

**BATTLE STAFF RIDE
FOR
SINIMÄED (THE BLUE HILLS)
JANUARY-JULY 1944
BY
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29 JUNE 2009

DEDICATION

***UPON THE BACKS AND IN THE HANDS OF SO FEW RESTED THE HOPES
AND DREAMS OF SO MANY. THE GRATIFYING WORK OF THE
PROFESSIONAL SOLDIER IS PROPERLY MOURNED ONLY BY WE WHO
KNEW THEM. ONLY THOSE WHO SUFFERED WITH ME EVER KNEW THE
TRUE COST.***

THE AUTHOR

**FOR THE MEN OF COMPANY K, THIRD BATTALION, EIGHT MARINE
REGIMENT RAMADI, IRAQ 16 MARCH 2006 TO 29 SEPTEMBER 2006**

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PREFACE

There is much written history for the military professional to read, but little is of value to his education. These works are often wonderful, but are too broad or narrow in scope, lacking the context to be of use for serious study. Military professionals are always quick to point out an “academic” wrote something, because it was too theoretic and lacked the practicality they seek. College professors likewise say military professionals write too much about their experiences or to secure their legacy in the form of memoirs. Both of these positions are correct and each has merit. Any study of war devoid of theory and without the doctrine of the period will be of little use to the academic and likewise the military professional. By the same token, it is often useful for an author to relate the most unfamiliar feelings of combat to the reader in order to give the reader the perspective needed. Military professionals should study history if for no other reason than to become better decision makers. Peter Paret best explained the role of history in relation to the military professional or historian when he said, “ By opening up the past for us, history added to the fund of knowledge that we can acquire directly and also made possible universal concepts and generalizations across time. To enable history to do this, the historian must be objective or as Clausewitz would have said- as scientific or philosophical as possible.”¹ Carl Clausewitz, the preeminent scholar and philosopher of the 19th century whose seminal work “On War” has formed the basis of western thought about armed conflict for the last 200 years was written with these very understandings.² Decision making must be looked at through the lens of “critical analysis” as Clausewitz called it.³ Clausewitz was able to answer the question of “why” something happened in terms of cause and effect for a particular situation. The decisions being examined can only be understood if we understand the leader’s character who made them. These thoughts together provide the foundation on which greater understanding of the art and science of war is built, thus giving the military professional the tools to deconstruct a decision in terms of the problem historically and thus facilitating a greater appreciation of his trade. The “Reenacting process” allows for the reconstruction of problems in terms of the terrain and the material used during the period and gives a clearer window into the problem being faced.⁴ We as students of the art and science of war must make every effort to morally, mentally and physically put ourselves in a position to understand why a leader made a particular decision. Nothing but the sheer terror of combat could ever replace it, but our study must find a way to replicate it in order to understand. The English language, or any language for this matter, has a poor ability to explain in words be they written or spoken, the horror of war. War is not just the extension of policy by

¹ Peter Paret, *Understanding War* (Princeton: Princeton University Press 1992), 131.

² Carl von Clausewitz (ed. and trans. Sir Michael Howard and Peter Paret) , *On War* (Princeton: Princeton University Press 1976).

³ Peter Paret, *Understanding War* (Princeton: Princeton University Press 1992), 133. This work provides a central understanding to the use of history. Paret continues by saying “In the chapter “Critical Analysis” of *On War*, Clausewitz distinguishes between “the critical approach and the plain narrative of a historical event” and further identifies three paths that the critical approach might take; “The discovery and interpretation of equivocal facts...; the tracing of events back to their causes...; [and] the investigation and the evaluation of the means employed.””

⁴ Jon Tetsuro Sumida, *Decoding Clausewitz* (Lawrence: Kansas University Press 2008), 45.

other means, but it is a societal interaction where human beings struggle within the phenomenon called war.

We must understand war to be a human activity and thus a social affair. With a grasp of human emotions; we see events capable of motivating or terrifying combatants in the lonely hours of extreme violence typical of combat. In this light, we are correctly educating ourselves on the truest nature of war. War studied at the strategic, operational or tactical levels should always consider the decisions made, particularly in terms of their moral, mental and physical properties. Common elements to the attacker or defender are the weather and terrain being fought on. While the weather will ultimately affect each differently, weather has the ability to complicate the terrain in ways man to this day cannot conquer. The following pages reflect a military professional's understanding of the events in Sinimäed from 65 years ago. It brings the most joy to know ones experience can be used to explain the events and sacrifices of others. To this end, I have made my finest attempt.

ACKNOWLEDGMENTS

This study would not have been possible without the efforts of many. I must express my sincerest gratitude to Dr. Eric A. Sibul of the Baltic Defence College for commissioning this study and supporting it with several translations of primary and secondary sources. In the course of providing instruction to various courses of the Baltic Defence College, I was given the opportunity to visit the Blue Hills battle field on several occasions. Without this spark, there could have been no fire. Also, at the Baltic Defence College a special thank you is owed to LTC Gert Rasmussen of the Danish Army for his translation of various Danish works relating to the heroic efforts of his countrymen. At the Estonian National Defence College, my thanks to Lt Olivi Punga, an excellent Estonian historian and true patriot who supplied several firsthand accounts and perspective from his years of studying this engagement. Without the assistance of the facility of the Tartu University Geology and Climatology Department, particularly Mr. Arno Kanal, Assistant Professor of Soil Science and Dr. Jaak Jaagus of Climatology, new scientific astronomic and weather data could not shared in a way meaningful to the student of war. A special thanks to: Col David L. Close, USMC, Col Chad E. Kirkley, USMC, LtCol Lawrence F. Miller, USMC and LtCol Thomas K. Hobbs, USMC who all allowed me the opportunity to explore this vast topic and who saw the usefulness of this work for the development of young leaders. A special dept is again owed to LtCol Hobbs as he lovingly and painstaking assisted in editing this work. Never a harsh word, only encouragement to continue my task at hand. Lastly, my thanks go to Dr. Bruce I. Grudmundsson of the Marine Corps University and Mr. William S. Lind of the Free Congress Foundation who were both indispensable academic mentors and sounding boards for my many ideas on this topic and others. While there were many who contributed to the success of this study, I alone bear responsibility for any failures.

POLITICAL AND STRATEGIC OVERVIEW

Through a detailed study of the past searching relentlessly for the truth, we find a historical record in the hopes of answering our many questions. The history of human struggle is timeless, with thousands of lessons to be learned through reading. War is the most complicated of all human endeavors; massing the power of independent wills and emotions against aimed steel and terrain. Often luck and chance shape to some advantage the vulgar contest which would otherwise have a more chaotic form. In the time competitive environment of life, our struggle becomes to capture as many lessons as quickly as we can recognize them. We facilitate learning the art and science of our profession from those who have come before us making their sacrifice worthy of our remembrance. The incumbent responsibility of all leaders in professional militaries is to learn for the sake of preventing needless suffering and death as a result of ignorance. The serious and final nature of our deadly business requires devoted attention as dedicated students of our profession.

POLITICAL OVERVIEW

By mid-summer of 1943, Germany saw the beginning of the end for the “1000 year Reich.” After the defeat of the German 6th Army at Stalingrad along with the defeat at Kursk, German forces in the east were forced to assume a defensive posture in order to conserve resources. In other theaters of the European war in 1943 Germany had suffered the losses of North Africa and Sicily to the Western Allied powers and was now heavily engaged in fighting on the Italian mainland along the Gustav Line around Monte Cassino. While fighting in Italy, the Western Allied leaders continued to feel pressure from Stalin for a “Second Front” in Europe. Politically and strategically the Western Allies needed to show Stalin they were willing to bear more weight of this war. Stalin wanted the Allies to force the Germans to move men and material out of the Soviet Union. No doubt by this late stage of the war the Western Allies had begun to imagine the post war world and were confident Stalin did as well. The fate of much of Eastern Europe was already decided by the beginning of 1944 for what would become the post war period. The Western Allies would have to move quickly. Stalin understood possession of territory to be the golden rule. The Allied leaders knew the Soviets would not give back anything paid for with blood.

The German were forced to defend everywhere with little in the way of manpower or material. This could not bring the decisive victory Hitler wanted, only offensive action could do this. Time was not on Germany’s side. With the Western Allied powers continuing to strangle German production and transportation capabilities with their incredible air power, Germany could never hope to keep pace with the American or Soviet abilities of mass production. Germany began to experience difficulty replacing their losses in manpower beginning in mid-1942. The well trained army of the 1930’s

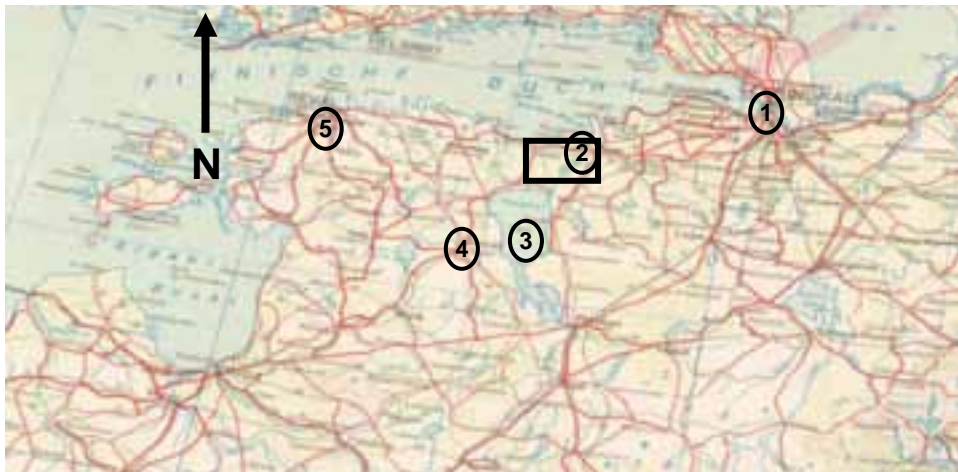
Von Seeckt had formed and trained from the 100,000 man army of the inter war period was all but gone.⁵

STRATEGIC OVERVIEW

GENERAL ORENTATION: (See Map 1)

GENERAL MAP USED BY THE GERMAN GENERAL STAFF FOR ARMY GROUP NORTH. THE BOXED AREA WILL BE THE AREA OF OPERATIONAL AND TACTICAL STUDY.

MAP 1



1. Leningrad
2. Narva Area
3. Lake Peipus
4. Dorpat (Tartu)
5. Reval (Tallinn)

THE STAFF RIDE WILL BE CONDUCTED IN THE BOX MARKED WITH THE CIRCLED NUMBER 2.

[N]: TO THE NORTH IS THE BALTIC SEA

[S]: TO THE SOUTH IS LAKE PEIPUS (CICLED 3)

[E]: TO THE EAST IS THE CITY OF LENINGRAD (CIRCLED 1) AND THE SOVIET UNION

[W]: TO THE WEST IS THE CAPITAL AND PORT CITY OF REVAL (CIRCLED 5)

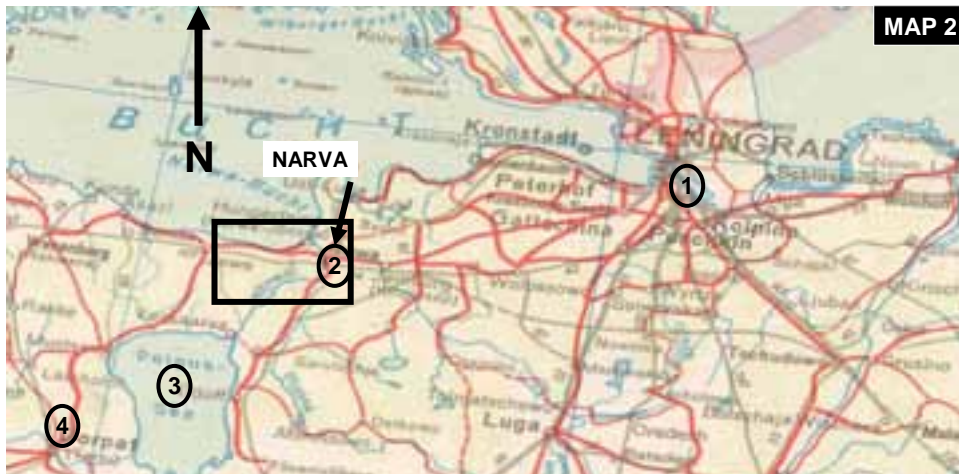
Our study begins with the end of the 900 day siege of Leningrad and the Soviets finally breaking the German stranglehold on the city. The Red Army ruthlessly advanced toward the Narva River, the traditional boundary between Estonia and Russia. The Germans fell back in an orderly fashion to well prepared fixed defensive positions under construction for three years. The Germans had firm control and intimate understanding of the terrain. Their defensive experience matched with excellent weapons capabilities

⁵ James S. Corum, *The Roots of Blitzkrieg, Hans von Seeckt and the German Military Reform* (Lawrence: Kansas University Press 1992).

allowed them to use the ground to its most deadly advantage. German determination produced horrific casualties and poor Soviet results. The sheer mass of the Soviet's attack eventually paved the way to victory, but not without high cost. Never allowing the Germans the opportunity to rest or regroup, the Soviets maintained the initiative of the offense continuing to press their attack into the vicious German defense across the Narva River. Using the frozen Narva River, Soviet forces conducted detailed reconnaissance of several key areas to determine the best locations for crossing vice using a channelizing bridge. Using a highly mobile reserve with heavy fire power, the Germans were able frustrate the Soviet advance long enough to allow more men, equipment and supplies to arrive. The Germans were able to cleverly disguise their strategic intentions with the use of a well thought out and rehearsed plan for their withdrawal. With the Soviet offensive blunted by a seemingly impenetrable line of German resistance, the Soviets attempted an amphibious landing at Meerkula in an attempt to gain the flank along with the long lost element of surprise against less prepared troops. Here again, Soviets actions were met by disaster. Without thought, patience or practice the Soviets attempted the most difficult of military operations. The results were predictable, even with poorly prepared defenses the Soviets suffered tremendous losses. Here the Soviets demonstrated their lack of comfort without armor and artillery support, more disturbing perhaps is the lack of coordination with other Soviet elements who could have facilitated success. As needlessly slaughtered Soviet men floated ashore, the Soviets were planning and preparing for an attempt to assault the southern flank in the hopes of better success. In the "East and West Sack" the Germans frustrated the Soviet efforts yet again with a highly mobile reserve together with a coordinated and determined defense. The Germans were able to smartly trade space for time devastating the Soviets with powerful counterattacks. The stage now was set for a struggle of titanic proportion, a struggle largely unknown to many military professions and historians alike. This battle would focus on three key hills centered on the main east-west supply route in the Estonian country side. This heavily bombed and shelled terrain was scarred by trench lines reminiscent of the Battle of Verdun some 28 years earlier. It was not the battlefield of two highly mobile armies practiced in maneuver, but rather a collection of nations and soldiers fighting to survive the slaughter of a "war of exhaustion." Here thousands of men from all around Western Europe stood against millions of Soviets in an attempt to shield Europe from the onslaught of the Red Army.

A CLOSER LOOK AT OUR FIELD FOR STUDY (SEE MAP 2):

A MORE DETAILED LOOK AT THE GENERAL MAP USED BY THE GERMAN GENERAL STAFF FOR ARMY GROUP NORTH. THE BOXED AREA WILL BE THE AREA OF OPERATIONAL AND TACTICAL STUDY COVER IN 1:50,000 DETAIL.



1. LENINGRAD
2. NARVA AREA
3. LAKE PEIPUS
4. DORPAT (TARTU)

This study concentrates on engagements at both the operational and the tactical levels of war. Details will take us down to the actions of individual men in order to examine the decisions made. The characteristics of both offensive and defensive method are explored in relation to the decisions made. Examining various decisive points throughout the battle will enable students to view the combatant's assumptions in relation to each other and their situation. The text will be both instructive and thought provoking. Students are able to weight historical assumptions against their own thoughts. Using this period's history as a vehicle to transcend the knowledge of Tactics, Techniques and Procedures (TTPs) into an understanding for future decisions is the most important task of this work. The education of the analytical mind will further lead to the development of physical skills and mental abilities recognized in the student's future. This study has no text book answers for students, but rather it allows students to shape their own opinions based on experience. True to the conduct of battle, serious attention has been especially paid to human factors in relation to the terrain of the fighting. In doing so, minor events traditionally going unnoticed will show their major effects. This allows participants to understand what leaders required of their men in order to move with their equipment over broken open ground under fire, or what was involved to make the 18 year old man stand and fight against seemingly hopeless odds. If we were to forget these minor details, we would be forgetting the very essence of war itself.

Amongst the most tangible benefits of this work is the ability of leaders to mentor their subordinates or students with self-paced text. The current state of the world has shown recently we have less time than we ever did to learn our profession. We know

from experience students teach their fellow students often better than their instructors. Integral to this course will be a train the trainer portion, not as **the way** of doing a staff ride, but rather as **a way**. It is often said we must make time for Professional Military Education. This should help ease the burden of leaders by providing simple, easy to read text, making normally very dry material more exciting to read. With the supervision of an experienced senior, young leaders learn not only from their seniors, but also from their peers as they compare and contrast ideas. The purpose is not to teach students what to think in terms of TTPs or other concepts. This would be the wrong lesson all together! Many come to the military profession as accomplished reconitional problem solvers. Our task is to expound upon this knowledge and develop their intellectual / analytical qualities as well. Rather, we are teaching how to think in terms of time and space while applying a decisive solution to any problem set quickly. It is critical we remember "... the art of commanding is an affair of character rather than intelligence."⁶ Here we come to a critical junction requiring us to take a pause to learn. All we have discussed thus far are in an effort to develop what Clausewitz referred to as "Military Genius," to become a reconitional decision maker.⁷ There are three intellectual pieces essential to military genius: 1) coup d'oeil, 2) determination and 3) presence of mind.⁸ The concept of coup d'oeil, or "striking of the eye" requires some explanation. The idea of coup d'oeil could be best described as the strong feeling one gets about the correct time for a decision to act based on intuition. The leader possessing all of these qualities collectively is not guaranteed victory in battle. History is full of brilliant leaders who failed to recognize key events and thus failed. To put these three elements together requires imagination. Our imagination is governed by our intellect and combat experience. "Imagination simplifies the interpretation of the commands and dispositions of superiors; it aids us materially in finding our way over unknown ground, because it presents the actual map clearly to our mind, and facilitates recognition of the actual features."⁹ The key is not only these elements which are discussed, but rather to apply them at the critical place in relation to time and space. This is the true essence of genius.

THE GERMAN STRATEGIC PLAN FOR THE NARVA FRONT:

The beginning of 1944 was a particularly difficult time to be a German strategic planner, no more so in Army Groups Narva and North. With Germany suffering serious defeats in the summer of 1943 at Kursk and the slow pain of the Italian Campaign in the west, German planners were being forced to do more with less. The continuous air bombardment of critical war supply depots and factories along with the logistical infrastructure to move supplies was making resupply of field units more and more difficult. As a static front since the beginning of the siege of Leningrad in 1941, Army Group North had invested serious thought and effort into defensive positions around the

⁶ Field-Marshal Baron von der Goltz (ed. and trans. A. Hillard Atteridge and Philip A. Ashworth) , *The Nation in Arms* (London, England: Hugh Rees Limited 1906) , 54-5.

⁷ Carl von Clausewitz (ed. and trans. Sir Michael Howard and Peter Paret) , *On War* (Princeton: Princeton University Press 1976) Book 1, Chapter 3, 100.

⁸ Jon Tetsuro Sumida, *Decoding Clausewitz* (Lawrence: Kansas University Press 2008), 131.

⁹ Field-Marshal Baron von der Goltz (ed. and trans. A. Hillard Atteridge and Philip A. Ashworth) , *The Nation in Arms* (London, England: Hugh Rees Limited 1906) , 37.

Baltic. The German strategic plan was essentially what Hans Delbruck referred to as a “war of exhaustion (attrition)” Estimates on available manpower in late 1941 showed the Germans they would need to make an effort to enlist the help of Eastern Europeans. The planning of the coming defense of the Baltic made the Germans think the Baltic peoples would defend their countries to the death to avoid another Soviet occupation. This was largely predicated upon the memories of the Baltic people from the 1940-41 occupation of their countries by the Soviets. This is also referred to as the “first occupation.” As a result, the German plan initially was to have as many “Baltic units” occupy the forward most positions of the line while German units reinforced their positions and provided support. In practice, German units were still very much in the front line alongside many other nationalities from Western Europe.

On examining MS# 151 “*Fighting on the Narva Front, the Evacuation of Estonia and the Withdrawal to the Dvina*” we find a discussion of the German withdrawal plan. Accordingly, the following steps were taken:

- “1. The operation was assigned the code name “Entruenpelung” house-cleaning. All equipment not absolutely needed was moved to Germany.
2. A small group of officers, sworn to absolute secrecy, conducted a dry run of the planned operation under the code name “Tannenbaum I”. Direction of the withdrawal and lines of resistance were established on the maps and were reconnoitered on the ground inconspicuously.
3. Armeeabteilung NARVA designated highways for motorized and horse-drawn vehicles. Bridges were reinforced.
4. Depots were established for all classes of supply.”

