug wird jetzt erst in Borisov erwartet. *Man hat den Heeresgr. anheim gegeben, sich um die Winterbekleidung selbst umzutun.*<sup>84</sup> In den naechsten **10-14** Tagen ist mit dem Eingang bestimmt zu rechnen. [!] **3** Zuege sind unterwegs. Der erste trifft heute nacht in Borisov ein. . .

Antrag an Gen.Qu. den Bahnbau nach Rshew zu beschleunigen. Transportraum der Armee zu klein. . . (115)

**13.10.41:** . . . **Ia** wurde noch am **12.10.41** gebeten, Instandsetzung der Autobahn aufs aeusserste zu beschleunigen, da hiervon *Versorgung der ganzen Armee entscheidend abhaengt*. Am **13.10.41** wurde mitgeteilt, dass ein weiteres Brueckenbaubatl. eingesetzt wird. . . Zuweisung von **30 000 Decken**, je Div. = **2000** Stueck. Autobahn: Bruecken sehr stark gesprengt. **OT** muss zuerst Umgehungen machen, aber richtige, da Autobahn vor **4** Wochen nicht fertig wird. Strasse bleibt immer noch schwierig genug fuer den **GTR**<sup>85</sup> befahrbar. (116-17)

**16.10.41:** Eisenbahn Wjasma – Szytschewka ab **20.10.41** fuer **1** Zug taeglich befahrbar. . . Vieh wurde vom Feind ostw. Moskau weggetrieben. . . Verpflegung der Kriegsgefangenen wird durch Qu.2 nachgeprueft. Wir haben von **IVa** aus **30** to hinausgeschickt, Kartoffeln muessen dem Land entnommen werden. (120-21)

**17.10.41:** Kalt, Glatteis, ziemlich klar. Partisanengefahr bei Demidow wieder sehr gross. Beim **H.K.P. 535** [?] ziemliche Verluste an Toten. . . Winterbekleidung ist erst am **16.ds.** von Borisov abgefahren, daher noch nicht hier. . . Pz.Gr. [i.e., **4. PzGr**] benoetigt dringend Betriebstoff. . . **129. ID** hat **5** Tage kein Brot bekommen. (121-23)

**18.10.41:** . . . **5. AK** erhaelt im Lufittransport nach Gshatsk **10** to kalte Verpfl., **15** to Brot. . . Zugmaschinen der schweren Artl.-Abtl. 859 u. **860** koennen voruebergehend eingesetzt werden zur Ueberwindung der schwierigen Stellen an der Autobahn (Qu.1). . . A.Pi.Fue.: **Ob.Baust. 17** scheidet am **20.10.41** aus der Armee aus u. tritt unmittelbar unter den Befehl der Heeresgr. Aufgabe: Strassenbau an Autobahn Smolensk – Gshatsk, dann Rshew – Kalinin. Truppen: **1** Strassenbaubatl., **3** Baubatl., **9000** Gefangene. . . Am Gshatsk-Abschnitt stauen sich die Kol. **6-7** km tief, die Umfahrten sind sehr schlecht. . .

**6. AK:** **1** TS = **2** Tage + Ergaenzung aus dem Lande. Notwendige an Winterbekleidung: Kopfschuetzer, Pulswaermer, Handschuhe, Maentel. Decken erst, wenn Bewegung aufhoeren sollte. . .

Gen.Qu.: Beurteilung der Versorgungslage nach **22** Uhr. Bahn nach Wjasma geht ab **30.10.41**. Taeglich **6** Zuege. Bis Jarzewo kann auf Normalspur gefahren werden. Gen. Allmandinger ab **19.10.41** Strassenkommandant auf Autobahn. . . (123-26)

**19.10.41:** . . . **27. AK:** An Winterbekleidung wird benoetigt: **600** Maentel, Fingerhandschuhe, Kopfschuetzer, Leibbinden. . . Eisenbahn Smolensk – Wjasma wird nicht vor **15.11.41** befahrbar. Eisenbahn Wjasma–Rshew: Suedl. Szytschewka gesprengte Bruecke wird **25./26.10.41**

<sup>84</sup> **Note:** In other words, it was left up to the army groups to fend for themselves as far as winter clothing was concerned (if I understand this passage correctly).

<sup>85</sup> GTR = Grosstransportraum.

benutzbar. Noerdl. der Stadt gesprengte Bruecke erfordert **2-3** Wochen Bauzeit. Ausserdem sind am Bahnkoerper erhebliche Zerstoerungen, die erhebliche Instandsetzungen erfordern. Winterbekleidung war **18.10.41** noch nicht da. Dringendes Fernschreiben an Gen.Qu. gerichtet. . . Meldung an **Ia**: Durch den Regen treten so starke Verzoegerungen ein, dass die Versorgung auf das hoechste gefaehrdet ist. . . (126-29)

**20.10.41:** . . . Qu. der Pz.Gr.: Die Strassenverhaeltnisse auf der Autobahn werden sich in absehbar Zeit nicht bessern, vor allem nicht vor dem **29.10.41**. Von diesem Tag an kann man mit Eisenbahn bis nach Wjasma kommen. Unter diesen Umstaenden kann man Kalinin nicht auffuellern. Die Strassenverhaeltnisse sind, bevor sich das Wetter nicht aendert, auch von Szytschewka nach Osten denkbar schlecht. . . Im Augenblick ist ein Vorwaertskommen von Kalinin unmoeglich. Auch die Truppe wird versinken, wenn sie von der Strasse weggeht. . .

IV wi:

1. Auf der Strecke Wjasma – Gshatsk liegen noch viele **100** to Lebensmittel in Eisenbahnwagen. Sie werden gepluendert. IV wi hat Vollmacht, das Heranschaffen in das **A.V.L.** [Armee – Verpflegungs – Lager?] zu regeln.

2. *Das Land ist von den Russen ausgefressen.* Vieh ist wenig da, nur Roggen u. Kartoffeln. Muehlen fehlen bisher. . .

**6. AK** beantragt Brotzufuehrung auf dem Luftweg. (136-40)

**21.10.41:** Bv.T.O.: . . . 3. Wieviel Personal soll von **IV a** mitgehen u. von A.O.Kr? Wagenmangel besteht zwischen Wjasma u. Gshatsk nicht, dagegen sind die bisher geborgenen russ.Loks saemtlich beschaedigt. . . An Bef.St.: 1. Luftversorgung **6. AK**, Flugplatz am **22 Okt 41** ab **10** Uhr anfliegbar. (141)

**22.10.41:** . . . Besprechung bei Heeresgr.: . . . 2. Luftversorgung **5. u. 6. AK**. . .

**IV b:** Alles eingesetzt. Rshew: **San.Kp. 610** als Ortslaz. ca **600** Mann Belegung. Ferner fuer Rshew beabsichtigt u. bis **1 Nov 41** erreichbar: Kriegslaz. 2/521, 5-600 Betten, z.Zt, in der Verladung. [Note: Remainder of this „IV b“ report provides locations of Kriegslaz., Feldlaz., Krankensammelst., A.San.Parks, etc. in **9. Armee** areas; they include, Wjasma, Szyteschewka, Staritza, Kalinin, Welish, Witebsk, Duchowtschina, nordostw. Cholm, Toropez, Bely, Smolensk, etc.]

An **Ia**: Am **23 Okt 41** B-Abwurf bei **5. AK.**, Brotabwurf bei **5. u. 6. AK.** . . Winterbekleidung bleibt einstweilen liegen = **800** to. Das wird aber den A.K. zur Beruhigung mitgeteilt. **2. u. 3.** Decken machen **200** Waggonen zu je **4 000** Decken aus. – **5. ID** braucht keine Winterbekleidung. (143-46)

**23.10.41:** . . . **28. ID** gibt als „ueberzaehlig“ **1 000** Pferde ab, die aber erschoept u. nicht ausgabefahig sind. Eine Anzahl davon kann zur Gefangenenernaehrung verwendet werden. . .

Beantragte Luftversorgung fuer **24 Okt 41:**

B-Wurf **5. AK** Schachowskaja;

B-Landung **6.[AK]** Staritza;

B-Landung **5.**[AK] Gshatsk;  
Brot **6.**[AK] Flugplatz Apocki.  
(147-48)

**24.10.41:** . . . An Gen.Qu.: s.F.H. muss mit **24** Pferden bespannt werden. Inf. versorgt sich mit Panjewagen. . . Erschoepfte Pferde der **28. ID** werden an das Gefangenenlager gegeben [see entry for preceding day.] . . .

Bestaende im **A.V.L. Wjasma** am **24 Okt 41** abends [Note: What follows is detail listing of rations, drink, fodder for horses at this location. Obviously a big supply base located at Wjasma. A.V.L. = Army Versorgungslager?] . . . An Qu.1: An Winterbekleidung Fingerhandschuhe u. Kopfschuetzer bes. dringend. Luftversorgung: **4** Maschinen mit **B** folgen nach Gshatsk, jedoch kein Abwurf, da Wolken zu niedrig. **6. AK** erhaelt morgen **12 ½** to Brot u. **B** aus der Luft zugefuehrt. (149-53)

**25.10.41:** Luftversorgung: Nur **14,4** cbm fuer **23. AK**. – Das uebrige ist abgelehnt, weil die Luftwaaffe verlegt wird. . . **A.Pferdelaz. 523** besitzt **1 400** Beutepferde zur sofortigen Ausgabe u. kann weitere ca. **2 000** fangen. Wir brauchen Kutscher, die aus dem Gefangenenlager entnommen werden koennen. (153-56)

**26.10.41:** Nach **3** regenlosen Tagen wieder Regen. Qu.1: . . . **5. 5.** u. **6. AK** sollen heute durch Luftlandung mit **B** versorgt werden. . . **A.V.L. Wjasma** gibt **60 - 70 000** Port. Alkohol nach Szytsch. fuer unsere Divisionen.

**Ia:** Autobahn ist eine *Katastrophe*. . . Die Autobahn wird, wenn nicht rasch etwas geschieht, schon von Smolensk ab ostw. in **8-10** Tagen unbefahrbar sein. *Sie wird zerstoert durch die s.Heeresartl., die mit Mrs.* [i.e., heavy howitzers] *darueber faehrt. Die Raupen machen den Hauptschaden.* (156-60)

**27.10.41:** . . . Antwort auf die Anfrage der Armee: . . .

3. Erforderlich:

a. Sofortige Stilllegung der **6. PD** u. **7. PD** u. **14. ID (mot.)** so, wie sie an der Strasse liegen, bzw. derzeitiger Unterkunftsraum Richtung Kalinin so aufgeschlossen, dass die Versorgung guenstig ist u. die Fahrzeuge abgegeben werden koennen. Aufschliessen Richtung Kalinin scheidet aus, weil es **B** kostet. . .

c. **6., 7. PD** u. **14. ID (mot.)** entsenden eine Anzahl von Zugmaschinen, die freigemacht werden koennen sowie den mot.-Kol.Raum nach Szytsch. zum Empfang von Versorgungsguetern. . . Die Zugmaschinen uebernehmen das Durchschleusen an den schwierigen Strassenstellen. Zusaetzlich eingesetzt wird ein Abschleppzug der Pz.Gr. u. Kol.Raum der Pz.Gr., der mit Eisenbahn von Wjasma nach Szytsch. gebracht wird. . .

An Qu.1: . . . Strasse Rshew – Staritza: **1** schlechte Waldstrecke, hier Zugmaschineneinsatz durch Pz.Gr. . . **27. AK:** Mun. in Ordnung, **B = 3** VS = **200** cbm. . . **5.** u. **6. AK** haben heute im Luftweg je **10-12** cbm **B** erhalten. . . Wenn es nicht mehr regnet, ist es moeglich, dass ab **30 Okt 41** verhaeltnismaessig glatter Verkehr auf der Autobahn geht. . . An Gen.Qu.: Wetter u. Fertigstellung der Autobahn liegen ausserhalb unserer Macht. Aber das genuegend Zuege kommen, das muss als *einzig, z.Zt. moegliche Hilfe erreicht werden.*



6. AK hat keine Mun. mehr, 26. ID nicht mehr angriffsfaehig. 23. AK hat Mangel an Medikamenten u. Gipsbinden. Im Lufttransport zufuehren.

IV wi meldet: Schlitten gibt es genug. – Geschuetze auf Kufen stellen. . . Schlitten aus Witebsk werden mit Bahn bis Rshew nachgefuehrt. (162-68)<sup>86</sup>

**29.10.41:** Frost. Wege schlagartig besser. **255. ID** uebernimmt Leitung an der Autobahn. . . **27. AK** wuenscht Luftzufuehrung von **B** am **30 Okt 41** nach Staritz. Weisung an **IVa:** zunaechst **200 000 Schneehemden** anzufordern u. Bescheid geben, ob Aussicht dafuer besteht. Weisse Farbe fuer Fahrzeuanstrich. (H.)<sup>87</sup>

An **Ia:** Autobahn frei, **1** Pkw benoetigt von Smolensk nach Wjasma **6** Stunden. Unter den eingefangenen russ. Pferden sind noch viele, die voll brauchbar sind. Fahrzeuge sind meist russ. Beutewagen, leicht u. stabil. *Sie werden von allen Richtungen zusammengeschleppt*. Ueberzaehlige Pferde kommen auf Kolchosen in Pension. . . **IVa** legt Befehlsentwurf vor fuer Abholen wenigstens eines kleinen Teils der Winterbekleidung schon jetzt durch die Div. selbst. Neue Pferdekol. muessen zuerst untersucht werden auf Krankheiten, daher einheitlich Zusammenziehung in Wjasma, da hier ein Pferdelaz. . .

„Grosser Einsatz der Luftwaffe zur Versorgung“ am **29 Okt 41:** **15** Flugzeuge = **21** to ! Antrag an Bef.St.:

- a. **350** cbm **B** hoechst dringend,
- b. Anhaengen von Waggons mit Winterbekleidung an unsere Zuege. (169-71)

**30.10.41:** Gegen Morgen Regen. – Kein Flugwetter. An **Ia:** Luftlandung in Kalinin nicht mehr moeglich, da Flugplatz unter beobachtetem fdl. Artl. Feuer. . . An Qu.1: Wir muessen uns darauf einstellen, dass das schlechte Wetter noch **2-3** Wochen anhaelte. Daher Panjesache so schnell as moeglich anlaufen lassen. . . **27. AK** holte **20** cbm **B** ab. Es erhaelt aus Szytsch, sogleich **4** cbm **B** nach Subtzow zugefuehrt, wo er vom Gen.Kdo. mit Zugmaschinen abgeholt wird. . .<sup>88</sup>

Panjefahrzeuge: **110** fertig, weitere **90** am **31 Okt 41**, sodass die **100** to-Kol. am **1 Nov 41** abruecken kann. **500** Pferde Reserve. . . (171-72)

**31.10.41:** Tee, Alkohol fuer **27. AK!** . . . **86. ID** fordert **M** u. **B** an. **110. ID** hat keine Mun., bzw. Mangel daran u. will daher nicht angreifen. . . Anfrage an Bef.St. IV wi: wann Skii kommen. Sehr dringend! . . .

An **Ia** ueber Auffassung des Qu. der Pz.Gr.: Antreten setzt eine Organisation voraus wie in Suwalken. **5 - 6 000** cbm **B** noetig. *Vor 15 Nov 41 nicht moeglich*. Wolokolamsk ist als Stuetzpunkt auszubauen, sobald die Eisenbahn fertig ist, was bis **15 Nov 41** moeglich erscheint. – Ansatz der Pz.Gr. nur entlang von grossen Strassen u. Eisenbahnen. Sonst ist eine Versorgung nicht moeglich. Erster Sprung kann rd. auf **150** km gehen. Dann wieder Auffuellung mit **3 000**

<sup>86</sup> **Note:** Another example of how **9. Army** was trying to prepare for coming winter.

<sup>87</sup> **Note:** And yet another example! Would be most interesting to count the number of times the word “Winterbekleidung” appears in Windisch diary from **1 Sep – 30 Oct 41**.

<sup>88</sup> **Note:** Prime movers being used as much as possible to rescue and move stuck vehicles, collect and deliver supplies, etc.

cbm **B**. Grosses Ziel ist **600** km entfernt. . . Bis zum **15 Nov 41** muss ungefaehr Zeit sein, um die Truppe ungefaehr aufzufuellern. . . Endpunkt Wolokolamsk. – Aufbau eines guten Stuetzpunkt-systems. Die Vorbereitungen muessen sofort getroffen werden, *man hat keine Zeit mehr zu verlieren*. (173-76)

**1.11.41:** An Chef: Heeresgr. erhaelt an Winterausruestung:

**42 000** Schlitten, davon **25 000** aus Eigenfertigung  
**45 000** Paar Ski, davon **10 000** bereits abgerufen  
**67 500** Paar Schneereifen, davon **26 000** abgerufen. (177)

**2.11.41:** . . . **255. ID** hat heute **4 100** Fehlstellen bei der Inf. . . . An Chef: **2 000** Schneeketten eingetroffen u. sofort verteilt. . . **A.V.L.** wird am Bahnhof Staritza eingerichtet. Qu. der Pz.Gr.: Wassertransport nach Kalinin ist noetig. Gelaende ist jetzt frei. Man koennte Gueter bis Subtzow bringen, dort auf Pontons laden u. nach Kal. bringen. Hoffnungslose Wege. Kartoffelbeschaffung im Armeebereich mit Ausnahme von Kalinin eingeleitet. Zunaechst in dieser Beziehung kein Engpass. (178)

**3.11.41:** Sehr truebe, warm, Nebel. . . An Qu.1: Ia laesst folgende Wuensche der Korps uebermitteln: 1) **6. AK** erbittet einige **Ju[-52]** mit Marketenderwaren, Suessigkeiten, Rauchwaren, auch fuer die uebrigen Korps erwuenscht. . .

An A.Pi.Fue.: Faehren nach Subtzow bringen zur Verladung von Guetern nach Staritza oder Kalinin.

An Chef: Qu. der Pz.Gr. meldet als Ausst.:

a. Mun.:

**151. ID = 40-60%**  
**110. ID = 75%**  
**162. ID = 100%**  
**86. ID = 25%**  
**129. ID** erhaelt Mun. aus der **1.Fahrt** mit den Faehren. . .

Zum Abschleppen steckengebliebener Kfze wurden **18** Raupenschlepper zur Veruegung gestellt, davon **5** fuer **Flieg.K. 8**. (179-82)

**4.11.41:** Trocken, Frost. Mit **3** Maschinen wird San.Material zugeflogen u. zwar: zum **6. AK** (zugleich fuer **36. ID (mot.)**); zum **23. AK** u. nach Cholm. . .

Mun. Bestand am **4 Nov 41** u.i. ( ) am **5. Nov 41**: [Note: What follows is detailed table showing each of the **12** divisions of **9. AOK** and its Erstausruestung (measured as a %) on these days. Addresses munitions stocks for 1.FH, s.FH, 1.I.G., s.I.G., 5cm W., 8cm W. Some divisions still in very bad shape (eg., **86. ID**, **129. ID**, **161. ID**, **206. ID**); others in better shape (eg., **110. ID**, **162. ID**. See table for exact figures. In any case, the figures make clear that **9. Army** was not yet ready for resumption of offensive!]. . .

