COASTAL COMMAND
The Campaign System

Originally published by Xeno games in 1989. This is the 2003-4 revision that will be released on CD as opposed to the traditional paper format. Originally only the tactical system was to be revised for use with smaller than 1/600 ships and hex maps. By allowing for play on a smaller area, it is hoped that gamers will find the system more manageable and enjoyable. As originally designed the campaign and tactical rules can be used as a 'stand alone' system or parts may be used to improve a system currently favored by local gamers.

The almost daily use of small craft during World War Two provides an excellent situation for a campaign. The combat intensity level and limited resources will provide the players with distinct challenges.

BACKGROUND

Naval actions during World War Two ranged in intensity from occasional key battles between capital ships to the almost daily skirmishes between small craft. These skirmishes were often short but very violent in nature. One of the main purposes of this work is to honor the memory of these men who fought the enemy on such a regular basis.

The **British Royal Navy** had to protect the convoy lifeline of their far-flung empire. Its resources to protect these convoys were very limited. This fact and their World War One experience of anti-submarine warfare resulted in an extensive program in the use of small craft for duty. Over 1700 vessels were assigned to the Coastal Command for duty. Destroyers (DD), Corvettes (COR) and Frigates (FRG) were mostly used to protect convoys. The Sloops (SL), Motor Torpedo boats (MTB, Motor Gun Boats (MGB) along with various minesweepers, minelayers and various tugs conducted a variety of missions designed to restrict coastal operation of their enemies and ensure the use of the British coastal waters.

Larger ships operated in flotillas of nine that was divided into two four-ship sections plus a leader. These larger ships (such as DDs) could operate individually or in pairs for special missions. Smaller craft were organized into flotillas of eight to ten craft. For example, in 1942 they operated thirty-four flotillas (seven MTBs, nine MGB and eighteen units of mixed craft).

The number of craft assigned to a specific mission depended on the seaworthiness of the vessels and the fatigue of the crew. Regardless of the difficulties, the small craft of the Coastal Command fought over 800 actions and sunk over 500 enemy craft.

In the Royal British Navy crews from conquered Europe and other Commonwealth nations manned a number of the small craft flotillas. Here are some examples: 30th Flotilla had Fairchild D MTBs and Norwegian crews; 16th and 17th Flotillas had US Higgins boats and Indian crews; 29th and 56th flotillas had Canadian crews. Some boats had mixed nationality crews while other single boats contained crews of the same country. Canada, South Africa, New Zealand and Australia also contributed their share of small ship class vessels for convoy escort duty.

Some crews brought their own ships with them as they fled the Axis occupation forces. The Dutch fleet almost totally went over to the allies in both the Pacific and

Atlantic. Some individual ships fled from Norway, Poland, Greece and France and were incorporated into the British operational plans.

The **United States Navy** .had conducted limited anti-submarine activities and convoy protection duties in American Atlantic waters prior to December 7, 1941. As a result, they had begun small vessel expansion plans. During the war the Americans produced hundreds of DDs, Destroyer Escorts (DEs) and motor torpedo boats (commonly called PT boats) along with numerous minelayers, minesweepers and other support craft. In the Pacific the PT boats provided valuable service among the shallow channels and coral reefs.

The American PT boats were either Higgins or ELCO designs that were modified during the war. Most of the modifications focused on the armament. Several boats mounted experimental weapons such as 5' rockets and 75mm guns. American DDs and DEs operated in nine ship squadrons. Each squadron operated in two 'divisions'. A PT boat squadron consisted of eight to ten boats. However, 'patrols' often operated in three or four boat 'groups'.

The **German Kriegsmarine** was the most neglected branch of service in the Third Reich. Despite their low priority, the German fleet focused on producing vessels that would provide the most 'bang for the buck'. They endeavored to threaten the British supply lines. Though the primary threat came from submarines, the German small vessel fleet continually planted mines and battled Allied minesweepers and their escort craft. In addition to S-boat operations, the Germans conducted regular supply convoys using F-Lighters and R-boats along the coastal waterways.

The Germans produced over 240 S-boats (allies called them E-boats) whose basic design remained the same throughout the war. Over 300 R-boats and craft converted to F-Lighters were also used and proved very effective against Allied small craft due to their heavy weapons and stable firing platform.