A withdrawal directly west toward REVAL (TALLINN) and the Island of Oesel (SAARMEA) would have been the least difficult for Armeeabteilung NARVA. The overall situation however necessitated a southwesterly and ultimately a southern direction toward RIGA.”¹⁰

Adolf Hitler and thus the German High Command saw the value of Estonia as a gateway of communication with Finland. Hitler was determined not to lose Estonia as the result. When the Finns signed a treaty with the Soviets this thought was lost. The future of Estonia, and thus the Baltic was sealed. The plan to be executed called for German units to move toward the southwest, toward Riga. The Germans planned an event phased withdrawal through Estonia from phase line A to K. (SEE MAP BELOW)

¹⁰ Department of the Army, *Fighting on the Narva Front, The Evacuation of Estonia and the Withdrawal to the Dvina* (Carlisle, Army War College: Foreign Military Studies Department 1952) , 6-7.



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According to the graphics on the map, we see phase line K was also a planned battle handover line of Army Group North to 18th Army. As the Soviets seized Dorpat (Tartu) in August 1944, this plan could not be fully recognized.

THOUGHTS ON TERRAIN

“Time, as a rule, is the defender’s friend; for the offense, even when not of itself too weak, is often paralyzed because final success is too long delayed. It is of vital importance for the defender to hold on, and for the assailant to acquire; in war the former is generally the less difficult.”¹²

Military professionals must pay particular attention to the direction and shape of natural terrain features as these generally determine the course of manmade terrain features. Of the Narva Isthmus’ physical geographic make up and capacity to shape military operations we know the isthmus to be “generally narrow, but varying in with (6-28 km) the mesa runs from the border of Kõrvemaa from Sagadi towards east to Narva River. (126km). The southern border at Alutaguse is very winding dependent on swampy depressions created by glaciers. The widest area (28km) of the mesa is at Jõhvi elevation (in line with Ontika-Jõugu) and Alutaguse’s most northern point is at Oru and Vaivara.”¹³

¹¹Ibid, annex 1.

¹² Field-Marshal Baron von der Goltz (trans. Joseph T. Dickman), *The Conduct of War* (Kansas City: The Hudson-Kimberly Publishing Company 1896) , 53.

¹³ Ivar Arold (trans. Eric A. Sibul), *Eesti Maastikud* (Tartu, Estonia: Tartu University Press 2005) , 245.

East of the Narva River tends to be higher in elevation, but once across the river, “The mesa in general is higher in the western part around Virula where it is 68 meters above sea level and becomes lower in the east at 30-34 meters above sea level at the western border of Narva River. From the smooth mesa noteworthy knobby protuberances of moraine (the deposits of rocks, sand and clay left by melting glaciers) rise at Jõhvi to an elevation of 79 meters and at Sinimäed (84.6 meters). These are the highest natural elevations of the mesa.”¹⁴ This statement forms the bases for why Sinimäed is key terrain for military operations, as it dominates everything around it from a position of elevation.

Estonia provides a great study on the use of mobility corridors. The Germans correctly interpreted the Narva isthmus in the north and the region south of Lake Peipus as the two most likely areas for the Soviet advance. The Germans were able to make an assessment based on experiences with the Soviet task organization from other battles. They knew armor and infantry would be working together. The natural obstacles would make movement for armor difficult and thus separated the infantry from the armor. They were not disappointed! As Lake Peipus and several smaller lakes dot the Estonian landscape they create a series of excellent natural obstacles. Like any other obstacle, they were used to turn or fix the Soviets into engagement areas. This ultimately made the Germans job of defense of the Baltic easier with their limited, but deadly resources. The natural obstacles are further enhanced by several rivers and smaller streams crossing the terrain in many different locations. In the areas between these lakes and rivers we find swamps and forests. A close study of the road and railroad networks allows students to understand the factors involved in the resupply and reinforcement of units. Rarely in the Baltic region do you find a road going straight north and south or straight east and west.

Many areas of the Baltic are swamp and forests making rapid off road movement difficult in good (cold) weather conditions and impossible in poor (hot) weather conditions. The central problem is the ground itself, the other is the weather. The composition of the soil in the region varies. “The characteristic shapes are the rocky North-Estonian limestone bank terraces and mesas which are divided into plateaus by northwest-southeastern river valleys, in between which in the east are ridges (elevations) manmade and natural Sinimäed.”¹⁵ In the northern area of our study we find the hard black soil for which Estonia has immortalized in the black of their nation’s flag. This black soil dominates in the area of the Blue Hills and along much of the Baltic Sea where the coast turns to limestone and sand and rock beaches meeting the Baltic Sea. From Sinimäed into the southern area of study we find sand and loose packed dirt. We also find a very low water table contributing to swampy conditions. Operating in forests and swamps were not unknown to either combatant. During the First World War both sides had operated in similar terrain, mostly in the southern Baltic and in Poland. In the years between the wars, neither side developed techniques for operating in the forest based on their experiences gained. Both sides concentrated on a more mobile style of maneuver warfare, often forgetting areas bypassed would eventually have to deal with as several lines of operation and communication bordered these areas. The Germans quickly relearned several new problems had to be reconsidered. Many of the German lines of

¹⁴Ibid, 245.

¹⁵ Ibid, 246.

communication running through the swamps and forests were protected by older veterans from the First World War. These men showed their younger comrades their old techniques. The problems were not just operational, but also logistical. In the years following the Second World War, the United States Army published a group of pamphlets explaining some of the lessons the Germans had learned from fighting the Soviets in forest and swamps. One of the pamphlets was 20-231; "*Combat in Russian Forests and Swamps*" was published in July of 1951.¹⁶ Winter operations in forest and swamps were generally easier for a number of reasons. Defensive operations could be conducted as the ground was cold enough to dig and the water table frozen. Offensive operations can be conducted during the winter in places where the spring and summer will not allow.

Being a logistician in these times was truly an art form; some would say more like being a magician. During the Second World War and in places around the Baltic today, improved surface roads were of hard packed dirt. The roads were of a dusty and chalky composition, difficult to traverse in the heat of the summer for men and animals alike. In fact, the more traffic traversing a road in the summer, the more of this chalky dust would rise skyward betraying the position of friendly troop movements for miles. The only advantage to be gained was enemy air reconnaissance or attack units would be unable to determine the exact size and locations of the unit through the dust. Both combatants were largely dependent on pack animals, such as horses and mules to move their weapons and equipment. This made forage to feed animals something needing to be supplied. German and Soviet forces both learned quickly they could not rely on the country side to provide for them. Railroads provided a timelier solution for logisticians needing to deliver millions upon millions of tons per day just to sustain operations. Railroads were not a perfect solution, as the Soviets used Broad gauge and the Germans Standard gauge.

The sum total of the terrain, weather and operating environment created by the Germans and the Soviets together help shape our thoughts on time and space considerations. Without knowing the "ground truth," our plans are more fantasy than reality.

THOUGHTS ON WEATHER

Weather or its study is not typically a subject to interest professional soldiers until they are subjected to its effects. Like terrain, a failure to understand the weather can spell victory or defeat very quickly. Looking at the weather from a historian's point of view led me to look for the weather record from 1944 in Estonia. The things of interest to a historian are the same for a military professional. Sun rise, sun set, moon rise, moon set, temperature, wind speed and precipitation all have an effect on operations and thus leader's decision making. Knowing the answers to these scientific questions provides the historian with a clearer picture. This picture is not reliant on the memories of common

¹⁶ Department of the Army, *Department of the Army Pamphlet No 20-231 Historical Study Combat in Russian Forests and Swamps* (Washington D.C.: Department of the Army 1951) .

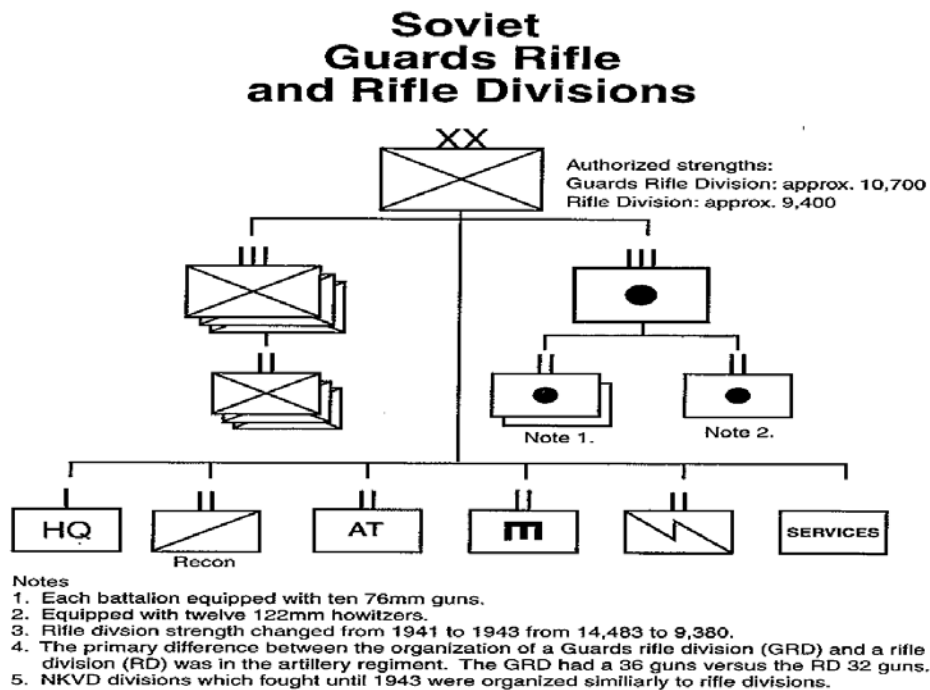
soldiers or officers, but rather of scientific instruments and records. In order to better understand the decisions being made on the battlefield, we must understand the factors driving those decisions to be made. Looking at a battle from the perspective of weather, a historian must first think about something as simple as the sun. Knowing the Blue Hills is an east-west running hill mass meant tactically every morning the German positions would always have the sun in their eyes. The question needing to be answered was, "What time did the sun rise and set during the fighting?" Knowing information of this sort allows us to explore decisions made against historical record collectively evaluating the results.

Another important factor relating to the sun is the temperature during the fighting. Only recently have we really begun to understand the effects of weather and temperature on the body, particularly while conducting military operations. Certainly during the battle of The Blue Hills with men only carrying one small canteen, soldiers on both sides suffered tremendously from heat related illness, thus forcing commanders to consider their loses of combat power. An issue related to heat in forest and swamps was not only with the insects and pests that could be seen, but also the micro organisms in their canteens. Winter would largely solve this problem, but working in a defense or moving in the attack would quickly overheat a soldier, leaving him to look for water in a frozen canteen. The necessity to boil their water to kill germs was not a nice to have, but needed to fight dehydration. An easy task for the defense being static, impossible for a moving offense to sustain. Dysentery spreads around defensive positions rapidly if soldiers are undisciplined in the use of field latrines or trash removal. Eating in fighting positions always invites unwanted pests such as rats and bugs.

Speaking with Dr. Jaak Jaagus, who is a professor of climatology at The University of Tartu in Estonia, I was able to gain some generalizations about the weather for 1944. The Estonian winter of 1944 was fairly mild, particularly January which is known for precipitation. The spring months of March, April and May were colder than normal. Maximum precipitation was recorded in May and June, while July was much dryer than normal. To help the reader understand the role weather played on operations during the fighting, two charts have been added for the stands of the staff ride. These charts will show sun and moon information against light and temperature information. On the second chart, wind, humidity and general information regarding collection are provided. Some general trends were observed during the course of conducting this research. Information was recorded by the same man through August of 1944. August was the last month weather information was recorded in Estonian. All data collect after August is in Russian. It is interesting to see how quickly and completely after the reoccupation by Soviet forces all government agencies were switched. All information in relation to the time it was collected was done in local Estonian time. Something as simple as the time of day is central to our understanding the event. Neither force operated on local time, but rather on Berlin or Moscow's times in order to facilitate reports to higher headquarters.

TABLE OF ORGANIZATION AND TABLE OF EQUIPMENT INFORMATION FOR THE FIGHTING IN THE BLUE HILLS AREA:

The wire diagrams that follow illustrate the tables of organization and equipment for both a Soviet Rifle Division as well as a German Waffen SS-Panzer-Grenadier-Division. They are provided for those who are unfamiliar with the organization of these forces and gives perspective to their sizes and the amount of men and material they employed. As most military professionals have learned during the course of their careers, you never have everything the paper says you have and particularly in combat. Good Ordinance Sergeants make sure you have more than you rate. These wire diagrams are “pure” and not mixed or task organized. It is important to remember commanders in this or our own time mix and match assets until they have the right composition for the operation. By constant experimentation and experience, we arrive at the correct formula for what assets we need. Both forces were supported by tank units not organic to the composition of their battalions or regiments. These assets would have been found in other regiments within the division or the corps level. Armor in particular is best employed in mass with the support of infantry and in conjunction with indirect fire support assets. By this stage of the war, both the Germans and the Soviets were adept at combined arms, frequently operating in this manner.



17

By 1944 the Soviets had recovered from their earlier incompetent performances and were operating at the zenith of their abilities. At the strategic and operational levels of war, plans were cogent with great care and thought put into how objectives were to be

¹⁷ Keith E. Bonn, *Slaughterhouse, The Handbook of the Eastern Front* (Bedford: The Aberjona Press 2005), 432.

taken. This did not however always translate into care for the men who were going to execute the missions. The Soviets did still suffer particularly at the tactical level under the dual system of command known widely as the Commissar System. Military decisions were still made jointly and had to be approved by a politic commissar prior to being executed. In the tactical execution of their duties, junior officers still struggled with simple tasks such as map reading and land navigation. With rudimentary problems such as these, figuring out where you were located in the featureless terrain made flat by bombing and shelling was nearly impossible, thus employing accurate artillery fire or an air strike would be impossible. The problems of the junior officers were further complicated by their communications gear. Ground offensives were still largely conducted with the use of field phones and telephone wire prone to damage and failure. Junior officers also lacked a trained and professional Non-Commissioned Officer Corps to assist them. The discipline of the Soviet Army was brutal; soldiers were led by fear not by love of cause.

Your average Soviet Soldier during this battle would have been wearing a green wool uniform or if he or she was fortunate enough a lighter weight summer tan uniform. As leather was becoming more and more difficult to obtain, you would have seen a mix of ankle high and knee high boots. It would also not be uncommon to see pieces of American gear among groups of soldiers brought by the lend-lease program. The standard infantry weapon of the Soviet infantry was the model 1891/30 Mosin Nagant. A bolt action rifle with a five round capacity, it was in use since before the First World War. It was a supremely simple and accurate weapon to use. The weapon fired a 7.62 X 54 cartridge and could be relied on to engage targets at long distance.



Mosin Nagant 1891/30 Rifle



Mosin Nagant 1891/30 Sniper Rifle with a three power PU scope

Soviet Snipers preferred this weapon, typically mounting a three power PU or a six power optical scope. The sniper system was difficult to initially zero, but once sighted was extremely accurate and easy to adjust for varied distance shooting. Of Soviet sniper activity in the Narva Bridgehead we know the Soviets employed quite a few with great success. “The sniper movement intensified in the bridgehead area. The most active snipers: Senior Sergeant I. G. Lozhkin, Sergeant I. A. Puzyrev, Lance Corporal R.Sh. Musin, Red Army Soldiers A. K. Isikaev, A. A. Lazarev, F. G. Milinenkov, O. O. Portyankin, P. S. Leskin and others. Within 15 days, the sniper Red Army Soldier P. S. Leskin killed 16 Hitlerites. The sniper Senior Sergeant I. G. Lozhkin had killed 158 fascists. He was awarded the Order of Honor Third Class, the Order of the Red Banner and the “For Bravery” Medal.”¹⁸

The recoil of the Mosin Nagant was brutal. A shooter would begin to feel pain in his shoulder after only 15-20 rounds. Mounting a 12 inch bayonet, the Mosin Nagant was well equipped for close combat. The bayonet point and blade were of a “star shape” making the treating and healing of the wound difficult. Soviet Soldiers armed with an 1891/30 Mosin Nagant would typically carry four magazine pouches of 10 rounds each. As most know from experience, ammunition is the one thing soldiers always have more room for. After experiencing urban combat in the winter of 1942/43, the Soviets saw the need to go to a shorter version of the Mosin Nagant and created the M-44 Carbine which had all of the same characteristics of the 1891/30 but was significantly shorter and came with a folding bayonet.

¹⁸ Colonel N.P. Klyavin, *Narva Red Banner, A Sketch of the Military Path of the Narva 256th Rifle Red Banner Division*, (Dimitrovgrad, Russia: ICF “Vremya 1997), 131.



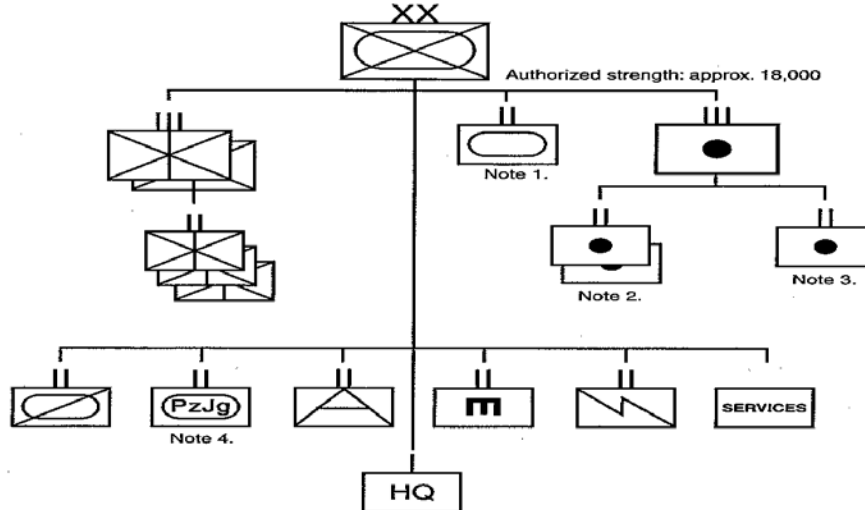
M-44 Mosin Nagant Carbine

A favorite weapon for both sides was the PPsh-41 submachine gun. A fierce weapon in close combat, it fired a 7.62 X 25 round that made it the ideal weapon for in the last 300 meters of an assault. Like all Soviet weapons, it was brutally simple to maintain and operate. It was capable of emptying its 71 round drum in only seconds. Soviet Soldiers would typically carry the drum in the weapon and two additional drums suspended from their belts. All soldiers carried a bread bag for their rations and weapons cleaning gear. Packs would carry a soldier's sustenance gear such as extra uniform items for cold weather. By modern comparison a Soviet Soldier was carrying about 40-50 pounds of gear, where modern infantry carries upwards of 70-100 pounds. The main difference was Soviet Soldiers walked everywhere unless they could get a ride from a tank or another vehicle.



PPsh-41 Submachine Gun

Waffen-SS Panzer-Grenadier Division



Notes

1. The Panzer battalion was authorized 70-76 armored fighting vehicles, and was usually assigned assault guns.
2. Each battalion consisted of three 4-gun batteries of towed 105mm howitzers.
3. Consisted of two 6-gun batteries of towed 150mm howitzers and one 4-gun battery of 105mm field guns.
4. The *Panzerjäger* (anti-tank) battalion consisted of 45 75mm assault guns or tank destroyers.

19

The Waffen SS or “Armed SS” was the Nazi party’s representation on the battle field. They were considered elite soldiers, but not part of the German Armed Forces. Many of the most successful strategic and operational level leadership of the Waffen SS had fought in the First World War and served in the post war 100,000 man army of Von Seeckt. Some of these men had even achieved General Officer’s rank in the German Army before joining the Waffen SS. German Army Soldiers never minded sharing a flank with troops of the Waffen SS due to their fighting ability and willingness to not fail their mission. Higher level tactical army commanders always noted the superior fighting qualities of these men, but often believed they were being asked to do the impossible. Some Army Officers believed it a shame that such fine soldiers were being wasted in such thoughtless ways. On the other hand, the tactical leadership of the Waffen SS is considered amongst the best produced by any side during World War Two. Officers were expected to lead from the front, and with their highly developed Non-Commissioned Officer Corps, they were expected to of perform any mission. At the Battle for Narva and the Blue Hills, men from all across Europe banded together to fight the “Bolshevik threat.” Many of these men had been soldiers in the countries of their origin and were put into service for Germany. Some enlisted willingly while others were forced to serve. Senior Officers in the German Army had serious reservations about allowing any man other than a native German to wear the German Army uniform; hence they were permitted to serve in the Waffen SS. They were led in their own languages and commanded by officers typically from their own nations. Their orders were typically written in their native tongue, but reports being submitted to higher headquarters were always in German. The senior leadership of higher echelon units was typically German, but there were exceptions.