In Staritza 6 Faehren des 27. AK, in Subtzow 4. Tragfaehigkeit je Faehre 4-5 to. Geschwindigkeit stromabwaerts mit Motor 20 km/Stunde, stromaufwaerts kommt Meldung. . .  
Munitionierung: . . . 129. ID am 6 Nov 41 = 5 cm W./ 20 to Faehre. (182-86)<sup>89</sup>

**5.11.41:** Frost, Sonnenschein. . . 13 Faehren in Staritza geladen u. mit Motorzug abgeschwommen mit 100 to fuer 161. u. 110. ID. . . Tragfaehigkeit einer Faehre 8 to. [compare w/ figures for previous day!] . .

Zum Auffuellen braeuchte Pz.Gr.:

6 000 cbm B  
900 to M  
1 500 to V

Luftversorgung am 5 Nov 41: 8 to Mun. fuer 6. AK.

IV wi meldet: In 2-3 Wochen ist ein Leben aus dem Lande nicht mehr moeglich, daher dann voller Nachschub noetig. *Es gibt kein Vieh mehr, keinen Hafer, keine Gerste, fast keine Muehlen. Das derzeitige Gebiet der 9. Armee ist voellig arm.* Daher Notwendigkeit, rueckwaerts Viehbestaende zu sammeln u. nachzufuehren.

Pz.Gr. meldet: Sie sieht den naechsten Tagen hinsichtlich V mit Bangen entgegen, da 2 Vieh-Zuege bei ihr ueberfaellig sind. Die staendige Versorgung von 3 Div. der Armee [9. AOK?] ohne Abgabe von Transportraum – der uebrigens bisher gar nichts geholfen haette – u. die Zusammendraengung im Zipfel von Kalinin faellt erschwerend ins Gewicht. *Aus dem Lande bei dieser Truppenzusammenziehung zu leben, ist mit Ausnahme von Mehl nicht mehr moeglich.* B hat die Pz.Gr. so reichlich, dass eine langsame Auffuellung moeglich ist. An Antreten zu neuer Absicht kann vorerst nicht gedacht werden. (186-89)

**6.11.41:** Klar, Sonnenschein, Morgens Frost. An Chef: Mun. fuer 86. ID wurde am 4 u. 5 Nov 41 verladen u. soll heute von Subtzow nach Krasny Cholm abgehen. Rest der Mun. geht heute nach Subtzow. Damit ist die Div. nach unseren Berechnungen auf 60-75% aufgefullt. Nur in wenigen Sorten sind 50% vorhanden, weniger nicht. Fuer 129. ID Zufuehrung nach Woskressenskoje voraussichtlich am 7 Nov 41. . . Ferner kommen 24 to mit Faehren nach Staritza. Erste Mun. kann am 8 Nov, weitere am 9 Nov 41 in W. sein. 129. ID ist damit aufgefullt auf ueber 60%. . .

Winterbekleidung: Die Div. bringen durchschnittlich fast die gesamte vorhandene Winterbekleidung in 2 Waggons zu je 15 to weg. Die Fahrtnummer wird erteilt. Gleichzeitig kommen damit die 2. Decken. . .

Luftversorgung: Auch am 7 Nov 41 nichts fuer 9. AOK, da Schwerpunkt bei 4 PzGr – 3 PzGr erhaelt 3 Flugzeuge fuer s. u. I.I.G.-Mun. fuer 129. ID. . . (189-90)<sup>90</sup>

<sup>89</sup> **Note:** These ferries used to transport all types of items, including munitions as noted here, because roads still out of order due to weather.

<sup>90</sup> **Note:** Was 129. ID assigned tactically to 9. AOK or 3 PzGr? In entry for 5.11.41, Pz.Gr. mentions the “staendige Versorgung von 3 Divisionen der Armee.” Thus, 129. ID may have been tactically subordinated to 9. AOK, but “versorgungsmaessig” to 3 PzGr.

**7.11.41:** Schneefall in der Nacht, Vereisungsgefahr. . . Strassenbruecke in Staritza durch Eisgang zerstoert. . . Winterbekleidung empfangen bis **6 Nov 41: 35., 255., 253. ID**, ferner **86. ID** zum Teil. . .<sup>91</sup> (192-93)

**8.11.41:** Etwas Schnee, ziemlich warm, keine Flugmoeglichkeit. . . **9. Armee** erhaelt **4 000 Schneehemden**. . . Bruecke Staritza wird kaum zu halten sein. Das Eis ist noch staerker geworden. Auch in Kalinin ist die grosse Schiffsbruecke ausgefahren worden. Dort is aber die Strassenbruecke noch vorhanden. . . Heute sollen **3** Maschinen mit **6** to Mun. (l. u. s.I.G.) fuer **129. ID** fliegen. Landung in Staritza. . . (196-97)

**10.11.41:** In der Nacht etwas Schneefall. . . **50 to B** sollen zur Haelfte auf Fahren zu **129. ID**, zur anderen mit Bahn zur **86. ID** geschafft werden. . . (201)

**12.11.41:** Kalt. . . Ersatzteilstaffel 204 in Rshew, ebendort Reifenst. 811. . . Meldung uber Versorg.Lage an Gen.Qu. u. Chef abgesandt.

Mun.Stand am **11 Nov 41:**

12 Div. zu je <b>600</b>	= <b>7 200 to</b>
4 1/3 <b>10</b> cm-K Abt.	= <b>260 to (je 60 to)</b>
5 1/3 s.F.H. Abt. (je <b>108</b> )	= <b>576 to</b>
3 Mrs.Abt. (je <b>115</b> )	= <b>345 to</b>
4 Stug-Battr. (je <b>21</b> )	= <b>84 to</b>
3 Flak / Nebelabt.	= <b>200 to</b>
	<b>8 665 to</b>
Fehl an erster Ausst.	<b>3 414 to (Fehl bei Truppe)</b>
Ab Bestand in Mun.Lagern	<b>455,4</b>
	<b>Istfehl 2 958,6 to = rd. 35% = 1/3</b>

(205-06)

**13.11.41:** Sehr kalt, klar. . . O.Qu. 9 muss sich nach Rshew verlegen. . . (206-07)

**14.11.41:** Kalt, leicht bedeckt. Hindernisbaumaterial kann nur begrenzt gefahren werden, *wir brauchen zuerest V, usw.*<sup>92</sup> (208)

**15.11.41:**<sup>93</sup> Kalt, etwas truebe.

<sup>91</sup> **Note:** Interesting – Windisch diary includes several such entries. Can only wonder exactly what these units were receiving, and how short it left them of what they needed.

<sup>92</sup> **Note:** Example of how supply of Ostheer by this time had become a “zero sum game.” Poor road / rail nets, gradual attrition of motorized transport assets and, in general, too few resources = ruthless prioritization of needed items. Transportation of, say, munitions, meant that fuel or food (or winter clothing) had to be left behind.

<sup>93</sup> **Note:** Revealing diary entry showing impact of the poor supply situation – **9. Army** not getting much of anything it needed. Also illustrates results of active policy (i.e., Hitler’s decision to hold back distribution of new vehicles from the front), neglect of spare parts production, etc.

**5 000 Schneehemden** kommen fuer die Armee bis Ende **Nov 41**. Weitere Lieferung vorerst nicht moeglich. Werden an die **12 Div.** verteilt. . .

GTR muss heruntergesetzt werden. Eine teilweise Stilllegung zur Ueberholung ist noetig.

An Kfz. kommen kein nennenswerter Ersatz. Was neu ist, kommt in die Neuaufstellungen. . . . Ersatzteilbeschaffung ist bes[onders] schwierig. Fahrzeuge, die voellig ausfallen, aus-schlachten. . .

Auch an Waffen u. Geraet ist nicht viel zu erwarten. An ruhigen Fronten mit Beutewaffen aushelfen. Bei erbeuteten russ. Geschuetzen fehlt fast durchweg die Optik [*destroyed by Russians to disable guns?*]. Dagegen gibt es automatische Gewehre, Handgran., Zielfernrohr-gewehre, auch geraeuschlose.

Winteraustattung: Keine gleichmaessige Verteilung, sondern Schwerpunktbildung dorthin, wo die Truppe im Freien operieren muss. . .

Personalfrage sehr schwierig. Zur Auffuellung der Luecken stehen nur mehr die Genesenen zur Verfuegung, deren Zahl auf **200 000** geschaetzt wird. Davon **80%** fuer die Inf. noetig. Trotzdem bleibt die Lage so schlecht, dass Divisionen aufgeloeset werden muessen. Dabei muessen **75 000** Facharbeiter abgegeben werden. . .

Materielles: Es gibt keine neuen Kfze. Nur eine Auffrischung ist moeglich. Bei jedem Verband fallen **500** Kfze weg. Die Gepaechtrosse der Inf. sollen entmotorisiert, die **14.Komp.** in bsp. Einheiten umgewandelt werden. . .  $\frac{1}{4}$  der mot. Heerestr. wird entmotorisiert oder aufgeloeset. . .

(Vorstehendes brachte der Chef von einer Besprechung mit.)

Ord.Offz.:

2. Taeglicher Verwundetenanfall in Rshew ca. **500** Mann, Abtransport muss daher beschleunigt werden. . .

Bericht der **129. ID** ueber Versorgung seit **2 Okt 41** sehr einschneidend. . . Starke Verlausung der Einheiten. In Kalinin soll **IVb** die Einrichtung ortsfester Entlausungseinrichtungen veran-lassen.

Klagen der **129. ID**:

1. Feldpost: Seit **2 Okt 41** keine Post mehr erhalten. Seit wann unterstand die Div. der Pz.Gr?
2. Marketenderwaren: Rauchwaren, Alkohol, Schokolade, Seife werden dringend verlangt u. werden am schnellsten die Stimmung heben.
3. V: Brot, Fett, Abendport., Gemuese. Masse der Soldaten stark abgemagert.
5. Bekleidung: Waesche u. Schuhzeug fehlen. Winterbekleidung sehr dringend. . .
6. Gesundheitszustand noch erstaunlich gut, aber starke Verlausung.

8. Kfz.-Lage voellig unzureichend. **60%** aller Kfz. sind durch Beschuss, Kampf oder grundlose Wege ganz ausgefallen. . .

9. Verbindung mit Heimatfront: *laecherlich*, wenn von glaenzendem Klappen des Nachschubs im Osten gesprochen wird, ebenso vom geschlagenen Gegner, gebrochenen Feindwiderstand, usw.

10. Marketenderwaren wurden zuletzt am **22 Sep 41** empfangen.

Vorschlaege der Rgter:<sup>94</sup>

a. V-Stuetzpunkte auf Schlitten – oder Panjekol. basieren.

b. Reichlich Fett, Kraftnahrung, Schokolade, Alkohol, Kaffee, Zucker, Lebertran, Verbesserung der Abendkost.

c. Baeckerei- u. Schlaechtereikommandos zur Truppe geben.

d. Schneider- u. Schusterwerkstaetten einrichten. Anfertigung von Kerzen u. Beleuchtungsmittel organisieren.

e. Feldpost winterbeweglich machen. *Abwurf aus Flugzeugen mit Fallschirm.* (?)

f. Planmaessig Entlausung.

g. Viel Rauchwaren.

h. Wichtig ist genuegende Zuteilung von Brotaufstrich (bes.Fett), Brot u. Zigarren.

i. Es ist fast keine Waesche mehr vorhanden. Bestes Mittel ist geregelte Zufuehrung der Feldpost u. von Marketenderwaren.

j. Es fehlt Schuh- u. Lederfett.

(208-14)

**16.11.41:** Klar, kalt. . . An Chef: **129. ID** ist seit **1 Okt 41** bei Pz.Gr., *daher die schlechte Versorgung ab 2 Okt 41*. . . Winterbekleidung fehlt noch fuer **6. u. 129. ID**. . . Laz.Zug ist erst **17 Nov 41** fahrbereit, weil Heizrohre eingefroren. (215)

**17.11.41:** Klar, kalt. . . Luftversorgung: Grosse Aktion zum Abtransport von Verwundeten aus Rshew u. Staritza. Sie sollen laden: **3** Flugzeuge gleichzeitig je **5 000** Tafeln Schokolade, **500 000** Zigaretten – **2** Flugzeuge Verbandmaterial, alle uebrigen Flugz. **B.** . . Beleuchtungsmittel werden von Smolensk mit eigenen Mitteln vorgebracht.

Aber man muss bedenken: 1. In den letzten **4** Tagen sind taeglich nur **3** Zuege von Sueden her nach Wjasma gekommen, davon **1** immer fuer die Eisenbahner selbst. 2. *Es muessen gefahren werden.*<sup>95</sup> **M – B – V** – Bekleidung – Post – Pi.Geraet – Marschbatle – San. u. Vet.Geraet –

<sup>94</sup> **Note:** Unclear if this line – and following points – still pertain to “Klagen” of **129. ID**.

<sup>95</sup> **Note:** This, I assume, means priority in sequence: **M – B – V**, etc.

Eisenbahnbautruppen u. Geraet – Bedarf der Luftwaffe – Nachrichtengeräet – Schneeketten – Winterbedarf – Fahrzeuge, z.B. Baeckereianhaenger, die nicht im Landmarsch vorgezogen werden koennen. (216-17)

**18.11.41:** Schoenes Wetter, nicht allzu kalt.

Versorgungslage:

Mun: Verschuss weiterhin einschaerken. *Was die Truppe jetzt verschiebst, geht an V verloren. . .*

V: ist augenblicklich das dringendste. . .

B: Bis zum Eingang neuer Zuege muss ein Teil der Heerestr., die den groessten Verbrauch haben, lieben bleiben. . .

Bef.St.Mitte teilt mit: Gruende fuer das Stocken im Nachschub: **Lok-Mangel** im Gen.Gouv., Ermuedung von Personal u. Material, Einfrieren von Loks, usw., Umspurungen. Die hoechsten Spitzen sind eingeschaltet: **Ob.d.H.**, Chef des Gen.St., usw. – Eine bindende Zusage ueber Zahl u. Eintreffzeit der Zuege kann nicht gegeben werden. Es fehlt nicht an **V**,<sup>96</sup> sondern nur an der Zufuehrungsmoeglichkeit mit der Eisenbahn. . .

Schneehemden: **1. PD** rueckte mit Schneehemden u. *weiss gestrichenen Fahrzeuge* ab von Kalinin. . .

**300** Verwundete aus Rshew abbefoerdert, **150** neu eingetroffen.

An Gen.Qu.: *Die Eisenbahn muss gehen. Wenn das nicht erreicht werden kann, ist alles umsonst. . .*

Winterbekleidung muss von **Ia** in Abendmeldung gemeldet werden. Zufuehrung nach Moeglichkeit beschleunigen? . . Zusaetzliche Winterbekleidung bald vorfuehren u. der Truppe geben.

Landwirtschaft: Im Rayon Szytsch sind noch etwa **1 500** Rinder vorhanden, in der Stadt **40** to Roggen. Erhebungen ueber Bestaende auf den Kolchosen sind im Gange. Sehr wenige Kartoffeln – keine Gerste – reichlich Heu. Mehrere Muehlen koennen von der Armee uebernommen werden, ebenso eine Gerberei [*tannery*]. Pferde werden dringend erwunescht, da Landwirtschaft ueber keine mehr verfuegt. (218-21)

**19.11.41:** Nebel, kalt, kein Fliegen wegen Vereisung. . . An Chef: Lufttransport am **20 Nov 41:** **1** Flug mit **3** Maschinen nach Rshew, davon **2** fuer **129. ID** mit Fingerhandschuhen u. Kopfschuetzern, **1** fuer **6. ID** mit Fingerhandschuhen u. Kopfschuetzern. **2.** Flug **2** Maschinen mit Petroleum [*kerosene*] fuer **A.V.L. Rshew**. Alle Maschinen nehmen Verwundete mit zurueck. (221-22)

**20.11.41:** Etwas waermer, weniger Nebel. . . Alkohol ist in den V-Zuegen jeweils enthalten. Es werden zugewiesen: **3** Getraenkeport. zur Tagesport. gehoerend, - Alkoholport. werden nach

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<sup>96</sup> **Note:** Here, I assume “V” = “Versorgung” / nicht “Verpflegung.”

Bestand noch gesondert zugewiesen. – **5 890 000** Alkoholport. sind seit **1 Okt 41** der **9. Armee** zugewiesen worden = alle **2 ½** Tage. . .

Zusaetzliche Winterbekleidung: erhalten die Einheiten, die in den Operationen bleiben. . .  
Glysantin-Anforderung sofort hereingeben!

Zuege: Armee kann taeglich mit **1 B-** u. **2 V-**Zuegen rechnen. Es sieht aus, als ob die Bahn von rueckwaerts her *besser in Fluss kommt*. . . Der tiefste Punkt ist vielleicht ueberwunden. . .  
Zusaetzliche Winterbekleidung wird laufend nach unserem Wunsch zugefuehrt. *Es sollen ganze Zuege kommen, sobald uebrige Versorgung im Laufen*. [!] (222-25)

**21.11.41**: Etwas neblig, kalt. . .

Versorgungslage 20 Nov 41:

. . . Zu (1): Eisenbahn: Die Armee soll ihre Gueter auf der Breitspurstrecke ueber Roslawl – Wjasma nach Rshew erhalten. Auf diese Strecke wird auch **3 PzGr** nach Schachowskaja versorgt. Diese Strecke hatte bisher taeglich eine Leistung von hoechstens **3** Zuege, in die sich **1** Armee, **2** Pz.Gren., Luftwaffe, Kodeis teilten. Die Strecke Szytsch.–Rshew wurde am **19 Nov 41** in Betrieb genommen. – Die Normalspurstrecke Smolensk – Wjasma – Gshatsk ist seit **18 Nov 41** befahrbar. . . Zu (1): Strassen: Autobahn erst seit **30 Oct 41** fluessiger benutzbar. Vorher durch Brueckensprengungen u. Minen unterbrochen. . . (225-26)

**22.11.41**: Trocken, maessig kalt. . .

Transportlage:

Immer daran denken, dass **2000** deutsche Loks nach Russland hineingesteckt werden mussten. Eine grosse Zahl wurde an Finnland abgegeben. Andererseits viel Buero-kratismus. Die Schwierigkeiten sind ganz ausserordentlich. Es wird alles versucht, sie zu beheben.

Nach unserer materiellen u. personellen Lage kann nicht in Frage kommen, dass das Heer in dem bisherigen Rahmen wieder hergestellt wird. Es wird versucht, das, was bleibt, bis zum Fruehjahr zu voll kampfkraeftigen Verbaenden zu bringen. . .

Rohstofflage: . . .

Kupfer u. Zinn: Abnahme der Kirchenglocken ist allgemein angeordnet. [!] . . . Mineraloel: Bes. unguenstig. Ursache liegt im uebergrossen Bedarf. Ausserdem bleib die rumaenische Erzeugung hinter den Erwartungen zurueck. Der Bedarf muss aus der Erzeugung gedeckt werden. Die Zuteilung von Kfz.-Benzin muss im Heer um **20%** gesenkt werden. . .

Heizoele: Senkung um **37%**. . . Hilfe ist nur moeglich durch Besetzung von Maikop oder Ausweitung der Erzeugung in Rumaenien. . .