Destroyers conducted paired and solo sorties along with escort duty for raiders traveling to the sea-lanes. The basic Flotilla organization was twelve boats but escort duty of the R-boats and F-Lighters would often be conducted with four to six boat 'groups'.

The **Italian** small craft fleet was highly respected by the Allies and proved a challenge to the British flotillas until the Americans could contribute PT squadrons. The crews of the MAS and VAS boats may have been some of Italy's finest troops. The length of the Italian coastline required that the VAS and MAS boats operate in groups of four vessels or less. They also maintained a number of small expendable craft. Raids against British controlled ports were also conducted.

Several Axis Minor powers maintained limited small craft fleets. The Bulgarians had five Torpedo boats (TBs). The Romanian fleet had three DDs, three TBs and three submarines. The Finnish fleet had one Coastal Defense ship (CD), five submarines and three Gunboats (GBs). In addition to these forces, a number of vessels were captured during the Axis conquest era. These would often be re-manned with loyal German crews. Denmark provided two FRGs, seventeen TBs and twelve submarines. Norway turned over nine DDs, six TBs, two GBs and nine submarines. Yugoslavia had six TBs and four DDs captured by the Italians. Belgium provided one TB. Holland provided one DD and Vichy France had a number of DDs. Later after the Italians surrendered, the German confiscated many of their former ally's small vessel assets.

Japan with the largest navy had perhaps the weakest small craft fleet. Due to the size of the pacific basin, the Japanese felt that fast DDs and light cruisers (CLs) were needed to cover the vast Pacific. DDs conducted many of the patrol missions that were conducted by the Allied PT and MTB craft. Frigates and small harbor patrol craft conducted many short-range escort duties. Though DD squadrons averaged thirteen with a Cl as the leader. The most common Japanese vessel engaged by US PT boat forces was the armed barge.

The major power of **Russia** maintained a small navy. Due to their non-aggression pact with the Japanese, the Russians concentrated their resources against the Germans. However due to the rapid advance of the German Army many vessels sought shelter in isolated ports. This condition caused the Russians to rarely conduct naval operations during the first half of the war. As the Russian Army pushed the Germans Westward, the Russians supplemented their meager forces with American Lend-lease PT boats and began conducting a few operations in the Black Sea and the Baltic Sea during the later stages of the war.

As the war progressed, the USA provided lend-lease vessels to many of their South American allies. A Persian fleet fought a battle with British forces in 1941. Also in 1941, a Thai (Siam) fleet engaged a Vichy French fleet. Neutral countries maintained fleets varying in size. Spain, Turkey and Sweden all had small fleets.

Finally a few comments need to be made on the greatest foe of small craft. The aircraft was not always victorious but its speed and volume of concentrated fire brought fear to crews whose shadow crossed their boats. Another dangerous opponent was the shore battery emplacement. The emplacements mounted heavy guns on stable platforms. Both of these dangers made night missions common for most boats.

CAMPAIGNS AND SCENARIOS

2.1 Ideas for a **SECTOR Campaign**. A Sector campaign consists of one player per side acting as an squadron/flotilla commander for a specific stretch of coastline. They will compete with each other for control and free passage of the sector.

2.11 The campaign map will consist of a generic arrangement of Patrol Zones. The map is tailored to the player's available forces. For example: a Home Port Zone in the Pacific would likely be an island but in the English Channel it would be a coastal port.

2.12 The length of the Campaign can be pre-determined. Or it can be ended early by having the clear loser 'relieved of command.

2.13 SECTOR SEQUENCE OF EVENTS

1. Determine Initiative
2. Determine Operational Status
3. Determine sector weather
4. Determine Available Air strikes
5. Roll on the Random Missions Table
6. Conduct the Mission and Tally Victory Points

2.2 Ideas for a **THEATRE Campaign**. A Theatre Campaign is generally a multi-player campaign. The number of players per side does not have to be equal. Each player will be an Squadron/flotilla commander with one player also acting as the Coastal Command HQ commander.