¹⁹Ibid, 399.

The heart of any German tactical formation whether in the Waffen SS or the Army was the squad of generally nine men by the late war. The squad was built around a light machine gun such as the MG 34 or MG 42. The squad leader was principally responsible for the tactical employment of the machine gun first, then the movement and or maneuver of his squad. ²⁰



MG-34 with Assault Drum



MG-42 on a Tripod

Waffen SS units were typically outfitted with the latest equipment and weapons as the “Parties Soldiers.” This was not always true of foreign soldiers serving in the Waffen SS. Waffen SS Soldiers from different nations were typically referred to as “Legionnaires.” The typical uniform of a Waffen SS Soldier by this stage of the war would have been a mix of different items and styles. In fact, finding two soldiers outfitted

²⁰ John A. English, *On Infantry* (Westport: Praeger 1981), 71-2.

in the same gear by this stage of the war would have been difficult. Even though every effort would have been made to maintain uniformity, the frequent Allied bombing raids of logistics depots made this impossible. As for weapons, the work horse of the German military was still the venerable K-98, shooting a powerful 7.92mm round. A weapon also with a five round capacity, its exceptional accuracy and simple design still form the basis of most modern hunting and sniping rifles. When matched with the ZF-39 sniping system, mounting either a four or six power optical scopes, the rifle became capable of dominating out to ranges of 1200 meters. A system of mounts used to secure the scope to the rifle known as “high turret” and “low turret” mounts was extremely reliable, but once zeroed was difficult to adjust for shooting at variable distances. The recoil of the K-98 is very manageable and the weapon can be shot continuously without accruing pain in the shoulder. Waffen SS men armed with this weapon would have carried 60 round of ammunition in six magazine pouches along with a 10 inch bayonet for close combat.



K-98 Rifle



A German Sniper employing a K-98 with a ZF-39 Sniper System.

The Germans also fielded a semi automatic 7.92mm rifle, the G/K-43. This weapon carried a 10 round detachable box magazine and was capable of mounting a four power scope for sniping. The rifle proved unreliable and very prone to the effects of weather.



G-43 Rifle with a Four Power Scope for Sniping.

The Waffen SS Soldiers typically carried more personal gear than their Soviet counterparts. Another favorite weapon of the Waffen SS Soldier in close combat was his entrenching tool. Correctly used, the entrenching tool was capable of splitting a man's head in two.

The organic German weapon for the last 300 meters and close combat was the MP-38/40. An accurate and slower firing sub machine gun; its range was greatly hampered by the 9mm pistol cartridge. It was also temperamental and unreliable. Many German Soldiers and Waffen SS men preferred the Soviet PPsh-41 for close combat.



The MP-40 Sub Machine Gun

In late 1943 Germany began to field the StG-44 “Assault Rifle.” Named by Adolf Hitler himself, the weapon used a 30 round magazine firing the 7.92mm Kurz round. This weapon truly bridged the gap between the tactics of the day and the capabilities of soldiers in close combat fighting. The StG-44 is the father of all modern assault rifles.



StG-44



Waffen SS men had a wide variety of weapons and tactics designed to deal with Soviet armor in close combat. In particular, German units this late in the war were commonly armed with the Panzerfaust. This handheld weapon was a disposable rocket propelled shape charge that came in a 30 meter, 60 meter and later in the war 100 meter capability. The Germans also modified the American Bazooka first captured in North Africa to create the Panzerschreck. This weapon fired an 8.8cm rocket capable of destroying a tank at 150 meters. These weapons were all capable of destroying most all but the heaviest tanks and truly leveled the playing field between infantrymen and armor. These weapons and skills would be needed in the coming fight for the Blue Hills. In a daily order dated 16 July 1944 from a Waffen SS Regiment, subordinate units were

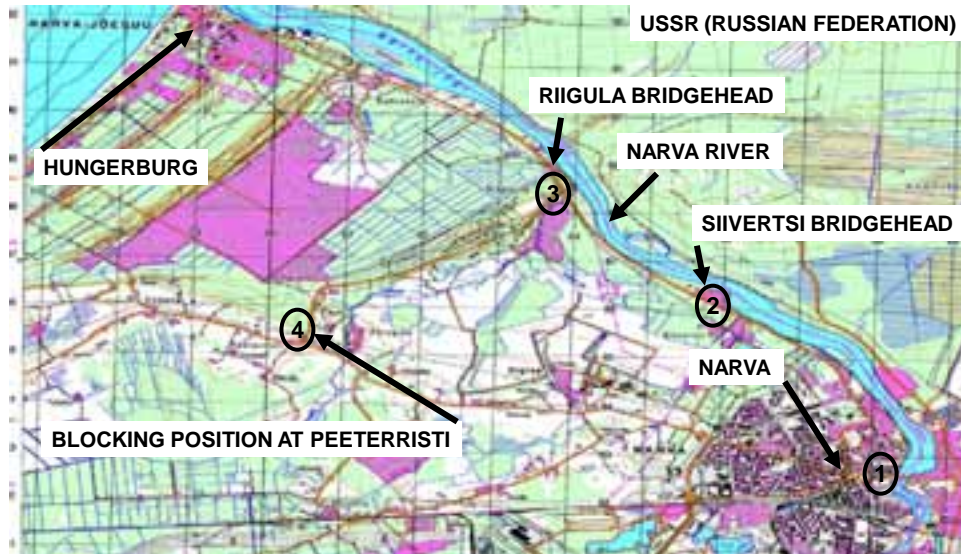
required to send two men from the same squad for a week's worth of training in an area to the rear of the fighting. The purpose of the course was to cross-pollinate techniques and tactics from other units within the regiment and to introduce and test new weapons and tactics.²¹ A brilliant concept at the tactical level worthy of emulation today.



A German Soldier Employing a Panzerschreck.

²¹ SS Pz.Gren. Brig. 49, "Ausbildungsbefehl Nr.2," O.U 16.7.44, National Archives Microfilm Publication T354, roll 162.

STAFF RIDE STANDS:

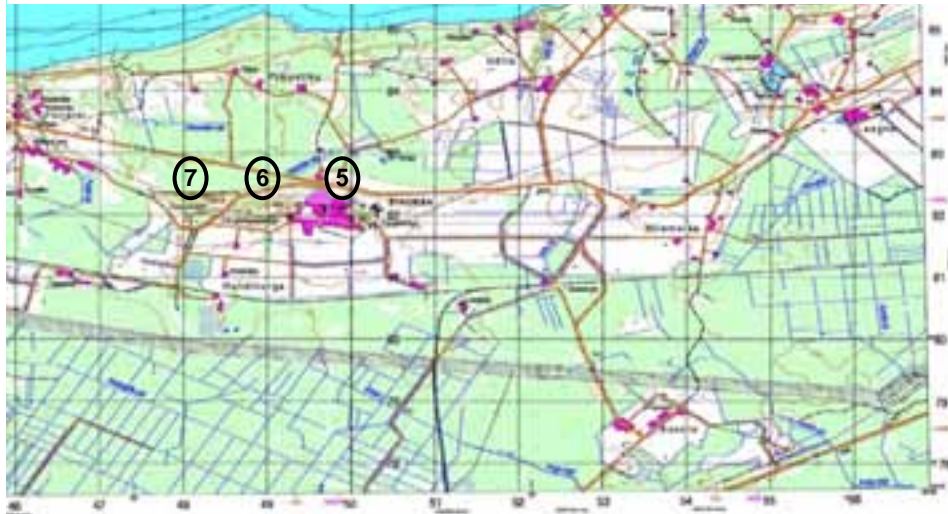


THIS IS A 1:50,000 MAP OF THE NARVA AREA. CIRCLED AREAS ARE STANDS OF THE STAFF RIDE.

1. THE HERMANSBURG CASTLE
2. THE SIIVERTSI BRIDGEHEAD
3. THE RIIGULA BRIDGEHEAD
4. BLOCKING POSITION AT PEETERRISTI

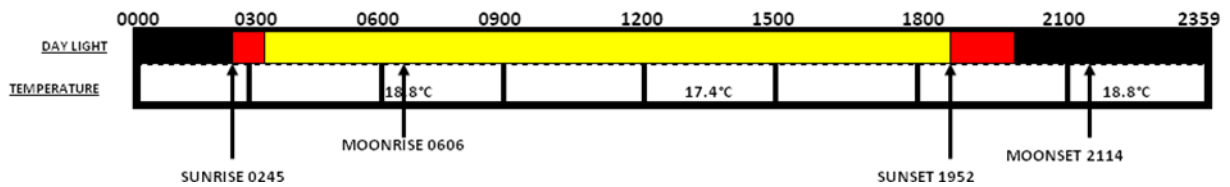
THIS IS A 1:50,000 MAP OF SINIMAE (BLUE HILLS). CIRCLED AREAS WILL BE STANDS VISITED ALONG THE STUDY.

5. KINDERHEIMHONE
6. GRENADIER HILL
7. HILL 69.9



STAND 1- HERMANNSBURG CASTLE

WEATHER DATA FOR 23 JUL 44



22

| | DATA COLLECTION TIMES | | | |
|--|-----------------------|--------|--------|--------|
| | 07.12 | 13.12 | 21.12 | AVG |
| TEMP | 18.8°C | 17.4°C | 18.8°C | 18.3°C |
| WIND SPEED | 4 KPH | 5 KPH | 0 KPH | 3 KPH |
| DIRECTION | SE | SE | E | |
| AVE HUMD | 13.5°C | 13.4°C | 14.7°C | 13.9°C |
| REL HUMD (%) | 83% | 90% | 90% | 88% |
| <p>STATION INFORMATION WAS COLLECTED AT: TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57'</p> <p>INFORMATION COLLECTED BY: ALLEK VALDUR</p> <p>***TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE.</p> <p>IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE.</p> | | | | |

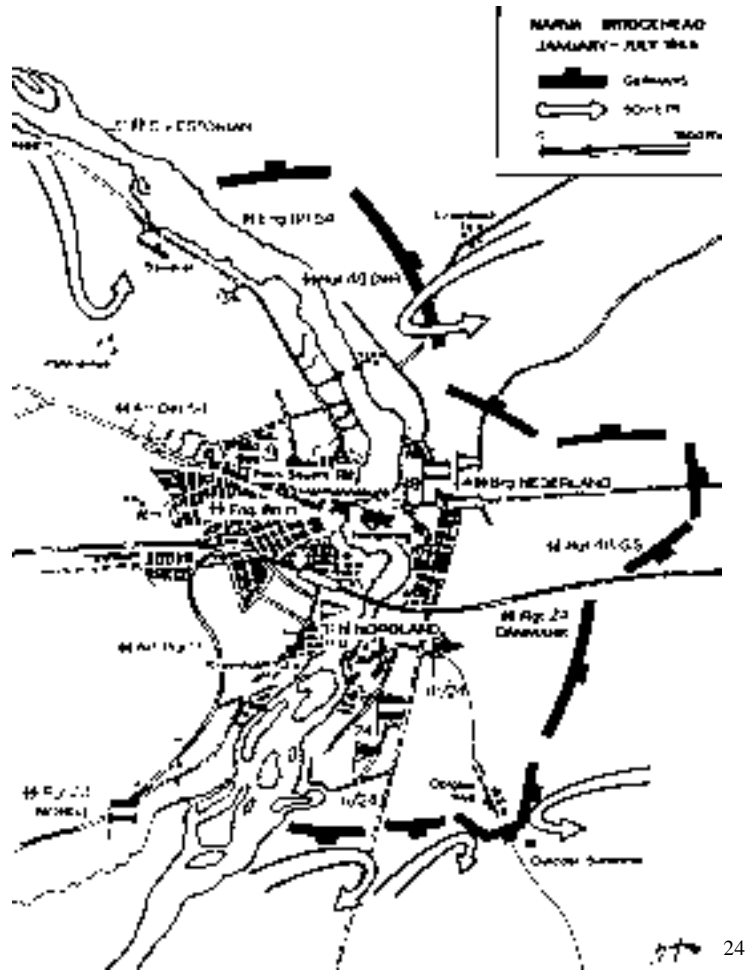
23

SITUATION: During operations in the Narva bridgehead, the castle served as a German Command Post for the *SS-Artillerie-Regiment 11*, commanded by *SS-Obersturmbannführer* Karl. The units Karl supported were forward in the Soviet Russia. At the castle students gain an understanding of the German and Soviet operational estimates of the situation as they survey the terrain in all directions. At the castle students

²² Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943), 14.

²³ Eesti Meteoroloogijaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 24-7.

also gain an appreciation for the overall tactical picture in relation to the terrain in the early winter of 1944.

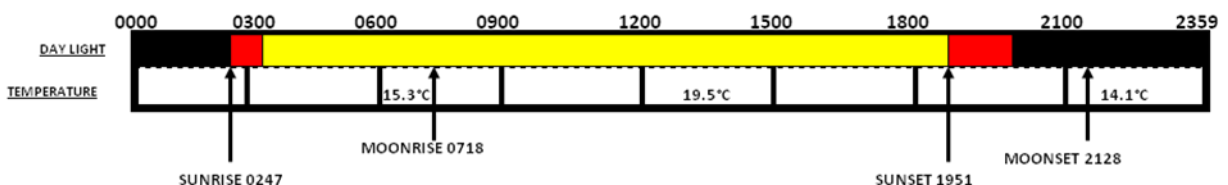


You are the Ia (Operations Officer) of the *SS Panzer-Grenadier-Regiment 24 "Danmark"*. It is 2330 23 July 1944. The weather has been very hot. The ground is hard enough for cross country movement. It has not rained for weeks. Your regiment has sustained about 50% casualties across the regiment in men and equipment. Resupply has been difficult. Any attempt to resupply from the air has been met with the anti-aircraft fire. You are located at the Hermannsburg Castle (See maps and pictures) prepared to receive a quick face to face brief along with your orders from the *III SS Panzer Korps Ia*. He quickly points to the map, briefing you on the retrograde plan from the Narva bridgehead. He informs you that your regiment will cross to the western side of the Narva River minus the 7. (Company)/*SS Panzer-Grenadier-Regiment 24 "Danmark"* and the *I. (Battalion)/SS Freiwilligen-Panzer-Grenadier Regiment 49 "de Ruyter"*. He tells you information learned from a Soviet prisoner of a penal company. The prisoner was

²⁴ Richard Landwehr, *Narva 1944: The Waffen SS and the Battle for Europe*, (Silver Springs: Bibliophile Legion Books, Inc 1981), 63.

captured off your northern flank last night. Events of the last few hours have confirmed his story of being the lead element for a division sized unit. This division is believed to be an armored task force comprised of two tank regiments of T-34s (76mm and 85mm) along with some Joseph Stalin II (122mm) tanks (See Appendix A for more information on armored vehicles). It is also believed this division has a regiment of artillery and heavy mortars in direct support of their movement and subsequent assault. The infantry regiment of the division is expected to be used in conjunction with a battalion of tanks. They will be the lead element to clear the ruins of the city of Narva of defenders for the remainder of the Soviet division. Intelligence believes the enemy division is at 65% strength in men and equipment. The enemy is located in an Assembly Area (AA) about 20 kilometers to the east of your position. Friendly units all across the front have been reporting decreased enemy probing patrols for the last two days. Currently you are conducting a relief in place on the east side of the Narva River. **Once relieved, you will move across the river to the west side of the Narva River establishing a blocking position In the Vicinity Of (IVO) position (A) Vanakula to Peeterristi along the main MSR, the “Rollbahn” In Order To (IOT) allow further retrograde of III SS Panzer Korps units to the west. There they will establish stronger defensive positions in anticipation of a Soviet assault by a corps or larger unit. You CAN NOT break contact, you must hold until ordered to move. The positioning of your defense should cover from the south of Vanakula to the northwest of Peeterristi.** The Korps Ia informs you he has a company of Panther tanks mixed with 75mm assault guns he will attached to your regiment. They are to assist you in getting your blocking position on the "Rollbahn" in place. They will then move back to their AA further to the west to conduct maintenance in anticipation of heavy action in the near future. The majority of the Korps' artillery is still displacing to get into firing positions further to the west. The Korps Ia informs you he has a battery of six self propelled artillery he will attach to you to support your scheme of maneuver. You have a Luftwaffe Officer to control Close Air Support and coordination. You have already been told not to count on air support, as the Luftwaffe has been tasked with helping to stop the Soviet main effort attack to the south. H-Hour for execution of the planned movement is set for 23.30 July 24, 1944. Write your plan for the movement. Use the maps provided to plan with.

WEATHER DATA FOR 24 JUL 44



25

²⁵ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943),14.

| | DATA COLLECTION TIMES | | | |
|--|-----------------------|--------|--------|--------|
| | 07.12 | 13.12 | 21.12 | AVG |
| TEMP | 15.3°C | 19.5°C | 14.1°C | 16.3°C |
| WIND SPEED | 4 KPH | 5 KPH | 6 KPH | 5 KPH |
| DIRECTION | NW | NW | NW | |
| AVE HUMD | 11.2°C | 11.2°C | 9.8°C | 10.7°C |
| REL HUMD (%) | ?% | ?% | 81% | 78% |
| <p>STATION INFORMATION WAS COLLECTED AT: TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57'</p> <p>INFORMATION COLLECTED BY: ALLEK VALDUR ***TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE.</p> <p>IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE.</p> | | | | |

26



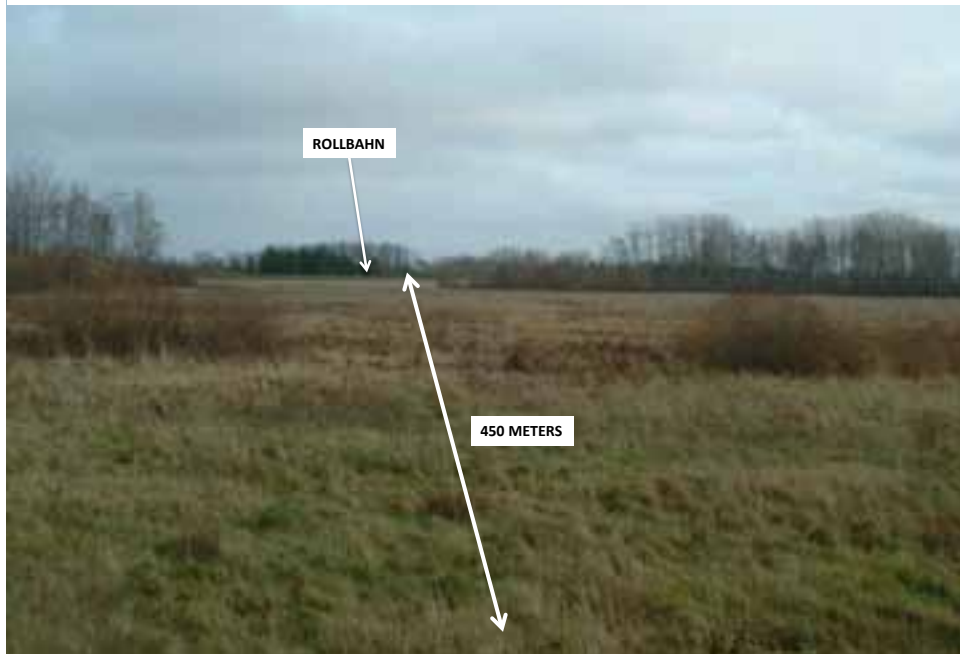
²⁶ Eesti Meteoroloogiajaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 24-7.

MAP FOR PLANNING YOUR ACTIONS:



Current 1:50,000 scale map

PROPOSED BLOCKING POSITION (A) AT VANAKULA FOR 24 JULY 1944. (PICTURE WAS TAKEN FROM PT 30 (35V NF 61108430) LOOKING TOWARD THE EAST.)



TEACHING POINTS: Use of available time to plan, communicate and execute the retrograde. Traffic control and priority/order of movement. Operational Security. Security of the route against partisan activity. Use of reconnaissance assets in the defense. Realizing the time and space required to retrograde under enemy pressure.

VIGNETTE: The problem presented was the same as German commanders worked for point (A) Vanakula. Actions needing to be taken for a force to break contact and withdraw in contact with the enemy are amongst the most difficult operations to perform at any of the levels of war. At the strategic and operational levels they must not just be unit position markers on a map. The planners must have a sense of the readiness of these units and understand their capabilities and limitation in terms of their core abilities to “shoot, move and communicate.” Like all plans as von Moltke the elder once said, “No plan survives first contact with the enemy.” This was no different.