Fleisch: Herabsetzung der Port. fuer die Zivilbevoelkerung ist vom Fuehrer abgelehnt. **400 000** to fehlen. Wehrmacheinschraenkung? . . .

Die Spannung kann sich gefaehrlich auswirken auf dem **B-**Gebiet. Wir hoffen, im Laufe des Winters Maikop zu bekommen. Der Kaukasus ist fuer uns unbedingt noetig. . .



### Ernaehrung:

Bisher war die Bilanz positiv. Die neue ist nicht erfreulich. . . Die Fleischlage ist bes. angespannt. Port. im Westen bereits von **1 350** auf **1 000** gr. herabgesetzt. Fuer den Osten ist es verlangt. Darueber kommt Entscheid des Fuehrers. . .

### Munition:

a. Im Grossen: Die Bestaende sind erheblich angegriffen, die Fertigung wohl eingeleitet. . . Zur Entlastung wird franz. Mun. dort eingesetzt, wo ein bes. hoher Mun. Verbrauch zu erwarten ist, z.B. bei Moskau. . .

Gen.Qu.: An Geschuetzen kommt sehr wenig zusammen. Bei noch herantretenden Aufgaben (Moskau) muessen Beutegesch. genommen werden. Die laufende Beschiessung von Moskau darf nicht aus unseren kostbaren Gesch. gemacht werden. . .

Rote Mun. = „Pz.Gran.Rot“ werden auf Befehl des Fuehrers zurueckgezogen, sie muessen fuer **1942** aus bes. Gruenden aufgehoben werden. Sie bleibt aber bei den Armeen, wenigstens zunaechst. Vielleicht wird sie wieder freigegeben, was sehr erwuenscht waere. . .

San.Wesen: Gesundheitszustand ist immer noch gut. Der Krieg im Osten hat erhebliche Opfer gekostet. Gesamtausfaelle ab **22 Jun 41** = **685 000** Mann = **20%** der Gesamtstaerke. Darunter befinden sich **522 625** Verwundete. Ihnen stehen gegenueber **789 338** Kranke. Kranke = **1 : 1,5**. Im I.Weltkrieg war das Verhaeltnis **1:5**, **1870/71 1:10**, in fruerehen Kriegen **1:30 – 1:40**. . . Das ist ein Erfolg des Verstaendnisses der Truppenfuehrer fuer das Wohlergehen der Maenner. Der Gesamtausfall von **1 506 365** Mann bedeutet fuer **1** Tag im Osten **5 226** Kranke u. **3 484** Verwundete = **8 710** Ausfaelle,<sup>97</sup> berechnet aus **150** Tagen.

Wiederherstellungszahlen: Von den Verw. u. Kranken kommen im **1.** Monat ca **33%** zu irgendeiner Dienstfaehigkeit, im **2.** Monat ca **17%**. Nach Verlauf von **2** Monaten sind etwa **50%** der Ausfaelle wieder zur Stelle. . .

Selbstmord: Noch nie so guenstig gewesen als in diesem Krieg. Der Soldat ist besser gefuehrt, betreut u. haerter geworden. Im **1.** Kriegsjahr **0,31 o/oo**, im **2.** Jahr **0,35 o/oo**.<sup>98</sup> . . .

Gen.Qu.: Viel in die Laz. gehen, auch die O.B. [Brauchitsch?]. Wir muessen uns vor Kaelte schuetzen, aber auch das Menschenmoegliche in der Entlausung leisten. . . Es kann Niemand Urlaub erhalten ohne einen Schein: „entlaust.“ Eine Sperre liegt an der Grenze, eine weitere mehr im Osten (Smolensk). Wer nicht den Stempel hat „entlaust“, wird angehalten. Das Gleiche gilt fuer Kfze.

Vet.-Gebiet: Pferdelage: Grosse Anstrengungen in der letzten Zeit bei schlechter Ernaehrung u. Unterbringung bewirkten grosse Verluste. Durchschnittliche Pferdestaerke: **644 000** [*for entire Ostheer, I assume*]. Davon **104 000** Pferde tot, **144 000** krank u. verwundet. Angefallene Beutepferde **130 000**. Zugefuehrte Ersatzpferde: **37 000**. *Taegliche Verluste im Osten* **0,8%**, im Westen **0,6%** [*during Westfeldzug of 1940?*]. Die Ausfaelle sind in starkem Ansteigen

<sup>97</sup> **Note:** What about KIA? Also, figures for Gesamtverluste don't add up properly.

<sup>98</sup> **Note:** I assume this means: **0.31** per **100,000**, etc.

begriffen. Die Verluste bis **Okt 41** entstanden hauptsaechlich durch Feineinwirkung, im **Nov 41** aber durch Erschoepfung. – Mangel an Rauhfutter gefaehrlich, einen Ersatz dafuer gibt es nicht. . .

Gen.Qu.: Hilfe fuer die Pferde ist nur moeglich durch Unterkunft u. Futter. Ueber **-20** Kaelte kann kein Pferde im Freien aushalten. . .

*Wir kommen zu einer weitgehenden Entmotorisierung*. Die mot.-Kol. bekommen die Armeen. Die Div.Kol. werden als kl.Kw.Kol. in der Hand der Armee bleiben. Sie werden im Rahmen der A.K. eingesetzt werden, wo man sie braucht. . .

Ein grosser Teil der Partisanen sind nur Versprengte. . .

Versorgung der Gef.[angenen] ist Aufgabe der **Ib**. . . Die Behandlung hat streng, aber gerecht zu sein. Der fdl. Propaganda darf kein Grund zu Beschwerden gegeben werden. Gedeckte Unterbringung der Gef. ist noetig. . . Entlausung ist sehr wichtig. Fleckfieber ist verschiedentlich schon ausgebrochen. Bei Abschub mit Eisenbahn ist Mitgabe von Verpflegung u. heissen Getraenken wichtig.

Gen.Qu.: Organisation [of *POW camps?*] war Sache vom allgem.Wehrmachtamt u. nicht von Gen.Qu. [*defensive comment?!*]. In den Armeegebieten sind keine grossen Kriegsgef. Lager mehr vorhanden. Was bleiben muss, muss ernaeht werden. **Die bleibenden Gef. sind gut u. anstaendig zu halten**. . . **3 700 000** Gefangene erfordern **800 000** to Weizen!

Fuer die Zivilbevoelkerung droht eine **Hungersnot**. Die Landbevoelkerung wird sich halten koennen. Die ganze Schaerfe des Ernahrungsproblems wird **1943** auftreten. Wir muessen den ganzen europaeischen Raum stuetzen. Daher die befohlene Getreide-Grossaktion der Gewinnung von **2 000 000** to Getreide durch Dreschen der auf den Feldern noch liegenden Bestaende.

(227-43)

**23.11.41:** Fortsetzung der Besprechung bei Gen.Qu.

. . . Zusaetzliche Winterbekleidung ist in Zufuehrung u. zwar Pelzmaentel u. Schutzstiefel. Alles kommt in die Versorg.Zuege, soll aber noch nicht sofort ausgegeben werden. Die Bestaende sind von den Versorg.Bez. an die noch operierenden Armeen auszugeben. . .

Mitte erhaelt monatl. **2 000 000** Kerzen, **4 000 000** Hindenburglichte. Karbid ist genuegend da. . . Petroleum muss an sich gespart werden. . .

**Chef Gen.Stab d.H.:** . . .<sup>99</sup>

Mannschaftersatz: Weiterfuehrung des Krieges mit Genesenen u. dem neuen Jahrgang [i.e., **1922**]. Aufloesung von Div. wird noetig. Eine weitere Begrenzung der Mittel tritt in der Ruestung ein.

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<sup>99</sup> **Note:** Following comments – pp 247-48 – must be Halder's.

Kfz-Lage: Die Ausfalle koennen nicht ersetzt u. auch nicht instandgesetzt werden. Die Kfze muessen daher auf andere Weise ersetzt werden. = **Entmotorisierung der I.D.** – Es handelt sich um moralisches u. wirtschaftliches Durchhalten, weniger um kriegsmaessiges, daher hoechste Fuersorge fuer die Truppe. . .

Osten: *Russland ist keine Gefahr mehr als Militaermacht fuer Europa* [!]. Aber es sind noch nennenswerte Kraefte in Russland vorhanden. . . Moskau: Ob Einschliessen oder nur Herankommen, ist an sich gleich. Maikop noch **1941**. . .

Mit grossen Operationen im bisherigen Stil ist **1942** nicht zu rechnen. Es werden Teiloperationen Schritt fuer Schritt kommen. Ein Signal „Einruecken in die Quartiere“ kommt nicht. Jede Heeresgr. wird durch Zerschlagen des Feindes das herausholen, was noch moeglich ist. **Wir muessen hart sein**. Was wir in diesem Jahr an Zerschlagen noch leisten, ist ein Plus im naechsten. Beim Gegner knackt es ueberall. Es ist ein *Ringem um die letzte Moeglichkeit*, den Feind zu zerschlagen. Auf dieser Forderung wird bestanden. . . (**Note**: This is end of Halder comments; see, 247-48)

Es ist zu pruefen, wie etwa groessere Winterunternehmungen versorgungsmaessig auszustatten sind, gewaltsame Erkundungen, Durchstoesse durch fdle Stellungen, Streifkorps innerhalb der eigenen Front zum Ueberwachen bestimmter Abschnitte. Diese Leute muessen *wie fuer eine Expedition in die Arktis ausgestattet werden*. Anhaengen von langen Schlittenzuegen an Zugmaschinen, Panzer. Fuer diese Aufgaben ist in erster Linie die zusaetzliche Winterausstattung bestimmt. . .

Finnlandfahrten: Der Finne hatte bewegliche, kleine Abteilungen in etwa Batls.-Staerke gegen den an Strassen u. Ortschaften gebundenen Russen eingesetzt. [**Note**: What follows are several more examples of experiences and practices of the Finns – apparently setting an example for the Germans.]

Personalfrage: Die eintretenden Verluste koennen *nicht mehr ergaenzt werden*. Der Jahrgang **1922** ist die Personalreserve fuer das naechste Jahr. Daher Aufloesung vorhandener Verbaende u. Truppenteile noetig (**15 Div.**). Alles, was dadurch frei wird, steht den Armeen fuer die Auffuellung zur Verfuegung. Die Aufloesung wird im Osten durchgefuehrt. Fahrzeuge u. Pferde sind zur Entmotorisierung bereitzustellen. Es muss Personal u. Material alles aus dem Heer selbst gefunden u. herausgedrueckt werden. . .

**30%** der Kfz. = **150 000** sind Totalausfalle [*for Ostheer*]. Diese muessen aus dem Etat gestrichen werden. – Etwa **250 000** Kfz. sind instandzusetzen. Das ist entscheidend fuer die Beweglichkeit des naechsten Jahres. Fuer alle Einheiten kommen neue K.A.St.N. Die Gesamteinsparung an Kfz. betraegt **70 000** Stueck. Darueber hinaus sind aus den aufzuloesenden **15 Div.** etwa **15 000** Kfz. zu gewinnen. Das ist etwa die Haelfte der ausgefallenen Kfz., sodass auf andere Gebiete uebergreifen werden muss:

1. Die Gepaecktrosse aller nicht mot. Truppenteile werden entmotorisiert. Das ist sicher u. kann in Angriff genommen werden.
2. Die **14.Komp.** der I.R. werden entmotorisiert, **1** mot-Zug **3,7** cm Pak soll jedoch bleiben.
3. Die Nachschubkomp. der Inf.-Div. werden entmotorisiert werden, **1** Zug soll mot. bleiben = t-mot.Komp. (258)

Auffrischung der Versorgungstruppe:

Befehl ueber den **GTR** ist schon hinausgegangen. Unsere Kw.Transp.Rgter sollen in der Heimat instandgesetzt werden. Es geht Zug um Zug. Der einsatzfaehige GTR verbleibt den Armeen bzw. Bef.St. Alles uebrige wird samt Personal zurueckgezogen. Der GTR muss im Fruehjahr wieder stehen, wie er war. . . *Der GTR einschl. Nachschb.Kol.Abtngen u. kl.Kw.Kol. haben 4 000 000 to Gueter bewegt. Die Nachschb.Kol.Abtngen haben mehr geleistet als der GTR. . .* (261)

Ersatzteillage ungeheuer schwierig, es liegt am Fehlen von NE-Metallen [?]. Einem schaeztungsweisen Bedarf von **300 000 to = 175 – 200 000** Ersatzteile stehen bisher **16 000 to** als vorhanden gegenueber. Aushilfen: Kfz., die nicht mehr wiederherstellbar sind, ausschlachten (Oelfresser u.dgl.) u. selbst ein Ersatzteillager schaffen. . .

Gen.Qu.: *Das Heer ist uebermotorisiert [?],* da fuer ist keine andere Hilfe moeglich als Kleinerwerden. . .

V-Lage: Ueberall bei Mitte Mangellage. Eis.Port. teilweise angegriffen, keine Bestaende dahinter. Bei keiner Armee Raufutter-Vorraete. . . Trotz der angespannten Lage in der Heimat ist es gelungen, die fuer die lfde Winterversorgung u. Bevorratung erforderlichen V-Bestaende sicherzustellen. Mengenmaessig sind also die wichtigsten V-Mittel vorhanden. *Es handelt sich nun um den Transport, der ein bes. Problem darstellt.*

Voraussichtliche Zusammensetzung der **V:**

. . . Gemuese: Kartoffelversorgung aeusserst wichtig. Es ist gelungen, insges. im rueckw. Gebiet usw. **350 000 to** einzulagern. Das entspricht ungefaehr dem 4-Monatsbedarf. Dagegen war es infolge des Frosteinbruchs nicht moeglich, die Armeen zu bevorraten. Lokmangel verbot Ausnutzung der Zeit. Laufend mit Kartoffeln versorgt koennen nur zurueckgestaffelte Truppen werden. . . (265)

Pferdefutter: Winterbedarf ist voll gesichert. [?] – An Raufutter waeren fuer das Ostheer taeglich **19** Zuege noetig. Ohne Verminderung der Pferdestaerken in den vorderen Armeegebieten sind Ausfaelle nicht zu vermeiden.

Zufuehrungsproblem: Heeresgr. Mitte braeuchte taeglich **17 V-Zuege**,<sup>100</sup> zugesprochen sind **8**. Dies reicht fuer eine breite Front wie bei uns nicht aus. . . (266-67)

Die Aussaat [*sowing, seed*] muss mit aller Schaerfe sichergestellt werden. Die A.O.K. sind im kommenden Winter im Gegensatz zu bisher, wo man immer einen lfden Nachschub hatte u. die Truppe betreuen konnte, auf sich selbst gestellt. Die Armeen sind die Traeger des Umbaus ohne Hilfe. Dieser Umbau lastet zum grossen Teil auf den O.Qu. *Die Verantwortung ist so gross wie noch nie. . . Gruendliche Dispositionen werden den Erfolg im Winter bringen. Es ist sicher, dass wir die groesste Aufgabe unseres Lebens vor uns haben. . .*

(245-68)

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<sup>100</sup> **Note:** Because the preceding discussion was about rations (Verpflegung), I assume this reference is to Verpflegungs-Zuege; not to Versorgungs-Zuege. Can check this figure in my Notebook #1, section on logistics. Q: How many trains did H.Gr.Mitte require at this time, for **M – B – V**.

**24.11.41:** Rueckflug, in Hoehe Minsk in Nebel.<sup>101</sup> (268)

**25.11.41:** Rueckfahrt nach Wjasma, etwas neblig. Eisenbahn: Zulauf immer noch ungenuegend u. vor allem nicht regelmaessig. . . Mun.-Zug fuhr Mitternacht von Wjasma weg u. traf nach **23** Stunden in Rshew ein. (269-70)

**26.11.41:** Leichter Schneefall. . .

Kfz.: Erkundung fuer Einsatz von Instandsetzungsdiensten wird sofort angesetzt. Bestandsmeldung war: **26 902** Kfze. in der Armee vorhanden, davon **21 520** ueberholungsbeduerftig. . . Kalinin sehr guenstig fuer Instandsetzung. Ausserdem haben wir **120** Flachsfabriken ostw. der Linie Wjasma – Rshew, die dafuer freizugeben sind. – In Rshew muessen Fabriken ausgebaut werden, dann ist auch hier etwas zu machen. Das Beste aber bleibt ohne Zweifel Kalinin. . . Mit Kfz.-Instandsetzung sofort beginnen, Flachsfabriken ausnutzen. . . (271)

Handschuhe u. Kopfschuetzer auf den Doerfern stricken lassen! (272)

**27.11.41:** An Chef: Partisanen westl. Rshew muessen beseitigt werden, da hier noch Bestaende an Getreide u. Vieh. . .

An Hafer nichts mehr vorhanden, da volle Missernte. **60%** des Viehs war von den Russen weggetrieben. Keine Bestaende an Schweinen u. Schafen. . .

Zur Artl. Bekaempfung ist Mun. von **23. AK, 6. AK u. 27. AK** angefordert worden. Das muss noch etwas gebremst werden, da wir nicht in der Lage sind, diese Mun. heranzubringen. *Sonst wuerde das V-Zugprogramm gestoert.* **1** Zug dauert **2 - 3** Wochen, bis er herankommt. (273)

**29.11.41:** Klarer Wintertag ohne bes. Kaelte.

Fuer Gefangenen-Ernaehrungssaetze normal fuer 7 Tage: Brot **2 250** gr., Fleisch **200**, Fett **130**, Kaese **31,25**, Quark **31,25**, Zucker **225**, Marmelade **175**, Naehrmittel **150**, Frischgemuese **1125**, Sauerkraut **275**, Kartoffeln **8 500**, Tee **28**, Salz **175** gr. Dazu Schwerarbeiterzulage fuer 7 Tage: **600** gr. Brot, **150** Fleisch. . .

Verwundete u. Kranke: Kalinin **1 050**, Rshew **2 450**. . . Wjasma ist z.Zt. voll mit Verwundeten u. Kranken belegt. Ein deutscher Laz.Zug ist bisher noch nicht bis Wjasma vorgekommen. Das lag an dem mangelhaften Oberbau der Strecke. Das **2.**Gleis wird erst am **25 Dez 41** fertig. (276)

Kodeis 9:<sup>102</sup> Ausbau des Bahnhofs Wjasma ist im Gange. Das naechste ist der Bau von Umladebuehnen. (Endlich!) . . .

<sup>101</sup> **Note:** I assume then, the conference w/ the Generalquartiermeister was in Berlin, or perhaps at Rastenburg? Check Halder's diary, or KTB H.Gr.Mitte.

<sup>102</sup> Kodeis = Kommandeur-Eisenbahn 9? I believe that must be correct; immediately following is reference to Kodeis **16**.