2.21 This format will limit problems from player absenteeism. The forces under the absentee player can be regarded as weathered-in or turned over to a temporary commander (XO).

2.22 Both CCHQs will lay out the campaign area's patrol zones on identical maps.

2.23 Each mission will represent a three to seven day rotation period.

2.24 SECTOR SEQUENCE OF EVENTS

1. Determine Initiative
2. Determine Operational Status
3. Determine sector weather
4. Determine Available Air Sorties
5. Determine the Squadron the Priority Mission Status
6. Roll on the Random Priority Missions Table
7. Assign Patrol Zones to the remaining Squadrons
8. Conduct the Mission and Tally Victory Points

2.3 CAMPAIGN SETUP FOR SECTORS

The campaign map will consist of 'Patrol Zones'. The number of zones will depend on the scope of the campaign. In Sector campaigns every patrol Zone on the map will be within range of the squadron. In Theatre campaigns some zones will be within range of more than one squadrons but others will only be within range of a single squadron.

1. Each squadron must be given a Home (Port) Patrol Zone that can be an island or coastal port.
2. A Patrol zone will consist of multiple tactical board areas, so exact land placement will not have to be recorded. Subsequent contacts may occur in a different part of the Patrol Zone. All battle boards areas will have the same classification as the Patrol Zone.
3. Other Patrol Zones must be either :

A. COASTAL which will consist of one board-edge being land.

B. ISLAND which will consist of one or more land masses on the tactical board. The number of islands can be pre-determined or rolled for randomly.

C. CHANNEL which will consist of opposite board-edges classified as land or one as land and the other has an island near the edge.

D. OPEN SEA with no land features.

4. The depth can be designated. Shallow being not deep enough for DDs or DEs.

2.4 Coastal Command Headquarters (CCHQ)

Daily operations are controlled by the CCHQ. The CCHQ will allocate replacements and repair parts. The CCHQ will issue orders to the squadrons which will consist of a mixture of a priority mission for one squadron and patrol areas for the other squadrons. The specific type of priority mission will be determined by a roll on the Random chart.

RANDOM MISSION TABLE (Roll a d10)

Die	Mission	Die	Mission
1	Ambush	6	Sub Encounter
2	Killer Operation	7	Hit & Run Raid
3	Air-Sea Rescue	8	Mine Operations
4	Convoy Escort/Attack	9	Mine Operations
5	Convoy Rescue/ Attack	0	David vs Goliath or Covert Ops

In Theatre campaigns, the designated CCHQ player will assign Patrol Zones and the squadrons to conduct the priority mission. These may be determined by on purpose, rotated among the players or randomly selected. Patrolling squadrons will conduct 'sweeps' and engage any enemy contacted while on patrol.

Certain ideal conditions including clear weather may result in a heavy activity period. They may also include several priority missions instead of a single mission. Player I (initiative) will roll a d6 to determine the number of priority missions conducted during the high activity period. The other player will still be entitled to only one priority mission.

If more priority missions are ordered, than the CCHQ has available squadrons, then some squadrons will have to conduct more than one mission. The crew will be fatigued at the start of the second mission.

2.5 Logistics

The Coastal Command forces frequently operated with less than top rate equipment due to their being low on the naval logistical priority list. Many small craft units tended to operate at below ideal levels in manpower and craft conditions. The readiness rating of vessels was often poor which required the squadrons to leave on a mission short-handed or with boats operating with restricted capabilities.

1. All logistical activities occur during the Operational Status Phase. Allowable logistical tasks are determined by the scope of the campaign
2. In Sector campaigns a simpler monitoring system is used.
    a. Gas, ammunition and torpedo shortages are corrected prior to each mission.
    b. Each mission one vessel can be dry-docked and all hull, equipment and engine damage repaired on it. The dry-docked vessel is not available for duty on that mission.
    c. Other damaged vessels and crew replacements are subject to the tables in the Theatre Campaign section.
    d. A short campaign can be pre-determined to not allow any crew replacements or vessel repairs.
3. In Theatre campaigns, the CCHQ will determine which squadrons will receive logistical support and what type.
    a. Gas and gun ammunition shortages are corrected each turn.
    b. CCHQ will receive 10 torpedoes replacements per squadron per turn. Torpedoes cannot be stockpiled if not issued. They are returned to the depot.
    c. Hull damage is repaired at a rate of 25% of the hull points per mission. For example: An MTB suffered 40% of its hull points as damage. Only