Of the German plan to break contact from Soviet forces in the Narva Bridgehead area we know a few pivotal facts:

- Due to compromised operational security, the German order was originally scheduled to be executed on 16-17 July 1944. This order had to be cancelled. The Soviets gained this information from two German Prisoners.²⁷
- At 2000, July 24, 1944 the covering force ordered to cover the withdrawal of the Narva bridgehead was in place. The covering force was attached a light flak battery, an engineer unit and an artillery battalion.²⁸
- The plan was executed at 2330 hours on the 24th of July 1944. “First, the Narva bridgehead was evacuated. *SS-Panzer-Grenadier-Regiment 24 “Danmark”* minus the *7./SS-Panzer-Grenadier-Regiment 24 “Danmark”*, and the *I./SS-Freiwilligen-Panzer-Grenadier-Regiment 49 “deRuyter”* crossed the bridges and headed back to the west. *SS-Freiwilligen-Panzer-Grenadier-Regiment 48 “General Seyffard”* and the *7. /SS-Panzer-Grenadier-Regiment 24 “Danmark”* also crossed the bridges, but remained on the west bank in the city of Narva another 24 hours as rear guard.”²⁹
- Of Soviet resistance we also know; “The Russians were also attacking with strong forces in the southern sector and pushed hard against the units that were pulling out. *SS-Panzer-Grenadier-Regiment 24 “Danmark”* reached the “*Tannenberg*” Position along the railroad line.”³⁰

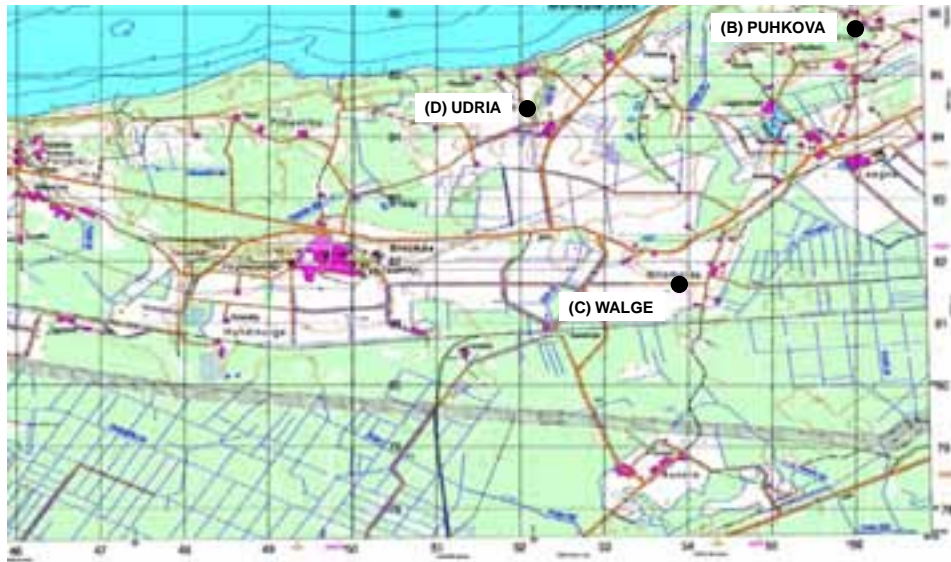
²⁷ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 83.

²⁸ Oluf Krabbe, *Danske soldater I kamp pa Ostfronten 1941-1945*, (Kobenhavn, Danmark: Bogen’s Forlag 1998), 179.

²⁹ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 85.

³⁰ Ibid.

PROPOSED BLOCKING POSITIONS (B) PUHKOVA, (C) WALGE AND (D) UDRIA FOR 24 JULY 1944



PROPOSED BLOCKING POSITION (B) AT PUHKOVA FOR 24 JULY 1944. (PICTURE WAS TAKEN FROM VIC (35V NF 56258560) LOOKING TOWARD THE WEST



PROPOSED BLOCKING POSITION (B) AT PUHKOVA FOR 24 JULY 1944. (PICTURE WAS TAKEN FROM VIC (35V NF 56258560) LOOKING TOWARD THE NORTH EAST.)



PROPOSED BLOCKING POSITION (C) AT WALGE (HIIEMETSA) FOR 24 JULY 1944. (PICTURE WAS TAKEN FROM VIC (35V NF 53708210) LOOKING TOWARD THE SOUTH.)



PROPOSED BLOCKING POSITION (D) AT UDRIA FOR 24 JULY 1944. (PICTURE WAS TAKEN FROM VIC (35V NF 52208420) LOOKING TOWARD THE WEST.)



PROPOSED BLOCKING POSITION (D) AT UDRIA FOR 24 JULY 1944. (PICTURE WAS TAKEN FROM VIC (35V NF 52108420) LOOKING TOWARD THE NORTH.)



PROPOSED BLOCKING POSITION (D) AT UDRIA FOR 24 JULY 1944. (PICTURE WAS TAKEN FROM VIC (35V NF 52108420) LOOKING TOWARD THE SOUTH.)

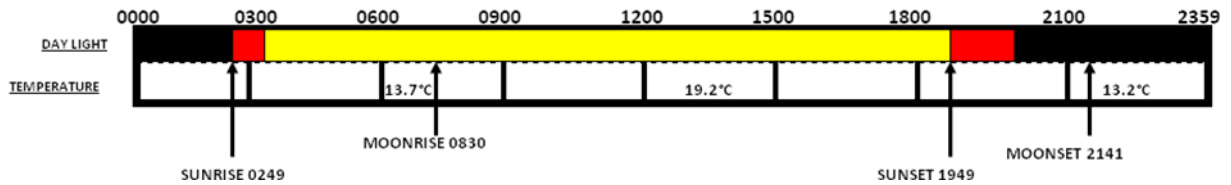


- "The withdrawal plan established four intermediate positions before reaching the new main line of resistance. The four positions would be occupied in leapfrog fashion and then evacuated. The first intermediate position (A) was at Vankula and in the Riverbank Woods at the workers' houses across from the notorious "Snake Woods." Those blocking positions were about six kilometers west of Narva. Blocking position B was at Puhkova, Suur-Soldino (echeloned forward somewhat to the east) and at Samokras. The C positions were at Walge, east of the Repikno settlement, along the railroad embankment south of Repikno and directly east of Auwere. Intermediate position D was at Udria, Auwere railroad station and 2 kilometers west of Lipsu. The plan was very precise. Would it be possible to follow it?"³¹
- The Bridges over the Narva River were to be destroyed by 0200 the 25th of July after the last units crossed over the river and the covering force was in place to cover the retrograde of the pioneers.³² The main bridge near the Hermannsburg Castle was destroyed only after a second attempt.

³¹ Ibid, 85.

³² Oluf Krabbe, *Danske soldater I kamp pa Ostfronten 1941-1945*, (Kobenhavn, Danmark: Bogen's Forlag 1998), 179.

WEATHER DATA FOR 25 JUL 44



33

| | DATA COLLECTION TIMES | | | |
|--|-----------------------|--------|--------|---------|
| | 07.12 | 13.12 | 21.12 | AVG |
| TEMP | 13.7°C | 19.2°C | 13.2°C | 15.4°C |
| WIND SPEED | 5 KPH | 6 KPH | 2 KPH | 4.3 KPH |
| DIRECTION | NW | NNW | WNW | |
| AVE HUMD | 9.0°C | 7.8°C | 8.9°C | 8.6°C |
| REL HUMD (%) | 76% | 47% | 78% | 67% |
| <p>STATION INFORMATION WAS COLLECTED AT: TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57'</p> <p>INFORMATION COLLECTED BY: ALLEK VALDUR</p> <p>***TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE.</p> <p>IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE.</p> | | | | |

34

The obvious answer to this question is nothing is ever executed as planned, but the Waffen SS did complete their mission of occupying the defensive positions prepared for them IVO Kinderheimhohe. These positions were constructed by “engineers, navy troops, and men from the SS Penal Company 103.”³⁵ The war diary of *Heeresgruppe Nord* provides the following entry explaining the retrograde of forces, “26 July 1944: 2230 hours: Narva and the Narva bend evacuated. “*Tannenberg*” Position occupied: the 11. SS-

³³ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943),14.

³⁴ Eesti Meteoroloogijaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 24-7.

³⁵ Richard Landwehr, *Narva 1944: The Waffen SS and the Battle for Europe*, (Silver Springs: Bibliophile Legion Books, Inc 1981), 70-71.

Freiwilligen-Panzer-Grenadier-Division 'Nordland' on the right, *4. SS-Panzer-Grenadier-brigade 'Nederland'* on the left.”³⁶ For tactical perspective, we have the diary of a forward observer from the *4./SS Artillerie-Regiment 54* who wrote the following regarding the execution of the withdrawal plan; “0600 hours: Heavy barrage on Narva and the main supply route. Aerial attacks came in waves. Observation positions in the tower and the cotton mill in the southern part of Narva. I directed the battery in shelling mortars that were going into position. Over there (on the east side of the Narva River) it teemed with Russians. Visibility was very limited due to the number of burning houses. The cotton mill was also burning. At 1700 hours the order arrived: Everyone must be past grid line 61 by 1800 hours. The Russians have formed a bridgehead north of us and would cut the main supply route by then.”³⁷ This perspective is of interest because forward observers have a unique perspective and integral working knowledge of the ground scheme of maneuver in order to support it with indirect fire. The relevance of grid line 61 and the ability to occupy retrograde point (A) at Vanakula as planned is further expounded upon by Tieke in the following, “On 25 July, at about 1700 hours, the order arrived: “by 1800 hours, all units must have crossed grid line 61 (Hungerburg-Soldino) toward the west.” *SS-Untersturmfuhrer Madsen's 7./SS-Panzer-Grenadier-Regiment 24 "Danmark"* made it back to the railroad line without enemy contact. For *II./SS-Freiwilligen-Panzer-Grenadier-Regiment 49 "deRuyter"* and *SS-Freiwilligen-Panzer-Grenadier-Regiment 48 "General Seyffard,"* however the retreat route-the main supply route- was already barred. The blocking positions at Vanakula (A) were already in Russian hands.”³⁸ An interesting note on the *7./SS-Panzer-Grenadier-Regiment 24 "Danmark"* Company Commander was that he had heard from a fellow Dane operating with the *SS-Freiwilligen-Panzer-Grenadier-Regiment 48 "General Seyffard"* not to follow this unit due to the slowness of their tempo of movement. *7./SS-Panzer-Grenadier-Regiment 24 "Danmark"* moved with rear guard for Regiment “Norge” along the railroad tracks to the south and reported into the “Tannenberg” positions to constitute a reserve force.”³⁹ Of *SS-Freiwilligen-Panzer-Grenadier-Regiment 48 "General Seyffard's"* fate we know from the commanding officer of their 7th Company, *SS Hauptstrumfuhrer Broberg* the following:

“At 0200 hours on the morning of the 26 July, the regiment was at Suur-Soldino awaiting the return of stragglers. But the enemy was pressing forth. Shortly after dawn the Russians penetrated deeply to the north of the road at Vanakula. The Narva-Tallinn highway (the rollbahn) was now being used by strong enemy armored and infantry forces going to the west. Now came the engagement. SS Regiment 48 was mostly in the woods to the southwest (of the highway when the first enemy vehicles came into view. During the fallback, the regiment was without provisions and heavy weapons. In difficult, bitter fighting in the forests east of Repiknu, a desperate situation developed. Between 1400

³⁶ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 85.

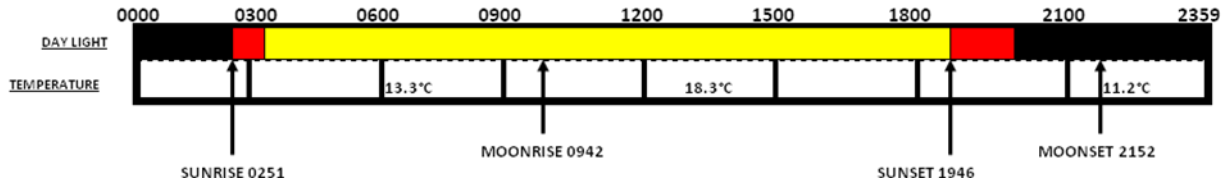
³⁷ Ibid, 86.

³⁸ Ibid, 88.

³⁹ Oluf Krabbe, *Danske soldater I kamp pa Ostfronten 1941-1945*, (Kobenhavn, Danemark: Bogen's Forlag 1998), 181.

and 1700, the regiment split up into small groups of officers and men, to try and make their way out to the west, but most were killed or fell into enemy hands.”⁴⁰

WEATHER DATA FOR 26 JUL 44



41

| | DATA COLLECTION TIMES | | | |
|---|-----------------------|--------|--------|---------|
| | 07.12 | 13.12 | 21.12 | AVG |
| TEMP | 13.3°C | 18.3°C | 11.2°C | 14.3°C |
| WIND SPEED | 4 KPH | 6 KPH | 3 KPH | 4.3 KPH |
| DIRECTION | NW | NW | NW | |
| AVE HUMD | 9.0°C | 6.5°C | 7.0°C | 7.5°C |
| REL HUMD (%) | 78% | 41% | 71% | 63% |
| STATION INFORMATION WAS COLLECTED AT: TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57' INFORMATION COLLECTED BY: ALLEK VALDUR ***TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE. IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE. | | | | |

42

The decision to halt the movement and the ultimate responsibility for the failure of *SS-Freiwilligen-Panzer-Grenadier-Regiment 48 "General Seyffard"* rests with the

⁴⁰ Richard Landwehr, *Narva 1944: The Waffen SS and the Battle for Europe*, (Silver Springs: Bibliophile Legion Books, Inc 1981), 78-79.

⁴¹ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943), 14.

⁴² Eesti Meteoroloogijaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 24-7.

Regimental Commander *SS Oberstrumbannfuhrer* Benner.⁴³ His decision cost *III. SS Panzer Korps* valuable combat power they could not replace.

We can deduce from these orders German units were fixated on crossing the 61 grid line. They quickly lost their focus due to circumstances created by the enemy and their position on the terrain. Due to the complexity of the *III. SS Panzer Korps'* plan, the time and space required to break contact with the immensity of three Soviet Armies was not considered correctly. With the first blocking position only six kilometers from the main line of resistance in Narva, the *Waffen SS* had not given themselves enough time or space in which to move. To validate this, we must look at how the Soviets exerted the tremendous pressure on *Waffen SS* forces required to dislodge them from the Narva Bridgehead area. Of their success we know, "Once again General Goworow (Commander of the Leningrad Front) had massed a major portion of his forces at Hungerburg and Riigi- This time achieving success! The dam was broken. The courageous Estonians (*20th Waffen SS Division*) fell back under the immense pressure. The Soviets poured into Estonia. Small Soviet infiltration squads were already firing on the main supply route (the *Rollbahn*)."⁴⁴ The Soviets had been attacking the southern part of the Narva bridgehead while the weather was still cold enough for cross country movement in February and March of 1944. Of the success of these attacks we know:

"In the middle of March, the division became a part of the 59th army and was ordered to occupy the Eastern part of Lastecolonia – height 84.6, and consequently cut the highway to Narva-Tallinn. On March 17, 1944, the 256th rifle division with the 30th guards tank brigade and the 1193rd self-powered artillery regiment, after a 30 minute artillery preparation, attacked the enemy, ruptured the front edge of the defense, but did not have enough force to complete the attack. The enemy warded off attacks of the division's multiple regiments with artillery and mortar fire and counterattacks. The neighbors did not have any success either. For the 7 days of battle, the division's regiments defeated up to 20 counterattacks, destroying over 1400 soldiers and officers, knocking out the 21st "Tiger" tank of the enemy."^{*, 45}

These unsuccessful attacks in March were not a total failure. In addition to gaining valuable information about the terrain, the Soviets were leaving behind soldiers either intentionally but more likely unintentionally to operate and influence local partisan bands. These groups would continue to harass German logistical units and assets moving along lines of communication such as the *Rollbahn*. This no doubt contributed to the success of the Soviets in late July 1944.

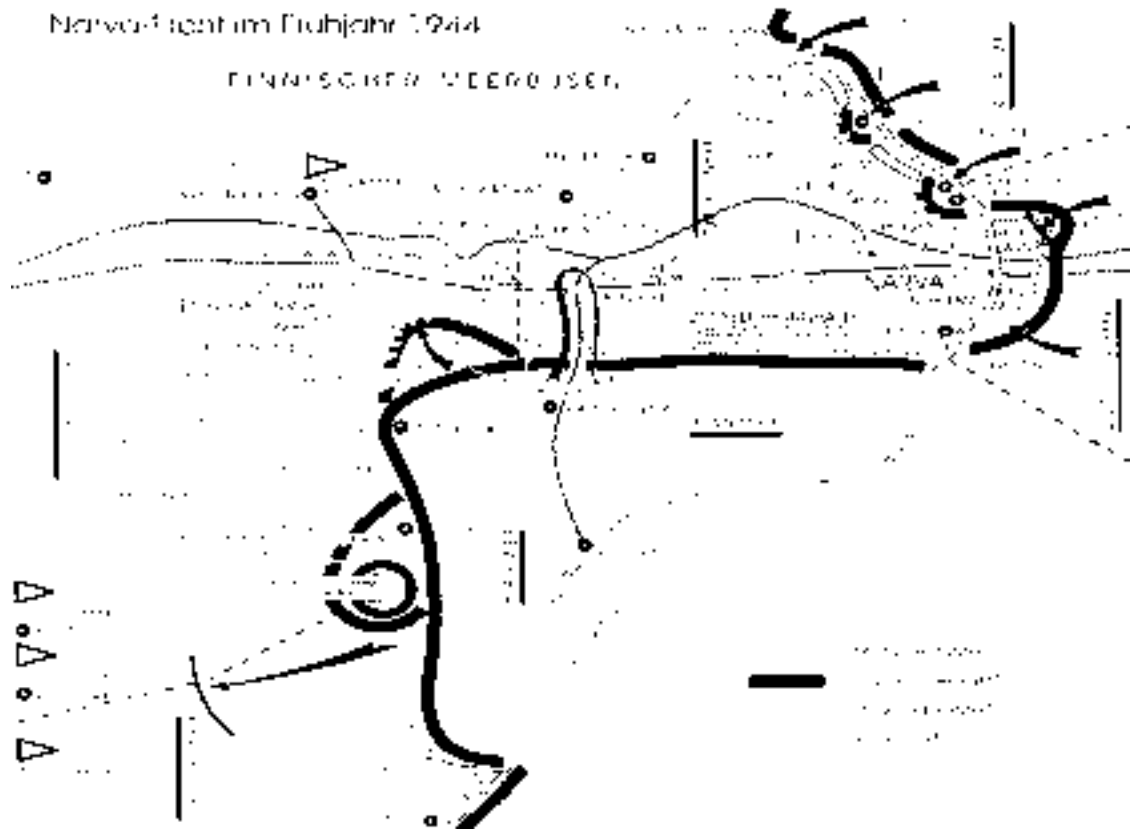
⁴³Richard Landwehr, *Narva 1944: The Waffen SS and the Battle for Europe*, (Silver Springs: Bibliophile Legion Books, Inc 1981), 77.

⁴⁴ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 87.

* ЦАМО, ф. 1543, оп. 1, д. 14, стр. 94.

⁴⁵ Colonel N.P. Klyavin, *Narva Red Banner, A Sketch of the Military Path of the Narva 256th Rifle Red Banner Division*, (Dimitrovgrad, Russia: ICF "Vremya 1997), 122.

STANDS 2 AND 3 - SIIVERTSI AND RIIGIULA BRIDGEHEADS



Marshal Leonid Aleksandrovich Govorov was born February 22, 1897 in the village of Butyrki in central Russia. The son of a sailor, he attended a technical high school in Yelabuga and enrolled in the ship-building department of Petrograd Polytechnical Institute. In December 1916, he transferred to the Konstantinovskye Artillery School and in 1917 became an artillery officer.

When the Russian Revolution began and the Russian Army disintegrated, Govorov returned home. He was later conscripted into the White Guard Army of Aleksandr Kolchak. He soon deserted and joined the Red Army. In the Russian Civil War Govorov served under Vasily Blyukher in the Crimea against the forces of Pyotr Vranghel and was twice wounded, winning the Order of the Red Banner.

During the 1920s and '30s Marshal Govorov held a series of artillery commands while completed courses at the Frunze Military Academy. In 1936, Marshal Govorov founded the Military Academy of Red Army General Staff. In 1938 he was appointed to be an instructor of tactics at the Dzerzhinskiy Artillery Academy.

In April 1942, Marshal Govorov was appointed the Soviet commander in Leningrad. Here Marshal Govorov's thoughts as an artilleryman and master of positional warfare were of service. On January 14, 1944, he commanded the Leningrad forces in breaking the German blockade. In June 1944, during the liberation of the Northern Leningrad region and subsequent invasion of Finland he was promoted to the rank of Marshal of the Soviet Union.

Marshall Govorov was awarded the title of the Hero of the Soviet Union on January 27, 1945.

In the years following the war, Marshal Govorov commanded the Leningrad Military District and was the Chief Inspector of Ground Forces. In 1948 he was appointed Commander of National Air Defense Forces. Marshal Govorov suffered from chronic heart disease and died in March 1955.⁴⁶



SS Obergruppenfuhrer Felix Steiner was born in Stalluponen, East Prussia on May 23, 1896. Joining the Prussian Army before the beginning of the First World War, he served as an enlisted Soldier and Non Commissioned Officer until he was commissioned a Leutnant on January 27, 1915. He served on the Eastern Front during the First World War taking part in the battle for Tannenberg as well as the fighting around the Masuren Lakes. He commanded Machine Gun/Sharp Shooting Detachment No. 46. He was subsequently transferred to the Western Front in April 1918. There he served in the Flanders area and at Cambrai. He was awarded both classes of the Iron Cross and received a Black Wound Badge for wounds received in combat on September 13, 1917.