2-gleisig wird die Strecke Smolensk – Wjasma kaum vor Weihnachten (deutsche Spur). Tempo 12 sollte die Strecke aber eigentlich jetzt schon leisten. Strecke Rosslawl – Wjasma leidet an Lokmangel. . . (277)

**30.11.41:** Truebe. . . Verschuss im **Nov 41: 1586** to.<sup>103</sup> (279)

**31. T-6:** „*Eastern Campaign, 1941-1942 (Strategic Survey)*,” Gen.-Lt. Adolf Heusinger. 1947.

### I. Chapter 3: The Initial Operations

#### a. Situation on 30 Jun 41:

„In the Army Group South area, the **1 PzGr** of **6. Army** had fought its way into the area east of Rovno, its advance having been repeatedly held up by counterattacks of skillfully led Russian units. Farther to the south the **17. Army** advance had progressed to the area around but esp. south of Lvov against tough resistance. The general impression was that the enemy facing Army Group South had recovered from the initial shock and. . . was showing considerable skill in blocking the advance. Developments in the southern part of the theater were therefore not up to expectation.

„In the Army Group Center area, the ring of encirclement around the Russian forces west of Minsk had been completely closed. The **2** and **3 PzGr** had linked up near Minsk according to plan. . . Eventually, some **20** Russian divisions were destroyed in the Minsk pocket, and the Germans captured **290,000** prisoners, **2500** tanks, and **1400** guns. The situation in this area was so satisfactory that Hitler considered diverting forces to Army Group South to intercept and destroy enemy reserves that were being brought up from the rear.

„In the Army Group North area, the Dvina had been crossed at Dvinsk and Yekabpils [sp?], and the crucial step toward implementing the Army Group plan had thus been taken. In Lithuania and Latvia, the Russians were fighting a series of delaying actions during which they offered strong resistance. So far **12** to **15** Russian divisions had been virtually wiped out during the fighting west of the Dvina. Here, the situation developed according to plan.

„In general, the Germans had every reason to be satisfied w/ the progress of the first nine [9] days. The Russians had been forced to give battle on all fronts. An organized withdrawal opposite Army Groups Center and North was no longer to be feared, whereas in the Army Group South area the Russians could still evade the German envelopment. In view of the heavy losses suffered by the enemy, the *over-all success of the German operation seemed assured*. In a conference on **29 Jun 41**, Hitler stated that he would prefer to divert forces for a thrust on Leningrad rather than continue immediately the drive on Moscow. He reasoned that the capture of Leningrad would drive the Russians from the Baltic and thus secure German shipments of ore across that body of water, enable the Finns to seize the initiative, and disengage the German left for a thrust on Moscow. Jodl interjected that the detour via Leningrad to Moscow would be beyond the capabilities of the panzer formations. After some discussion it was decided that the question would be reexamined at a later date.“ (55-56)

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<sup>103</sup> Verschuss in reference to what? Artillery? Figure seems awfully tiny.

b. Situation at start of Jul 41:

In his diary, Halder expressed the optimism that reigned among German military leaders by writing that the mission of destroying the Russian Army west of the Dvina and Dnepr had been accomplished. He did not doubt the word of a captured Russian corps cdr that *east of these two rivers the Germans would encounter only isolated forces whose strength would be insufficient to hamper operations decisively*. It was thus no exaggeration to state that the Russian campaign had been *won in less than two weeks*. (56)

**4.7.41:** Hitler's opinion on this day ran as follows: „I constantly try to put myself in the enemy's position. For all practical purposes the enemy has lost this campaign.“ At same time, the Fuehrer was preoccupied w/ the question of *what was to happen after the penetration of the Stalin Line*. He said on that subject: „Are we to turn north or south? This will probably be the most difficult decision of the campaign.“ It is interesting to note that he *did not consider driving straight on to Moscow*. . . (56)

The next objective for Army Group Ctr was to bring about the collapse of the Russian defensive triangle anchored on Orsha – Smolensk – Vitbesk. There, between the Dnepr and the Dvina, was the corridor whose possession was vital for the continuation of the German thrust on Moscow. . . (58)

At this stage, the crucial problem confronting all three army groups was to *keep the infantry from falling too far behind the armor*. . . The Army's low strength in mot. infantry divisions – because of the constant POL and materiel shortage, Germany had but **14** such divisions – proved to be a handicap. . . (59)

The question of determining the *proper size for a ring of encirclement* also preoccupied the army. The lessons learned from the battle that had raged between Bialystok and Minsk was that it was *unsound to try to envelop too much at one time*, or else the ring of encirclement would not be sufficiently strong to prevent a breakout of enemy forces. (59)

c. Mid-Jul 41 estimate:

In Army Group South area. . . the pressure exerted by the Russian **5. Army** from the Pripyat Marshes against the army group's flank, diverted more and more **6. Army** troops from their original mission. Armored elements arrived in the vicinity of Kiev, where they were to protect the flank of the **1 PzGr** forces thrusting southeastward toward Uman in an attempt to envelop the enemy forces in front of **17. Army**. Despite stubborn enemy resistance and unexpectedly heavy rainfall, the **17. Army** had meanwhile penetrated into the Vinnitsa area, while **11. Army** had advanced as far as the Dnestr. The Russians opposed to AGS continued to fight a stubborn and skillful delaying action. (61)

The situation of Army Group Center was far more favorable. The Orsha – Smolensk – Vitebsk barrier had been pried open and the ring of encirclement near Smolensk had been closed. . . In the Army Group North area **16. Army** had fought its way eastward against stubborn resistance in the difficult terrain east of OPOCHKA, while **4 PzGr** had turned northward, advancing between Lakes Ilmen and Peipus toward Leningrad. Unfortunately, the two [2] armored corps of **4 PzGr** became separated during the course of their advance. . . [This] was a totally undesirable development. [Note: For more details, see 62-63]

For the first time in the campaign the *flow of supplies became unsatisfactory*, notably in the Army Group Center, and to some extent in the Army Group North areas. Difficulties in rail transportation affected ops increasingly. (63)

d. Directive No. 33 (19.7.41):

Detailed outline of this directive in text. Two days after signing the directive Hitler visited Army Group North HQ. . . He pointed out that the capture of Leningrad – a symbol of Bolshevism since **1917** – *might lead to a complete collapse of the already badly shaken Soviet regime*. . . It is interesting to note that, despite having issued the directive, Hitler was still vacillating w/ regard to its implementation. On the same occasion Hitler also stated that, to him, Moscow was simply a geographical symbol. (66)

**23.7.41:** Hitler attended a conference at Army High Command HQ. Chief of Army General Staff Halder began his report by providing the most recent information on enemy and friendly strength figures. [Note: See p 66 for details.] After one month of fighting, the *effective strength of the German inf.-divs. had been reduced ca. 20%* and that of the *panzer and mot. inf.-divs. had dropped by 50%*. . . Hitler repeated that after the fighting around Smolensk had subsided, the **2 and 3 PzGr** would have to turn right and left respectively to support the adjoining army groups. Army Group Center would have to carry out its advance on Moscow w/o armored support. As a result of this conference the Supplement to Directive No. **33** was issued on **23 Jul 41**. . . The Army vigorously protested against the contents of the Supplement to Directive No. **33**, and Brauchitsch claimed that its implementation, particularly in AGC area, was for the time being impossible. [Note: See pp 66-99 for more details.] Also at this time Hitler stated that one of the lessons learned from the **5-week-old** campaign was that – because of the enemy's tough resistance and his ruthless methods of warfare – *operations w/ far-reaching objectives would have to be deferred* until the Russians no longer had the strength to counterattack. Close-in envelopments would have to be attempted instead. . . (66-69)

**25.7.41:** During a visit to AGC HQ on this day, Keitel made himself the exponent of Hitler's viewpoint by stating that the military leaders in the field would have to *change from the sweeping envelopment maneuvers that were so successful in the preceding campaigns to **small-scale battles of annihilation** during which the encircled forces would have to be completely destroyed*. In the past, the execution of too far-reaching envelopments had invariably led to the escape of major enemy elements, which subsequently resumed the struggle. Moreover, the precious armor was being decimated by enemy flank attacks. The distance between the mobile and infantry units had to be shortened, both to protect the armor and to tighten the rings of encirclement. The latter improvement was all the more necessary because air recon reports indicated that streams of Russian columns were escaping for days from the Smolensk pocket through a gap on the eastern side. (75)

**27.7.41:** Jodl asked Hitler to reconsider his plans. The drive on Moscow ought to be envisaged after all, so he stated, not because the city was the Soviet capital, but because the enemy would scrape together his last forces for the defense of Moscow. Moreover, the plan to attack Moscow was in *conformity w/ Hitler's own principle* of destroying the vital elements of the enemy. Hitler replied that the Germans would have to seize the Donets Basin as soon as possible to deprive the Russians of their armament production facilities and cut off their oil supplies. On the next day,



Hitler gave another reason for his attitude, stressing that the industrial region around Kharkov was more important to him than Moscow.<sup>104</sup> (75-76)

e. Situation toward end of Jul 41:

No radical changes in the situation occurred during the second half of **Jul 41**.

In AGS area, **1 PzGr** had finally succeeded in breaking thru the Russian front and driving to Pervomaysk. It was hoped large enemy forces would eventually be encircled in the Uman area. On the other hand, **6. Army** was still unable to make headway against the Russian **5. Army** in the Pripyat Marshes and was stalled in front of Kiev. . . Bad weather marked by cloudbursts and torrential rains hampered all movements.

AGC had practically completed the mopping-up of the numerous pockets w/ the exception of one near Smolensk. . . Far from having improved, the supply situation of AGC began to hamper the progress of current operations.

AGN had made progress on the right, while most of the inf.-divs. had succeeded in closing up w/ the two panzer corps along the Luga River and near Novogorod.

Offensive ops had meanwhile also begun in Finland. The northernmost attack force of the Army of Norway had occupied Petsamo, but had bogged down near the Litsa River upon encountering superior Russian opposition during its advance on Murmansk. The other forces which were driving toward the Murmansk railroad made very slow progress in the primeval forests and swamps of central Finland [?]. In the southern part of the theater of ops, which was under the Finnish Army High Command, the Karelian Army, advancing along the eastern shore of Lake Ladoga, had reached the pre-**1940** Russo-Finnish border. . . Finnish forces stationed on the Karelian Isthmus launched their offensive against Viipuri on **31 Jul 41**, after the Russian troops in that area had been weakened by the withdrawal of units needed for the defense of Leningrad. [Note: For more details see 76-78.]

## II. Chapter 4: The Controversy over the Continuation of Operations

a. The Army's Order of 28 Jul 41:

In the first part of this order the Ops Div. of the Army General Staff analyzed the capabilities of enemy forces and arrived at conclusion that the *bulk of the regular Red Army forces had been destroyed*. . . Russians were attempting to stop the German advance at any cost – throwing in strong reinforcements and even improperly trained personnel – but it was believed their military strength would prove insufficient. (78)

All plans for conducting far-reaching operations would have to be abandoned. The immediate objectives were to destroy enemy forces west of the Dnepr, north of Gomel, and south of Leningrad. In addition, AGS was to employ the mobile and infantry forces that were to be

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<sup>104</sup> **Note:** Hitler's thinking seems to indicate that he was already anticipating the war lasting at least into **1942**. Why else would the seizure of the putative sources of Russian military-economic strength be so important?

transferred from AGC for a thrust into the Donets Basin. AGC was to commit its remaining forces for an advance in the direction of Moscow. . . (79)

Attached to this order was an intelligence summary dated **27 Jul 41**. The **150** infantry, **25** armored and **5** cavalry divisions identified along the German front up to this date were estimated to have suffered an average reduction in strength of **50%**. The **25** newly organized divisions were understrength and short of artillery and heavy wpns. Their personnel was hardly trained, etc. . . (79-80)

In summary, the Red Army command was making every effort to stabilize the situation. The morale of the Russians was not yet broken, and no signs of internal collapse had so far appeared. (For more details see, 78-80)

b. Directive No. 34 (30 Jul 41):

In this new directive, Hitler stated that the far-reaching objectives designated in Directive No. **33** of **19 Jul 41** and in the Supplement, dated **23 Jul 41**, would be temporarily set aside because of the most recent developments. The appearance of strong enemy forces in front of and along the flanks of AGC, the precarious supply situation, and the panzer groups' urgent need for rehabilitation, which would take about **10** days, were given as reasons for the delay in executing Directive No. **33**. Hitler therefore ordered as follows. (For details see, 80-81)

On **31 Jul 41**, the Army issued an order implementing Directive No. **34**, in which special emphasis was put on the rehabilitation of 2 & 3 PzGr and their eventual commitment in the direction of Gomel and the Valdai Hills, respectively. (81)

c. The Conflict over Strategy:

**4.8.41:** Feeling none too sure about the advisability of diverting forces from AGC, Hitler made strenuous efforts to inform himself on the subject by personal visits at two army group HQs. The first of these conferences took place on **4 Aug 41**, when Hitler and his staff visited AGC HQ. Among other things, both Hoth and Guderian aver that major ops would only be feasible if adequate number of spare engines could be delivered to replace the worn out ones. Hitler replies by stating that the bulk of the current production of tank engines was needed for equipping newly formed armored divisions; still, **400** new engines might be made available to the two panzer groups. This number would prove unsatisfactory, because Guderian alone asked for **300** engines for his panzer group. Hitler thereupon quickly changed the subject. Before conference was over, Guderian and Hoth stated that, if withdrawn from the line by **8 Aug 41**, their panzer groups would be operational by **15** and **18 Aug 41**, respectively. Whether they would be capable of executing far-reaching maneuvers or operations w/ limited objectives would depend on the number of tank engines that were made available. In his concluding statement, Hitler said that for the Soviets the Moscow area ranked third in importance after Leningrad and the industrial regions of the south. (For more details see, 82-83)

**6.8.41:** Hitler confers w/ GFM v. Rundstedt at HQ of AGS. Rundstedt emphasized the significance of the possession of Moscow in achieving a quick victory over the Soviet Union. Hitler, however, refused to listen to his arguments and enumerated the most important objectives of the campaign in their former priority: Leningrad, eastern Ukraine, and Moscow. (83)

**7.8.41:** On this day, Halder confers w/ Jodl. . . Halder stressed that German strategy should not be influenced by Russian tactics. By trying to eliminate threats to their flanks, the Germans would dissipate forces instead of concentrating them for decision ops w/ far-reaching objectives.

**10.8.41:** Jodl seemed impressed by [Halder's] arguments, which he set down in writing and submitted to Hitler on **10 Aug 41** in a memorandum originating w/ the Armed Forces Operations Staff (*Wehrmachtfuehrungsstab*). This document restated that according to all available intelligence, the bulk of the Russia forces were massed in front of Moscow. Their destruction and the seizure of the Russian capital were therefore the primary objectives for the German Army. Tempting diversions to the north or south would have to be deferred. On the other hand, the flanks of AGC would have to be secured by limited objective attacks – some of which were already under way – before the army group committed its forces to an all-out drive on Moscow. If the maneuvers to secure the flanks could be successfully concluded w/in two [2] more weeks, the Moscow offensive could be launched by the end of Aug 41. (83-84)

d. Supplement to Directive No. 34 (12 Aug 41):

The effect of the Armed Forces Operations Staff memorandum and the personal impressions gathered by Hitler during his visits in the field can be understood by analyzing the Supplement to Directive No. 34. . .

AGC's primary mission was to eliminate the enemy salients that were protruding far into its flanks. After this had been accomplished, and the armored groups rehabilitated, the army group forces were to jump off for the Moscow offensive on a wide front. However, the operation against Leningrad had to be brought to a conclusion and **VIII Air Corps** had to revert to **2 Air Force** before the offensive against Moscow could be undertaken. . .

The supplement did not mention any diversion of AGC forces to the south and made only a very indefinite reference to a shift of one or the other division to strengthen AGN. On the other hand, even though the Supplement authorized an offensive against Moscow, the launching of the latter was to be contingent upon the success of the Leningrad drive.

This priority was even more clearly expressed in a conference note signed by Jodl and dated **15 Aug 41**. It referred to Brauchitsch's verbal report of the same date, after which Hitler ordered that all further attacks in the direction of Moscow be stopped. AGC was to switch to the defensive and hold the line w/o major air support. The AGN attacks had to be brought to a successful conclusion w/ a minimum of delay. As many **3 PzGr** divisions as could be employed and supplied by AGN were to be transferred from AGC to eliminate the threat to the northern army group's flank. Moreover, a breakthrough achieved by several Russian divisions south of Staraya Russa prompted Hitler to issue a direct order for the transfer of one armored corps to AGN. (84-86)

e. Developments to mid-Aug 41:

**Aug 41:** During the first half of **Aug 41**, AGS finally succeeded in destroying Russian forces still west of the Dnepr. By **5 Aug 41, 16-20** Russian divisions which had been encircled near Uman

were destroyed despite repeated delays caused by bad weather. Subsequently, the entire Dnepr bend was cleared of Russian forces. . . Rundstedt now intended to establish bridgeheads at Dnepropetrovsk, Kremenchug, and Cherkassy at the earliest possible moment. The **6. Army** was in a less favorable situation, since it had been unable to score a decisive success at Kiev or against the Russian **5. Army**. On the contrary, some relatively strong Russian counterattacks had led to critical situations, particularly around Kiev and south of that city. On the whole, AGS had concluded the initial phase of the operation w/o fully attaining its objective. The weather had seriously hampered operations. The destruction of Russian forces west of the Dnepr had been only a partial success. (86-87)

**Aug 41:** In AGC area, the first half of the month was characterized by defensive fighting against local Russian attacks. Near Yelnya, strong counterthrusts were held off during heavy fighting lasting until **8 Aug 41**, while local German thrusts near Rogachev and Roslavl eliminated enemy threats in those areas and at the same time relieved the pressure against the southern flank of the army group and against Yelnya. (87)

**8.-10.8.41:** The entire 2 PzGr was pulled out of the line by **8 Aug 41** and the **3 PzGr** followed two days later.<sup>105</sup> It was anticipated that the rehabilitation of these armored units would be completed by **15** and **20 Aug 41**. (87)

**10.8.41:** The AGN drive began on this day w/ a three-pronged attack on Leningrad. One force thrust northward from Lake Ilmen, a second one from the Luga area, and a third approached Leningrad from the west. All three [3] attack forces encountered stubborn resistance, and their progress was therefore slow. (87)

f. The Army Memorandum of 18 Aug 41:

On this day, General Halder sent to Hitler a memorandum which summarized the viewpoint of the army. . . Memorandum makes case for major assault on Moscow, with all forces of AGC massed to attain this one objective, and all other operations being considered as secondary. The two other army groups would be sufficiently strong, so the memorandum argued, to accomplish their missions w/o outside assistance – i.e., w/ their own forces. . . For the execution of the operation AGC would have **42** infantry, **1** cavalry, and **12 ½** armored and mot. infantry divisions. Both army group flanks would first have to be cleared by preliminary operations. . . AGC would be ready to jump off at beginning of **Sep 41**. . . A minimum of two [2] months would be required for the operation. (**Note:** See narrative, pp 88-92)

On same day – **18 Aug 41** – General Warlimont wrote an Armed Forces Operations Staff estimate that fully endorsed the Army memorandum. . . He arrived at same conclusions as the Army: the northern and southern army groups were sufficiently strong to accomplish their missions w/ their own forces while AGC conducted the offensive against Moscow. In summarizing, he restated that the prerequisite for the success of the latter operation was that no forces would be diverted to such secondary operations as the southeastern thrust of **2 PzGr** and that, if necessary, critical situations along the flanks or in the rear should be ignored so that the attack forces could concentrate on the essential drive toward Moscow. (92-93)

g. Hitler's Decision (20 Aug 41):

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<sup>105</sup> **Note:** Is this accurate? Check other reliable sources!

