

## First tier house rules

**1-Modified snorkel rule. Subs don't have to stop when entering enemy occupied sea zones.** Rather they can move through and risk hits just like a strategically moving unit does. Hits happen at 6+ in enemy controlled sea zones. No roll is necessary in contested or friendly sea zones. Note: this is superior to the normal hit rate to move land units through seas. When snorkels are developed this house rule becomes obsolete. Obviously, subs are stealthier than transports. It's their Raison d'être and should not have to wait until snorkels are developed to be able to run blockades. This house rule allows subs to move through enemy occupied sea zones with the occasional sighting (6+) taking out some. Note: I have added a feature in the Vassal module I made to allow you to show it's a sub without having to reveal its strength. Select (reveal sub) in the right click menu and it will put a red silhouette around the sub.

**2-France and the UK can share the Atlantic Sea zones.** This is a small exception to the national stacking rules on page 4. In this way the single French LS in the central Atlantic doesn't prevent the UK from placing ships there. I discovered that with little effort Germany can get 2 U-boats there right on the turn France surrenders. Usually, Spring 1940. When they fall, Germany gets total control of the sea zone because the Gibraltar disk isn't enough to prevent 2 to 1 from happening. Then when the UK's turn starts, they lose 20pp from having the Middle East and Gibraltar cut off! I'm pretty sure this huge economic hit wasn't baked into the design. I don't believe that was the designer's intent, nor do I think it was his intent to always move that French LS out of the way. Why should it be necessary for the French to always vacate the Atlantic just to metagame this correctly? Can't the two nations share the Atlantic? They did historically. There are only two approaches here. Either you always metagame moving France's LS to the Med, or you rewrite the stacking rules to fix this. Hence, the reason I got this as a first tier house rule.

**3-The USA has an inherit Strategic Power of 4.** These can never be reduced. These do not add to the faction score, only the SP's found in the European theater do. If needed the US can use Britain's leftover SP's. On the flip side Britain can't use leftover US ones. Example. Britain used 3 out of its 5 SP's. Therefore 2 of Britain's leftover SP's can be used by the US to increase their total to 6. These 6 SP's can be used to build 6 units like normal and/or 3 units at a cost of 2 SP each can be strat moved to the UK like normal. Why am I even creating a special case for the USA? Because the US shares Britain's SP's the US can be almost shut out of the war if Britain loses its Middle Eastern SP's. The economic impact to the UK is justified, but since this game ties the ability of America to build and strat move with UK's control of the Middle East it creates a problem I have not seen in other games. Imagine the UK down to 2 SP's because the Axis swept the Middle East. How does America build anything if the UK used them 2 points up? How does the US even get a single unit across the Atlantic if the Brits strat moved anything? It takes a minimum of 2 SPs to send 1 unit to the UK. This glaring flaw in BS's design only emerges when the Middle East has fallen. It more or less means the US is out of the war when Britain's SPs drop this low. The US can be at 40PP and not have the SP's to do anything with it. That is a very odd outcome for the US since the Middle East was not that important to them. The US had way more oil than the entire world combined at this time in history. See below an oil production chart of WW2. The Allies had no shortage of fuel. America would not have stopped shipping infantry, tanks, and planes to the European front

because Britain lost the Middle East. The SP system works fine in Black Swan until you find it doesn't, then the game goes sideways. You get a runaway leader effect. Germany's income shoots way up, UK's goes way down, and **on top of that** America is paralyzed due to lack of SP's. The only answer to this is either never lose the Middle East no matter what, or you unlink Americas building and transferring potential from the UK's. My house rule keeps America functioning while not changing the way you score victory. I know the designer wanted to keep things simple and avoid making USA specific rules, but it just breaks down when some of the Middle East is lost. I consider this house rule essential.