After the end of the First World War from mid-January 1919 to early May 1920 Felix Steiner served with several East Prussian volunteer units (Freikorps) in the Memelland and in Königsberg. He joined the Reichswehr on May 8 1920 as the Commanding Officer of the 2nd Machine Gun Company of Schützen Regiment 2. In 1926 he was introduced to Armor training. Steiner was promoted to Hauptmann in 1927. Steiner left military service

⁴⁶ David Glanz, *Colossus Reborn: The Red Army at War 1941-43*, (Kansas: Kansas university Press 2005), 396.

in December of 1933, joining the NSDAP and SA January 1, 1934. He left the SA and joined the SS on April 24, 1935.

Serving in a variety of assignments before and during the war with various units Steiner was promoted to *SS Obergruppenfuhrer* and was given command of *III. (germ.) SS-Panzer-Korps* on July 1, 1943. He would command *III. (germ.) SS-Panzer-Korps* throughout the actions in the Blue Hills. Steiner received the Knight's Cross with Oak leaves and Swords. He would receive his Swords from Hitler himself in a ceremony in September 1944.

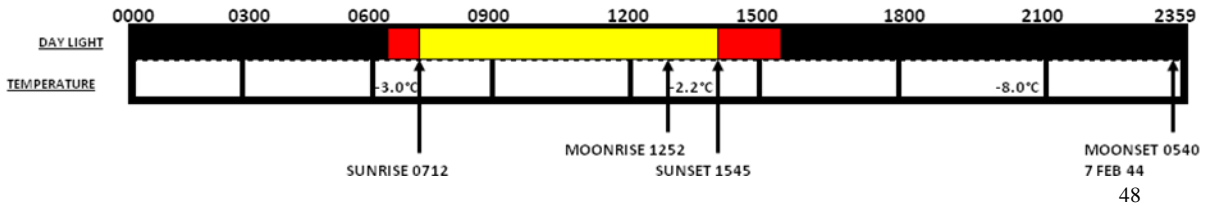
Having served in the First World War gave Felix Steiner an understanding missing by many of the senior commanders of the *Waffen SS*. He understood the nature of war and the carnage it included. He believed in the assault tactics developed toward the end of the First World War and was instrumental in introducing them to the *Waffen SS*. Steiner believed in hard training and the motto of "Sweat Saves Blood." Steiner only led from the front; he was not a man interested in things of a non military nature and had no time for the politics of the Nazi Party. He was reprimanded by Reichsfuhrer SS Himmler for the non political attitude he would often share at staff meetings without a second thought. He was widely loved by his subordinates and respected by his peers in the German Army.

SS Obergruppenfuhrer Steiner was captured by the Allies on May 3 1945. He was a witness at the Nuremberg trials and was released on April 27, 1948. He was never married. After the war he wrote two books about the *Waffen SS*, "The Army of Outlaws" and "The Volunteers." He was found dead in his Munich apartment on May 17, 1966.⁴⁷

The Soviet Operational plan was simple. After the break out of the Leningrad pocket, Soviet forces were attacking west in mass as quickly as possible. Strong tank armies supported by infantry and concentrated artillery fire would smash their way through German defenses. Using a constant series of fixing fires in conjunction with flanking maneuvers, the Soviets planned to move as quickly as possible in order to meet Stalin's political objectives for the reoccupation of former Soviet possessions. Marshal Govorov wanted to fix German forces in place along the Narva River while conducting his main effort attack from the south of Sinimaed into the German flank there. This was the initial plan for the winter of 1943/44. As the weather began to warm and the southern areas returned to being a swamp after the thaw, the Soviets changed their strategy to wanting to run over Sinimaed in a frontal assault while continuing to flank and cut the Germans off from the south. To these ends, Marshal Govorov mainly employed the 47th Army, the 2d Shock Army and the 8th Army (As north to south) against Army Group North with *III SS Panzer Korps* in the north, *XXXXIII Korps* in the center and *XXVI Korps* in the south.

⁴⁷ Mark C. Yerger, *Waffen SS Commanders, The Army, Corps and Divisional Leaders of a Legend Kruger to Zimmermann*, (Atglen: Schiffer Military History 1999), 263-66.

WEATHER DATA FOR 6 FEB 44



48

| | DATA COLLECTION TIMES | | | |
|--|-----------------------|--------|--------|--------|
| | 07.12 | 13.12 | 21.12 | AVG |
| TEMP | -3.0°C | -2.2°C | -8.0°C | -4.4°C |
| WIND SPEED | 1 KPH | 1 KPH | 1 KPH | 1 KPH |
| DIRECTION | WNW | NW | W | |
| AVE HUMD | 3.3°C | 2.8°C | 2.3°C | 2.8°C |
| REL HUMD (%) | 90% | 71% | 93% | 85% |
| STATION INFORMATION WAS COLLECTED AT: TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57' | | | | |
| INFORMATION COLLECTED BY: ALLEK VALDUR | | | | |
| ***TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE. | | | | |
| IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE. | | | | |

49

SITUATION: You are the Commanding Officer of the *III SS Panzer Korps*, *SS Obergruppenfuhrer* Felix Steiner. In a continuing effort to maintain your situational awareness, you decide to make an unexpected stop to your defensive sectors at the front. Your units are defending in sector with a combination of fixed and mobile defensive techniques. By visiting your forward positions, you have the opportunity to personally assess the situation and not have to rely on the words of your staff officers. It is February 6, 1944 and the winter has been unpredictable, but generally cold. The Narva River has been frozen hard enough for medium tanks to cross the river. Your subordinate commanders apprise you of the fact the Soviets have sent out several probes comprised of infantry to cross the river along with armor firing from support by fire positions to test

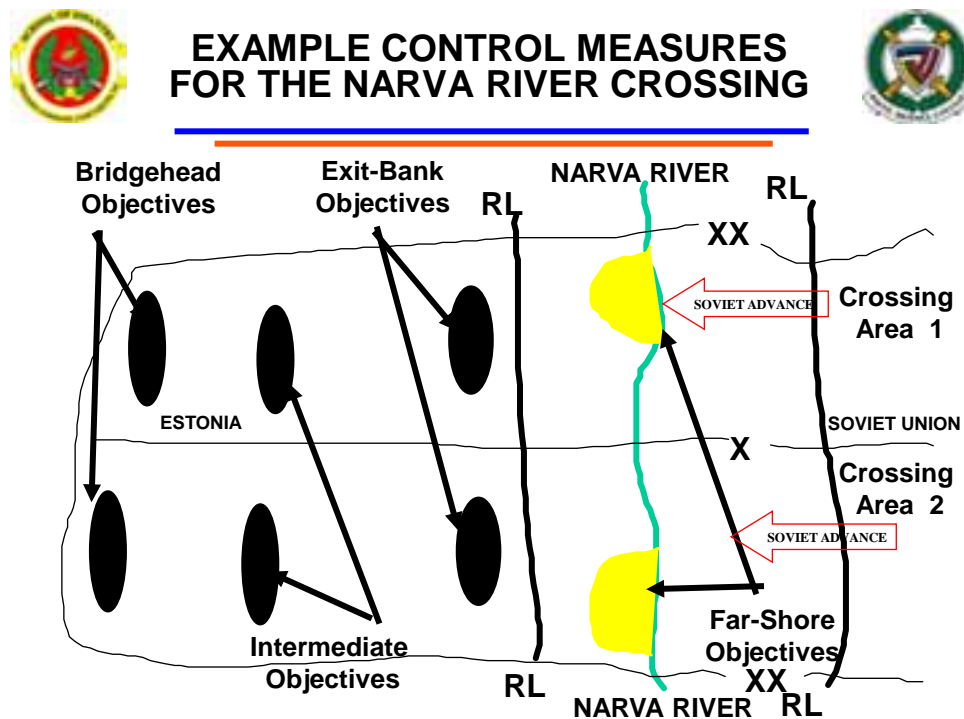
⁴⁸ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943), 9.

⁴⁹ Eesti Meteoroloogijaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 5-8.

friendly defenses. These efforts have occurred concurrently with reconnaissance efforts assigned to collect needed data to cross the river before the weather warms and the river thaws. What are some of your concerns?

TEACHING POINTS: Looking at the situation through the enemy commander’s eyes or “turning the map around.” Bridgehead operations and the time and space needed to conduct them. Engineer planning for bridgehead operations. Logistics planning for bridgehead operations.

ON BRIDGEHEAD OPERATIONS: Like all problems of a tactical nature a first consideration for an operation will be the means of command and control for the operation. Tactical control measures enable commanders to maintain control of their units at all times, particularly with difficult operations such as crossing a river. Control measures should not restrict subordinates from taking the initiative or thinking. Like any obstacle, thought must be applied to suppressing and obscuring the defenders from the river crossing site while elements move and maneuver to their far side objectives, fighting to secure footholds on the enemy side. The following represents an example of how this would have been done by the Soviets:

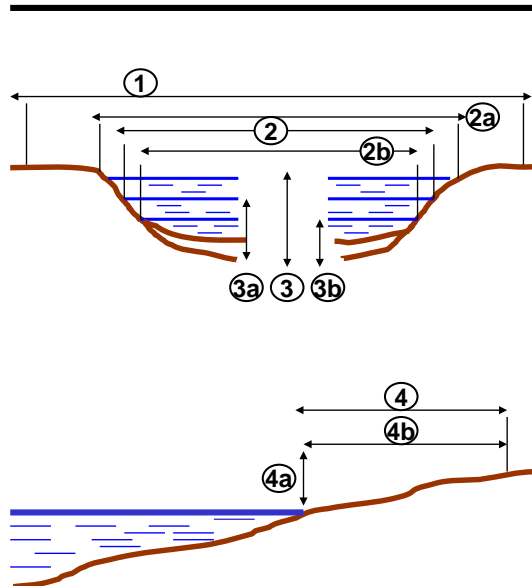


There are several key engineer tasks to be planned for before a reconnaissance effort can leave to conduct its work. A river being frozen may eliminate one set of problems, but can create others. One of the common problems regardless of weather, is the slope of the river bank. The time of year creates other interesting challenges such as traction issues

such as slipping on the banks. The following three slides will provide you with information students need to complete reconnaissance work for the Riigiula bridgehead.



RIVER AND STREAM MEASUREMENTS



1. The width of streambed from bank to bank.
2. The actual width of the water, measured at normal stage: (max width 2a and minimum width 2b are estimated based on local observations or records of high water And low water).
3. The actual depth of the stream at normal water level.
 - 3a. Estimated maximum water depth based on local observations or records.
 - 3b. Estimated minimum water depth based on local observations (watermarks) or records.
4. The slope of the approaches is the Slope of the stream banks through which the approach roads are cut.
 - 4a= Approach elevation.
 - 4b= Approach distance.

$$\% \text{ Slope} = \frac{4a}{4b} \times 100$$

50

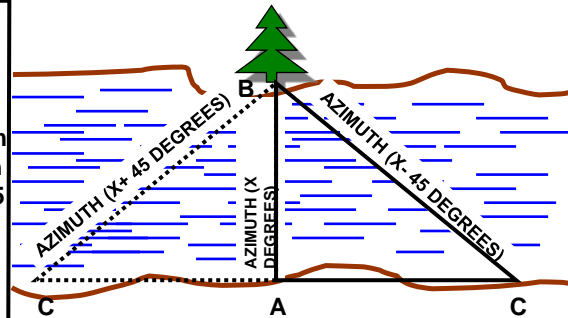
⁵⁰ Headquarters, Department of the Army, *FM-5-34 Engineer Field Data*, (Washington D.C.: Government Printing 1987), 5-15.



MEASURING STREAM WIDTH WITH A COMPASS



1. Select prominent object B (tree) on the far bank.
2. Stand at point A opposite B and read azimuth X degrees.
3. Move upstream or downstream from A to point C so that azimuth to B equals X+45 degrees or X-45 degrees
4. Distance AC equals gap AB.



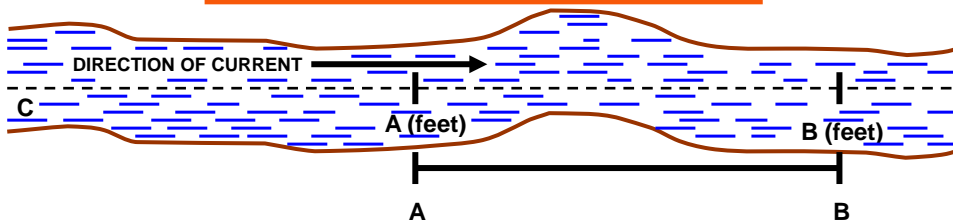
EXAMPLE:

Azimuth of line AB is 315 degrees (moving left add 45 degrees
moving right subtract 45 degrees)
Azimuth of line CB is 270 degrees
Difference between azimuth AB and azimuth CB is 45 degrees
Distance along AC equals distance along AB

51



MEASURING STREAM VELOCITY



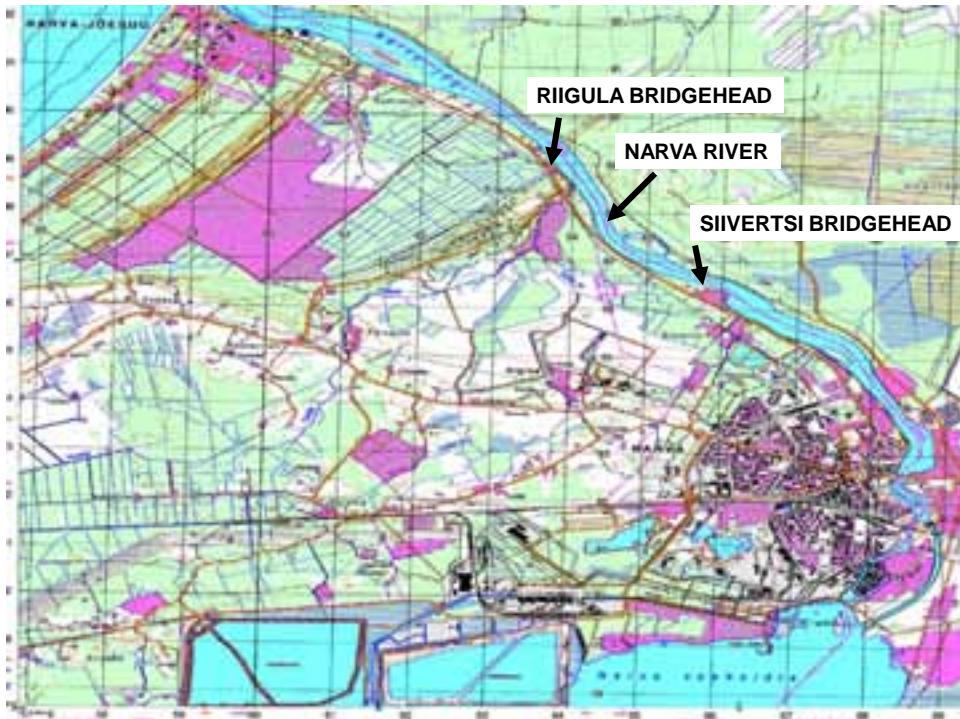
Measure Distance AB
Throw floating object into stream at C
Determine time required for object to float distance AB

$$\text{Velocity} = \frac{\text{AB (meters)}}{\text{Time to float from A (feet) to B (feet) (seconds)}}$$

52

⁵¹Ibid, 5-16.

⁵²Ibid, 5-16.



Current 1:50,000 scale map

**YOU ARE LOCATED IN A DEFENSIVE POSITION NEAR THE RIVER CROSSING SITE IN RIIGIKULA.
(PICTURE WAS TAKEN FROM VIC (35V NF 64018858) LOOKING TOWARD THE EAST.)**



VIEW OF THE NARVA RIVER LOOKING TO THE NORTH. (PICTURE WAS TAKEN FROM VIC (35V NF 64018858))



VIEW OF THE NARVA RIVER LOOKING TO THE SOUTH. (PICTURE WAS TAKEN FROM VIC (35V NF 64018858))



VIEW OF THE NARVA RIVER LOOKING TO THE EAST. (PICTURE WAS TAKEN FROM VIC (35V NF 64018858) THE DIRECTION TO THE YELLOW SIGN WAS 55 DEGREES MAGNETIC.



GENERAL INFORMATION: The river flowed from the south to the north at about 5 knots. From position (35V NF 64018858), the bank was 315 degrees magnetic to the north and 140 degrees magnetic to the south. The water was unclear and the composition of the river bottom could not be determined. The composition of the soil at the water's edge was sand, lending me to believe the bottom of the river was likely also sand. The Soviet side of the river was clearly higher in elevation. The river bank on the Estonia side rose up gently from the water, but the sandy composition of the river bank would have made a spring crossing after the thaw a miserable experience. The best chance the Soviets would have had to cross the Narva River would have been in the winter when the river was frozen. The Estonian side of the river had less vegetation than the Soviet side. (In 1944, both sides of the river were likely cleared by the continuous fire.) The Germans would have had unlimited visibility looking to the east, but the Soviets dominated their shore line and could place fire wherever they would have wanted.

WHAT ARE YOUR THOUGHTS?: _____

VIGNETTE: The Siivertsi bridgehead site saw of some of the most intense fighting prior to the July 1944 actions at the Blue Hills. An area not unfamiliar with combat and war, as you walk along the cemetery, take note of the grave markers and the cemetery fence. You can still see iron grave markers splintered like wood from Soviet and German artillery rounds. As you walk along the fence, take notice of the bullet holes on the east and west sides of the markers. To the south of the main civilian cemetery you will observe a military cemetery from the Estonian War of Independence. Remaining is only a memorial to the veterans. The grave markers were removed by the Soviets during the first occupation in 1940-41.



Siivertsi cemetery from the Estonian War of Independence.

Across the street from these two cemeteries, in front of the Narva River, there is a large cross sitting atop a small hill. This memorial dedicates the Northern War of 1700 and has an interesting tale to tell from the Second World War.

“The road was now open for capturing the Siivertsi-Vepskula area, so the final adjustments were made. The plan was as follows: one battalion of “Nordland” would commence the attack from a suburb of Narva, and attempt to capture the cemetery; where one battalion of “Danmark,” from the Pahklamae manor, would provide support. In addition, the 1st Battalion of the 45th Regiment (20th Waffen SS Grenadier Division) would capture Vepskula and the military cemetery. ... The Siivertsi Cemetery was not captured that day.”⁵³ Of the memorial: “Beyond the cemetery, however, the area around the memorial of the Nordic War, could not be taken. This memorial, was a massive granite block erected to honor the Russian General Sheremetjev. Now, the enemy used it for their final stand. They dug a machine gun nest beneath the memorial, and from there, until darkness, but all attempts to push the Russians out failed. Before a heavy flame thrower could be used to reduce the memorial, the machine gun nest lit itself on fire and the ammunition exploded. The Siivertsi cemetery was conquered at 21:15 on March 2, 1944.”⁵⁴



Memorial dedicating the Northern War of 1700.

In another tragic story of bridgehead operations, a friendly fire incident occurring on the evening of February 6, 1944. A day that would have began like any other with the

⁵³ Reports of the Estonian International Commission for the Investigation of Crimes Against Humanity, *Estonian Border Guard Regiments*, Tallinn, Estonia: Tallinna Raamatutrukikoda 2006), 197-98.

⁵⁴ *Ibid*, 199-200.

sun rising at 0711 in the morning and setting early around 1545. The moon rose at 1252 and set at 0540 on the 7th of February.⁵⁵ “A single SS grenadier who had gotten cut off behind the enemies lines and who had made it all the way from Luga River (inside the Soviet Union) to the Narva attempted, attempted to cross the icebound river. About two-thirds of the way over, he stopped, waved his arms and shouted: “Don’t shoot comrades!” But at the same moment a nervous SS sentry responded with a burst of machine gun fire that instantly killed him. It was but one of the many little tragedies that were bound to occur.”⁵⁶ What the young soldier was unaware of was the Soviets often would dress up in German uniforms and helmets in an attempt to cross the river either to attempt an infiltration or to conduct reconnaissance work. Soviet Soldiers who were from the local area would also desert to the German side by crossing the river. Reentry of friendly lines is the most dangerous operation you can conduct at the tactical level. A young soldier who has not slept properly in months could have been dozing off when he saw somebody standing 30 meters in front of him in the moon light. A burst from an MG-42 where the tracers were likely removed to not give the guns position away cut the man down in a way he likely never knew what hit him. One has to ask, was it a full moon that night?