On this day, Hitler declared that he disagreed w/ the contents of the Army Memorandum. He was not interested in Moscow and the forces assembled in the vicinity of the Soviet capital. His ideas found their expression in an order issued to the C-in-C of the Army on **21 Aug 41**, which **ended the controversy** over the continuation of operations. Among the most significant points were the following:

The most important objective was not the capture of Moscow; top priority was to be given to seizing the Crimea and the industrial region of the Donets Basin, to cutting off the Russian oil supply from the Caucasus in the south, and to encircling Leningrad and linking up w/ the Finns in the north. . .

The seizure of the Crimea was of utmost importance for safeguarding the German oil supply from Rumania. A rapid advance into the Caucasus would be desirable to exercise pressure on Iran. Putting a tight noose around Leningrad, linking up w/ the Finns, and destroying the Russian **5. Army** were the immediate tasks that would create the proper conditions and make available the forces necessary for attacking and defeating the Russians defending Moscow IAW the instructions issued in the Supplement to Directive No. **34**. (**Note:** For more details see, 93-94)

**32. T-7:** “*Comments on Russian Railroads and Highways,*” Gen.-Lt. Max Bork.<sup>106</sup> 1953.

## **I. Description of the Russian Traffic Network**

### a. The Rail Net:

[**Note:** See text for details of main Russian rail lines.] There were three [**3**] areas in which industrial development had resulted in a certain density of trackage: the Donets Basin, Moscow and Leningrad. (2-3)

#### 1. Railroad Plant:

Since rock is scarce in Russia, few railroads had beds of crushed rock ballast. In lieu of rock, sand and gravel was widely used. (3)

The prevailing gauge of Russian railways is **5** feet, as compared to a gauge of **4’ 8 ½”** which is standard in most countries. This wider gauge provided more loading space per car and compensated to some extent for the Russian shortage of rolling stock and the limited capacity of the railway lines. (3)

Marshalling yards, shunting installations, and turn-arounds (wyes instead of turntables [?]) covered wide areas because land was cheap. This dispersion was advantageous in the event of air attacks. (3)

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<sup>106</sup> **Note:** In **1939/40** Gen.-Lt. Bork was a branch chief in Transportation Division of the German Army General Staff. Among other things, study includes some terrific statistics on achievements of rail services in support of AGN, details on Grosstransportraum, etc.

Signalling and safety devices, even on the main lines, were primitive. In many cases only a semaphore was used to designate right-of-way. The Germans observed *electrically-operated devices* only on the Moscow – Kharkov line, which, incidentally, was the only line w/ a bed of crushed-rock ballast. (3-4)

The German invaders found that some of the railway bridges in European Russia were temporary, having been built during World War I. By German standards they were unsafe and most of them could not have supported the trains loaded w/ heavy tanks, which were in use during the later years of World War II. (4)

Much of the coal and water of European Russia is unsuitable for use in locomotives w/o special processing. For instance, at Losovaya, a large rail junction south of Kharkov, the Germans found a large tank of oil at the coaling point in which coal from the Donets area had to be soaked to render it usable. Between Dnepropetrovsk and Stalino the water at each of the **11** watering points had to be treated w/ different admixtures to prevent the formation of boiler scales. (4)

Along the Russo-German border, east of the Bug and Nieman Rivers, the Russians had *established a strip of no-man's land to deprive an invader of railroad facilities*. As a result, the railroads passing through this area were equipped to handle only through-traffic. There were no marshalling yards, shunting installations, detraining points, workshops, or other major facilities. This deficiency proved disadvantageous to the Germans during their advance as well as at the time of their withdrawal. (4)

## 2. Rolling Stock:

. . . In employing western European locomotives in Russia, the Germans had to remember that in Russia water stations are farther apart than in most other countries since Russian locomotives have a greater water capacity. Throughout the war the Germans converted Russian-gauge freight cars to normal gauge. The German State Railway developed specially equipped shop trains w/ lifting devices which permitted the change-over within a few minutes. However, the gauge of the Russian locomotives could not be changed. (5)

## 3. Personnel:

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### b. Highways:

#### 1. Background of the Existing Highway Net:

In **1941** European Russia did not have a highway net comparable to those in western European countries. The few roads which existed had only a limited capacity and *apparently had not undergone any appreciable change in construction or lay-out during the past 100 years*, a condition due primarily to the relatively small demands of peacetime traffic. . . (6)

## 2. Condition and Capacity of Roads:

In contrast to the former Baltic States, where *paved roads were common*, the roads of European Russia had paved or asphalt surfacing only in and near large cities and industrial centers. The only road which had been built according to western European standards and which was given constant maintenance was the *Minsk – Moscow highway*. The Germans designated this highway as Army Group Center's "Rollbahn." (6)

The terms "Trakte" or "Greter" were used to refer to those through roads which cut straight across country and were often more than **100** yards wide. In summer these roads were extremely dusty. After a rain or thaw they became so mired that they could not be used by wheeled vehicles. (6-7)

## **II. The Influence of Highways and Railroads on Operations**

### a. Offensive of Army Group North against Leningrad (1941):

#### 3. The Rail Net:

**22.6.-19.17.41:** In support of Army Group North (including **1 Air Force**), it is estimated that **323** trains moved about **160,000** tons thru **19 Jul 41**. Shipping on the Nieman River as far up as Kaunas relieved the burden on the railroads by some **18,000** tons between **28 Jun 41** (three days after the Germans occupied the area) and **19 Jul 41**. (17)

**22.6.-21.10.41:** In area of Army Group North (over this period), **4200** miles of standard western European gauge (4' 8 ½") and **312** miles of narrow gauge track were laid; **3750** miles were converted from narrow to standard gauge; and **186** rail bridges were restored. The rail net was adequate to meet the Army Group's requirements. (19)<sup>107</sup>

**20.7.-21.10.41:** The following figures indicate the achievement of the rail system in the movement of personnel and material during the phase of the operation from **20 Jul – 21 Oct 41**:

**1638** supply trains carried **821,000** tons for Army Group North;  
**300** supply trains moved **248,000** tons for **1 Air Force**;  
**531** trains carried troops;  
**360** trains supported rail operations.

All told, **2829** trains carried **1,069,000** tons (not counting troops trains and trains used for rail operations). (19)

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<sup>107</sup> **Note:** This is confusing. What is the difference between „narrow“ gauge and „European“ gauge? Also, didn't the Germans convert (for the most part, at least) the “wide” Russian gauge into the “standard” European? Or perhaps these results were just specific to area of AGN. Did the Baltic States not use the so-called “narrow” gauge? Writes author: “The Germans had to overcome difficulties arising from the extensive narrow gauge rail net, particularly in northwestern Estonia.” (20)

The additional contributions made by the Nieman shipping during this phase rendered possible the moving of **2650** combat troops, **23,350** wounded, **6020** tons of supplies, and several thousand tons of empty containers. (19)

**Note:** The overall effectiveness of the transportation net within the area of Army Group North was greatly improved by use of waterways for movement of supplies. (For details see, pp 21-22)

## **VI. Influence of Russian Railroads/Highways on German Supply Situation, as Illustrated by Supply Problems of Army Group Center 1941/42**

### a. Railroads:

During the entire Russian campaign the railroads constituted the primary means of transportation for supplies. The *Grosstransportraum*<sup>108</sup> of the German Army's Chief of Supply and Administration (w/ a total capacity at the beginning of the Russian campaign of only **50,000** tons, which had been broken down among the army groups and armies), as well as the organic truck transportation of each army (**880** tons), infantry division (**220** tons), motorized infantry division (**330** tons), and panzer division (**650 – 1000** tons) were quite unable to replace the railroads when large distances were involved. As will be shown later, this could have been accomplished only if the Grosstransportraum had been increased **700%**. However, this was impossible because both vehicles and fuel were in short supply. Over limited distances (**200-300** miles), however, truck transportation could temporarily assume the railroad's supply function. (36-37)

The German planners were fully aware of these factors and took them into consideration. It was calculated that the German forces could advance **300** miles w/o rail support. A halt was then anticipated, primarily to replenish the stock of fuel. At same time, it would become necessary to move up supplies and establish supply bases close to the front. In view of the large tonnage to be moved in this operation the use of rail transportation would be imperative. . . After the rail line up to Minsk had been restored and the supplies necessary to continue the drive brought up, the Germans continued their advance. . . (37-38)

The main supply line for AGC ran via Smolensk to Vyazma. Dependent on it were three [3] armies and two [2] panzer groups. (38)

Winter **1941/42:** By this time it was evident to what extent the movement of supplies . . . depended particularly on the railroads. The inability to complete rail lines on schedule, and their failure to fill requirements, caused repeated interruptions in the offensive and finally culminated in the crisis at the gates of Moscow. . . In the area of Army Group North, on the other hand, the *situation was much more favorable* since there the railroads would adequately handle the long-distance hauling, leaving the available trucks free to handle exclusively the distribution of supplies near the front. (38-39)

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<sup>108</sup> **Note:** Heavy truck transportation facilities in its general sense. Specifically, each Army Group on the Eastern Front was assigned one heavy truck rgt, which was equipped partly or entirely w/ civilian vehicles in lieu of their military counterparts. These truck units were non-organic w/ respect to the T/O of an army. (36-37)



The railroad had the advantage that it could operate uninterruptedly around the clock, so that despite some delays and low speeds it could still cover an average distance of **500** miles/day, which was three [**3**] times the distance trucks could be expected to traverse. Thus, the movement of supplies over long distances was unquestionably the responsibility of the railroads – a fact which had been borne in mind during the planning phase. (39)

The following example from area of AGC illustrates the importance of the railroad during the Russian campaign:

In the area of **9. Army** an average of **20** German divisions – as many as **33** in major battles – participated in the fighting in the Vyazma – Rzhev sector. Their daily supply requirements varied between **2800** and **4000** tons, the equivalent of six [**6**] train loads. The distance from the border of East Prussia to the front-line divisions was about **900** miles. Assuming a possible average daily mileage capability of **180** miles, a non-organic truck capacity of **33,000** tons (including a safety factor of **5000** tons) would have been necessary to deliver the above-mentioned **2800** tons of supplies daily.<sup>109</sup> (40)

At the beginning of the Russian campaign in **1941**, **9. Army** was actually allotted a non-organic truck capacity of **3300** tons. By the time the army had reached Rzhev, this capacity had already been reduced by half. During a six-month period in **1942**, no non-organic trucks whatever were available in **9. Army** area. (40)

b. Highways:

It remained, of course, for the trucks to carry the supplies from the railheads to the front-line units. However, there were only a few roads in Russia which were capable of handling heavy traffic. There were practically no improved roads in **9. Army** area north of the Minsk – Moscow highway. Even the latter highway did not come up to western European standards. *From Minsk to Smolensk it had an asphalt or concrete surface. Between Smolensk and Vyazma granite slabs constituted the paving. East of Vyazma the highway was still under construction.* . . . (41-42)

In the beginning, full use of the Minsk-Moscow highway was not possible due to following reasons: First of all, the Russians had laid delayed-action mines in the roadbed which left some craters the entire width of the pavement. . . Moreover, during the first half of **1942**, traffic was sometimes blocked for days due to enemy interference. Finally, the highway suffered greatly from the heavy flow of traffic since its surface could not withstand indefinitely the strain of the heavy loads (up to **20** tons). Still, the Minsk-Moscow highway remained the only usable supply route for AGC's left wing, and was used simultaneously by **4. and 9. Armies**, as well as by **4. Pz Army**. . . (41-42)

Muddy season: The Russian *three-axle trucks* accomplished wonders on muddy roads and in muddy terrain, for which they had been specifically designed. Since German trucks were not

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<sup>109</sup> In other words, a round-trip (East Prussia – front sector – and back) would take **10** days. Thus, each truck convoy in the “Pendalverkehr” would have to have a capacity of **2800** tons.  $2800 \times 10 = 28,000$ . But were not depot stocks rapidly moved forward from Germany into Russia – to Smolensk, Vyazma, etc. – which would make the truck trips much shorter?

equipped w/ all-wheel drive and thus lacked cross-country mobility, their use was restricted to the better roads. Such roads increased in importance whenever the axis of movement led thru forests, swamps, and other types of difficult terrain. (43)

**Note:** Motor traffic never did come to a complete standstill at any point along the Russian front, and there *never was a complete breakdown of the German supply system.* (45)

## **VII. Conclusions:**

In World War II the strategic importance of the railroad in the vast expanses of Russia was indisputably greater than in any other European theater of war – truth equally applicable to attack, defense and withdrawal. (45)

This fact, as well as the axiom of the elder Moltke, viz., that military operations may be imperiled to the point of failure if the troops advance too far ahead of the railroad termini, held true for motor transportation during the Russian campaign. (45)

During the Russian campaign the Germans were faced w/ the problem of bringing about a reasonably smooth transition from wide gauge to standard gauge. This conversion required a lot of manpower from the very beginning particularly construction and operating units. During the restoration of the rail lines in Russia the Germans had to devote special attention to the repair of damage caused by large-scale Russian demolitions. The Russians were “masters of destruction,” and the Germans soon learned to take this into account in their planning. (46)

The difference in gauge initially compelled the Germans to transship all supplies at the border, a process which consumed much time and manpower. Consequently, the Germans began to convert wide gauge to standard gauge ASAP. The need for this conversion became even more urgent as *less Russian rolling stock was seized.* (46)

Russian roads and bridges, as a rule, had been constructed solely for the limited requirements of peacetime traffic, and were unable to support a constant flow of heavy trucks and equipment. This was particularly apparent in areas where the roads led through extensive swamps or sandy soil. . . (47)

German maps were for the most part not reliable for the purpose of evaluating the Russian rail and road net. Captured Russian maps proved more valuable and were reproduced as quickly as possible for distribution to combat units. (51)

### **33. T-28:** “*Battle of Moscow (1941 – 1942)*,” Gen. Hans v. Greiffenberg, *et al.*<sup>110</sup>

**(Note:** Writes Greiffenberg: This study written primary „from memory, w/ the help of only a few personal notes recorded during the time I was Chief of Staff of Army Group Center. Chapter ‚D’ was written by the then Chief of Staff of 4. AOK. Official records of the Army Group or of the subordinate armies, particularly orders of battle and time tables were not available. The only official documents used were the diary of the Army High Command’s Operations Branch

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<sup>110</sup> **Note:** Von Greiffenberg was “Stabschef” of H.Gr.Mitte.

(however, w/o any enclosures) and the situation maps of the eastern front, which were of utmost importance.”<sup>111</sup>

**a. The Summer Offensive of Army Group Center:**

**22.6.41:** Author states that units of Army Group Center had been assembled along a front of approximately **500 km**. . . Mission of the army group was to „penetrate the Russian border line concentration between the Pripet Marshes and points north of Suwalki . . . and to undertake a thrust in the general direction of Smolensk, regardless of the developments at the neighbor’s sector. (4-5)

**Jul 41:** The victorious armies and panzer groups threw the Russians back across the Dnepr and the Dvina, broke thru the so-called „Stalin Line,“ and captured the corridor west of Smolensk early in July.<sup>112</sup> (5)

**Aug-Sep 41:** Averaging a **17 miles** advance a day, the Army Group penetrated **480 miles** into Russian territory, after crossing the Bug, Szczara, Beresina, and Dnepr. By the end of **Aug 41** it had reached the general line: West of Gomel – Smolensk – Velikie Luki. . . Of course, a continuous frontline did not exist as yet. The engagements were fought by more or less loosely joint combat groups. The southern wing was still tied down to a great extent by the final actions of the battle of Kiev. The center was involved in particularly grim engagements at the Yelnya salient SE of Smolensk. (7)

**b. Enemy Situation and Intentions of the Army Group:**

In short, in **Sep 41**, the following situation prevailed in the camp of the enemy facing our Army Group:

- 1) Inferior and often battered [enemy] troops were fighting at the front; units of higher standard were concentrated only at a few focal points.
- 2) Behind it, loosely organized, were three [3] militia armies consisting of ca. **15 divisions** w/ limited fighting power and second-rate equipment;
- 3) In the depth of the battle area, large-scale reorganizations as well as the first arrivals of troops from the Far East were observed;
- 4) Large-scale organization of the ground for the immediate defense of Moscow had been in progress for weeks;

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<sup>111</sup> **Note:** General v. Greiffenberg also states that his study was written „primarily from a strategic point of view.“ It is important to note that, because this study was written primarily from memory, it appears to contain some errors of detail. For example, early on Army Group South is called Army Group „A,“ while **17. & 18. PD** are listed as belonging to **48. PzK** in **Oct 41** (they actually were component’s of Lemelsen’s **47. PzK**) (6-7, 16)

<sup>112</sup> **Note:** This „corridor“ is of utmost military geographical importance. It is the flat and low plateau south of the Waldai Heights, the water-shed between the Black and Caspian Seas on one hand and the Baltic and Arctic Seas on the other hand. It is furthermore the terrain in which the sources of the Volga, Lovat, Dvina, and Dnepr are located.

- 5) Tanks tried and proved in combat, particularly the well-known [?] **T-34** tanks, appeared on the scene; so did the so-called „Stalinorgel,“ the value of which was *very confined to their morale effect*. . . On the other hand, the German Luftwaffe continued to be undisputably superior to the Red Air Force.
- 6) Reports indicated an increase in the number of sabotage acts and in partisan activities in the rear areas. (11-12)

To gain a clearer picture of the happenings at the vastly-extended frontlines and of the operations which, at times, had become rather complicated, the developments w/in the Army Group are being illustrated in phases, i.e., the development of the situation at the Army Group's HQ, southern wing, center, and northern wing during a specific time period shall be described concurrently [**Note:** I believe he means consecutively].