#### Appendix B: Historical Daily Production (barrels), sorted by mean production (from [1])

	1938	1939	1940	1941	1942	1943	1944	1945	mean
US	3,327,000	3,466,000	3,697,000	3,842,000	3,799,000	4,125,000	4,584,000	4,695,000	3,941,875
USSR	571,992	605,112	608,197	663,424	634,164	563,699	765,027	424,529	604,518
Venezuela	515,545	565,671	507,022	625,836	404,589	486,660	702,311	885,359	586,624
Iran	214,718	214,112	181,194	139,115	197,961	204,416	278,811	357,605	223,492
Dutch E Indies	157,036	170,101	169,429	147,134	65,753	132,312	60,820	20,822	115,426
Rumania	132,841	125,063	117,945	111,005	115,326	107,348	71,560	95,266	109,544
Mexico	105,496	117,529	120,317	115,605	95,384	96,337	104,380	119,307	109,294
Iraq	89,432	84,359	66,189	34,658	54,044	68,351	82,090	96,197	71,915
Argentina	46,783	50,995	56,309	59,927	64,942	75,929	66,202	62,688	60,472
Trinidad	48,595	52,795	60,730	56,181	60,463	58,589	60,489	57,789	56,954
Colombia	59,129	65,362	69,926	67,268	28,732	36,332	60,904	61,504	56,145
Peru	43,395	37,008	33,131	32,699	37,340	40,148	39,314	37,655	37,586
Canada	19,085	21,474	23,472	27,764	28,540	27,540	27,593	23,241	24,839
Egypt	4,332	12,784	17,773	23,414	22,671	24,529	25,727	25,770	19,625
Bahrain	22,734	20,792	21,049	18,614	17,099	18,005	18,344	20,025	19,583
Saudi Arabia	1,356	10,778	13,866	11,808	12,411	13,337	21,295	58,386	17,905
Brunei	18,940	19,444	19,254	18,805	8,219	12,329	16,393	5,753	14,892
Germany	10,578	12,293	20,139	17,268	14,222	13,625	16,814	10,780	14,465
Burma	20,652	21,570	21,123	21,266	6,850	2,740	2,049	1,986	12,280
Austria	1,049	3,397	7,672	11,611	16,162	20,488	22,454	8,422	11,407
Hungary	789	3,022	5,139	8,721	13,800	17,390	17,150	13,748	9,970
Poland	10,310	10,680	10,631	4,912	7,655	9,589	8,197	2,055	8,004
India	6,816	6,375	6,290	7,942	7,649	6,918	7,607	6,474	7,009
Ecuador	6,153	6,337	6,418	4,266	6,241	6,342	8,107	7,299	6,395
Japan (+ Taiwan)	6,879	7,271	7,210	5,455	4,658	4,836	4,484	4,260	5,632
Albania	2,060	2,559	4,090	3,655	4,386	2,742	915	732	2,642
France	1,405	1,370	1,355	1,134	1,268	975	820	553	1,110
UK	0	0	339	611	1,658	2,299	1,920	1,458	1,036
Bolivia	619	589	787	644	844	915	858	1,047	788
China	0	11	27	238	932	1,225	1,380	1,326	642
Czechoslovakia	356	329	445	501	742	547	505	249	459
Italy	277	249	232	260	277	236	150	145	228
Yugoslavia	25	27	27	27	27	27	601	548	164
Netherlands	0	0	0	0	0	3	33	112	19

## Second tier house rules

**4-HS can never fire on subs.**

**5-All nations subs can repair 2 steps per turn.** Germany's U-boats after Z-plan kicks in can do up to 4 steps as usual.

**6-New Strategic charts.** One for bombing raids and the other for sea raiders. For basics, the air chart has been extended, so dividing by 2 is far less common now. The nature of the two charts are different as well. The sea one is more about doing PP damage where as the air one leans more towards destroying air, and less so about eliminating PP's. The charts have a smoother more linear progress which could only be achieved by placing Air, due to their higher cost, into their own Strat chart.

## Third tier house rules

**7-British fortresses have to be build where their namesake is.** M in Malta for instance. This is just for flavor. Obviously if M is pulled and Malta is no longer a legal placement it can go elsewhere.

**8-The Vichy forts can be reinforced with either German or Italian PP.** Under Armistice page 14 first paragraph only mentions Germany. Perhaps that was just an oversight. I see no reason to restrict Italy from contributing here.

**9-Round up in all cases instead of round down.** Like when halving for weather. Steps 1-3 result in a 1 under old rule. Clearly, 3 steps should be stronger than 1. Even in bad weather. Most every other game chooses to round up in cases like this, and I prefer to do so too because to make a 3 step perform the same as a 1 step is odd.

## Design comments

Some of these rules like HS not firing on subs, and subs benefiting from some stealth before snorkels come into play are nice Axis advantages. However, they have been balanced with Allied ones. For instance, house rule 3 really helps the US move its weight around. All in all, when most of them are used I liked the gameplay better. Felt truer to how things should work. And all of them have the DNA of the original rules set. They are either just balance tweaks or making use of existing rules and extending them to another thing.

The new strategic warfare tables correct some flaws IMHO that I had with the original strategic warfare table. That being that it's a compromise to keep it small to save map space and that a lot of fudging was needed to include both 1PP units and 4PP units into the same chart. Two tables are better because the cost of subs vs air is so huge that you'd see some strange jumps in the original chart. My new tables scale in a more linear fashion. Smoothing out the damage vs damage ratio. The table below is the raw PP damage ratio I made for the air campaign. What you see in the finished table is this converted to air step losses and PP losses obeying that set out ratio of damage. Example: 20 vs 5 results in the attacker doing 8PP's of damage. On the finished chart this becomes 1-0-3. The defender suffers 2 more air step losses than the attacker resulting in the 8PP difference. Second example: 20 vs 6 results in the attacker doing 7PP's of damage. One less than before. On the finished chart this becomes 1+1-3. Giving 1PP back to the defender. Since air steps cost 4 a piece the difference in realizing gradual aircraft losses can be fudged by giving back some PP to the defender to reflect that only a portion of a step was lost. On the Sea table no refunding of PP was necessary because the cost of the steps involved is generally only 1 or 2, so a jump in one more LS loss can be easily fudged using the middle valve. The same just can't be said for air steps that cost 4. I tried tables where the middle value was always zero or negative (like the original chart) and it didn't look pretty. It may seem weird at first to see PP being added back into the defenders bank, but once you accept that this give back is just saying that the next air step you buy back won't be at full price. In the above example, the next air step the defender builds back really only costs them 3 since they got 1PP back in the bank. Another thing, notice in the raw table below that any resistance put up by the defender will always pay off. Say 16 air attacks Britain. Without any resistance they would suffer 8PP.

