

Scenario Designers Notes for Midway

Scenario Designer Notes

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There are few battles in American History more famous than Midway, and like many famous battles, it is one that is misunderstood by many. Much of that misunderstanding is born of the titles of the two most famous books about the battle: “Impossible Victory” and “Miracle at Midway”.

Why wasn't that battle an “Impossible Victory” or a “Miracle”? If you look at the forces the two sides took to the battle, the IJN advantage seems to bear out titles like that. The Japanese had far more ships, far more men, far more of pretty much everything.

However, there was one major exception to that description. That was in airpower. The IJN still enjoyed an advantage in airpower, but it was far less profound. The IJN brought four fleet carriers and two light carriers (neither of which played any role in the battle). The US had three fleet carriers, as well as the aircraft based at Midway. When you count the planes on Midway, the US actually had a few more aircraft. However, there's no doubt that the IJN had a considerable advantage in pilot experience and overall aircraft quality. The US was certainly outnumbered and “outgunned” but it was still an even enough battle that calling it a miracle is a bit of hyperbole.

I bring all of this up because it makes an important point about World War Two naval combat. It was profoundly different from anything which had come before, and a great deal of that difference comes from the development of Naval Airpower. Surface forces would still play a vital role in the Pacific War, but whenever they were available, Carrier Task Forces were the units of decision.

Like the previous Naval Games from John Tiller, Midway is focused on putting you in the admiral's seat. The decisions that you need to be focusing on are the large scale command decisions, rather than the minutiae of shipboard operations.

One way of describing Carrier Operations of that era is “search and strike.” Aircraft Carriers were a very vulnerable weapons platform. This came from two primary factors. The first of them is the ease of making the flight deck unusable. It goes without saying that a hole in the flight deck is going to make it difficult or impossible to conduct air operations off of the ship. Damage to one of the elevators would be even worse.

The second vulnerability of carriers is the one highlighted by Midway, or the US loss of the *Princeton* in Leyte Gulf. Aircraft Carriers are firetraps. A single bomb in a bad place can doom a carrier (something you will find in playing this game).

The upshot of all of this is that it was vital for carriers to get the first shot in. The only truly successful defense of a Carrier Task Force against an attack by another Carrier was “The Turkey Shoot” in 1944, by which point the US advantages in numbers, aircraft quality, fighter direction and pilot training had created a very different battlefield than 1942.

In game terms, this means that your first priority will be to find your enemy. Depending on the scenario, you'll have various assets to use for this. One of the mistakes I've made at times is not allocating enough aircraft to the task. When you set up searches, keep in mind how “wide” their spokes will be at the end of

their search legs. On more than one occasion, I've had my searchers fly right by the enemy without spotting them, because my "pies" were too wide, and there was enough space between my searches to fit an entire task force.

Once you find your enemy, your next task is to "strike". Learn from the Battle of Midway. Sending your bombers without escorts is a good way to get them massacred.

Finally, the last major aspect of battle management is the simple fact that in this game, your greatest foe is time. It takes time to spot aircraft, and then to launch them. There's no feeling quite like seeing the enemy bear down on you while you're still trying to get your own strike armed and spotted on deck.

A few other hints in regards to maneuvering ships:

The era of aircraft created the need for new formations for Task Forces. The two sides took very different approaches to this. The USN had decided that the most important thing was to maximize AA fire. As such, they preferred close, circular formations where most escorts could fire on aircraft as they attacked the carrier. On the other hand, the IJN decided that the best defense was giving the carrier the space to maneuver freely. As such, they had a great deal of open space in their formations, often assigning ships to run well ahead of the carriers to look for attacking aircraft.

In game terms, either formation means that you'll be well advised to use the "group turn" command, instead of the "line turn". Line turns will tend to disrupt your formation badly. Also, to make things easier for players to handle, the escorts are generally "attached" to the flagship, so that you can maneuver the entire TF from one ship, instead of the 2-4 that you might have otherwise. If you ever want to break a group down into component parts, simply "detach" the flag, and all the subunit flags should reset automatically.

In building the scenarios for Midway, I've tried to keep that idea of "search and strike" as the core for the game. The true meat of the game is in the overall management of carrier operations.

There are a few different types of scenarios that are found in the game. The first and most obvious are the historical, full battle scenarios. These are scenarios with ships in their historical positions. Often, they'll have the initial historical searches and strikes set up. For instance, at Midway, the initial IJN strike on Midway Island is predefined.