### **c. The Southern Wing of the Army Group:**

#### **(2. AOK & 2. PzGr)**

##### **1. The Battle of Bryansk:**

**6.10.41:** On this day, **2. PzGr** was renamed „Panzer Army.“ (Gradually, all panzer groups received this new designation.) The main reason for this change was to accord the commanding general the same standing and authority that the other army cdrs enjoyed. (16)

**8.-18.10.41** [Bryansk pockets]: On **8 Oct 41**, the spearheads of the two pincer movements, Guderian's **47. PzK** and Weich's **43. K**, met up in the area of Lovat, NE of Bryansk. At the same time, **47. PzK** succeeded in capturing the large industrial center of Bryansk – Ordzhonikidzegrاد and the bridges across the Dnepr [sic – author must mean the Desna!] which were still intact. The enemy forces north of Bryansk were thus encircled. To the south, in the area of Trubchevsk and on either side of the Desna, a great number of Russian units had also been cut off by the outflanking maneuver of **47. PzK**. During the next **10 days**, **2. Army** and **2. Pz Army** fought a series of fluctuating engagements and attempted to wipe out the individual pockets [around Bryansk] between their inner wings, pockets in which elements of the Red **13. and 50. Armies** were holding out. **2. Army** took over the mission in the west and NW, and **2. Pz Army** in the east and SE. The engagements were time-consuming and costly; the enemy offered extremely stubborn resistance. The final phases of the battle north of Bryansk were not concluded until **17 Oct 41**. (18-19)

**25.10.41** [Command Reorganization]: **2. Pz Army's** success in gaining terrain west of the Oka River, and **4. Army's** speedy advance in an easterly direction toward Kaluga considerably narrowed **2. Army's** combat area. Thus, effective **25 Oct 41**, a reorganization of the chain of command took place on the southern wing. **2. Army** HQ (Weichs) was pulled out and was given the mission of protecting the Army Group's flank and wing. For this purpose, **2. Army** assumed command over **48. PzK** and the two Provisional Corps, namely the **34. and 35. K**. In exchange, the **2. Pz Army** (Guderian) assumed command over the area up to the right wing of **4. Army**, and was assigned two new corps: **43. AK** w/ **31. and 131. ID**, and **53. AK** w/ the **112. and 163. ID**. . . **13. AK**, so far at the northern wing of **2. Army**, was now attached to **4. Army**. As had been planned for some time, **1. Cav. Div.** – the last German cavalry unit – was transferred to East Prussia to be reorganized into a panzer division. (19-20)

## 2. Advance against the Southern Front of Moscow:

The reorganized **2. Army** under GFM v. Weichs took over the protection of wings and flanks of Guderian's panzer army in the newly assigned front sector, and organized its units for a planned advance in general direction of Kursk. (20-21)

**Oct-Nov 41:** A glance at the situation map, end of **Oct 41** – beginning of **Nov 41** illustrates to what extent the operations in Russia were influenced by weather and road conditions. . . This holds particularly true for mot. units. In one never ending column almost all panzer and mot. units of the Panzer Group [i.e., **2. Pz AOK**] were clutting up the highway from Tula all the way back to far beyond Orel, thus exposing their flank to the enemy. Only elements of the inf.-divs., taking advantage of every side road which could possibly be used, were able to advance in the intermediate terrain. (23)

**27.10.41:** On this day, **24. PzK**'s armored point again encountered rather heavy resistance due south of Tula. . . At times, the forces in front of Tula had to be supplied by air, since the road from Orel could not be used and since the railroad at that time went only as far as Mtsensk. The combat strength was materially decreased thru combat casualties and losses during the march. The **3. PD**, the most advanced of the divisions stuck in the outskirts of Tula, had only **40** serviceable tanks left. (24)

**Nov 41:** The situation in the Tula area did not change essentially. The civilian population participated in the defense of the city. Enemy forces detrained along the railroad Yefremov – Stalinogorsk and advanced against the rear of our own Tula sector. The command general of the Panzer Army thus decided to move **53. AK** to the east thru territory south of **24. PzK**, in order to eliminate the threat to the rear. To the right of it, **47. PzK** approached, the bulk of which had moved up w/ great difficulty along the road Orel – Chern. (24-25)

Engagements lasting several days were fought in Terplove and in the area around it, and as a result the enemy was again thrown back beyond the railroad Yefremov – Stalinogorsk. However, the German **112. ID** suffered considerable [reverses]. . . After carrying out its task and disengaging itself, **53. AK** moved in a northern direction toward the Don, east of Tula, while **47. PzK** was charged w/ the protection of the flanks and wings. Northwest of Tula, **43. AK**, adjacent to **4. Army**'s right wing, had advanced via Kaluga approximately to the line Poprorka – Aleksin, where it had to repel uninterrupted enemy counterattacks. (26)

Toward the middle of the month [i.e., **Nov 41**], frost set in w/ such severity that its detrimental effects considerably affected troops and supply. Tank turrets froze and could not be turned; automatic wpns failed, motors were difficult to start, tanks slid on the icy slopes, locomotives which had not been winterized could not be put into service. Railroad traffic decreased abruptly, a fact which had almost catastrophic results for the army group during the entire winter period. (26)

**18.11.41 [Offensive Plans]:**<sup>113</sup> The troops at least regained their mobility; roads and terrain became passable again. Thus, on **18 Nov 41**, the Panzer Army resumed its offensive, while **2. Army** formed a large protective arch from Kursk to Yefremov. The following units were committed in a fan-like manner and given far-reaching objectives:

### a. 47. Pz.K:

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<sup>113</sup> **Note:** Confirm these details w/ other reliable sources!

18. **PD** against Yefremov.  
10. **ID (mot.)** against Yepifan-Mikhaylov.  
29. **ID (mot.)** against Spaskoye.

Mission for the corps: Protection of the Panzer Army's eastern flank. A special Kampfgruppe, the **17. PD**, was sent ahead of the Corps' front lines in the general direction of Kashira, to capture the bridges across the Oka.

b. **53. AK**:

To left of „a,“ the **53. AK**, w/ the **163. ID** and **25. ID (mot.)**, launched an attack across the Shat between Stalinogorsk and a point north of Delilovo toward Veney, NE of Tula. . . The **112. ID** of this Corps had to be left behind in the area of Stalinogorsk since its combat efficiency had become inadequate after the reserves [sic!] suffered at Terploye.

c. **24. PzK**:

With **3.** and **4. PD**, the **IR „GD,“** and the **296. ID** which was still on the march, this corps had to capture Tula by double envelopment.

d. **43. AK**:

The **31.** and **131. ID** advanced along the southern bank of the Oka River between Kaluga and Aleksin and was ordered to mop up this area and secure contact between **2. Pz Army** and **4. Army** in the area between Tula and Aleksin. (26-28)

**20.-24.11.41**: The movements ordered were carried out according to plan. On **20 Nov 41** the Shat was crossed; on **24 Nov 41**, Veney was taken which had been defended by stubbornly fighting remnants of Russian **50. Army**. In course of this operation, **40** Russian tanks were destroyed. **24. PzK** in front of Tula also gained some ground. Despite these initial successes, Guderian was of opinion that his Army was no longer equal to its task. On **24 Nov 41**, he personally submitted a report to GFM v. Bock, emphasizing the seriousness of the situation. He pointed out: The state of exhaustion of the troops, particularly of the infantry; the inadequate winter equipment; the inadequacy of supplies; the small number of tanks and guns on hand; the uncertainty along the extended eastern flank; and, finally, the increasing number of fresh Russian troops observed arriving in area of Kolomna – Ryazan. . . After listening to G.'s situation report, GFM v. Bock telephones GFM v. Brauchitsch in presence of Guderian, requesting that the Panzer Army's mission be changed, that the attack order be cancelled, and that the Panzer Army go over to defensive in suitable winter position. Obviously not free in his decision, GFM v. Brauchitsch insisted that the attack be continued, but finally agreed to limit the objective to the Mikhaylov – Zaraysk line, while also pointing out the necessity of destroying the railroad Kolomna – Ryazan. (28-29)

**Nov 41**: In the following days, **53. AK** and **47. PzK** continued their efforts and succeeded in enveloping Stalinogorsk and penetrating w/ **17. PD** as far as the area south of Kashira. . . Demolition parties were sent to the railroad near Ryazan, the destruction of which had been ordered. Three combat units of **10. ID (mot.)** reached the line as far up as the area of Mikhaylov. . . Only the advance elements of **296. ID**, which had been brought up from the rear, had reached the Upa River SW of Tula. (29-30)

**28.11-2.12..41:** Army Group issued an order on **28 Nov 41** to effect that the Panzer Army, for the time being, was to concentrate its efforts on bringing the battle of Tula to a conclusion. Several days later – on **2 Dec 41 – 24. PzK** set out from its densely concentrated assembly areas in a new attempt to envelop Tula. **24. PzK** succeeded in breaking thru to the enemy advance positions. Some tanks, bypassing Tula to the north, reached the road Tula – Serpukhov, were however confronted w/ a particularly difficult task and suffered many losses in this close wooded terrain north of the city. **43. AK** had been expected to launch an attack from the NW; however, due to its limited combat strength it could not be committed. . . (30-31)

### 3. Withdrawal of the Frontline:

**ca. 5.12.41:** Army Group ordered the discontinuation of the battle of Tula and the withdrawal of the Panzer Army behind the rivers Don – right wing Yepifan–Shat, and Upa. . . The Don – Shat – Upa line was not an ideal defensive position. Ordinarily, the river valleys presented considerable impediments, however during the mid-winter they did not constitute any serious obstacles. Moreover, the extended settlements and industrial installations of the coal mining district around Stalinogorsk made observation more difficult. The advance elements of **24. PzK**, **47. PzK**, and **53. AK** were ordered to withdraw by sectors to the above-mentioned line. Evacuation of the wounded and hauling away of damaged equipment was also initiated. A great number of guns and vehicles, however, had to be left behind due to the heavy frost and ice. On the whole, the retrograde movement was carried out w/ little enemy interference. Only at Mikhaylov, elements of **10. ID (mot.)** were caught in a surprise attack and suffered heavy losses. (32-33)

**ab 10.12.41:** Army Command intended to defeat the enemy still engaged at Yefremov, to hold the lines reached, and to reconnoiter and establish a winter position along the line: SE of the Timksen [sp?] sector – Chernova – east of Yefremov. However, this plan could no longer be put into practice. Ca. **10 Dec 41**, the Russians launched a surprise attack, at first w/ cavalry, later on w/ armored and other troops, and effected a deep breakthrough NE of Livny between **48. PzK** and the Provisional **34. K**. This bulge soon reached a width of **25 km**. . . The divisions of the two provisional corps had to be taken back swiftly. During this withdrawal, the **45. ID** got in a most difficult situation, and some elements of the division were even completely wiped out. Yefremov was lost. (33)

[**Note:** According to v. Greiffenberg, about this time the „Provisional Army ‚Guderian““ received **170** new tanks and **25** assault guns, originally earmarked for Army Group South. Need to confirm this! (34)]

**14.12.41:** C-in-C of German Army (GFM v. Brauchitsch) holds conference at Roslavl w/ commanding generals of the Army Group and the armies fighting in the south [?]. On this occasion, Guderian was entrusted w/ the unified command of the southern wing, and **2. Army** as well as the **2. Pz Army** were incorporated into the „Provisional Army Guderian.“ The following directive was issued: „The two Armies were to hold the line: east of Kursk – east of Orel – Plavsk [sp?] – Aleksin. If worst comes to worst, they were to hold the position along the Oka. (34)

**20.12.41 [Guderian at Rastenburg]:** Guderian, w/ approval of Army Group, flies to Fuehrer HQ to submit verbal report on seriousness of situation. . . During a **5-hour** conference, Hitler prohibited a withdrawal to the Zusha – Oka position, which had been under construction since **Oct 41**, despite the fact that this retrograde movement had already been initiated w/ the prior approval of Army High Command. **2. Pz Army** rather received the binding order to „sink its fangs into the ground,“ and if the frost prevented the troops from entrenching „to fire heavy

*howitzers so as to create craters which could be used as positions, just as we had done it in Flanders in 1917.“ (35-36)*

**25.12.41:** Yet conditions at front were more powerful than the aspirations which Hitler had expressed in his order. Again and again the front of the Panzer Army was penetrated at various weak points, and finally pushed back to the Pavla position, and later on, at Christmas, to the Zusha – Oka position. Most of its divisions had been reduced to the strength of regiments. . . As far as the terrain was concerned, the Oka sector was rather suitable for a prolonged defense. (36)

#### 4. Occupation of the Winter Line:

The deep river bed and the over-towering western bank of the [Oka] river served – as long as it did not freeze – as a usable tank obstacle and afforded a certain view of the terrain underneath. A large number of villages, also at the western bank, could be used for quartering the troops. At the eastern bank of the river however, 5-6 km away from the river, there was an extended wooded area which benefited the enemy preparations and which was cleverly exploited by the Russians. (36)

**25.12.41:** Guderian relieved of command. . . General Schmidt, C-in-C of **2. Army**, assumed command over both armies. The retrograde movement of the Panzer Army was extremely impeded by the gap at its northern wing which, ever since the battle of Tula, had existed between **24. PzK** and **43. AK**, and which had become continuously larger on account of **43. AK**'s withdrawal toward Kaluga. **OKH** and Army Group had explicitly pointed out this imminent threat of a developing gap and had shifted the boundary line in such a way as to eliminate all doubt that the Panzer Army was responsible for this area. Still, we did not succeed in sealing off this gap w/ a sufficient number of troops. This was mainly due to the fact that the extremely mauled **43. AK** did not withdraw toward Sukhinichi along a wide front; due to road conditions, the bulk of the corps endeavored to reach the supply base Kaluga from where the corps had originally come. Moreover, on account of the deplorable road conditions, the reinforcements dispatched from the south did not arrive in time. Thus, the prepared Oka position between Belev and Peremyshl was not sufficiently manned. The newly-organized Russian **10. Shock Army** found no obstacle across the frozen river and, being constantly reinforced from the rear area, drove a breakthrough-wedge as far as Sukhinichi. (37-38)

**25.12.41:** On this day, upon intervention of the Army Group, a final attempt was made to seal off the gap in the frontline at Belev, and to cut off the enemy troops which had already broken through. **53. AK** which had already taken position behind the Oka River was charged w/ this mission, and **4. PD** attached to it for this purpose. However, this attempt, too was not crowned by any real success, particularly since the spearheads of the attack bogged down in the snow drift w/ their artillery and heavy wpns. . . [Note: Russians cross Oka River at important spot; hence this sector which was „most suitable for a stand during the winter had thus become worthless.“] (38)

**2. Army** had succeeded in forming something of a continuous defensive position along the general line: east of Kursk – west of Livny – Novosil, and in establishing in the Zusha sector some sort of weak contact w/ the adjoining units. The combat area here was considerably larger and thus more sparsely held than that of **2. Pz Army**. The front of the Panzer Army's southern sector was protected by the Zusha and Oka Rivers, the central front was completely torn up, and in the north, a Kampfgruppe of the Panzer Army was only in loose contact w/ the adjacent **4. Army**, west of Sukhinichi. (39)



**Jan 42 [Sukhinichi]:** At beginning of month, enemy launched a surprise attack and encircled the German Kampfgruppe in city of Sukhinichi. **2. Pz Army** dispatched some quickly assembled forces from area of Zhizdra in attempt to relieve the encircled troops. However, this attempt failed at first. To get additional reinforcements, Army Group ordered **216. ID**, *originally earmarked for assignment to 9. AOK*, sidetracked and detained. It was not until **25 Jan 42** that a small tank column, advancing along the railroad Bryansk – Sukhinichi, succeeded in entering the city proper and liberating their encircled comrades. (39-40)

**Jan 42:** After the turbulent actions at Sukhinichi, *only local engagements were fought at the Army Group's southern wing*. . . During the month of **Jan 42**, all major ops on both sides came to a hold at the southern wing. . . After giving up a strip of terrain of ca. **100 km** depth, the Germans terminated their withdrawal and retired to a „winter line,“ in which both armies remained until spring.

#### **d. The Center of Army Group Center:**

##### **(4. AOK & 4. PzGr)**

##### 1. Battle of Vyazma (Oct 41):

**Sep 41:** GFM v. Kluge assumed command over **4. PzGr** as well for attack on Moscow. . . The last conferences between commanding generals of **4. Army** and **4. PzGr** were held at **4. Army's** CP near Roslavl at end of **Sep 41**. It was essential to strengthen the right army wing east of Roslavl as much as possible, and to assemble **4. PzGr** in that area. This right assault wing at either side of the „Rollbahn“ Roslavl – Yukhnov had to be narrow and deep in order to breach the strong Russian positions which were placed on rising ground, and to advance as quickly as possible. . . Sketch 11 shows the order of battle of the reinforced **4. Army** on the day of the attack. The heavy concentrations at the right wing can be clearly recognized. [Note: Narrative continues w/ individual assignments of each corps.] . . . (42-45)

Author notes that this engagement – i.e., the Battle of Vyazma – signified „a classic example of a battle of encirclement which had been prepared w/ exceptional precision, and in which all calculations had [been] worked out down to the smallest detail of time and space, w/o any major frictions. . . Furthermore, this battle shows the exemplary cooperation of two armies under the determined and clear leadership of the Army Group.“ (46)

##### The Beginning of the Attack on 2 Oct 41:

This first day already brought better results than had been anticipated. The courageous **197. ID**, in an exemplary manner, broke thru the enemy lines on either side of the large highway. [Note: This division – attached to Farnbacher's **7. AK** – had the difficult task of breaching the strong enemy positions constructed at both sides of the Rollbahn; to this end, the artillery was massed there and the **197. ID**, which was short of two btns, was deployed along a narrow sector, echeloned in depth.] All divisions made excellent tactical advances. In the evening, it was already evident that the tactical breakthrough had succeeded in a surprisingly short time. . . The panzer divisions, spearheaded by **10. PD**, had already broken thru an area of **30 km** and were beginning to „roll.“ The brave **12. AK**, spearheaded by **34. ID**, had also broken thru up to **20 km** in the direction of Kirov. (46-47)

### Overall Development of the Operations:

**6./10.10.41:** On **6 Oct 41** already, **4. Army** HQ had moved up to Spas Demensk; and on **10 Oct 41** it had moved further up to Yukhnov.

**Mid-Oct 41:** By now, the so-called „*Rasputitsa*,“ had set in „w/ great force.“ . . . Heavy guns bogged down in the mud. In many instances, **10-12** horses had to pull one single gun, step by step. . . During these days, the Russians used their first **T-34** tanks against which our **37-mm** and **50-mm** AT guns were completely ineffective. We had to combat these tanks w/ our **10 cm field howitzers**. This made a „deep and lasting impression“ upon our troops. (49)

### 2. The Period from Mid-Oct 41 to Mid-Nov 41 in Front of Moscow:

**26.10.41:** **4. Army** HQ had been moved to Maloyaroslavets as early as **26 Oct 41**, and was thus close behind the units carrying out the assault. To the complete surprise of command and troops, the enemy resistance stiffened more and more at the end of **Oct 41**, and as a result the reinforced **4. Army bogged down** at the Oka, Nara and east of the Ruza. Here, in the wooded area south and SW of Moscow, the Russians had constructed a very deep ring of fortifications w/ good wire obstacles and large mine fields. This string of fortifications, of whose existence we had no idea, was occupied by an adequate number of troops.

