E2 "Barbarossa" & its appendix - Naval war in the Baltic

a. Don't ask what the weather has done to war activities, but ask what the war activities have done to the weather

Even a book about the impact of naval war on climate has to provide a brief overview of the largest military operation in human history both in manpower and casualties. This is the invasion of the Soviet Union by the German Army that began on June 22, 1941 (code name "Barbarossa"). It was a land surface war, and, as the combatants possessed 15,000 aircraft at the time when operations began, it was also very much aerial warfare. The other figures available to fight the war had been of extreme proportions (see Fig. E1-3, p. 124). About the role naval warfare in the Baltic has had on "Barbarossa" historians have been largely silent until today.

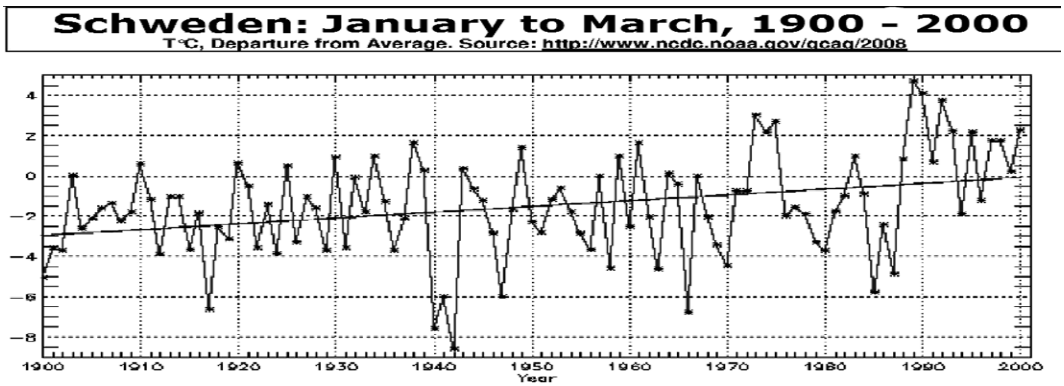

Fig. E2-1 (The same Fig. as at A1)

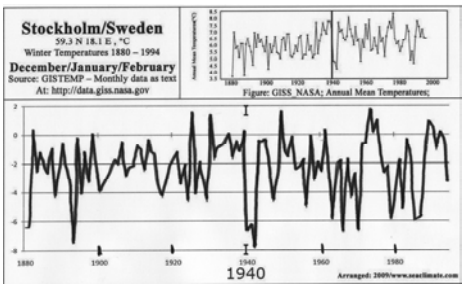

Fig. E2-2; Stockholm Dec/Jan/Feb. 1880-2000

"Barbariossa" did not go unnoticed by philosophers, historians, epos writers and armchair strategists. There are numerous papers, books and analyses in this respect. They touch virtually any possible item: tactics, clothing, morale, snow, casualty and the like. Among the topics elaborated that led to victory or defeat, weather is a top issue. Adolf Hitler's force failed to stick to planning, not taking into account extreme weather conditions. The weather stopped them from reaching and occupying Moscow. No wonder that weather got considerable attention, as it was a force that contributed to end of the Third Reich. However, nobody asked why it happened this way and whether the issue had an anthropogenic component. NN says:

> *"Climate is a dynamic force in the Russian expanse; the key to successful military operations. He who recognizes and respects this force can overcome it; he who disregards or underestimates it is threatened by failure or destruction."*[1]

[1] NN, (year?): "Effects of climate on combat in European Russia"; excerpt from Part 6, Conclusion, at: http://www.allworldwars.com/Effects-of-Climate-on-Combat-in-European-Russia.html#I , The Preface informs: *This study was prepared by a committee of former German generals and general staff officers under the*

This sounds intelligent and reasonable. But does it explain anything? The ignorance of the sea matter led the weather experts to give a wrong forecast (e.g. see: above A2e, p. 7)), although the two previous war winters were all they needed to understand what was happening. The thousands of post-war essays do not address the issue either, i.e. whether the weather went out of control, while the navies operated in all European waters, as well as were German and Russian naval forces operating in the Baltic from June 1941 to January 1942.

b. The Failure of the land and air offensive

From the beginning, the front line was immense having a length of about 2000 km. Practically it covered the region from the Gulf of Finland to the Black Sea. The planning foresaw a battle of several weeks before the collapse of the Russian Army. The seizure of Moscow was considered as a major condition for defeating the Soviet Union. Historians still debate on whether the loss of the Soviet capital would have also caused the collapse of the Soviet Union. Even so, this would have only prolonged the war, but not make a German victory more likely. It was weather that prevented Germany from achieving the goals of the Operation Barbarossa.