“Soviet batteries pounded the German positions still holding out during the morning of 13 February. *Kompanie Landmesser, Kompanie Schirmer* and *SS-Pionier-Battalion 54* at the northern edge of the Ssivertsi Cemetery were especially hard hit. From positions on the higher east bank of the river, the Soviets engaged every visible target with their antitank guns.”⁵⁷

⁵⁵ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943), 9.

⁵⁶ Richard Landwehr, *Narva 1944: The Waffen SS and the Battle for Europe*, (Silver Springs: Bibliophile Legion Books, Inc 1981), 78-79.

⁵⁷ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 57.

THE GERMAN METHOD FOR ESTIMATE OF THE SITUATION

The key to all success on the battlefield stems directly from a skilled commander examining the situation in front of him with realistic assessment. Time spent thinking about the enemy and what he seeks to accomplish in terms of your decision for action or inaction is paramount. A commander who is capable of understanding the second and third order effects of his plan will likely succeed. A commander who can translate his methodical and ordered thoughts about the situation into a clear and simple order will easily enable subordinates to take the initiative or to be decisive.

Our first task is to learn how German commanders thought about the estimate of the situation. The instruction that follows was collected from two sources. The first source was an unofficial U.S. Marine Corps newsletter called the "*Tactical Note Book*" from the 1990's. The other source was an unmarked document of the 21st Panzer Division, specifically the notes of the commanding general, General Feuchtinger. These notes were located in the U.S. National Archives (NARA), Captured German Records, and Microfilm series T-315, Roll 769. By looking at our battle study through the same lens common to German commanders of the time, allows us to gain an appreciation for how leaders were taught to think. Being independent and decisive were highly sought after traits by German Officers. Having a firm understanding of the institutional norms along with the trends of thought from the period allow students of history the opportunity to explore how an operation was planned for. The fact the 21st Panzer Division fought in Africa is irrelevant. Deployment orders could have just as easily brought them to the Russian front. The terrain would have been different, but not their problem solving techniques. Today the U.S. military and several other militaries around the world use a variation of METT-T (C) to quantify their thoughts about the estimate of the situation. Concentrating solely on format and not the content always leads to disaster. What is often missed with METT-T (C) is the deliberate thought required to understand the problems. Rational thought can produce decisive action when implemented through force of an individual's will and personality. It is our responsibility to think, not to be a slave to a format.

INSTRUCTION:

A. GENERAL INFORMATION: Each tactical level leader who receives a mission or task (Auftrag) must make an immediate estimate of the situation. The estimate of the situation (Beurteilung der Lage) is created by a leader's judgment. It is influenced by the leader's assigned mission, the enemy situation, his own situation and the terrain. This must be done with thought toward flexibility in order to adapt with the situation. The final outcome (product) of the estimate of situation is the decision. The decision will be converted into action by commands and orders (Befehle und Anordnung), whether they are written or verbal. All orders should be written out whenever possible. The orders should be short and to the point with no extra thoughts.

GENERAL THOUGHTS THAT MUST GO INTO THE ESTIMATE OF THE SITUATION:

- Every situation must be judged impartially.
- All communications and reports about the enemy and your own situation should be shown graphically together on a map.
- The picture from the map should become the common operational picture. This should be examined periodically. It should be validated by reconnaissance efforts and thoroughly analyzed.

THE RESULT OF THESE THREE POINTS IS AN OVERALL PICTURE OF THE SITUATION.

B. CONTENTS AND ORGANIZATION OF THE ESTIMATE OF THE SITUATION: (Counter to the American way of METT-T (C), the format of the estimate of the situation is emphasized less and weight is placed on the content)

1. Start with a proposition. Use a powerful style expressing your will while disallowing confusion from the beginning.

Particularities: In certain situations check for things of this nature:

a. Whether the task or mission given by the higher authority was given under the expectation of an entirely different set of circumstances and thus the order given to cover a different situation is no longer relevant to the subordinate commander's environment. (Has the mission been overcome by events? Is it still valid?)

b. Which tactical actions are required? (Defend, Attack, Reinforce, Withdraw or Delay)

2. What is the enemy situation? Make a judgment of the situation. Don't just take the reports you were given. What does your gut tell you based on your experience? Draw conclusions based on rational thought. What is facing your men? Always consider the time and the distance of the enemy.

a. Pay attention to how the enemy is getting to the fight (dismounted or mounted) Use a Draftsman's compass and figure out the time and the space until action. For example, "The enemy reached _____ at X-hour, the line of A-B=?." "He could be here at _____ time." (This is where the "science" meets the "art of war.")

b. Continually bring up to date the enemy situation in conjunction with your own troops. Where has the enemy already reached? When do you expect the two forces to meet? What basis of information do you have for the information about his strength, mounted or dismounted or how is he organized? (Air or ground reconnaissance, perhaps both should be used to confirm assumptions) Always think in

terms of what is the worst possible thing that he can do. (**NO WISHFUL THINKING!**)

GENERAL RULES:

- Never say what the enemy mission is. Instead, give an educated guess of what the enemy is aiming to do.
- Always make the assumption the enemy will use good tactics and planning.
- Make a short estimate of all the considerations for the terrain. Relate them to the situation.

3. Estimate of one's own situation. (ALWAYS RECONCILE WITH THE ENEMY SITUATION)

GENERAL RULES:

- How are my own forces arranged on the battlefield?
- What does the combat power and the readiness of my unit look like? What about the enemy?
- Where are your units on the battlefield right now?
- How long would it take in order for them to be effective?
- Do they have cover where they are? Are they in the open?
- What unit(s) is(are) available immediately for action?
- Does this unit's availability match up with the estimate for the enemy?
- Compare the enemy's timeline against yours.
- What is the impact on friendly adjacent units?
- Reevaluate the terrain based on these considerations.

4. Draw your conclusions for action based on the enemy and friendly situations.

- a. Judge and test all possibilities. Include the ones available to the enemy.
- b. Throw out the unlikely ones, but not the ones based on human factors.
- c. Attempt to defend the actions you chose. (Use an "independent will" to

war game against.)

A PITFALL TO AVOID: At the end of the comparison a decision will arise from a logically developed conclusive estimate. (Don't anticipate this early in your estimate of the situation.)

5. THE DECISION: THE TEXT MUST BE SHORT AND CLEAR.

Each decision must be a complete thought. It must contain what you want done (the type of fighting). Not the execution (how you want it done) (Auftragstaktik or mission type orders). Guidance on assets you have is fine, but don't tell subordinates how to use them.

DECISION WITH RATIONALE, AN EXPLANATION:

- The rationale is inherent (mentally the same) in the estimate of the situation. It must act as the yard stick for a final decision. Start with the mission, then list all the grounds that support your final decision.
- When necessary, list points supporting the weight of the decision. Consider all other possible decisions.
- Terrain must influence decision making.

EXAMPLE DECISIONS: (CONCLUSIONS WILL LOOK MUCH LIKE MISSION STATEMENTS TO YOU. PAY PARTICULAR ATTENTION TO THE SIMPLE NATURE OF THESE STATEMENTS.)

1. ATTACK (MEETING ENGAGEMENT/MOVEMENT TO CONTACT)

"The head of the column attacks from the line of march or soon thereafter in order to occupy the heights near X village."

2. ATTACK COMING FROM A FLANKING MOVEMENT

"The battalion attacks IOT seize Hill 71."

3. ATTACK AFTER BEING HELD IN READINESS

"The battalion, in the general vicinity of the line A-B, holds itself in readiness to attack Hill 63."

4. CONTINUATION OF THE ATTACK

"The battalion continues the attack and moves in the direction of A Town."

5. TRANSITION TO THE DEFENSE

"The battalion concludes the attack and assumes the defense along the general line of A-B."

6. DEFENSE/COUNTER ATTACK

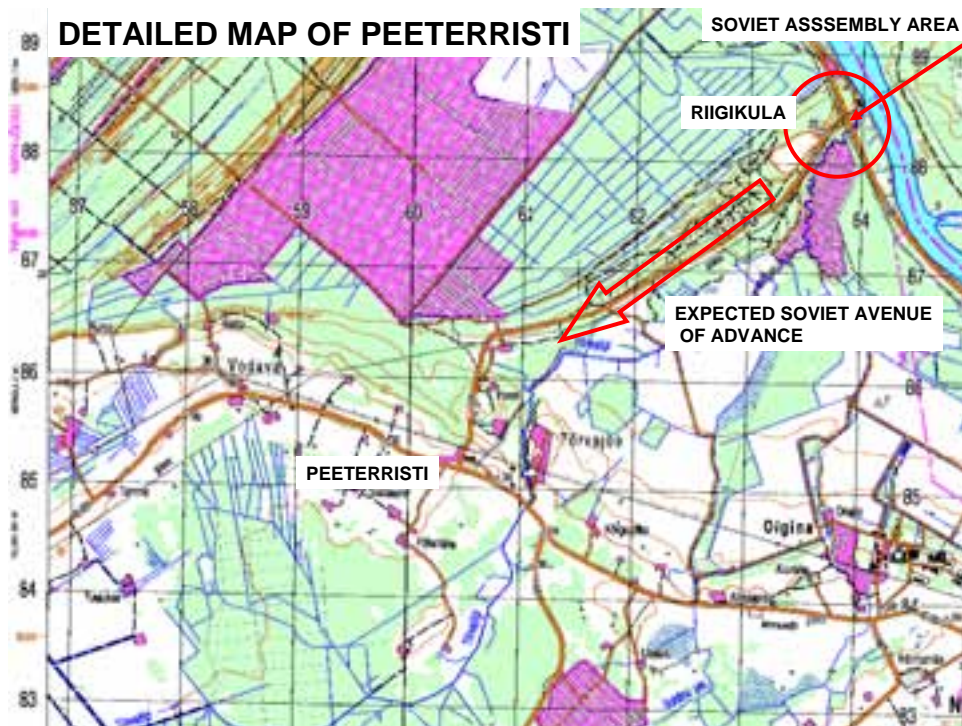
"The battalion defends itself along the general line A-B."

and

"The battalion begins the counter-attack as soon as possible and retakes the bare heights."

STAND 4 - PEETERRISTI (PETER'S CROSSROADS)

SITUATION: You are a Company Commander with *II./SS Freiwilligen-Grenadier-Regiment 49 "de Ruyter."* The weather for late July has been very unseasonably hot and the ground is hard enough for cross country movement. It has not rained in weeks. Over the past three months your company has sustained 40% casualties in men and equipment. You have no attachments. Having crossed the Narva River, you have been ordered to move to the vicinity of Peeterristi (35V NF 60308520). **Establish a company sized blocking position oriented from the north, to the east and to the south along the Rollbahn IOT allow other elements of the regiment to move quickly along the MSR to establish defensive positions further to the west (See maps).** Once other units have passed through your position you will be ordered to break contact and conduct a rearward passage of lines to move to prepared positions in the Blue Hills defense. **YOU MUST HOLD** this position until ordered to retrograde. Battalion and regiment have no reserve forces available to reinforce your company. Intelligence reports indicate you will defend against a battalion or larger unit with an under strength T-34 (76mm and 85mm) company operating at 60% of combat effectiveness. Having crossed the Narva River, the enemy pushed back resistance in the area and is believed to be massing his forces in an Assembly (AA) IVO Riigikula (35V NF 63808840). It is believed the force your are about to engage is the advanced guard of a division sized element. You have the priority of fire for one battery of 155mm artillery located to your west. Using the German method just learned, write your estimate of the situation in 60 minutes.



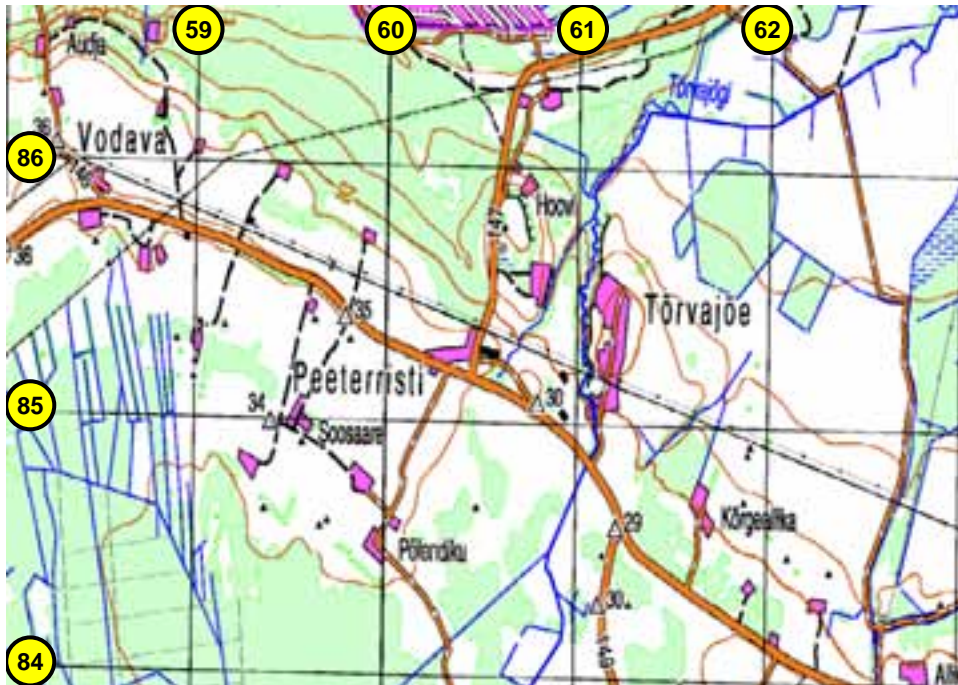
1. Start with a proposition. Use a powerful style expressing your will while disallowing confusion from the beginning.

Particularities: In certain situations check for things of this nature:

a. Whether the task or mission given by the higher authority was given under the expectation of an entirely different set of circumstances and thus the order given to cover a different situation is no longer relevant to the subordinate commander's environment. (Has the mission been overcome by events? Is it still valid?)

b. Which tactical actions are required? (Defend, Attack, Reinforce, Withdraw or Delay)

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TACTICAL WORK PRODUCT FOR BLOCKING POSITION AT PEETERRISTI

a. Pay attention to how the enemy is getting to the fight (dismounted or mounted) Use a Draftsman's compass and figure out the time and the space until action. For example, "The enemy reached _____ at X-hour, the line of A-B=?." "He could be here at _____ time." (This is where the "science" meets the "art of war.")

b. Continually bring up to date the enemy situation in conjunction with your own troops. Where has the enemy already reached? When do you expect the two forces to meet? What basis of information do you have for the information about his strength, mounted or dismounted or how is he organized? (Air or ground reconnaissance, perhaps both should be used to confirm assumptions) Always think in terms of what is the worst possible thing that he can do. **(NO WISHFUL THINKING!)**

The following picture were taken from the vicinity of Pt 147 grid (35V NF 60608575). They are provided to give you perspective of the terrain and avenues of approach.

The pictures were taken in the autumn to give you the full appreciation of the terrain without the vegetation.



FROM YOUR POSITION TO YOUR FRONT. YOU ARE LOOKING NORTH.



FROM YOUR POSITION TO YOUR FRONT. YOU ARE LOOKING WEST.



FROM YOUR POSITION TO YOUR FRONT. YOU ARE LOOKING NORTHEAST.

GENERAL RULES:

- Never say what the enemy mission is. Instead, give an educated guess of what the enemy is aiming to do.
- Always make the assumption the enemy will use good tactics and planning.
- Make a short estimate of all the considerations for the terrain. Relate them to the situation.

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5. THE DECISION: THE TEXT MUST BE SHORT AND CLEAR. (YOU ARE LIMITED TO THE SPACE PROVIDED HERE.) Each decision must be a complete thought. It must contain what you want done (the type of fighting), not the execution (how you want it done) (Auftragstaktik or mission type orders). Guidance on assets you have is fine, but don't tell subordinates how to use them.

TEACHING POINTS: Defense in depth and its origin from the First World War. How to establish a company sized battle position. Proper considerations for the use of combined arms. Properly planning the integration of organic direct and indirect fire weapon systems with indirect fire support provided by higher. Deconflicting time and space with supporting agencies. Flank security and use of reconnaissance assets. Weaponeering (the use of the proper weapon for the target assigned) and the time/space considerations for employment. Planning of direct and indirect fires at ½ to 2/3s of the maximum effective range. Location of crew served weapons in the defense.

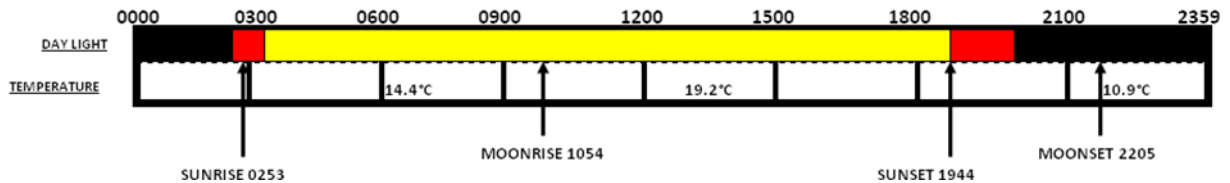
VIGNETTE: “However the Soviet attack had already begun in the sector of the East Prussian *11. Infanterie Division* (operating on the southern boundary of the *Waffen SS*) on 24 July. It employed strong infantry units that fought to clear lanes for the later advance of armor. At the same time, the Soviets were able to gain a foothold on the west bank of the Narva in the Riigi-Hungerburg area after expending a great deal of men and equipment. The intention was obviously to envelop the forces of the *III. (germanisches) SS-Panzer-Korps* that were in the Narva defenses and destroy them in a pincers movement.”⁵⁸

By planning to fight this engagement you not only planned for the tactical survival of a company, but were able to decisively contribute to the operational survival of the Corps. Success can only come from a leader who correctly understands the situation and has the ability to express his intentions in the form of an order properly communicated to his subordinates. His intentions should clearly translate to a plan addressing the enemy’s scheme of maneuver. The leader explains his plan in terms of cause and effect. He gives his order to counter the enemy with confidence, thus making his men confident about their chances to survive the engagement. He must demonstrate how his use of his organic and other inorganic assets will accomplish the mission. The moral qualities of his character along with his educated will are matched with his mental intellect and executed through the will by physical means. This is where an art meets with many different sciences. This is the art of war at the most fundamental level.

⁵⁸ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 84.

STAND 5- KINDERHEIMHOHE

WEATHER DATA FOR 27 JUL 44



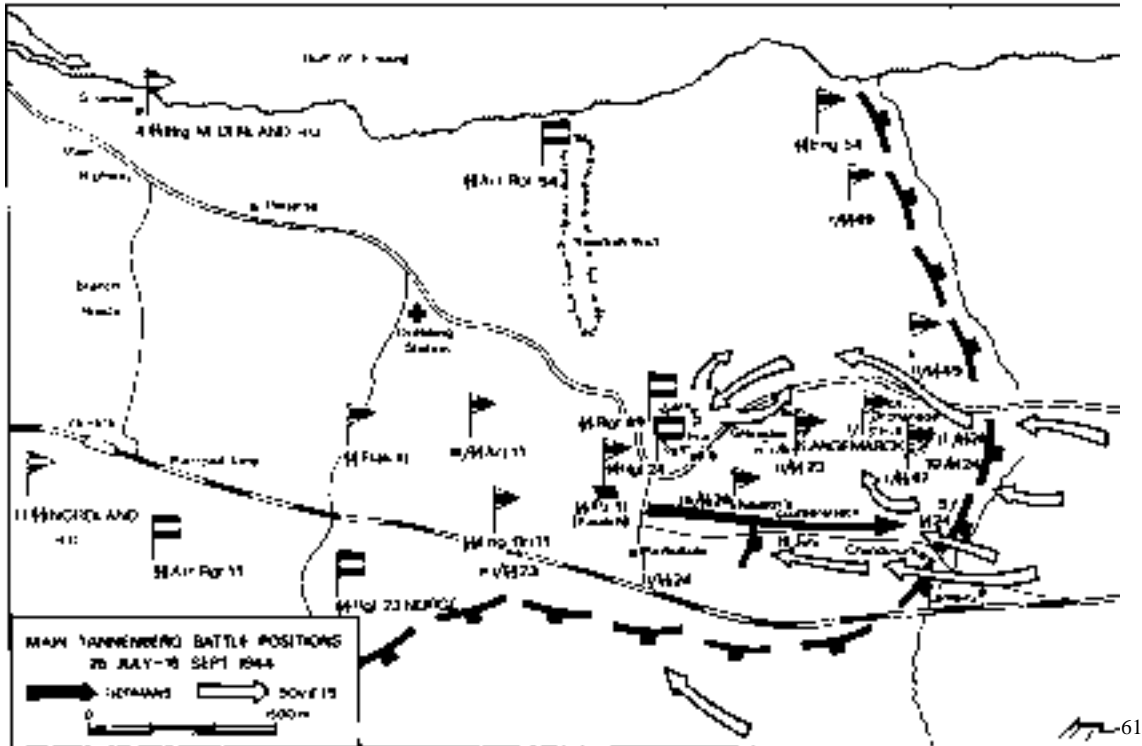
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| | DATA COLLECTION TIMES | | | |
|---|-----------------------|--------|--------|---------|
| | 07.12 | 13.12 | 21.12 | AVG |
| <u>TEMP</u> | 14.4°C | 19.2°C | 10.9°C | 14.8°C |
| <u>WIND SPEED</u> | 3 KPH | 7 KPH | 2 KPH | 4.0 KPH |
| <u>DIRECTION</u> | N | NNE | N | |
| <u>AVE HUMD</u> | 8.0°C | 8.2°C | 7.5°C | 7.9°C |
| <u>REL HUMD (%)</u> | 65% | 49% | 76% | 63% |
| STATION INFORMATION WAS COLLECTED AT: TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57' INFORMATION COLLECTED BY: ALLEK VALDUR ***TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE. IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE. | | | | |

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⁵⁹ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943), 14.