The German troops were no longer strong enough to effect a simple breakthrough as they had done up to that time. Thus, the German attack came to a temporary standstill **60** km from the center of the Russian capital. However, the time up to end of **Oct 41** was well utilized by bringing up the straggling reserves, and by pulling out the guns and vehicles bogged down in the mire, a rather difficult task, since the few prime movers at our disposal often had to pull them out one by one. Moreover, this lull was necessary to reorganize the flow of supplies which was gradually getting exhausted. (54-55)

**2 Nov 41:** On this day, the situation prevailing in the area of the reinforced **4. Army** and its adjoining units was ca. as follows. [**Note:** Author describes in detail the deployments and areas reached of each corps of the Army.] (55-57)

**Nov 41:** The dynamic GFM v. Kluge deserves credit for having maintained and even improved the morale of the troops by the constant visits he had paid to them. The optimistic spirit was replaced by something more constructive, namely the determination to hold out to the end. Night after night, the Field Marshal sat in his primitive hut at Maloyaroslavets, **40** km behind the Army's frontline along the Nara, and read Courlaincourt's excellent description of Napoleon I's undertaking in **1812**. (58-59)

**Nov 41:** The reinforced **4. PzGr** under the command of GFM v. Kluge, was to jump off in mid-**Nov 41**. . . The Autobahn, the main supply route, was still partly unfinished and was covered w/ mud reaching up to one's knees. Thus, it was particularly difficult to organize and supply the Panzer Group. Numerous mine explosions by the retreating Russians had made this road virtually impassable for stretches extending many kilometers. Entire inf.-divs. had to be detailed to this road behind the frontline, in order to regulate traffic and help the construction btns repair the road. (59-60)

### 3. The Beginning of the last Offensive against Moscow:

**4. AOK** forms almost a straight continuous line behind the Oka River from Aleksin to the place where the Protva flows into the Oka. From there on, the front runs behind the Nara northwestward up to the Autobahn at Dorokново. From right to left. [Note: See narrative for details, 61)

Looking at the situation map, one is surprised about the straight, continuous front and the apparently small sectors. However, actually things were quite different! Many divisions were left w/ only limited forces; the inf. coys consisted of ca. **40-60** men; replacements had not arrived. The troops were in good spirit, but still exhausted from the hardships of the past weeks. The enemy forces facing us were strong. They were well dug-in in the dense forests, and started already to launch limited attacks increasing continuously in intensity along the entire front. . . Militia divisions and btns. composed of women were encountered for the first time in front of **4. Army** sector. (62)

#### General Description of Offensive launched by reinforced 4. PzGr:

*“We could no longer even think of achieving a breakthrough as we had done on 2 Oct [41] at the Desna!”* The reinforced **4. PzGr** advanced slowly toward the east, fighting many hard, costly engagements against an enemy who offered stubborn and bitter resistance. . . At times we were able to advance only a few kilometers a day; at other times, individual units made greater progress at certain points. On the whole, however, “it was a difficult battle and not a rapid offensive which could be utilized for strategic purposes.” (63-64)

**26.11.41:** On this day **4. Army** was still at the Oka and Nara, about in the same sector which it held on **17 Nov 41**. The enemy continued his pressure from the area of Serpukhov westward against **13. AK**'s left wing. The Russians also launched fierce local attacks against **12. AK**, particularly near Tarutino. Heavy fighting also broke out at **4. Army**'s northern wing, where **7. AK** was deployed along the Autobahn. Again and again, the enemy attempted to effect a breakthrough along this large highway and reach Mozhaysk. Particularly the **7. ID** and the **197. ID** were greatly affected by the Russian breakthrough attempt. (64-65)

The French Legion had also arrived during these days. It consisted of one [1] reinforced inf.-rgt. w/ four [4] btns. GFM v. Kluge personally welcomed the French troops of this regiment at the battlefield of Borodino and greeted them amidst the monuments on this bloodiest battle ground of Napoleon I. Several days later, the regiment was committed along the Autobahn in area of the **7. ID**, but it *held out only for a few days*. Officers and men fought courageously in conformity w/ old French tradition; however, they were of course no match for the tough Russian enemy and the severe climate. To prevent unnecessary losses, the legion was pulled back from the front, and, later on, transferred again to the west. (65)

#### Reinforced 4 PzGr:

[Note: Brief discussion of gains made by the panzer group.] Author then writes that “at the extreme northern wing, **5. AK**, w/ the **35. ID**, **106. ID** and **2. PD**, had advanced w/ much greater success than had been anticipated. This Corps was already able to pivot in a southeasterly direction, and in the evening of **26 Nov 41**, the **106. ID** and elements of **2. PD** were able to advance from Solnechnogorskiy [sp?] toward SE along the highway Klin-Moscow. The spear-heads were now only **50** km from the Kremlin. (66-67)

To the north the **3. PzGr's 56. PzK** (w/ its **7. ID (mot.)**<sup>114</sup> and **14. ID (mot.)**) succeeded in advancing eastward past Klin toward the Moskva – Volga Canal, and reached Sinkovo and Rochachevo (west of Dmitrov). The task of 3. PzGr was to reach the canal, prevent enemy crossing attempts, and thus protect the eastern flank and rear of 4. PzGr which was pivoting from north to south toward Moscow. (67)

On evening of **26 Nov 41**, German troops were standing NW of the capital, the outskirts w/in easy reach. However, the commanding general of **4. PzGr** [Hoepner] . . . implied already that he could carry through the attack only if **4. Army** would also be committed simultaneously from the Nara sector in order to pin down the enemy. This would be the only way to induce the enemy to throw some of his forces against **4. Army** front, thus facilitating the attack of **4. PzGr**. The panzer group's well-justified requests in this connection became more and more urgent from day to day, and GFM v. Kluge now had to make the momentous decision whether **4. Army** should be committed or not. *Night after night, he held a conference w/ his chief of staff at Maloyaroslavets*; these thorough discussions were of a serious nature. The commanding general wanted to play it safe. He not only asked the Corps and Division Cdrs whether they believed that the troops would be able to withstand the new attack, but untiringly he also put the same question to the NCOs and ordinary soldiers at the most advanced front lines. Everyone agreed that **4. Army** had to be committed once more. . . At the end of **Nov 41**, it was thus decided that **4. Army** launch an attack across the Nara on **1 Dec 41**. (68-70)

#### 4. 4. AOK's Attack against Moscow from the Nara Sector on 1 Dec 41:

**30.11.41:** The following situation prevailed on this evening:

a. **3. PzGr:** Elements had reached the Moskva-Volga Canal at Dmitrov and south of it. They were to protect the left flank of **3.** and **4. PzGr**, which were both pivoting toward Moscow.

b. **4. PzGr:** Increasing enemy pressure slowed its advance toward Moscow. On this day, elements of **2. PD** and **106. ID** had approached to w/in **20** km from the capital along the highway Klin-Moscow. Then, their last strength left them, too.

**1.12.41:** On this morning, the Corps of **4. Army** attacked the Russian positions facing the area between the Rollbahn at Panino and the large Autobahn at Dorokchovo and, on the first day, effected penetrations of varying depth. In the forests SW of Moscow, from the Nara far back to the rear the enemy had built a system of field fortifications echeloned in depth. The large mine fields which the Russians had planted very skillfully were extremely effective. The planting of such mine fields was a real specialty of the Russians. [**Note:** On this day, a considerable number of the **80 tanks** of **19. PD**, committed in the **7. AK** area, was disabled after striking mines on the hidden Russian minefields.] . . . Russians continuously brought up reinforcements on the many railroad lines converging on Moscow. The German attack bogged down. On **3 Dec 41**, it was already obvious that the attack could not succeed; w/o wasting time, GFM v. Kluge ordered the immediate cessation of the attack and a withdrawal of the entire Army to the lines of departure behind the Nara. During night of **3-4 Dec 41**, the withdrawal succeeded w/o any major enemy interference. (71-72)

#### 5. Beginning of the Russian Counteroffensive:

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<sup>114</sup> **Note:** He must mean **7. PD**.

a. Period from 6.-31.12.41:

. . . More than anything else, the threat to **4. Army's southern wing** along the Oka became apparent. In the area of Tula, greatly superior enemy forces broke thru the lines of **2. Pz Army**, which had become very weak by now. The remnants of the panzer army, engaged in heavy fighting, had to withdraw further and further to the south toward Orel, and to the southwest. As a result, **4. Army's exposed right flank** along the Oka, between Tarusa and Aleksin, became longer and longer. The enemy not only attacked **4. Army's** Nara front, but also threw fresh troops across the Oka River between Tarusa and Aleksin, thus further enveloping **4. Army's exposed southern flank**. This imminent envelopment could be countered only by extremely weak security forces. (74)

Shortly before Christmas, **4. Army** was finally pushed back to the line: Maloyaroslavets – Borovsk – Usatkovo. At the southern sector, the Russians moved almost w/o any interference. In long columns (mostly on sleds) from the line Tarusa – Aleksin westward in direction of Kaluga. At end of **Dec 41**, Kaluga fell into Russian hands. South of Kaluga, a stream of Russian troops, checked only by German construction troops, engineers and Landesschuetzen (local defense units) poured from Tula to the west, crossed the Oka River north of Belev, and advanced toward the railroad junction of Sukhinichi, which was of utmost importance to us. **4. Army's** southern defense line Kaluga – Maloyaroslavets gave way steadily. On **24 Dec 41**, the army's staff at Maloyaroslavets had to use their submachine guns. It took the assistance of **19. PD** to throw the enemy back. (75-76)

Greiffenberg: *“The engagements fought in **Dec 41** belong to the most difficult ones which German troops ever had to fight during their **long history of war**.”* . . . The temperatures dropped to **-40** degrees, the wpns failed, the motors didn't start, the oil in the automatic wpns and the recoil oil of the guns froze. (76-77)

**22.12.41:** On this evening, the chief-of-staff to **4. Army** was run over by a truck [!] in the darkness, when he returned from **15. ID** area where he had gone to find out details concerning a breach in the lines. He had to be brought to Smolensk for a short period to undergo medical treatment. On **27 Dec 41**, Col. v. Bernuth was named his successor. (77)

**22.12.41:** The **3.** and **4. PzGr** were detached from the Army and became independent panzer armies.<sup>115</sup> (77)

b. Defensive Operations East of the Ugra (1.-22.1.42):

A deep breakthrough by the enemy at Borovsk split the **4. Army** in two halves. It became necessary to establish new boundaries: **20. AK** which had been pushed to the north was transferred to the adjacent army [i.e., Hoepner's panzer group]. In the south, **2. Army's 43. AK** joined **4. Army** on its own initiative [?].

**Jan 42:** At beginning of the month, the much perforated front of the reduced **4. Army** ran from west of Kaluga in a northern direction to a point west of Maloyaroslavets; from there, it bent back westward to Abramovskoye. (78)

**7.1.42:** On this day, the Fuehrer's chief military aide, General Schmundt, arrived at **4. Army** HQ in Yukhnov for briefing. . . As result, the Army received permission to carry out a gradual

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<sup>115</sup> **Note:** Is date given for this change accurate?

withdrawal. Strong enemy pressure and heavy fighting marked the Army's withdrawal, which was executed in several phases. (78)

**14.1.42:** By this date, the Army had gradually reached the Ugra – Shanya position. The right wing was sharply bent back to the west toward Zubovo; the left wing was at Borbukovo (10 km NW of Medyn). (79)

**22.1.42:** However, on this date, **4. Army** was forced to withdraw once more to the west to a line between the Shanya and the Ugra because of the continuous enveloping maneuvers from the south, the numerous penetrations into the Army's weak front lines from the east, and finally because of the increasing danger of being cut off from the unit adjacent to the left (4. Pz Army). . . . (79)

Along a line due south of and parallel w/ the Rollbahn, from a point north of Kirov to a point south of Yukhnov, German troops maintained a security force along this vital Rollbahn, ***the only available supply route***. Greatly superior enemy forces continuously pierced the thin lines of these scanty covering parties, blocked the Rollbahn, or kept it under fire. *Again and again, the Rollbahn had to be cleared of the enemy* in order to keep the road open for the transportation of the most essential supplies. (79)

**22.1.42:** The temperature dropped to **-42** degrees C., and that night was the coldest one in **4. Army** area. . . (79)

Remarks:

Author notes that during their offensive, the Russians – in their usual ruthless manner – simply conscripted all male Russians in the recaptured localities and integrated them into their combat units. (80)

**4. Army HQ:** Moved to Batishchevo on **4 Jan 42**; and from there to Spas Demensk on **6 Jan 42**. On **21 Jan 42**, General Heinrici replaced Kuebler as C-in-C **4. AOK**. (81)

c. Operations at Yukhnov (22.-27.1.42):

In the rear area of **4. Army**, particularly in the swampy woodland of Bogorodizkoye, partisan warfare increased steadily. The partisans were supported by regular parachute and air landing troops as well as by the cavalry of General Belov's 1. Gds Cav Corps. (81)

d. Withdrawal behind the Ressa – Ugra – Vorya (Feb-Mar 42):

**Mar 42:** The High Command had approved the improvement of the Ressa – Ugra – Vorya position. As far as the weak forces were concerned, the construction work was begun while the Army was still fighting further east. It was not until the first half of **Mar 42** that the divisions [of **4. AOK**] gradually withdrew to this new position. This marked, to a certain extent, the end of the battle of Moscow. . . (82)

e. The Northern Wing of Army Group Center:

(**9. AOK** & **3. PzGr**)

## 1. The Battle of Vyasma:

**1.10.41:** The northern wing of AGC – **9. Army** and **3. PzGr** – extended over a front line of approximately **270 km**. Author also notes that chain of command and operational picture in this sector was “very complicated.” (82-83)

It was decided that **3. PzGr**, in close coordination w/ the infantry corps, was to be committed at [**9. Army**] sector’s point of main effort, and attempt a breakthrough toward Vyazma via Bely and Kholm. . . The panzer corps merged the tanks of **6.** and **7. PD** into a tank bde to assure maximum striking power. (86)

**2.10.41:** In the morning of **2 Oct 41**, the **9. Army** jumped off for the attack w/ the units lined up as follows: [**Note:** Narrative continues w/ a detailed description of attack sectors and mission of each army corps.] (86-87)

Some critics objected to the fact that **9. AOK** had failed to commit 23.AK – on extreme northern wing – immediately to the attack and that it had shown too much concern for the protection of the northern flank. In doing so, **9. Army** had kept the Corps inactive for too long a period. The critics claim that the enemy had thus been able to disengage himself w/o interference. . . These enemy forces had then succeeded – very much to our disadvantage – in participating later on in the battle of Kalinin. In retrospect, *this reproach may be justified*. However, one should not forget the following circumstances: The Army had been explicitly instructed to protect the Army Group’s left flank under all circumstances. (87)

**2.-3.10.41:** In the morning of the initial attack, it was rather easy to carry out a successful penetration. However, after achieving some initial successes, **41. PzK** bogged down before Bely and **5. AK** also gained only little ground. A similar picture presented itself at the southern part of the attack wave. **8. AK** had great difficulties fighting its way forward along the Autobahn. On the other hand, quick progress was reported from the center of the striking force. . . As a result, we were able to reach the Dnepr east of Kholm and effect a crossing over undamaged bridges as early as on the second evening of the attack. (88)

**4.10.41:** At the northern wing of the Panzer Group, elements of **6. AK** had taken Bely on **4 Oct 41**, while **41. PzK** had resumed its movement and had forced crossings of the Upper Dnepr. . . (89)

## 2. Comments on Battle of Vyazma and Influence of the Muddy Season:

What were the reasons for the speedy successes of this battle which was so decisive for the outcome of the subsequent operations? . . . For once, the German Command was able to *make use of the multitude of experiences it had gathered during the past breakthrough battles and battles of encirclement*. We were now well acquainted w/ the enemy and his combat methods. . . We had now become familiar w/ the characteristics of the Russian terrain and did no longer hesitate to make even use of what appeared to be “impassable” terrain – such as swamps and primeval forests – for purposes of combat and supply ops. [**Note:** For more details – for example on the essential factors of every battle of encirclement, based on “lessons learned” and applied during this operation – see, (90-92)

During the battle of Vyazma we formed from the very beginning two rings of encirclement – a narrow one [i.e., the inner pincer consisting primarily of infantry units] and a wider one [i.e., the

outer pincer, made up of armor] – against which the Russians hurled their troops in vain, until our concentric attack against the “stationary” pocket which was beginning to form, forced them to surrender. . . The battle of Vyazma was thus “fought in conformity with a carefully drafted plan, and it will serve in the history of war as a model of a large-scale battle of encirclement.” (92)

**7.10.41:** On this day, when the battle of Vyazma had reached its climax and when its successful conclusion could already be foreseen, a decisive conference took place w/ the Army C-in-C at AGC HQ in Smolensk. During the conference, Army High Command and Army Group showed complete agreement as to the estimate of the situation and the possibilities of the measures to be taken. [For details see, 92-94]

**Note:** Concerning whether the offensive should be continued or not at this late date, Greiffenberg writes that “all previous experiences had taught us that we could count on at least two [2] more months before the feared Russian winter set in. The *influence of the ‘muddy season’ was not taken too serious.*” (94)

**Mid-Oct 41 [Rasputitsa]:** Greiffenberg states that the autumnal muddy season “proved to be abnormally severe and prolonged. . . To be sure, the Germans knew that the muddy season set in every year in spring and fall and that the Russians called it by the characteristic name of ‘rasputitsa’ (meaning ‘no roads’). However, *we had not expected the muddy season to affect the movements of modern units to such an extent*. The fact is that during the next four [4] weeks all traffic of motorized units or single vehicles came practically to a standstill.” . . .

The railroad remained the only major transportation facility which could be relied on, at least to some extent. At the few available railheads, *mountains of supplies piled up*. . . Only foot soldiers, cavalymen, and light horse-drawn vehicles were able to move. It was not until later at night, when night-frosts set in, that the ground became at least somewhat firmer a few hours prior to sunrise, and permitted again vehicle traffic in limited form. The intervention of the elements prevented us from exploiting the victories of Vyazma & Bryansk, and from giving total pursuit to the enemy. It also kept us from regrouping our forces quickly for the new tasks. . .

On the other hand, the Russians found sufficient time to form a new defensive front. This new front ran along the general line: Water reservoirs SE of Kalinin via Volokolamsk – Ruza – Naro Fominsk – Nara River – west of Serpukhov – Ugra [sic] River Aleksin, and from there back to Tula. (For more details see, 96-98)

One Siberian division after another rolled up. It was unquestionably the merit of the Russian Chief of Transportation, Count Trubetzkoy – former general staff officer in the Czarist Army – to have cut down to 14 days the time needed for bringing up a division from Vladivostock to Moscow. . . Only thus was it possible to assemble large concentrations of troops w/in a short time. (98)

**Note:** Through the help of Russian deserters and due to a defective radio discipline of the Russians, German HQs were well informed about the distribution of Russian forces at the front. Still, they remained for a long time in the dark about the number, condition and location of the Russian strategic reserves. (98-99)

### 3. The Fighting in the Kalinin Area:



Author notes that Yaroslavl on the Volga was “the city which Army High Command repeatedly had referred to as long-range objective. (100)

**9. AOK HQ**, including the attached panzer group, now received orders for the further conduct of operations. They requested three [3] missions:

a. Final mopping up operation of the Vyazma pocket;

b. Elements released at Vyazma were to push forward further to the NE in general direction of Volokolamsk;

c. Encirclement and annihilation of enemy forces opposite our own northern wing and opposite the adjoining **16. Army**. (101)

**8.** and **5. AKs** were charged w/ the missions outlined in “a” and “b” above; while the principal mission outlined in “c” was given to the panzer group. The latter committed **6. AK** and its two [2] panzer corps toward the NE w/ point of main effort at Rzhev – Kalinin. Moreover, **23. AK** at the extreme left was now ordered to leave its positions at the Zap Dvina River and advance toward the east. All movements initiated according to plan. (101)

**ab 11.10.41: 3. PzGr** jumped off on **11 Oct 41**. Its **41. PzK** reached the Volga at Zubtsov, pushed deep into the Russian defensive installations east of Rzhev, and came as far as Staritsa. During the further advance, the city of Kalinin, the *important center of communications for the entire northern sector*, was captured on **13 Oct 41**. (102)

**6. AK** fought its way to the southern and western outskirts of Rzhev and, in cooperation w/ the adjoining units, enveloped there rather strong Russian forces.