25% can be repaired so it can leave on the next mission with 15% of the hull points still damaged or it can be left at port. A vessel cannot leave the base on a mission is it at 50% hull boxes still damaged after repairs.

d. The number of crew (men) sections available to the CCHQ will depend on the roll on the following chart. Roll a d10
   0-1 = NO Replacements 2-4 = One Section per Squadron
   5-8 = Two sections per Squadron 9-0 = One new vessel with crew

e. Engine sections that are damaged can only be repaired in dry dock. It takes only one mission turn for all damaged engine sections to be repaired. Only one vessel per squadron can be placed in dry dock instead of going with the squadron on a mission. A vessel can start a mission with an impaired engine section but it must roll on the Engine breakdown table prior to contact and at the end of combat.

f. Use the Equipment Replacement Table to repair any destroyed non-engine sections. Impaired equipment sections are automatically repaired prior to every mission. Roll a d10 on the chart below will determine what repair capability is available. Excess equipment repair capabilities cannot be transferred to another squadron.

Die Roll	Equipment Replacement Table
0	No Replacement Equipment
1-2	1 Equipment Section per Squadron can be repaired
3-4	2 Equipment Section per Squadron can be repaired
5-6	1 Gun Section per Vessel can be repaired
7-8	2 Equipment Sections per vessel can be repaired
9	All Gun sections can repaired

g. A vessel that has 50% crew losses + 50% equipment losses + 75% hull damage can be scrapped by the Squadron commander. Unimpaired equipment and any crew sections can be transferred to another vessel. Hull points cannot be transferred. Once all damage has been repaired and crew losses replaced, all un-reassigned assets cannot be stockpiled by the Squadron commander. He has to turn them over to the CCHQ for reassignment.

2.6 Weather

Weather will play an important role in both campaigns and individual scenarios. Weather conditions are reflected by the classification of wind velocity, rain, fog, time of day and type of waves. The use of the chart below will determine weather.
Modifiers to the Weather Condition Chart die roll
Arctic Sea = + 1 Pacific Sea = -1
Mediterranean Sea = -1 Storm Season = +2
Note: If Overcast skies, a second roll is made to determine if FOG is present. There is a 30% chance that fog is present.

Weather Condition Chart (Roll a d10)

Die	Day-Sky	Sea	Wind	Night-sky	Moon	Sea	Wind
1	Clear	Calm	5	Clear	Full	Calm	5
2	Clear	Calm	10	Clear	Full	Calm	10
3	Overcast	Calm	10	Clear	Partial	Calm	10
4	Clear	Choppy	20	Clear	None	Choppy	20
5	Overcast	Choppy	25	Overcast	Partial	Choppy	25
6	Overcast	Choppy	30	Overcast	Partial	Choppy	25
7	Overcast	Rough	35	Overcast	None	Choppy	30
8	Rain	Choppy	35	Rain	Partial	Choppy	30
9	Rain	Rough	35	Rain	None	Rough	35
0	Rain/Snow	Rough	40	Rain/Snow	None	Rough	40

a. WIND will affect smoke, fog and drifting items. It will make smoke drift in the direction the wind is blowing and will dissipate if the wind gust 20 MPH or more. Fog will lift faster with more wind speed. Items will also drift faster. See Drift Rules.
b. WAVES are classified as being Calm, Choppy or Rough.
1. Calm seas will have no effect on movement or firing.
2. Choppy seas will affect the movement of vessels that are moving slow. Choppy seas do not affect ships moving at 10 knots or greater and Boats moving at 20 knots or greater. Slow moving vessels will have their rate movement reduced and Firing abilities affected. Stopped vessels which are unanchored or not grounded will have their firing abilities reduced and will drift.
3. Rough conditions in a campaign will prevent engine impaired or hull damaged vessels over 10% from leaving port. Stopped vessels and vessels with 50% or greater hull damage are endangered of being swamped.
4. Swamp tests are conducted every Five turns. Roll a d10 and if the result is a zero (0), then the vessel has capsized.