The next type of scenario are the "partial" battles. These are the short 10-20 minute slices out of the battle, typically simulating airstrikes on certain carrier groups. If you want to simulate the dive bomber attack at Midway, it's in there.

Finally are the hypothetical scenarios. These are designed to do a couple of different things. All of them make extensive use of "deployment boxes." That's a mechanism where both sides are deployed within a certain area, but you don't know their exact location. Those boxes can be quite large. For instance, in the "Midway as the Japanese Intended" scenario, the deployment boxes for both sides run 175 miles from north to south. In historical scenarios, human players start out with the advantage of having a pretty good idea of where the enemy is. By using deployment boxes, that makes searching far more important. You know the enemy is somewhere out there, but you need to pin down the exact location.

The other consideration that went into the hypothetical scenarios is to address a number of the "what ifs" of the Pacific War. For instance, many have attacked the Japanese decision to attack the Aleutian Islands

at the same time as Midway. They felt that the forces tasked for those operations could have better been used at Midway. Thus, there is a scenario in the game where the Northern Force is brought into the battle. Likewise, there are many who have criticized Admiral Pye's decision not to send the Saratoga after the Japanese 2nd Carrier Division when they supported the second attack on Wake Island. In this game, you get to see how that might have worked out.

One of the concerns in this game was to look at how the doctrines of the fleets might be reflected in the game. For instance, the Japanese liked to send mixed loads in their Dive Bomber Groups. So, if you look at the standard loads that their airgroups are given in the game, you'll see that their Vals are typically split between 250kg SAP and 242kg HE bombs (in a 2-1 ratio). The Japanese liked to use HE bombs, in the hope of suppressing AA fire, as well as killing deck crew and the like.

Another example of this is the issue of float planes. You'll notice that Japanese cruisers often have attached float planes. The US cruisers do not. This reflects the different doctrines of the two fleets. The Japanese tended to use their floatplanes extensively for scouting, even when carrier aircraft were available. (Consider the key role the *Tone's* floatplane had at Midway). On the other hand, they counted on the VS squadrons on their carriers for long range scouting. We went back and forth on this decision. Should those planes be included or not? In the end, we decided that it would be better to leave them out, instead of encouraging players to use them ahistorically.

Like any other wargame, in the end success comes from understanding the nature of your own forces, as well as the nature of the other side. Both sides have strengths, and both have weaknesses. For instance, the Japanese generally have longer range on their aircraft. Further, at least in the 1942 scenarios, their aircraft are better overall. On the other hand, US AA tends to be far better. They also generally have more land based air at hand. There are many more examples of this which I hope you'll find as you play the game.

I certainly hope all of you have as much fun playing this game as I have had working with it. It's given me the opportunity to really dig into some things that I hadn't looked at in a very long time, and I think the game does an excellent job of bringing out the nature of carrier warfare.

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OOB Notes

An overview of the .oob files provided in the game. In many of these, there are ships and planes which are not deployed in the provided scenarios. They're given for you to experiment with.

Coral Sea.oob: This is the standard oob file for the battle. It has all the ships in the main historical scenario for the game, as well as the Japanese invasion and support forces.

Coral Sea Hypo 1.oob This has all the same ships as the Coral Sea oob, but also includes the IJN force which the Yorktown attacked at Tulagi before the main battle.

Coral Sea Hypo 2.oob This oob has many of the "off map" forces that aren't included in the battle, such as the Japanese air group at Rabaul.

Eastern Solomons.oob: This is the main oob for the Battle of the Eastern Solomons.

Midway.oob: This is the main oob for the Battle of Midway. It includes many forces which are not in the main scenario, including the Transport groups, the Main Body, the forces tasked to the Aleutians, and the Shokaku and Zuikaku (for those who want to design a scenario which assumes they were at the battle).

Midway Hypo 1.oob This is the oob used for the “No Coral Sea” scenario. As such, it has the Lexington, Shokaku and Zuikaku included. It also shuffles around the air groups a bit. After Coral Sea, the Saratoga Air Group (Air Group 3) was assigned to the Yorktown while the Yorktown’s group recovered from its losses at Pearl. As this scenario assumes there was no battle of the Coral Sea, it leaves the Yorktown’s Air Group as is (Air Group 5).