The first phase went well. But in early October, the first snow fell and quickly thawed, turning the countryside into a sea of mud. When freezing started in November, the military hoped that the frozen ground would increase mobility. Hitler ordered a final assault on Moscow. They came as close as 20 km, but had to abandon the plan only few days into December (see E1), due to weather conditions, the utter exhaustion of the soldiers and the reduced functioning of the technical equipment in sub-cooled conditions.

By the end of 1941, the invasion had cost the German Army the lives of 174,000 men, plus another 600,000 wounded and 36,000 missing. The material loss amounted to 758 bomber planes, 568 fighter planes and 767 other types of airplanes (*Piekalkiewicz*, p.535). The loss of tanks, guns and vehicles was immense. In contrast, the losses suffered by the Russians were often considerably higher, as they were irreversible: 3,000,000 dead persons, plus 1 to 3 million wounded and sick.

c. The naval arm of ‘Barbarossa’ in the Baltic

Remark:

> Anyone interested in severe naval warfare in the Baltic from June 22nd to the time greater military operations ended due to the sea ice cover, is advised to consult special literature, see *Rohwer* and *Koburger* (List of References). This investigation provides an overview with the sole aim to demonstrate that the Baltic had been ”stirred and shaken”, as never before. It should also be born in mind that naval operations in the North Sea and in sea areas beyond can be assumed to have influenced the atmospheric weather conditions not less substantial than warfare in the Baltic. However, the different levels of complexity in both physical and naval activities allow only handling the Baltic operation more deeply. The region of operation is much more confined and, due to sea icing conditions, easier to investigate than other regions.

aa. Participants in the naval action in the Baltic:

The Germans mobilised about a hundred naval vessels: viz. 10 large mine layers, 28 torpedo boats and 2-3 dozen minesweepers. Air support was entrusted to the Luftwaffe. The Germans also deployed a large battle group to the Baltic in August–September 1941 to guard against a breakout

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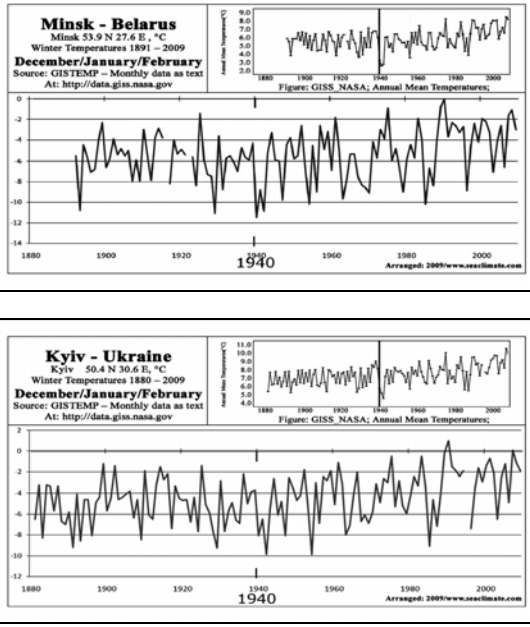
supervision of the Historical Division, EUCOM. The material, based on the personal experiences of the principal author and his associates, was written largely from memory, with some assistance from diaries, earlier studies, and documents.

by the Red Fleet. It was the new battleship *Tirpitz* in escort of the pocket-battle vessel *Admiral Scheer*, the light cruisers *Köln, Nürnberg, Emden* and *Leipzig*, etc. with a number of destroyers (see: image E3-2 & E3-3, p.135). The flotilla moved as far north as the Åland Islands. The Russians had six big war ships, 21 destroyers, 65 submarines, six mine layers, 48 torpedo boates and 700 air planes.