If they used 4 air the total damage they suffer would fall to 6PP. So you never get the gamey situation where you would find it more cost effective to not defend. There are cases all throughout the original table that punish you for resisting the air raids. It was one of the first oddities I noticed that put me on the path to redesign these tables. Take this example off the original table that punishes you for intercepting. 16 vs 0 gives us 0-8-0. 16 vs 4 gives us 0-5-2. So by defending with some air the defender has now suffered a total of 13PP instead of only 8. Using my new tables you don't have to metagame situations like this anymore. Just defend as best you can because to do otherwise increases the losses you suffer.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
4	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4	0/5	0/5	0/6	0/6	0/7	0/7
5	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4	0/5	0/5	0/6	0/6	0/7	0/7
6	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4	0/5	0/5	0/6	0/6
7	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4	0/5	0/5	0/6	0/6
8	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4	0/5	0/5
9	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4	0/5	0/5
10	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4
11	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3	0/4	0/4
12	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/1	1/1	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3
13	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/1	1/1	0/0	0/0	0/1	0/1	0/2	0/2	0/3	0/3
14	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2
15	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1	0/2	0/2
16	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1
17	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0	0/1	0/1
18	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0
19	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0	0/0	0/0
20	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0
21	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0	1/0	1/0
22	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0
23	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0	2/0	2/0
24	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0
25	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0	3/0	3/0
26	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0
27	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0	4/0	4/0
28	14/0	14/0	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0
29	14/0	14/0	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0	5/0	5/0
30	15/0	15/0	14/0	14/0	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0
31	15/0	15/0	14/0	14/0	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0	6/0	6/0
32	16/0	16/0	15/0	15/0	14/0	14/0	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0
33	16/0	16/0	15/0	15/0	14/0	14/0	13/0	13/0	12/0	12/0	11/0	11/0	10/0	10/0	9/0	9/0	8/0	8/0	7/0	7/0

Now about them U-boats. First let me be clear, I love the naval mechanics in Black Swan. It's almost perfect other than the odd nature of the U-boats campaign timing. Instead of the U-boats being highly effective in 1940-1942 and then diminishing as the Allies take back the seas in 1943 and beyond, we get the reverse of that. Late in the war, we get a fifth U-boat and the means to pump them all up to 4 steps each and every turn, and the freedom to move them right to the Atlantic after being built due to snorkels. However, in 1940-42 when the U-boat campaign is supposed to be doing its best it isn't.

One thing short circuiting this is the excessive time frame to get to the Atlantic. U-boats are taking 6 months or more to get into position due to blocking enemy ships. The window for them to be effective is being lost while they are in transit. And on top of that they probably suffer some hits as well before they even get to the Atlantic. Then, if you lost a U-boat during this time, it would not be able to get back to full strength for another year! Remember 1 step per season. You're not going to send it back out at 1 step are you? So, a year and a half passes before a destroyed U-boat can get to the Atlantic again! By then, the time frame to be strangling Britain is nearing an end. The US enters in 1942.

Doesn't it seem like the initiative is with the Brits here? It does to me. Because this game did not try to abstract the U-boat campaign with something like an old school box you put your U-boat assets in, but rather tried to do it on map it created the problem of them not getting to theater timely. I still do applaud the choice of having Strategic assets like subs used on the main map itself because the maneuver play is such a fun part of this game. My simple solution to allow subs to basically strat move their way into theater using a lessor form of the snorkels rule helps Germany's initiative at sea. U-boats get into position faster and are at least 2 steps in strength the turn they are put down (house rule 5).

These house rules work together to make the Battle for the Atlantic feel desperate in the early years. Correcting the campaigns feel IMHO. Once the US enters and you play with the house rule that gives the US an inherit 4SP's. That extra buff the German's enjoyed early on is countered by this one. Also note that the Brits get to enjoy a faster repair rate on subs as well. Useful in the Med plus the ability to pass through the Italian navy with house rule 1. No odd ball rules have been invented here. They could all pass for original rules. The house rule to move subs through opposing ships just borrows the rules to move units via transport. If opponent's ships hit, you take step losses on your way through. It's simple. Subs just gets a more favorable roll then transports do. As they should.

Well I sure hope you give several a try. Starting with first tier. It's really best to play with first and second tier together. Third tier is the minor stuff.

V1.1

Jesse LeBreton 10/8/2023