⁶⁰ Eesti Meteoroloogijaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 24-7.



SITUATION: Positions being dug by the engineers and prisoners as discussed earlier; they were occupied on the evening of 25/26 July 1944. On the morning of the 26th the Soviets began a heavy artillery bombardment on the units in the Blue Hills area. “Until now artillery had not been concentrated but came from the southeast”⁶² Shortly after sundown on July 26, 1944 (about 1946 hours⁶³) “the Soviets mounted a daring attack of five tanks with mounted infantry which drove straight through a unit of German Navy Sailors that had no means at their disposal to stop them. The Soviet unit continued up the Kinderheimhohe where the tanks stopped and took up positions and the infantry looked for cover in trenches and shell holes. News of the incident reached the commander of 24th Regiment who immediately dispatched his Panzer Jager Platoon to link up with the *11./SS Company*. The platoon arrived around midnight. The commander of the Panzer Jager Platoon relays the events as he could remember them, Just behind our lines in *11./SS Company* we could see the five tanks We were only able to see three of the tanks from our position. I decided to engage all five tanks at the same time, so the second in command took two other men with Panzerschrecks around to a position where he could see the other two and he would initiate the attack by a signal. The signal he used was a load bird call he had learned while in the Hitler Youth. This signal was much less dangerous than a light signal. On this signal we

⁶¹ Richard Landwehr, *Narva 1944: The Waffen SS and the Battle for Europe*, (Silver Springs: Bibliophile Legion Books, Inc 1981), 78.

⁶² Oluf Krabbe, *Danske soldater I kamp pa Ostfronten 1941-1945*, (Kobenhavn, Danmark: Bogen’s Forlag 1998), 184.

⁶³ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943), 14.

engaged all five tanks and they began to burn”⁶⁴ “Artillery fires began to intensify at 0600 on July 27, 1944 to barrage strength. Calibers of all sizes rained down on the position of the three hills covering them in a thick black smoke. The few remaining assault guns and tanks of the division antitank and armor battalions were sent forward to *SS-Panzer-Grenadier-Regiment 24 “Danmark”* which would be at the focal point of the enemy’s main effort.”⁶⁵ Concentrating their artillery fire on the units blocking the rollbahn, the Soviets launched an uncoordinated attack from three side of the Blue Hills designed to secure their objectives. From the excellent perspective obtained by the students, they should be able to gain a good appreciation of the Soviet’s lack of good avenues of approach. Being the Germans were not given a great deal of time to occupy their battle positions or improve them, they had to take strict advantage of anything gained by nature. The only thing capable of stopping the Soviet advance was natural obstacles. From your position of advantage locate these avenues of approach and determine how you would address an obstacle plan that would compliment what nature provided. Finally, the *III. (germanisches) SS-Panzer-Korps* massed their Artillery Regiment in the area of the Swedish Wall in order to better concentrate fires. Using *II./SS 49 and 10./SS and 11./SS 24* positions, plan the direct fires of the defense in conjunction with an obstacle plan and an indirect fire plan to build an effective Engagement Area (EA).

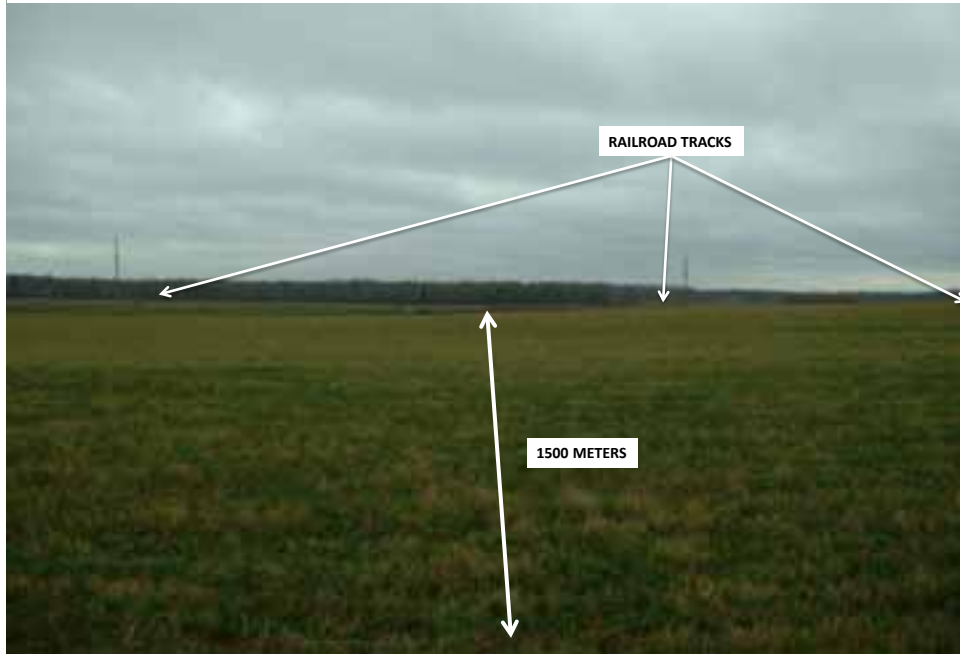
VIEW OF THE FRONTAGE FROM THE AREA OF 11./SS AND 10./SS 24 REGIMENT “DANMARK,”
LOOKING TOWARD THE EAST. (PICTURE WAS TAKEN FROM VIC (35V NF 50708220)



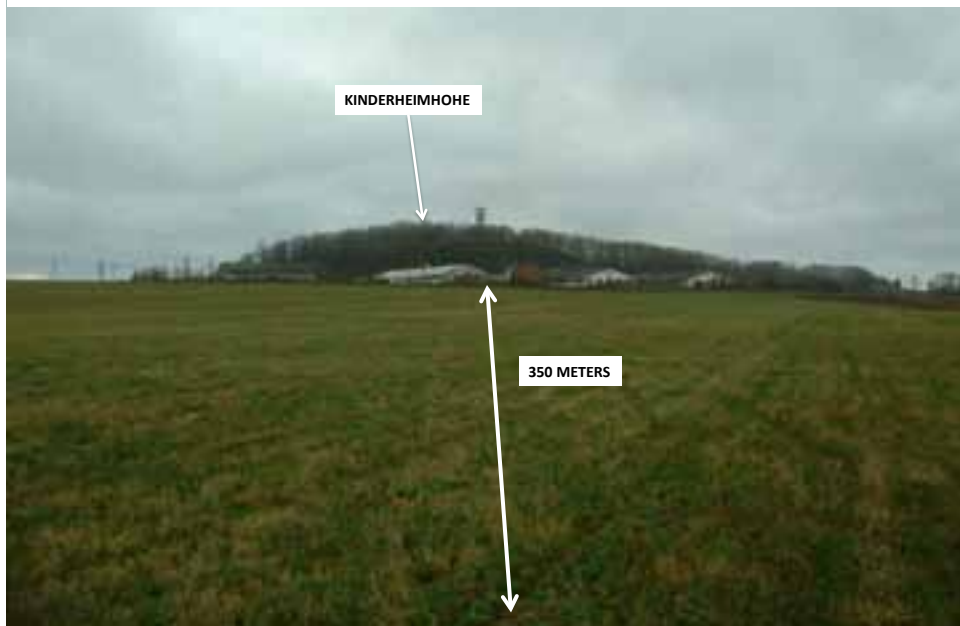
⁶⁴Oluf Krabbe, *Danske soldater I kamp pa Ostfronten 1941-1945*, (Kobenhavn, Danemark: Bogen’s Forlag 1998), 184.

⁶⁵ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 112.

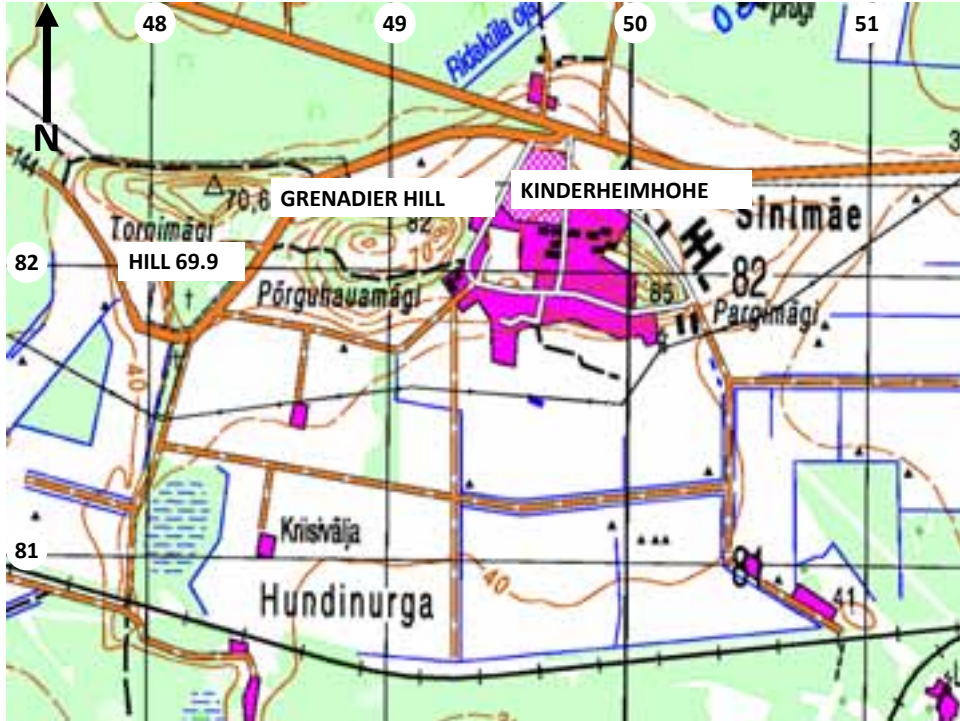
**VIEW OF THE FRONTAGE FROM THE AREA OF 11./SS AND 10./SS 24 REGIMENT "DANMARK,"
LOOKING TOWARD THE SOUTH. (PICTURE WAS TAKEN FROM VIC (35V NF 50708220))**



**VIEW OF THE FRONTAGE FROM THE AREA OF 11./SS AND 10./SS 24 REGIMENT "DANMARK,"
LOOKING TOWARD THE WEST AND KINDERHEIMHOHE. (PICTURE WAS TAKEN FROM VIC (35V
NF 50708220))**



MAP FOR PLANNING YOUR ACTIONS:

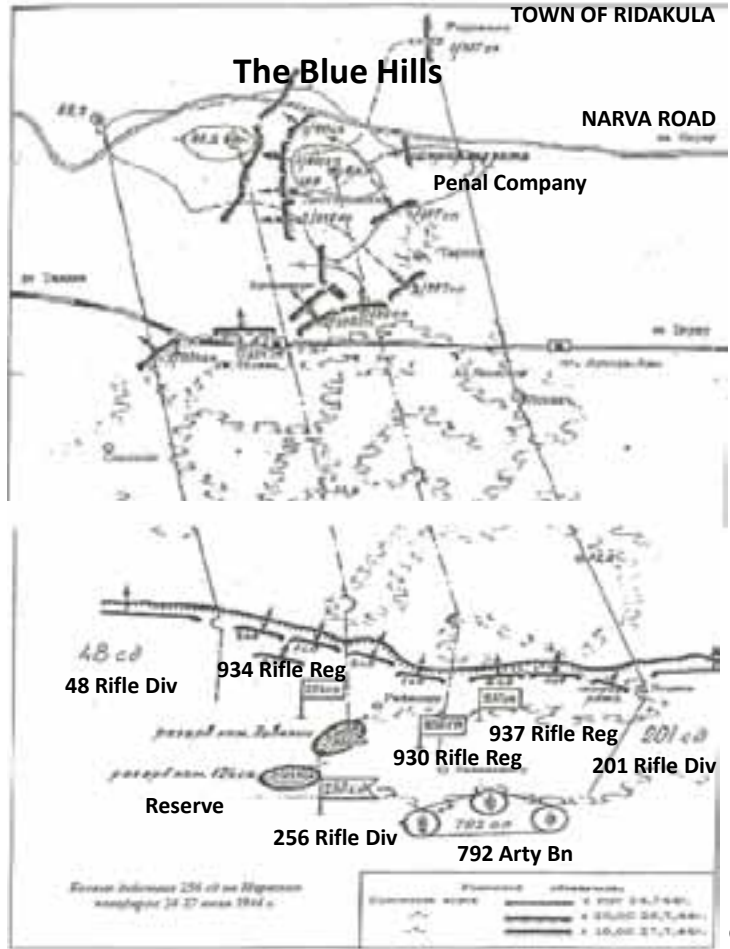


Current 1:50,000 scale map

FOR THE PURPOSES OF HISTORICAL COMPARISON:



Original 1:50,000 scale map

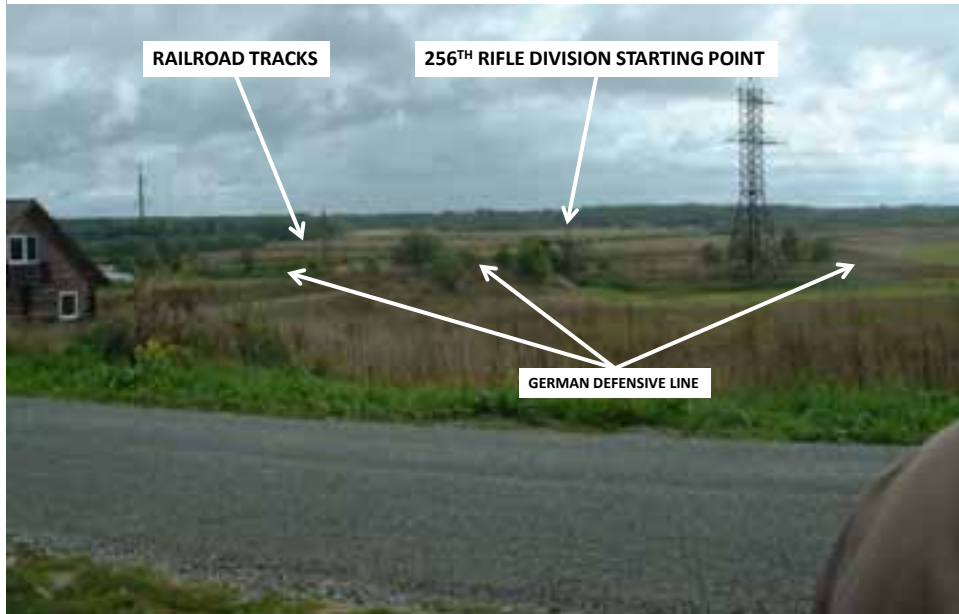


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This map shows the Soviet 256th Rifle Division assaulted the Danes of 10. and 11./SS Companies. It is my estimation the Soviet penal company was assigned the mission of reconnaissance in-force and did not report back either in a timely manner or at all the situation in front of them. The Soviet's problems were further complicated because the infantry and armor unit's efforts were not coordinated in conjunction with timely artillery support of their movement or maneuver. Once Soviet units were engaged, reports from the units engaged to their higher headquarters were lacking, thus not allowing senior commanders the opportunity to exploit success where it could be had.

⁶⁶ Colonel N.P. Klyavin, *Narva Red Banner, A Sketch of the Military Path of the Narva 256th Rifle Red Banner Division*, (Dimitrovgrad, Russia: ICF "Vremya 1997), 140-1.

THE DIRECTION OF 256TH RIFLE DIVISION ATTACK. THIS PICTURE WAS TAKEN FROM THE BASE OF THE KINDERHEIMHOHE (VIC 35V NF 49908190) LOOKING TO THE SOUTHEAST. IT IS ABOUT 2000M TO THE FAR TREE LINE.



TEACHING POINTS: Time is the friend of the defender, not really. Unit leaders need to strictly enforce their priorities of work against their timeline to achieve results. Unit leaders at all levels must go out and see their troop's positions (range cards) in relation to fire plan sketches submitted to higher headquarters in order to understand the engagement area being built. Security in the defense is a must. From the moment you occupy a position, somebody from your unit should be out protecting your position. As patrols go forward of friendly positions they should be looking at the defense to find potential gaps in the lines. Patrolling units should also be covering the dead spaces the defense cannot see. Patrols should be out to ambush enemy probes and to collect information about the composition of the enemy in the form of prisoners or maps or papers (The Germans prized Soviet maps not always for what was written on them, but they were typically more accurate in their detail).

VIGNETTE: "At 0900 hours a strong Soviet infantry and tank assault force struck the front lines of the 10th and 11th Companies/ "Danmark," which had be guarding the Tirtsu road. *SS Hauptsturmfuhrer* Trautwein, in charge of 11th Company, was badly wounded in the stomach. 30 Stalin tanks and T-34s moved to within 70 yards of the 11th Company's trenches. A survivor of the engagement, *SS Unterscharfuhrer* Illum, described what happen next:

"When we saw what was now occurring, we became speechless. The noise of Soviet tanks caused everyone to look up. Coming directly at us from south of the highway were 30 "Joseph Stalin" and T-34 tanks!

We had only one thought: how could we stand up to this great mass of armor? North of the highway, a 7.5cm PAK gun opened fire, but it was too far away to be effective. The tanks came closer and closer. From about 70 yards away their cannons opened fire on our

positions. We sprang up and run for our lives. After these frightening minutes passed, we came to our senses and began aiming and shooting our “panzerfaust.” When the first tank went up in flames our old battle spirit reexerted itself and our confidence returned. All over the tanks were bursting into flames and smoke was billowing thickly. After 14 tanks had been destroyed the others turned around and took off for the rear.”⁶⁷

This is a model for war in any time. Human beings have limits and they will react to their fears. Good units will be able to get a hold of themselves and control their fears, while poorly trained units will crumble. Any account of war in which men were not terrified for their lives is not true to the nature of man or to war. The Soviets would eventually overwhelm the German positions on Kinderheimhohe, but not without heavy losses in men and material.

THIS MEMORIAL WAS LEFT ON KINDERHEIMHOHE HILL BY THE FLEMISH VETERAN’S RELIEF ORGANIZATION, ST. MAARTENSFONDS. THE MEMORIAL READS, “HERE REST UNKNOWN YET UNFORGOTTEN SOLDIERS FROM FLANDERS.” THE INSCRIPTION IS WRITTEN IN ESTONIAN, GERMAN AND FLEMISH.



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⁶⁷ Richard Landwehr, *Narva 1944: The Waffen SS and the Battle for Europe*, (Silver Springs: Bibliophile Legion Books, Inc 1981), 84.

⁶⁸ Allen Brandt, *The Last Knight of Flanders*, (Atglen: Schiffer Military History 1998), 203.



Remi Schrijnen



6. SS-Freiwilligen-Sturmbrigade "Langemarck"

Remi Schrijnen was assigned to the 6. *SS-Freiwilligen-Sturmbrigade "Langemarck"* as a 75mm PAK 40 gunner IVO of Grenadier Hill. For his brave actions starting in the mid-morning of July 26, 1944 through the morning of July 27, 1944 he was awarded the Knight's Cross. In "The Last Knight of Flanders" by Allen Brandt we get a sense of his actions through reading the award's citation:

"On 7/26/44 at 0900 hours the Russians attacked with three T-34s along the "Narva-Reval" highway. Schrynen knocked out two T-34s at a distance of 400 meters. During the afternoon at 1500 hours the Russians attacked again with infantry forces, and was supported by artillery and heavy grenade launchers (mortars). Schrynen again knocked out two T-34s and a single "Stalin" tank. A further T-34 was damaged. It's crew disembarked. The damaged tank was probably dragged away during the night. On 7/27/44 at 0400 hours the Geschutz Schreynen moved to a position 400 meters north of the hill Kinderheim, left of the "Narva-Reval" highway. Schreynen recognized a position where eleven Soviet tanks were preparing to attack. Under the protection of two T-34s, Six T-34s and one KWII approached the highway from the north. At a distance of 700 meters, Scheynen knocked out a T-34. The two T-34s in position to attack the others shot at the anti-tank gun. Schreynen cleared a jam in the gun and 5 minutes later he knocked out a KWII. Immediately thereafter the Geschutz was knocked out by a direct hit. Schreynen was named in the Wehrmacht reports that followed the battle."⁶⁹

As most professional soldiers already know, the things they have done are usually not recorded at all or not correctly. The difference between a soldier getting nothing, a minor award or a major award for an act of bravery is determined by how badly you were wounded, seconds, circumstances, luck and the rank of the person who saw you act. In this case, the results spoke loudest. The harder facts are often left out of citations, like he was left for dead⁷⁰ or the fact that he could not remember there being any KWII Joseph Stalin tanks on the battlefield.⁷¹ The fact is no honest man is ever trying to get an award for doing his job. A true hero is a man willing to die for the sake of his comrades without recognition. Knowing he did everything he could for one of his own is all the recognition

⁶⁹ Ibid,205.