c. FOG affects visibility, which makes it more difficult for a shooter to sight and engage a target. Therefore combat in foggy areas tends to occur at very close and deadly ranges. While the sighting and targeting of a vessel is difficult, the possibility of knowing that something is present is not impossible. Locating vessels could involve the use of radar or simply listening for sounds in the fog.
1. This situation can be simulated by using individual planning maps with a third what has been identified common battle map.
2. Players can also go ahead and place castings on the main board once they have been located but place cotton around each casting.(in the adjacent hex or at a distance of six inches). We use templates with cotton already glued on it for non-hex maps.
3. If the wind velocity is 20 mph or greater, then the fog will lift on turn seven.

d. STORM SEASONS should consist of a six to fourteen week period on the Campaign calendar. It should vary according to the location area of the campaign. The duration can be agreed to by the players or determined by the Campaign Controller. During the Storm Season, Two will be added to the Current Weather die roll. During this period available crew and equipment replacements are reduced by one.
e. NIGHT engagements were very common. The darkness will reduce visibility. However, targets can still be spotted and engaged when flares, searchlights, sounds, radar, moonlight and by the flash of the target's guns. To show this knowledge, in Nighttime scenarios castings are placed on the board whether or not target-spotting has been obtained or not. Vessels are not automatically sighted for firing until it is officially spotted. Other guidelines are listed in rule 3.7.

2.7 AIR SORTIES

a. Air Sorties cannot be conducted during foggy or rainy weather. Night attacks were rare and are allowed only in pre-determined scenarios. Such scenarios should be played with a Full moon.
b. If it is Overcast, there is a 50% chance that the sortie will not locate the vessels in the target area.
c. Once a sortie has been allocated, roll a d10 and the result is the arrival turn of the sortie. Sorties from enemy forces that arrive at the same time will cancel each other and no sortie will be used.
d. A sortie is considered to have limited fuel due to its patrol duty time in the air, so it will consist of FOUR strafing runs.
e. Air Sortie Aircraft type will be determined by a d6 die roll. For more specific aircraft, then the Advanced Chart can be used.
f. Special Aircraft (Spec) are bombers with enough bombs for 2 bomb runs.

Die Roll	Sortie Type	Die Roll	
1	Fighter w/ (2) 250 lb bombs	4	Fighter with no bombs
2	Fighter w/ (4) 100 lb bombs	5	Special Aircraft
3	Fighter with no bombs	6	Special Aircraft

Advanced Aircraft Types Roll a d6

Die	British	US-Europe	US- Pacific	Germany-Italy	Japan
1	Spitfire	P-51	P40/F6F	JU87/CR42	M8K/Emily
2	Spitfire	P-51	P38/F4U	FW190/F-G50	A6M-2N
3	Hurricane	P-47	P38/F$U	FW190/CR42	A6M-2N
4	Hurricane	P-47	P39/F2A	ME109/RE200	A6M-5
5	Typhon	P-38	P40/F4F	ME109/MC200	M8K
6	Typhon/Blenheim	P47	P51	MW110/CR42	A6M-5
Spec.	Gladiator/Mosq.	Avenger	Helldiver	JU88	Betty

2.8 PRIORITY MISSION BRIEFINGS

Each Mission period will require the forces to conduct patrols and priority missions. Player I will roll on the Priority Mission table (PMT). A high activity period in a Theatre Campaign will also require a roll by the other player as well. Since the main focus of the campaign is on MTB squadrons, the force may be have non-organic vessels attached. Attached craft do not have to be recorded as their assignment may change later.

1. A player from the non-initiative side is referred to as the Reaction force. He will handle all of the 'enemy activities in that zone.
2. High activity periods are determined by Player I.
3. The sea conditions must be determined as Calm, Choppy or Rough. No more than one mission period per every four can be Rough.
4. Player I will roll on the PMT. Below are the Mission Briefs for each Mission type.