The naval forces of Finland and Sweden were also present, although to a much smaller extent. The Finns working in loose cooperation with the Germans commanded about a dozen smaller units that were able to assist in mine laying operations. During the first two months of the Barbarossa campaign, they laid, along with German ships, about 5,000 mines and 3,500 sweeping obstacles (*Koburger*, 1994). The Germans were able to use Helsinki as a naval base.



Fig, E2-4 & 4; Winter temperatures (D/J/F) in East Europe 1880 to 2005

The Swedish navy was not only involved in surveillance missions, but also in mine laying operations. On a mine barrage that Sweden had laid at the request of the Germans, three German mine layers which were returning from mine laying missions in Finland, ran into mines and sank on July 9th (*Rohwer*).

That Finland was actively involved in this mission is illustrated in the 'Finnish communiqué' issued on December 7, 1941 (Extract from NYT, December 8, 1941):

Sea: Between Seivasto and Ino our coastal guns engaged in battle with an enemy fleet unit headed towards Kronstadt. An enemy battery at Yhinmaki participated. One enemy destroyer was hit. A snowstorm interrupted the battle.

Karelian Isthmus: The enemy was active. Our artillery and trench mortars scored direct hits.

Svir River Front: Our own artillery scored hits on artillery stations and trenches.

East Front: In the north enemy attacks were repulsed. In the south, after fierce fighting, our troops captured the town of Karhumaeki.

Air: Our own air forces bombed military targets.

bb. Mining of the Baltic:

Mine warfare played an important role during the campaign 'Barbarossa'. Probably 20,000 mines or more were laid and many hundreds swept and destroyed by every day mine sweeping missions. Although many of the Russian mines weighted less than 100 kg, the Soviet Baltic Fleet alone laid 10,000 mines, by far the largest number in the Finnish Gulf and outside Soviet Ports in the Baltic, e.g. Riga and Reval. In early August, a dozen Russian naval vessels laid mines as far as

west of Bornholm. The last distant operation was probably a mining mission close to Gdansk from October 20 to November 15.

Also, the Reichsmarine made most intensive use of mines. Before the campaign Barbarossa started, they had laid a barrage with more than 1,000 mines from the mouth of the river Memel (*Neman*) to the island of Ödland/Sweden. Another network of fields was later laid further west (Kolberg/ Bornholm) (*Koburg*). The objective was twofold, i.e. to protect the vital commercial routes and to prevent the Baltic Fleet from operating. With this objective, the mine-laying operations continued until November (*Rohwer*).

cc. The Russian evacuation of Tallin

After 10-weeks of combat in the Baltic Proper, the Germans advanced towards Tallinn and, by the end of August the Baltic Fleet prepared an evacuation from the sea. German and Finnish forces enlarged the mine barrage in the sea lane to Tallinn, set up artillery and put a number of torpedo boats on alert. The Russians needed to move 160 ships, 60,000 tons of equipment and about 30,000 people. As soon as the operation started, on August 28th, the evacuation was under constant attack by bombers and artillery and by operatings in heavily mined waters. The Russian casualties were heavy, 65 of the 160 ships were lost and several more were damaged.

dd. The Russian evacuation of Hanko

At the end of the Russian-Finnish Winter War (1939/40), the Soviet Union stationed troops and naval forces at Hanko. The location is about 100 km west of Helsinki. As soon as “Barbarossa” started, Finnish ground troops isolated the Hanko base, which was comprised of 30,000 troops, coastal and anti-aircraft guns (35 guns of calibre up to 305 mm), 20 aircraft, 7 boats, 16 auxiliary ships. Pressured by the rapid advance of German troops toward Leningrad, the evacuation from Hanko started on October 31 and was performed with several convoys. In early December, the Baltic Fleet desperately tried to finalise the evacuation which suffered heavy casualties from Finnish minefields and coastal artillery, losing three destroyers and two large transports as well as several smaller vessels. One of the last on the scene was the 7,500-tons *Josif Stalin* carrying ammunition and military personnel. During drifting, she was hit by four mines that initiated a tremendous detonation, killing four thousand of the troops aboard. 2,000 men survived. In about half a dozen missions, the Baltic Fleet lost three destroyers, three fast minesweepers and other crafts and transporters (*Josif Stalin, Andrey Zda*nov, the icebreaker *October),* plus a host of smaller vessels (*Koburger*, 1994).

ee. Other naval activities

Rohwer (*Rohwer*, www) lists about 85 major naval activities, including mining operations that took place from June to early December. Only a few can be cited here in general terms.