⁷⁰ Ibid, 195.

⁷¹ Ibid, 208.

he seeks. To share another meal together and crack a joke is the essence of his love for his comrades.



An example of Waffen SS Soldiers loading a 75mm PAK 40.

LOOKING TOWARD THE BASE OF THE KINDERHEIMHOHE FROM A POSSIBLE POSITION OF ONE OF REMI SCHRIJNEN'S GUNS (VIC 35V NF 49308223) LOOKING TO THE EAST. IT IS ABOUT 400M TO THE BASE OF THE KINDERHEIMHOHE.



TEACHING POINTS: The value of battle drills in your training. Building a good team at the tactical level wins battles. Developing good tactical level subordinate unit leaders. Teaching and training your men to think outside the performance of their own duties.

STAND 7- ACTIONS AT HILL 69.9



Fritz von Scholz



11.SS-Freiwilligen Panzergrenadier- Division "Nordland"

SS-Gruppenführer Fritz von Scholz, Commander of 11 .SS-Freiwilligen Panzergrenadier- Division "Nordland" was born in Pilsen on December 9, 1896 the son of an Austrian General Officer. Von Scholz joined the Austrian Army at the beginning of the First World War where he served in a variety of Field Artillery assignments. His last wartime unit was Field Artillery Regiment 125 where he served from November 1917 until April 30, 1919. He was then transferred to the reserve. For his service during the First World War, he was awarded the Austrian Bravery Medal in Gold and the Austrian Military Services Crosses in bronze and silver.

After the First World War, von Scholz continued his education in chemical engineering and continued to fight in the Freikorps. He joined the Austrian NSDAP on October 9, 1932 and the SA the following day. Von Scholz left the SA and joined the SS on June 10, 1933.

Fritz von Scholz served in all levels of command in various assignments during the Second World War. A highly intelligent officer, von Scholz was fluent in English. He only led from the front. He always wanted to share hard times with his men, and they loved him giving him the nickname "der alte Fritz" like Fredrick the Great. Von Schulz would be severely wounded and die a day later as a result of fighting in the Blue Hills. He was awarded the Swords to the Knight's Cross posthumously on August 8, 1944.⁷²

Another account from an earlier time talks about von Scholz's personality and demeanor as a commander. From the memoirs of the legendary Panzer Commander Otto Carius comes a description of "der alte Fritz." As a testament to the location of his Division CP, Carius states, "I finally found him in a unique type of command post, a bus. It was parked next to a house. It was the only divisional command post I saw during the war that was closer to the front than the regimental command posts."⁷³ Carius tells us the following about his personality and the way he handled his men, "When I reported to "old Fritz" on the bus, he immediately patted me on the shoulder in a friendly manner. "Well then, why don't we drink a schnapps to our future work together," he said. He poured two cups full and clinked glasses with me. "Where are you from?"⁷⁴ On the loss felt by men who

⁷² Mark C. Yerger, *Waffen SS Commanders, The Army, Corps and Divisional Leaders of a Legend Kruger to Zimmermann*, (Atglen: Schiffer Military History 1999), 204-7.

⁷³ Otto Carius, *Tiger in the Mud*, (Mechanicsburg: Stackpole Books 2003), 54.

⁷⁴ *Ibid*, 55.

served with von Scholz, Carius said it best, “During our work together he treated me like a son. It therefore hit all of us hard when we later discovered at Dunburg that our “old Fritz” had been killed in the Narva sector. The swords to the Knight’s Cross had been awarded to him in August 1944, but what did that mean to those of us who had lost a “frontline father?””⁷⁵

SITUATION: How quickly do things change in combat? One could say in a second. Standing at the base of Hill 69.9 looking at the large black cross and smaller memorials which serve as memorials to the battle and German units who fought there, you feel the desperation of the July 1944 in the air. At about 1200 on the July 27, 1944, Fritz von Scholz, the highly respected and loved commander of *11. SS-Freiwilligen-Panzer-Grenadier-Division “Nordland”* was present at a meeting in the new command post position of the *SS Panzer-Grenadier-Regiment “Danmark”* located on the southwestern slope of Hill 69.9. The decision made in the meeting was for the “*1./SS-Pionier-Bataillon 11* to send another combat patrol forward into the main line of resistance. The acting commander requested permission to lead the assault troop. Fritz von Scholz denied his request.”⁷⁶ In the early afternoon of July 27 1944, the Soviets shot an artillery round that altered the course of the battle and likely never knew it.



“Von Scholz left the command post. He wanted to get to *SS-Hauptsturmführer Larum*, whose *13./SS-Panzer-Grenadier-Regiment 24 “Danmark”* was in a firing position nearby.

⁷⁵ Ibid, 55.

⁷⁶ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 115.

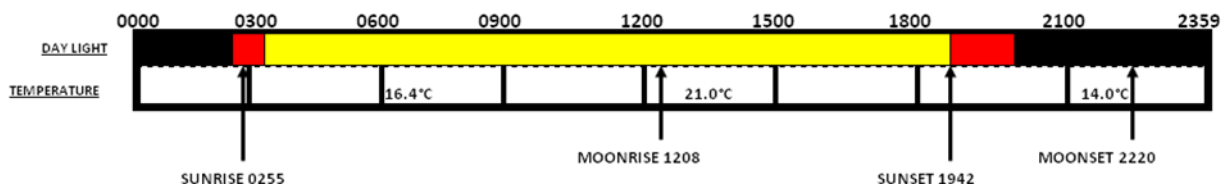
He then wanted to get an overview of the combat situation with *SS-Sturmbannfuhrer* Kappus.

At that moment, the Russian artillery again laid down heavy fire. The regiment adjutant, *SS-Hauptsturmfuhrer* Ternedde, decided to send a messenger with von Scholz as a guide. At almost the same moment, he and *SS-Hauptsturmfuhrer* Larum rushed out into the open.

Fritz von Scholz was hit in the head by shrapnel. They quickly got the wounded man to the command post of *SS-Panzer-Grenadier-Regiment 24 "Danmark"* and placed him on a cot. He was unconscious.”⁷⁷

How quickly do men adapt to the loss of a man they cherish in command? The circumstances of that day and the days that followed would not leave the Germans time to mourn the loss of their father. “*SS-Brigadefuhrer* Ziegler, the Chief of Staff of the *III. (germanisches) SS-Panzer-Korps* assumed command of the *11. SS-Freiwilligen-Panzer-Grenadier-Division "Nordland"* He was the best choice for the command, not because of his position of rank, but because he was the most familiar with the plan. Ziegler’s severest test by fire would come in the days the Soviets were to call decisive on July 28 and 29, 1944.

WEATHER DATA FOR 28 JUL 44



78

| | DATA COLLECTION TIMES | | | |
|--|-----------------------|--------|--------|---------|
| | 07.12 | 13.12 | 21.12 | AVG |
| TEMP | 16.4°C | 21.0°C | 14.0°C | 17.1°C |
| WIND SPEED | 5 KPH | 3 KPH | 4 KPH | 4.0 KPH |
| DIRECTION | NE | N | N | |
| AVE HUMD | 9.8°C | 9.2°C | 9.6°C | 9.5°C |
| REL HUMD (%) | 70% | 50% | 80% | 67% |
| STATION INFORMATION WAS COLLECTED AT: | | | | |

⁷⁷ Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 115.

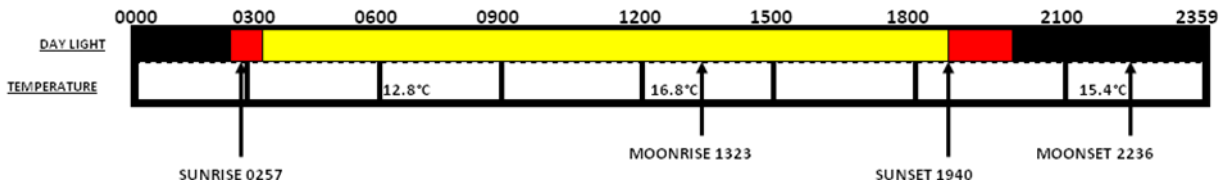
⁷⁸ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943),14.

TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57'
INFORMATION COLLECTED BY: ALLEK VALDUR
*****TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE.**
IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE.

79

TEACHING POINTS: The price of leading from the front and taking responsible risks as a leader. Recognizing you are mortal as a leader and not impervious to danger. Training subordinates to assume higher responsibilities when leaders are lost. Teaching men to act in the absence of orders.

WEATHER DATA FOR 29 JUL 44



80

| | DATA COLLECTION TIMES | | | |
|-------------------|-----------------------|--------|--------|--------|
| | 07.12 | 13.12 | 21.12 | AVG |
| TEMP | 12.8°C | 16.8°C | 15.4°C | 15.0°C |
| WIND SPEED | 2 KPH | 2 KPH | 0 KPH | 1.3KPH |
| DIRECTION | N | NE | N | |
| AVE HUMD | 10.3°C | 11.7°C | 11.7°C | 11.2°C |

⁷⁹ Eesti Meteoroloogijaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 24-7.

⁸⁰ Tartu University Astronomic Observatory, *Astronomic Calendar, 21st Edition 1944*, (Dorpat (Tartu), Estonia: University Publishing 1943), 14.

| | | | | |
|---|-----|-----|-----|-----|
| REL HUMD (%) | 93% | 82% | 89% | 88% |
| STATION INFORMATION WAS COLLECTED AT: TURIKOJA (ON LAKE PEIPUS) LAT: 58° 52' LONG: 26° 57' INFORMATION COLLECTED BY: ALLEK VALDUR ***TIMES ARE PER LOCAL ESTONIAN TIME ZONE. IF USING IN GERMAN PLANNING SUBTRACT ONE HOUR FOR BERLIN'S TIME ZONE. IF USING FOR SOVIET PLANNING ADD ONE HOUR FOR MOSCOW'S TIME ZONE. | | | | |

81

VIGNETTE: The following is an example of seeing an opportunity on the battlefield and taking advantage of it. This is truly an art for a leader, taking time and experience to develop and master. On July 29, 1944, the day the Soviet leadership saw as the day of decision, German armored forces under *SS Obersturmbannfuhrer* Kausch saw an opportunity to again to counterattack. Kausch saw the enemy had reached his culminating point after repeated attempts and was no longer able to attack. “Just when the breakthrough succeeded and Grenadier Hill appeared lost, *SS Obersturmbannfuhrer* Kausch committed his tanks and assault guns into the fray. Only they could bring the chaos to an end.”⁸² Following behind the tanks and armored vehicles were the Estonian men of the *I./ 45 SS- Freiwilligen-Panzer-Grenadier-Regiment* under the command of *SS-Hauptstrumfuhrer* Paul Maitla. His battalion was badly depleted of men and material from months of fighting but went into the assault with about a company sized unit. Their attack was timely and “the Red Army Soldiers were thrown off balance and fled. Although the Red Army attempted to retake Grenadier Hill on the same day, and during the following days, the Estonians remained in control. When the battalion was replaced in the positions on the 2nd of August it had 48 men remaining in its ranks. Maitla was decorated with the Knight’s Cross of the Iron Cross for retaking Grenadier Hill.”⁸³

⁸¹ Eesti Meteoroloogijaamade Vork, *Weather Record, February 1944*, (Dorpat (Tartu), Estonia: Station Year Record 1944), 24-7.

⁸² Wilhelm Tieke, *Tragedy of the Faithful, A History of the III. (germanisches) SS-Panzer Korps*, (Manitoba, Canada : J.J. Fedorowicz Publishing 2001), 112.

⁸³ Mart Laar, *The Estonian Legion*, (Tallinn, Estonia : Grenadier Publishing 2008), 341.

**STAGING AREA FOR SS OBERSTURMBANNFUHRER KAUSCH'S ARMOR
(VIC 35V NF 47308190) TO THE SOUTH WEST OF HILL 69.9. YOU ARE LOOKING TO THE
NORTH.**



**THE AREA SS OBERSTURMBANNFUHRER KAUSCH'S ARMOR CROSSED TO
COUNTERATTACK. PICTURE WAS TAKEN FROM HILL 69.9 (VIC 35V NF 48738198).
LOOKING TO THE SOUTH.**



CONCLUSION

The ultimate objective of war is victory to regain the lost peace. Without the study of war and the experiences gained from its study, peace would come at a higher cost or possibly not at all. In 2009, 65 years since the bloodshed in the Blue Hills in July 1944, we are called to take account of the sacrifice of the participants and for the causes they fought. Neither combatant fought for a righteous government, but this does not cheapen the expense of their blood, nor our respect for their achievements. While war then was a societal experience fought by men for their states and causes, war now is still a societal experience, but fought by men and women often against a state by individuals together for a cause. The roots of this idea come from places like the Blue Hills. As World War Two was drawing to an end for Germany, a new war was to begin for the nations whose people were occupied for a second time by the Soviet Union. As the Soviet war machine pushed further to the west and into German itself, bands of men and women continued to resist occupation actively and passively. Their knowledge and experience to continue this struggle would start in the Blue Hills. Many could wonder why an American Officer would have an interest in this subject. The simple answer is it is something he is familiar with from his own experience and understands. While having never fought in a war of this magnitude, violence has a way of making itself personal regardless of the size of the war. In combat, every man is fighting his own battle to survive. Being on the Blue Hills battlefield and seeing the remains of positions in the terrain, smelling the air and hearing the now quiet allows the mind to travel in time to see what it knows it must have been. How many men call the Blue Hills their final resting place? Only the mothers of Europe and Russia know this answer. What if this battle and the continued resistance of those who fought in the forests of the Baltic after the war had not happened? Would the Cold War become hot? We should only be thankful to not know the answer.

APPENDIX A: GERMAN AND SOVIET TANKS AND GUN PENETRATION INFORMATION

GERMAN:



StuG III G



Mark IV F2



Mark V "Panther"



Mark VI "Tiger"

StuG IIIG: A low profile, turretleless armor vehicle with a low velocity 75mm main gun built on a Mark III design. This vehicle was designed to be an infantry support vehicle. With narrow tracks, it was susceptible to mud in the rainy and thaw seasons. This vehicle was capable of engaging Soviet medium tanks only from the flanks or the rear.

Mark IV F2: Along with the Mark III tank, this was the true work horse of the German tank Armies. Mounting a high velocity 75mm main gun, it was under armored to face the challenges it would be asked to face. We have pictorial evidence this tank took part in the fighting at the Blue Hills.



A Mark IV F2 in the Blue Hills area. The picture was taken after the war.

Mark V "Panther": Initially fielded in 1943 for the Battle of Kursk, the tank's design was directly attributable to the Soviet T-34. Early models suffered from chronic transmission problems which typically cause engine fires. This failure was largely a result of the need to field them quickly and improper field trials and testing were not

conducted. The high velocity 75mm cannon was likely the best tank main gun of the war. This tank was the mainstay of SS *Obersturmbannfuehrer* Paul-Albert Kausch's II. *'Hermann von Salza'*/Division "Nordland."

Mark VI "Tiger": The Tiger was first fielded in 1942. The most feared German tank on any battlefield, the legendary Tiger with its L-56, 88mm main gun was capable of killing an enemy tank at over one mile. Tiger crews were considered the elite of the Panzer service and only the best crews would be selected to serve in the heavy tank battalions were they were found. Boasting one of the first electric turrets in a tank, crews were trained by Air Force on the L-56 main gun.

GERMAN GUNS AND THEIR PENETRATION DATA:

| Gun | | | Penetration - mm of Armor at 30° | | | |
|---|---------------|--------------|----------------------------------|------------|------------|------------|
| Bore/Type | Caliber | M/v (m/s) | 100m | 500m | 1,000m | 1,500m |
| 14mm Flamethrower | | | | | | |
| 2cm KwK 30 | L/55 | 1,050 | 49 | 20 | | |
| 5cm KwK 38 | L/42 | 1,060 | 96 | 58 | | |
| 4.7cm PaK (t) | L/43.4 | 1,080 | 100 | 59 | | |
| 7.5cm KwK 37 | L/24 | 450 | 100 | 39 | 35 | 33 |
| 7.5cm StuK 37 | L/24 | As KwK 37 | | | | |
| 10.5cm StuH 42 | L/28 | 495 | 100 | 59 | 54 | 50 |
| 7.5cm PaK 40/2 | L/43 | 920 | 126 | 108 | 87 | 69 |
| 7.5cm StuK 40 | L/43 | As PaK 40/2 | | | | |
| 7.5cm KwK 40 | L/43 | As PaK 40/2 | | | | |
| 5cm KwK 39 | L/60 | 1,180 | 130 | 72 | 38 | |
| 7.5cm PaK 40/3 | L/48 | 990 | 143 | 120 | 97 | 77 |
| 7.5cm KwK 40 | L/48 | As PaK 40/3 | | | | |
| 7.5cm StuK 40 | L/48 | As PaK 40/3 | | | | |
| 15cm StuH 43 | L/12 | 280 | 160 | | | |
| 8.8cm KwK 36 (Gun on the Tiger Tank) | L/56 | 930 | 171 | 156 | 138 | 123 |
| 7.5cm KwK 42 (Gun on the Panther Tank) | L/70 | 1,120 | 194 | 174 | 149 | 127 |
| 8.8cm PaK 43/1 | L/71 | 1,130 | 237 | 217 | 193 | 171 |
| 8.8cm PaK 43/2 | L/71 | As PaK 43/1 | | | | |
| | Notes: | | | | | |

| | | |
|--|---|--|
| | <i>M/v - Muzzle velocity using AP40 ammunition</i> | |
| | <i>PaK - Panzerabwehrkanone - Anti-tank Gun</i> | |
| | <i>KwK - Kampfwagenkanone - Tank Gun</i> | |
| | <i>StuK - Sturmkanone</i> | |
| | <i>StuH - Sturmhaubitze</i> | |

SOVIET:



T-34 M41



T-34 M43



SU-122



SU-152



JOSEPH STALIN II

T-34 M41: The best mass produced tank of the war, it was armed with a 76mm main gun. Developed in secrecy in the 1930s, this tank made its first combat appearance in 1941. After the German invasion of the Soviet Union, the German scrambled to find something to stop it. It could defeat everything up to a Mark IV. Captured T-34s were used whenever the Germans could get them.

T-34 M43: The only change from the T-34M41 was the addition of an 85mm main gun. This tank totally outclassed the German Mark IV and was capable of holding its own against the Mark V.

SU-122: Found mainly in mobile units for artillery support, it fired a powerful 122mm artillery shell. A popular secondary role for this weapon was as an assault gun in support of infantry attacks.

SU-152: Also found mainly in mobile units for artillery support, it fired a more powerful 152mm artillery shell. A popular secondary role for this weapon was also as an assault gun in support of infantry attacks.

JOSEPH STALIN II: This was the first successful Soviet mass produced heavy tank of the war, next to the JSIII. It holds the distinction of being the most widely used heavy tank of the war. The chief weakness of this tank was it used the same system as an artillery gun for loading a projectile and powder bags. This made the turret and thus the tank vulnerable to the lightest of anti-tank weapon such as the Molotov cocktail in close combat.

SOVIET GUNS AND THEIR PENETRATION DATA:

| Gun | | | Penetration - 30° Armor | | | |
|--|--|----------------|----------------------------|-----------|-----------|-------------|
| Bore/Type | Caliber | M/v (m/s) | 100m | 500m | 1,000m | Ammo |
| 20mm TNSh | L/107 | 815 | | | | |
| 76.2mm ZiS-3 (Gun on T-34 1941) | L/30.5 | 612 | | 62 | 56 | |
| 45mm M38 | L/46 | 1,070 | | 80 | 50 | APDS |
| 76.2mm F-34 Gun on T-34 1943) | L/42.5 | 965 | | 92 | 60 | APDS |
| 76.2mm ZiS-5 | L/42.5 | As 76.2mm F-34 | | | | |
| 152mm ML-20s | L/28.8 | 600 | | 124 | 124 | |
| 85mm F-39 | L/54.6 | 1,200 | | 138 | 100 | APDS |
| 122mm M-30s | L/22.7 | 335 | | 200 | 200 | HE |
| British 6pdr (57mm) | L/40 | | | | | |
| US 75mm M2 | | | | | | |
| | Notes: | | | | | |
| | APDS - Armor Piercing, Discarding Sabot | | | | | |
| | HE - High Explosive | | | | | |

ADDITIONAL PLANNING MAP:

