

# Jutland Campaign Notes

Undoubtedly the single most important source for someone who is doing research on the battle of Jutland is John Campbell's classic. This book has detailed situation maps for every phase of the battle from the first clash through the beginnings of the nighttime chase. It also contains incredibly detailed analysis of the damage to each ship in the battle, which is invaluable when you are attempting to create something that should roughly resemble the historical results.

Also, there are several sources for the order of battle for Jutland, and the other minor battles of Dogger Bank and Heligoland. Good situation maps for the minor battles are much harder to come by, however. But otherwise, values for each ship class are well documented with the only real issue being which of the range of values to take for things such as crew size and total size of the ship. In the case of reload values, much higher values for the smaller guns are used than would be theoretically possible, but since the game does not attempt to track individual ammunition expenditure, it is necessary to reduce this theoretical rate down to a value which would be much more representative of the average rate over the course of the overall battle.

Using Campbell's research, it is possible to create scenarios that match the historical situation exactly. Indeed, the Chart Overlay feature of the scenario editor allows scenarios to be created using the naval charts of the battle. And in aggregate, Campbell's research allows precise values to be assigned to fire resolution parameters in the game, so that the game results ought to reflect, in at least a relative way, the historical results of the battle itself.

## Parameter Data Calculations

Taking the data from Campbell's table "Heavy shell hits on cruisers and destroyers", page 353, it is possible to arrive at basic hit probabilities of 2.7% for the British and 3.1% for the Germans, excluding the *Black Prince* as noted in the text.

Likewise, using data from Campbell's table "Hits on British capital ships", page 349, it is possible to calculate the British critical hit probability as 3.5%, equal to 3/85. The German critical hit probability can be calculated from the table "Hits on German capital ships and 2<sup>nd</sup> Squadron", page 352, as 1%, equal to 1/101.

For the previous battles of Dogger Bank and Heligoland, the parameter data values are modified. The German critical hit probability is increased to 2% for these battles reflecting the early flash protection failures on the German ships, that were subsequently

corrected, but which remained a problem on British ships even at the time of Jutland. Also, the British hit probability is greatly reduced to 0.7% reflecting the very poor gunnery training early on in the British forces. This low hit probability can be calculated directly from the results at Dogger Bank where only 6 hits were obtained from 869 shots fired (Yates, page 96).

## **Bibliography**

Jutland, An Analysis of the Fighting, John Campbell, Lyons Press, 2000.

Jutland 1916, Clash of the Dreadnoughts, Charles London, Osprey Publishing, 2000.

Flawed Victory, Jutland 1916, Keith Yates, Naval Institute Press, 2000.

## **Jutland Additional Notes**

With the release of Jutland 4.04, there are a number of additions that I would like to make note of.

### **I. Torpedoes**

The most important change is the updating of the database. When Jutland was first released, it had a simplified approach to torpedoes, where each ship had a single torpedo shot, and that represented the entire spread of torpedoes. Further, all torpedoes had the same ratings for damage and speed. This continued in Tsushima. However, with the release of Guadalcanal, a more detailed system was introduced where specific torpedoes were modeled, and you fired by individual tube.

Since then, neither Jutland nor Tsushima have been updated to that standard. So, the first task for this update was to add the appropriate loads to the database and assign them to the proper ships. One of the first things that will jump out at you is some of the odd firing arcs. A number of pre-WW1 ships had tubes that would fire fore or aft, and that is reflected in the updated database.

One thing I would like to note is that while many of the capital ships had in theory the ability to reload torpedoes and fire further salvos, I did not include that in this round of database updates. The reason is that at Jutland, it was found that they could not reload under combat conditions, because many of the same crewmen who would be reloading the tubes were actually up working the guns.

A great help in the technical details of all the various nations' torpedoes was *Naval Weapons of World War I* by Norman Friedman.

One of the challenges in assigning torpedoes to ships is that the early years of the 20<sup>th</sup> Century were a period of rapid evolution in torpedoes. The Torpedoes at Jutland were far superior to the ones at Tsushima a decade before. However, what do you do with older ships? Do you assign them the torpedo in use when they were built? Or the most modern that nation had in a given size? Unless I had evidence to the contrary, I assumed that all ships had the most modern torpedo available to their side in that size.

## **II. Mines**

One of the unique features of Naval Campaigns Jutland is the ability of the German Navy to combat drop mines. However, the historical record of such is exceedingly spotty. Several nations experimented with the idea in the pre-war years, but no one did it. The British were deeply concerned about the idea (one of the reasons Jellicoe refrained from following the Germans through the Battle Turn.) However, that fear was a chimera. The Germans did no such thing, and the ability to drop mines has been removed from all ships other than Minelayers.

## **III. Guns.**

The British guns at Jutland were subject to a surprising number of dud shells. There were a variety of reasons for it, but one of the reasons is that the British used Lyddite as the main explosive in many of their shells. Lyddite was one of the most powerful explosives available, but it was also notably unstable, and would often be set off by the shock of hitting armor before fully penetrating. They also had issues with their shells when they hit at oblique angles. For that reason, the firepower of British BC and BB class guns (10" and larger) is reduced to reflect this.

Now, the British did figure out the problems and introduce new shells, but they did not come into use until the final months of the war. Since this is a database level change, it would affect any DIY scenarios of the last months of the war. If anyone wants to make such, I suggest raising the British hit percentage a bit to compensate.

## **IV. New OOB and Scenarios**

I've added a few new oob files and scenarios to the game. Most notable are the 1908 and 1911 oob. Both of those are based around the idea of a naval war between Great Britain and Germany in those years. Those are both interesting years in the development of the fleets. In 1908, the HMS Dreadnought was brand new and the only modern battleship in the world. Otherwise, the fleets were built around Pre-Dreadnaught types. In 1911, both sides had started the Battleship Race in full, but both still needed to use a number of older

ships to make up bulk in their fleet. There are scenarios for both oob, but I would also suggest that aspiring designers can use those as a starting point for their own ideas.

Now, those oob are more built to show what the fleets would have looked like, instead of an actual representation of the units and divisions of the fleet in those years.

There are also two hypothetical scenarios.

*A Torpedo in Cromarty:* The Grand Fleet kept about 1/3 of their Battleships at Cromarty Firth instead of Scapa Flow. They met up before they headed south to intercept the Germans, but this scenario assumes that a U-Boat managed to hit a British ship in the channel, blocking the rest of the force in the Firth. Jellicoe is forced to go to Beatty's support with many fewer forces than he expected.

*Gottterdammerung:* Historically, the High Seas Fleet refused to sortie in the last days of the war, instead the sailors mutinied in one of the events that led to the fall of the German Government and the end of the war. However, in this scenario, the assumption is that they did sortie.

## **V. Random Campaign**

As with all of the Naval Campaign Games, I'm adding a "Random Campaign" to Jutland, though really, the name is a bit of a misnomer. It is using the Campaign Engine to put the players into a semi-random battle. Each player has two choices (simply A or B). Their choices and then a random result will then put the players into one of 40 random battles. Some are large, some are small. Some are Britain vs Germany, others include other fleets. You can have Italy vs Austria Hungary, or Germany vs Russia (for example.) The idea is for players to go into the battle without knowing exactly what they are going to face. There's even a few that are close variations of one another, with small changes to trip you up.

Have fun! I hope you enjoy yourselves.

GWM

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