RANDOM PRIORITY MISSION TABLE (Roll d10)

Die	Mission	Die	Mission
1	Ambush	6	Sub Encounter
2	Killer Operations	7	Hit and Run Raid
3	Air-Sea Rescue	8	Mine Operations
4	Convoy Operations	9	Mine Operations
5	Convoy Operations	0	David vs Goliath /Covert Ops

AIR-SEA Rescue = Player I has a major air operation in progress. As a result, they have assigned an MTB squadron to rescue downed pilots. Player R (reaction) is conducting normal Patrol Operations. Use the Variable Entry Point rules for both sides. If not pre-determined, you must roll to determine the battle-board. If an island is used, it is placed at the pilot's location. To determine the pilot's location, use the 'Free Floating Mine Location' method. There will be a 70% chance that Player I will have an Air Sortie available. If Player R uses less than four boats, then he will have a 50% chance for an Air Sortie. The force that exits their starting board edge with the pilot wins the scenario.

AMBUSH = The objective of this mission is to destroy the enemy's small craft force. In actions of five boats or less, Player I can secretly deploy his forces (Use an individual planning map). The castings are then placed on the board once they are within visibility attempt to start their engines or fire any weapons. Player I's vessels are subject to drift while stopped. Player R will have Patrol orders and enter the board using the 'Variable Entry rules. . If more than five boats are used, then both sides use the variable Entry rules.

CONVOY ESCORT or ATTACK = Player I whether he is on convoy escort duty or playing the 'wolf'. If barges are used, the board should be classified as coastal or Island. Other types of craft can be escorted. Craft and cargo type can be pre-determined or rolls can be made to randomly determine craft and cargo.

If the escort force is one MTB/MGB/PT, then the convoy craft must be a type of barge with or without the towing tug. The convoy will enter on the edge of one of the short board and exit on the opposite short edge. The attacking force will use the variable

Entry rule. If it is night or fog is present AND less than six attackers are used, then the Ambush rules can be used. The CCHQ will determine the type of 'Special Ship'. Examples are Destroyers with cargo on the deck, or an Armed Merchant Cruiser (Q ship or raider)

Die Roll d10	Convoy Craft	Die roll d6	Cargo Type
0	Special Ship	1	Vehicles
1-3	Armed Self propelled barge	2	Troops
4-5	Landing Craft/ Armed Barge	3	Fuel
6-7	Small cargo ship	4	Ammunition
8	Trawler	5	General Supplies
9	Tug w/ Unarmed barge	6	General Supplies

DAVID VERSUS GOLIATH = This represents the encounters between MTBs and much larger enemy ships. Player I's forces will represent the MTB force. Player R will command a DE, TB, SL, FRG if the attacking force is three MTBs or less. Player I can use Ambush set up rules or Variable entry rules.

If four or more MTBs are used, then Player R will control a DD. (Attackers were historically made against CLs but those situations are better for battles rather than campaign actions.) Player I will use Variable Entry rules.

Player R is the victor is he destroys or severely damages at least half of the MTBs. The rest will break off and exit the board. Player I will win if he sinks or severely damages the ship. In this scenario BOTH players can receive victory points.

HIT AND RUN RAID = This is a good scenario for introducing new players to the tactical rules used. Player R or the experienced player will control the shore installations. Player I or the new player will control the MTB raiding force. Raids should occur at night or fog conditions. Player R will roll a d10 PER attacking boat. (A 0 roll is read as NINE.) The result is the number of shore battery emplacements to be deployed around the port. Their field of fire should be unobstructed but will end if it would cross over another emplacement. Buildings or anchored ships can add variety to the layout but may block line of sight/fire. A MG armed Patrol craft can also be used (If a 0 was rolled). One transport ship is anchored per attacking boat.

The battle board will consist of two or three land edges. Player R places the emplacement types according to the chart below. The emplacements also double as anti-aircraft batteries. Their locations are known due to air reconnaissance. Victory is based on the raider's success. (One of my favorite scenarios)

Small Port Quick Play Option. Player Is force has three boats or less. No patrol craft are present. The roll to determine the number of emplacements is modified by the type of Sea Zone (Coastal Zone = -1; Island Zone = -2)

More Light Option. An additional FIVE Searchlight only locations are allowed.

Decisive = Sink or Severely damage all of the transport ships.