The Baltic fleet had 65 submarines, of which only a few were in service. Nevertheless, they were a permanent threat to navigation and they certainly initiated hundreds of attacks with depth charges. For example, on October 13, the submarine SC-323 attacked the cruiser *Köln* off the Swedish coast, without results, but later sank the 3,724-ton steamer *Baltenland* (*Rohwer*). 200 combat missions made by Russian submarines were registered. The Soviets lost 27 boats by the end of the year.

Coastal batteries were abundantly placed along all Baltic coastlines. There is hardly any information available as to at what location, how often and how many shells ‘penetrated’ the sea. At many locations, before the German army could set up a supply line, the place was violently defended by coastal batteries. In September, the Baltic Islands (e.g. Özel, Dagö, Mön) were still

held by Soviet forces. Quite some efforts were needed from the participating flotilla of cruisers and aerial bombing raids to silence the coastal batteries (*Kronberger*, 1994).
The involvement of bomber and fighter planes occurred frequently. The Baltic fleet had its own air force wing with about 700 planes, but soon they were without safe landing facilities. The Luftwaffe flew many missions, but details are not easily made available. Only significant hits were reported, e.g. a 1,000 kg bomb that hit the battleship *Marat* at the pier of Kronstadt, destroying the front part of the ship (*Rohwer*). The Luftwaffe flew 600 sorties against the Baltic Fleet in Kronstadt, either to sink the fleet or to drive them out of port (*Kronberger*).

During these autumn months, many merchant vessels were engaged in the transport of ore from Sweden and Chrome (in Finland) to Germany and of military goods to Finland in return.

ff. Losses in the Baltic

While it is impossible to account for the full number of all explosive resources employed to hit the enemy, which 'stirred and shook' the Baltic, the drama that occurred in just six months might be illustrated by the recorded loss of ships. In very rough figures, the total losses for the Baltic Fleet were 120 naval and 90 non-military vessels. The Reichsmarine lost about 50 ships and about 15 cargo ships (some to German mines). The Baltic countries lost 100 merchant vessels, most of them sailing under the Russian flag. Baltic countries, Sweden, and Finland, lost about a total of 15 naval vessels.

gg. The Southern Baltic Sea

The 'Barbarossa' campaign, as recorded and presented above, was concerned with the section north of the line: from Gdansk to the Swedish Island Öland. In the course of 'Barbarossa', only few minefields were newly laid westwards of this line. No significant military encounters were reported from this sector. To this extent, this part was firmly under German control. If that was the case, presumably many mines laid earlier had now been swept. In addition to extensive naval traffic, exercises and training of personnel along the German coast, with the start of 'Barbarossa', a huge coastal transport operation took place from west to east to ensure continuous supplies for the army in the East.

Sea ice in the Kattegat and Skagerrak in winter 1941/42
(more details on Baltic sea ice in: section E5)

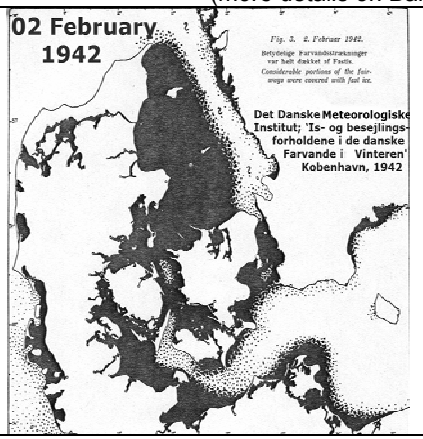


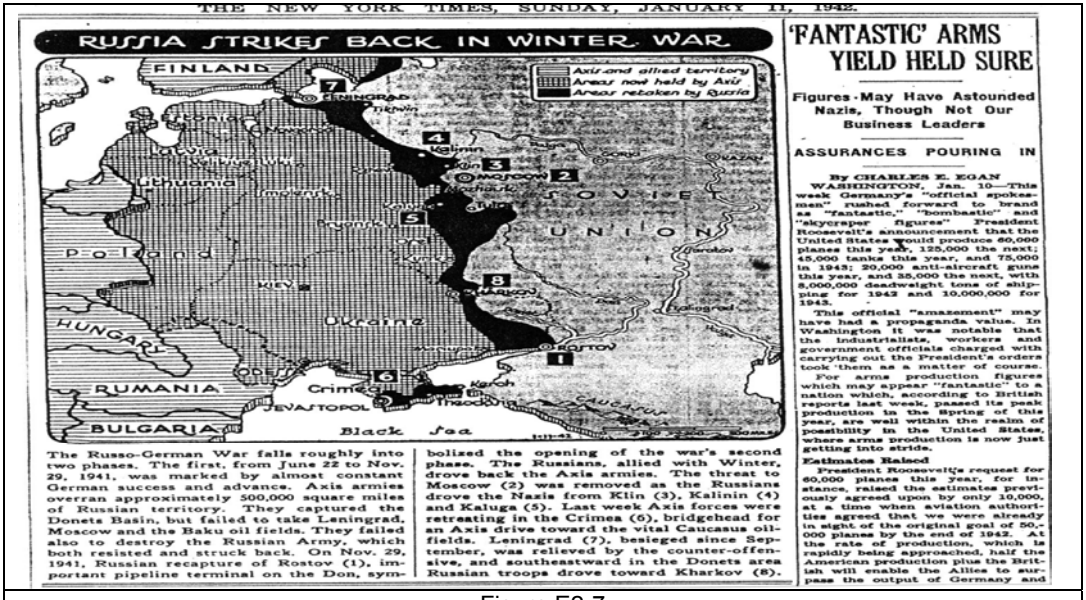
Figure E2-5

Figure E2-6

The New York Times, Sunday, January 11, 1942

(Regions marked in black on the map below indicate: 'Areas retaken by Russia')

Excerpt from text (left):	Excerpt from text (right):
RUSSIA STRIKES BACK IN WINTER WAR The Russo-German War falls roughly into two phases. The first, from June 22 to Nov. 29, 1941, was marked by almost constant German success and advance. Axis armies overran approximately 500,000 square miles of Russian territory. They captured the Donets Basin, but failed to take Leningrad, Moscow and the Baku oil fields. They failed also to destroy the Russian Army, which both resisted and struck back. (cont.)	**'FANTASTIC' ARMS YIELD HELD SURE** This week Germany's "official spokesmen" rushed forward to brand as "fantastic" "bombastic" and "skyscraper figures" President Roosevelt's announcement that the United States would produce 60,000 planes this year, 125,000 the next; 45,000 tanks this year, and 75,000 in 1943; 20,000 anti-aircraft guns this year, and 35,000 next year, with 8,000,000 deadweight tons of shipping for 1942 and 10,000,000 for 1943. (cont.)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'FANTASTIC' ARMS YIELD HELD SURE

Figures May Have Astounded Nazis, Though Not Our Business Leaders

ASSURANCES POURING IN

By CHARLES E. EGAN

WASHINGTON, Jan. 10—This week Germany's "official spokesmen" rushed forward to brand as "fantastic," "bombastic" and "skyscraper figures" President Roosevelt's announcement that the United States would produce 60,000 planes this year, 125,000 the next; 45,000 tanks this year, and 75,000 in 1943; 20,000 anti-aircraft guns this year, and 35,000 the next, with 8,000,000 deadweight tons of shipping for 1942 and 10,000,000 for 1943.

This official "amazement" may have had a propaganda value. In Washington it was notable that the industrialists, workers and government officials charged with carrying out the President's orders took them as a matter of course.

For arms production figures which may appear "fantastic" to a nation which, according to British reports last week, passed its peak production in the Spring of this year, are well within the realm of possibility in the United States, where arms production is now just getting into stride.

Estimates Raised

President Roosevelt's request for 60,000 planes this year, for instance, raised the estimates previously agreed upon by only 10,000, at a time when aviation authorities agreed that we were already in sight of the original goal of 50,000 planes by the end of 1942. At the rate of production, which is rapidly being approached, half the American production plus the British will enable the Allies to surpass the output of Germany and

Figure E2-7

Epilogue:

In recent years, reports about sea mines in The Baltic from both World Wars have come up frequently. For example, an estimated number of all unexploded mines in the Baltic are around 80,000, each filled with a 300-kg explosive charge. Further internet search indicates even higher numbers, e.g. 150,000.