Midway Hypo 2.oob: This is used for the Task Force One scenario. It is the standard Midway oob, but it adds the US BB group (TF One) which was left on the west coast. It also adds the Saratoga, which historically arrived at Pearl Harbor the day of the battle (after a lengthy period of repairs).

Pearl Harbor.oob This is the primary oob used for all Pearl Scenarios. The potential carrier groups used in the “Advance Notice” scenario are included.

Philippine Sea.oob: This is the main oob for the PS battles.

Santa Cruz.oob: This is the primary oob for the Santa Cruz scenario.

Santa Cruz Hypo 1.oob. This includes the IJN CV Hiyo and 2 DD. A few days before the battle, the Hiyo had a major fire in the engine room, and the Hiyo and escort DD’s were sent back to Truk for repairs.

Santa Cruz Hypo 2.oob. This is used for the “Sinking of the Wasp” scenario. As such, it shows the situation the day the Wasp was lost.

Truk.oob: This is the oob used for the historical Truk scenario.

Truk Hypo 1.oob: This is used for the Sea Battle at Truk scenario. It represents the Combined Fleet units which had evacuated Truk in the weeks before the attack.

Wake.oob: This is used for the Wake Scenarios. It represents the Japanese forces involved in the 2nd attack on Wake, as well as the US forces which were involved in covering a reinforcement convoy which was trying to get to Wake. (The US convoy is not included).

Bibliography

Bergerud, Eric. Fire in the Sky: The Air War in the South Pacific. Westview Press, 2000

Craddock, John, First Shot: The Untold Story of the Japanese Minisubs That Attacked Pearl Harbor, McGraw Hill, 2006

Evans, Donald and Mark Peattie. Kaigun: Strategy, Tactics and Technology in the Imperial Japanese Navy, 1887-1941. Naval Institute Press, 1997

Frank, Richard B. Guadalcanal: The Definitive Account of the Landmark Battle. Penguin Books, 1990

Hammel, Eric. Carrier Clash: The Invasion of Guadalcanal and the Battle of the Eastern Solomons, August 1942. Zenith Press, 1999

Hammel, Eric. Carrier Strike: The Battle of the Santa Cruz Islands, October 1942. Zenith Press. 1999

Henry, Chris The Battle of the Coral Sea Naval Institute Press. 2003

Hoyt, Edwin P. Blue Skies and Blood: The Battle of the Coral Sea. Ibooks. 1975

Isom, Dallas W. Midway Inquest: Why the Japanese Lost the Battle of Midway IU Press, 2007

Lindemann, Klaus. Hailstorm over Truk Lagoon: Operations against Truk by Carrier Task Force 58. 17 and 18 February 1944, and the shipwrecks of World War II. Wipf and Stock. 1989.

Lundstrom, John B. Black Shoe Carrier Admiral: Frank Jack Fletcher at Coral Sea, Midway and Guadalcanal. Naval Institute Press, 2006

Lundstrom, John B. The First Team: Pacific Naval Air Combat from Pearl Harbor to Midway. Naval Institute Press. 1984

Morison, Samuel Eliot. History of United States Naval Operations in World War II. 15 Volumes. Little Brown and Company, 1947-1962

Esp:

III: The Rising Sun in the Pacific 1931-April 1942

IV: Coral Sea, Midway and Submarine Actions, May 1942-August 1942

V: The Struggle for Guadalcanal August 1942- February 1943

VIII: New Guinea and the Marianas: March 1944-August 1944

Parshall, Jonathan and Anthony Tully. Shattered Sword: The Untold Story of the Battle of Midway. Potomac Books, 2005

Peattie, Mark A. Sunburst: The Rise of Japanese Naval Air Power, 1909-1941. Naval Institute Press, 2001

Prange, Gordon W. Dec. 7, 1941: The Day the Japanese Attacked Pearl Harbor. Warner Books. 1988

Prange, Gordon W. Miracle at Midway. McGraw-Hill. 1982

Smith, Douglas V. Carrier Battles: Command Decision in Harm's Way US Naval Institute Press, 2006

Tillman, Barrett. Clash of the Carriers: The True Story of the Marianas Turkey Shoot of World War II. Naval Caliber. 2005

Y'Blood, William T. Red Sun Setting: The Battle of the Philippine Sea. Naval Institute Press, 2003

Websites:

<http://www.combinedfleet.com/>

<http://ibiblio.org/hyperwar/USN/>