**23. AK** engaged in pursuit of the enemy, and had to overcome the extended and frequently mined swamp and forest regions north of the railroad Velikie Luki – Rzhev, and penetrated the Volga position north of Rzhev, w/ the left wing at Sharovo.

Together w/ **6. AK** on the right, **23. AK** captured Rzhev and effected crossings over the Volga at Rzhev and NW of it. In many individual engagements, we succeeded in pushing the Russians back to the north along the railroad Rzhev-Torzhok, and finally in capturing the line Vesokoye – Sharovo at the Volga. It was here, on **28 Oct 41**, that **23. AK** was ordered by Army Group to go over to the defensive in a position suitable for winter warfare. (102)

**Note:** Greiffenberg points out that the “lack of adequate fuel and ammunition” had from the very beginning affected employment of the panzer units. (104)

**21.10.-15.11.41:** The offensive, defensive and mopping up operations in the triangle Kalinin – Torzhok – Startisa lasted from **21 Oct** to mid-**Nov 41**. These ops were exceptionally costly, particularly the street fighting in city of Kalinin. (104)

4. Developments on 9. Army southern wing:

**13.10.41:** On this day, the battle of Vyazma had been virtually completed; divisions of **5.** and **8. AK** which had been engaged up to the last minute now became available again. **8. AK HQ** and

two of its divisions (**8.** and **28. ID**) were transferred to France; its third division (**161. ID**) was on its way to Rzhev to be attached to **VI. AK**.

**5. AK** was ordered to have its **5. ID** and **106. ID** jump off immediately at the Army's right wing and to advance from Gzhatsk, via Volokolamsk in the direction of Klin, in order to maintain contact between the northern wing of Panzer Group Hoepner (**2. PD**) and the southern wing of the Kampfgruppe "Kalinin."

**20.-27.10.41:** Since the mot. units used the only road that was in rather good condition, the Corps [**5. AK**] advanced slowly along side roads and, on **20 Oct 41**, reached the "defensive position of Moscow." This was the outermost defensive ring around the enemy capital, and ran from Borodino (15 km west of Mozhaysk) behind the Ruza River and Lama sector to Yaropolets. After undertaking thorough preparations, the Corps breached the defensive position on **23 Oct 41**, and, w/ assistance of **2. PD**, captured Volokolamsk on **27 Oct 41**. From that time on, our spirited advance slowed down. (105-06)

#### 5. The Advance toward the Northern Front of Moscow:

**Mid-Nov 41:** By this time, the front lines of **9. Army**, including **3. PzGr**, had been generally reorganized, and ran now from Volokolamsk via Lotoshino-Puskino to Kalinin, and from there bending toward the west via Visokoye to Sharkovo. All corps in the most advanced lines were echeloned from right to left as follows: [**Note:** See 106-07]

**15.-18.11.41:** According to Army High Command's directives, **9. Army's** next task was to initiate a closer envelopment of Moscow from the NW, while the mobile units were to bypass Moscow to the north and launch a deep thrust in the direction of Yaroslavl on the Volga to cut off the capital's northern approaches. As soon as weather permitted, the so-called "Operation Reservoir" was to be carried out as a preliminary to both planned missions. It was the objective of this operation to capture the Lama River and crossings over the southwestern tip of the Moscow Reservoir and to advance to the main road on either side of Klin. Accordingly, **17. AK** jumped off on **15 Nov 41**; **56. PzK** on **16 Nov 41**; and **5. AK** on **18 Nov 41**, all of them toward the east.<sup>116</sup> (107)

**ab 23.11.41:** By **23 Nov 41**, **5. AK** and **56. PzK** had reached the line Istra Reservoir – Solnechnogorskiy – Klin, had captured Klin proper, and at certain points, had been able to cross the road Klin – Zavidovo to the east and reach the Sestra. The annihilation of the enemy force at Klin *tore a considerable gap in Moscow's outer defensive ring*. However, as the German spearheads closed in on Moscow, the enemy resistance became increasingly stubborn. . . To our surprise, the Soviet Command did not yet throw into battle any fresh divisions committed as entire units, although our air reconnaissance had observed an increasing concentration of Russian reserves in the Moscow area. . .

For the first time, we came across multi-barrel rocket launchers, the famous "Stalin organs." The only new development was an unusually great activity of the Red Air Force, particularly a heavy commitment of fighter-bombers. . . Due to the speedy German advance, Russians only partly successful in carrying out their plan of burning down the villages. Still, the entire width of the

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<sup>116</sup> **Note:** Greiffenberg gives the dates as **15., 16.** and **18 Dec 41**, which is clearly in error. He means, of course, **Nov 41**.

one road Savidovo [sp?] – Klin was blown up in **35** places; tremendous amounts of explosives and mines were found.

Even before the important junction of Klin was captured, Army Group resumed direct control over **3. PzGr**, and the latter was ordered to protect the northwestern flank of the attacking **4. Army**, including Panzer Group Hoepner. . . **9. Army** high command was thus eliminated from all further operations directed toward the east, and was now charged w/ the protection and defense of the northern front which was bent back from the Volga Reservoir via Kalinin toward the west. **5. AK**, which up to that time had been at **9. Army's** right wing, was attached to Panzer Group Hoepner. **41. PzK**, which was still committed in the area of Kalinin, was now relieved by infantry of **27. AK**, and attached to **3. PzGr**.

In compliance w/ its mission, **3. PzGr** committed **56. PzK** w/ the **6. PD**<sup>117</sup> and **7. PD**, and **14. ID (mot.)**, and set them in march along miserable, icy roads from the combat area of Klin toward the Moscow-Volga Canal in the direction of Yakhroma-Dimitrov. . . (108-10)

#### 6. Withdrawal of the Front:

**ab 5.12.41:** In order to establish a uniform command along the entire Moscow defense sector, **3. PzGr** was attached to **4. AOK**. This change became effective immediately [when?]. On **5 Dec 41** the Russians started a counteroffensive along the boundary between **9. Army** and **3. PzGr**, gained more and more ground to the west, and finally reached the new “winter position”<sup>118</sup> which had a frontage that didn't lend itself to major operations. . . The enemy found a defensive line which – w/ the exception of Kalinin – consisted only of individual, loosely connected strong points, w/o effective obstacles (the lakes had frozen) w/o AT ditches, and w/o any depth. (117)

**28.12.41:** In Hitler's last decree of the year w/ regard to the conduct of operations in the east, issued on this day, he finally ordered the construction of a rear position for the central part of the eastern front. He said verbatim: “In the defensive, one has to fight for every inch of ground w/ supreme effort. . .” (For entire quotation see, 120-22)

**Note:** Concerning Hitler's policy of no withdrawal, first promulgated on or about **16 Dec 41**, Greiffenberg writes:

It is a highly controversial question whether or not these and similar directives issued by Hitler w/ regard to holding of positions at any price and his draconic [sic] measures w/ which he enforced such orders were justified from a military point of view. There can be no doubt that the determination expressed in these orders strengthened the command's and the troop's will to resist and contributed also to the stabilization of the German front, after initial reverses of menacing proportion. On the other hand, the losses of the combat troops and materiel

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<sup>117</sup> **Note:** Shortly hereafter in his narrative, Greiffenberg places **6. PD** w/ the **41. PzK**. (112)

<sup>118</sup> **Note:** Greiffenberg states that while **3. PzGr** had advanced toward the Moscow Canal, **9. Army**, in order not to lose contact w/ the adjoining Army Group, had moved its troops more and more to the north and finally settled down along the so-called “winter position.” This winter line ran from the Volga Reservoir along the Volga to the Kalinin bridgehead, then back to V - - koye along the railroad Rzhev-Torzhek – north of Lukovnikovo – Hill 318 east of Sharovo – southern shore of the Volga lakes up to Peno. (116)

connected w/ such a stand were always exceedingly high; moreover, there is no proof whatsoever that a withdrawal once started has to lead to a collapse and disintegration of the entire front. . .<sup>119</sup> (122)

## 7. Fighting for Possession of the Winter Line:

**3. PzGr** continued to carry out its retrograde movement in face of extremely heavy enemy pressure [and] vehement rearguard actions. Even though the cdrs everywhere *were able to maintain control over their troops*, it was impossible to avert some local crises. Combat reports mentioned for the first time such terms as “Panzerschreck” and “Kesselangst” (fear of being encircled). Particularly **56. PzK** had to go through critical situations and, at times, had to defend itself in all directions against enemy elements which had broken through. (123)

**ab 15.12.41: 9. Army** carried out a large-scale withdrawal of the front lines. In course of this operation, the Army continuously had to repel enemy attempts at a breakthrough, carry out its task in spite of encirclement, and carry out counterattacks and operations w/ an inverted front, before it was to settle down again completely. . . The retrograde movement started during the night of **15-16 Dec 41** w/ the evacuation of Kalinin. After capturing the city, the enemy shifted the main effort of his attack further and further to the west. On **23 Dec 41**, the Russians launched an attack at both sides of the railroad Rzhev-Torzhok against the right wing of **23. AK**. After resisting courageously, **256. ID**, which was covering this area, was thrown out of its line of strong points, and, fighting costly engagements, withdrew in the general direction of Rzhev. The two divisions adjoining to the left were also taken back to maintain a continuous front line. On **30 Dec 41**, **6. AK** also had to abandon Staritsa and withdraw to a position extending like an arch around Rzhev. (124-25)

**Jan 42 [Withdrawal to “K” Line]:** Army High Command received a situation report emphasizing the seriousness of the situation. The report pointed out the limited defensive capabilities of all corps attached to **9. Army** as well as of **3. PzGr**; it requested that the troops engaged in defensive ops be taken back to the so-called “K-Line,” to shorten the front. This request was approved only after a long struggle w/ Hitler. . . The “K-Line” ran from a point east of Gzhatsk via Savino to the bridgehead of Rzhev. Beside forming a shorter front, this line had also the advantage that the lateral railroad line Rzhev-Vyazma, right behind the front, was extremely helpful to us for supply purposes. By the end of **Jan 42**, Panzer Group Hoth [3. PzGr?] w/ **5. AK**, **56. PzK** and **41. PzK** had occupied the “K-Line,” and had established firm contact w/ **9. Army’s 6. AK** which was standing in the bridgehead of Rzhev. It was here that the retrograde movement of the Panzer Group came to a complete standstill. All further breakthrough attempts of the Russians were successfully repelled. (123-24)

**ab 9.1.42 [9. AOK]:** After several minor attacks at the left wing of **23. AK** had been repelled, the Russian **22. Army** launched its expected major attack across the frozen Volga lakes on **9 Jan 42**. As a result, the boundary between the two Army Groups was torn asunder. Strong enemy forces advanced almost w/o interference toward Toropets, while other elements branched off toward the south in the direction of Nelidovo, the **23. AK’s** rear area. . . A new danger developed however at the right wing, where the Russians committed new infantry units supported by tanks across the frozen Volga, and moved them up into the gap between 6. AK and 23. AK.

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<sup>119</sup> **Note:** Given the incomparably terrible shape the troops of AGC were in at the time, I don’t consider this argument of G.’s to be a very strong one. A strategic withdrawal under conditions prevailing in **Dec 41** might well have resulted in disintegration.

In this sector too, we were able to stop the breakthrough in time. However, we could not prevent elements of the enemy forces west of Rzhev and at Nelidovo from pivoting and encircling the Corps [i.e., **23. AK**]

Under these circumstances, **9. AOK**'s main mission was to make the preparations necessary to close the gap and reestablish contact between the encircled **23. AK** and **6. AK** committed in the vicinity of Rzhev. For this purpose, **6. AK** and **23. AK**, under command of **9. Army**, launched an attack at the end of **Jan 42** – **6. AK** from the east and **23. AK** from the west. Typical winter engagements were fought during snow storms and at temperatures reaching as low as **-40** degrees, but we were able to close the gap. (125-26)

#### 8. Conclusions:

**Note:** Writes Greiffenberg: “During the entire winter, the Army Group was actually *fighting at three [3] fronts*!”

- a. Eastern Front: Generally, this front ran along the winter position; however at the northern wing of **2. Pz Army** and the southern wing of **4. Army** it showed two penetrations, which appeared rather menacing;
- b. Northern Front: Its left wing showed a wide gap, into which the spearheads of the Russian **4. Shock Army** pushed their way thru the snow and ice covered woodlands and swampy areas south of Toropets. Their objective was Vitebsk, according to captured orders. Not until the enemy had reached the depth of the Army's rear area north of the line Smolensk-Vitebsk, could this penetration be stopped by all sorts of countermeasures. Headquarters of **3. PzGr**, which had so far been committed at the eastern front, assumed command at this extremely critical location;
- c. Rear Areas: Among these operations was primarily the all-out battle against those enemy elements which had either broken through or become separated from their main body; these are especially the Russian **29. and 30. Armies**,<sup>120</sup> as well as the two cavalry corps Below and Sokolev. It was also in the rear area that we had to carry out our trying, time and manpower consuming special operations against the partisans, who dominated long stretches of the communications zone and received continuous reinforcements by air. The main effort of these operations was in **4. Army** area, where the two [2] main traffic arteries – the Autobahn Smolensk-Vyazma and the Rollbahn Roslawl-Yukhnov, had to be continuously cleared of the enemy. (128-29)

In his “concluding remarks,” Greiffenberg attempts to answer the question: “What were the reasons responsible for the collapse of the tremendous German offensive in the area of Army Group Center, a collapse which came as a complete surprise to the German public and probably also to the enemy?”

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<sup>120</sup> **Note:** **30. Army**? Is this designation correct? Is it not **39. Army**?

He begins by contrasting Napoleon's campaign of **1812** w/ the German campaign in **1941**. (For details see, 130-31).

“Even though all available statistics had been thoroughly studied, one could *hardly foresee that the muddy season would last for such a long time and that winter would start w/ such suddenness and severity.*” . . . (132-33)

As detrimental as the climatic conditions and the vastness of the space may have been to command and troops, these factors alone are not sufficient to explain the sudden change of the situation. . . After all, the Russians were subject to similar conditions, even though these conditions were naturally considerably more favorable on their side. (133)

In my opinion, the most compelling reason for the battle's great change of fortune before Moscow was the fact that we had *underestimated the enemy* and *overestimated* the endurance of our own troops. All other factors, such as breakdown of our supply system, great distances, sudden change in weather, inadequate clothing and equipment for the winter, partisan warfare, the “scorched earth” policy, and many more were contributory factors but were not of a decisive nature. (134)

It is “no secret that the German Supreme Command was of the opinion that a comparatively easy and quick military victory could be achieved in Russia: Germany's strong and battle-seasoned Army and Luftwaffe were – as far as materiel and morale are concerned – by far superior to the Russian Armed Forces, whose deplorable accomplishments were well known from the Finnish campaign. Despite many warnings voiced by experts, the German command was fully convinced that such a superiority would also help us overcome the vastness of this country, its war potential, and the tremendous number of its population, particularly since the *firm structure of the Russian political system had been completely misjudged*. Our faith in the infallibility of the 'Blitzkrieg',<sup>121</sup> even in these vast areas of Russia, had the most disastrous consequences.” (134)

Greiffenberg continues w/ a discussion of the fighting qualities of the Russian soldier, noting that he proved to be a “tough, skilled, often fanatic, and death-defying enemy.” Notes their abilities to endure deprivation and hardship, using example of Soviet supply system, which did not at all concentrate on the bringing up of supplies for the combat soldiers' personal need, such as rations, medical supplies, stimulants (alcohol and tobacco), and recreational material, nor was this the Russian Command's primary concern. The chief concern rather was to send a continuous flow of supplies of actual war material – ammunition, and building materials to the entire front, etc. (See, 135)

Hitler: With unbending willpower, and refusing to be enlightened, Hitler believed that all difficulties could be overcome by a false and exaggerated application of Clausewitz's principle “that no good military leadership can be maintained w/o a despotic and imperious will that reaches down to the lowest rank.” It is also possible that Hitler's almost pathological belief in his mission which “providence” had imposed upon him, or considerations of foreign policy had disturbed his sober judgment concerning military possibilities. (136)

**Note:** The only effective wpn able to penetrate the new Russian armor [i.e., **T-34**], the so-called “***hollow-charge shell***,” had been released too late, and only after the C-in-C of the Army Group,

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<sup>121</sup> **Note:** Later Greiffenberg makes the salient point that the concept of „Blitzkrieg,“ “never to allow the enemy to gain the initiative, did not permit any lull in combat operations.” (139)

GFM v. Kluge, had made dramatic protests, because Hitler wanted to keep this special shell secret prior to the German offensive planned for the following year. (140)<sup>122</sup>

**Note:** On account of the lacking foresight on part of the competent HQs and on account of the suddenness and severity w/ which the winter set in, the necessary winter equipment, such as winter clothing, sleds, skis, stoves, antifreeze solution, light, and other special equipment did not reach the troops anymore in sufficient quantities. Very serious arguments broke out between the offices of the Chief of Supply and Administration and of the Chief of Transportation, as to whether ammunition, fuel, or clothing, etc., should have priority. (141)

#### In Conclusion:

The troops had the best intentions, but were overtaxed by the continuity of the engagements. Even in sectors where there was little action the men hardly got any rest. Security and recon duty along the over-extended fronts, and the continuous state of alertness along the thinly-held frontlines did not grant any relief at regular intervals. . . (141)

From the point of view of Army Group Center, the change in the situation at the front took place because the “climax,” in the spirit of Clausewitz’s teachings, had been overstepped. [That is, they had overstepped the “culmination point” of the campaign.] The military doctrine of gradually diminishing strength of the attacker manifested itself again in its entire inexorability. (142)

Despite the sudden change, the Army Group was not annihilated as had been expected by the enemy. From **Dec 41** to the beginning of **Mar 42**, the Russian masses attacked, and attacked continuously! However, what did they accomplish? They saved their capital, and frustrated the objective of the German Command for the year **1941**. A great success! But then, the subsequent results were surprisingly insignificant. Decisive key-points, such as Rzhev, Vyazma, Orel, or even Smolensk and Orsha remained in German hands. . . Disregarding certain local events, the withdrawal did not turn into a rout as the enemy had hoped for. . . On the whole, the German front remained firm in the hands of its leaders and was reorganized for defensive operations in new winter positions according to plan. (143)

The Russians lacked the skill and initiative of the intermediate and lower command echelons. They also lacked the unconditional devotion and the firm determination to achieve victory for a high ideal. This is not in the nature of the *impassiveness of the Russian people*. They remain only a mass of people.<sup>123</sup> (143)

However, for the German officers and men this unique battle did not constitute only a glorious page, but a “high saga” of self-sacrificing devotion and soldierly qualities, *hardly equaled in the German history of war!* To commemorate this battle against a pitiless enemy in a rigorous climate, the “Eastern Campaign Medal” was awarded. It was a red ribbon given to the participants of the battle during the winter of **1941/42** in the East. *Whoever possesses this medal, treasures it more than most of the other medals awarded during this war.* (144)

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<sup>122</sup> **Note:** I assume this must be the „Rotkopf?“ Confirm!

<sup>123</sup> **Note:** Here Greiffenberg displays the typical German prejudices vis-à-vis the Russian people; also, he underestimates the “devotion and firm determination” of the Russian people, many of whom had been deeply indoctrinated in the ideals of Communism.