Marginal = Sink or Severely damage all of the transport ships BUT half or more of the attacking MTBs are sunk.

Draw = Sink or Severely damage some of the transport ships and lose half or less of the MTBs.

Loss = Fail to sink or severely damage any of the transport ships and lose over half of the attacking MTBs.

Die d10	Gun Type	Die d10	Gun Type
1	Quad 20mm	6	Quad HMG w/ Searchlight
2-3	Twin 20mm	7	Single 88mm+ gun w/searchlight
4	Twin 40mm	8-9	Single 57mm-87mm gun w/light
5	Quad HMG (.50 cal)	0	Searchlight Only

KILLER OPERATIONS = Both sides are conducting hunt and destroy operations. Both sides use the variable Entry rules. Player I may roll for an Air Sortie, if weather permits and non-night. With balanced forces the winner is based on damage inflicted. In campaign or unbalanced scenarios, the winner is still the one that inflicts the most damage. The variable time of Day rules can be used. If not pre-determined the board is open sea.

SUBMAIRNE ENCOUNTER = Player I controls an MTB patrol. Player R controls a submarine located on the surface returning from a voyage. Player R may roll for an Air Sortie. Both sides use the Variable Entry rules. Player R must roll on the Submarine status table to determine the condition of the sub and crew. Player R will win if he sub reaches the opposite board edge from thei entry point. (Represents submerging). The Board is Open Sea. In a non-campaign scenario Player Rs force can be expanded by adding more subs or a MTB escort. In non-campaign scenarios, it is recommended that Player Is force consist of no more than two MTBs.

Die d6	Crew	Torpedoes	Boat Condition
1	Alert	0	Able to Dive in 5 turns
2	Tired	0	Able to dive in 10 turns
3	Tired	1 per tube	Able to Dive in 12 turns
4	Exhausted	1 per tube	Damaged: Cannot Dive or turn
5	Alert	2 per bow tube	Cannot Dive
6	Exhausted	Only 1 left	Cannot Dive & ½ speed Max

COVERT OPERATIONS = This includes the dropping off/picking up of agents or coast watchers. Player I controls one or two MTBs. He must reach and leave a specific location on a land mass. Player R controls two MTBs.

MINE OPERATIONS = This includes both Minesweeping (MS) and Mine-laying (ML) operations. If the ML/MS is a heavily armed modified DE or DD, then Player R will control these and this will be considered a David vs Goliath scenario. If the MS/ML is a trawler or lightly-armed, then an MTB force will be its escort. Also Player I will decide whether he is on escort duty or conducting a attack to disrupt operations. In a non-campaign scenario, the number of craft on each side should be equal. Attackers will use the variable entry rules. The MS/ML and escort force will enter along one short edge or sart on the board near the edge. They must traverse the board and exit the opposite edge. The variable time of day option can be used.

The MLs must traverse the board and exit the opposite edge. They can drop mines along the way which will activate and treated according to the mine and drift rules. In campaign games if the ML succeeds, the occupied Patrol Zone is now recorded as being mined.

The MS operations are more complicated. The MS must pass over designated locations (minefields) marked on the map in order to win. Divide the board into nine equal zones. Place a mine marker in the center of each zone. (Optional = Roll a d10 and if it is a 0, then the minefield is changed to a free floating mine . It starts in the center but then is subject to drift rules.) If the mine field zone contains land or other feature then it is a free floating mine. Victory is determined by using the following table.
Decisive = MS traverses all minefields and loses no MTB escorts.
Marginal = MS traverses all minefields and loses less than half of the MTB escorts.
Tactical = MS traverses a majority of minefields and loses over half of the MTB escorts.
Loss = The MS fails to traverse a majority of the minefields or is sunk.

In campaign scenarios Patrol Sector is recorded as cleared if the MS operations a any level of success. A non-campaign scenario can include vessels conducting MS operations and others conducting different missions. Also minefields or free-floating mines can be used in any scenario.

SCENARIO GUIDELINES

Any components of a scenario can be pre-determined or randomly selected. These are common scenario situations that can be used to create any game. Some are good for campaigns, while others are best used for non-campaign games. These are guidelines and may be modified for use with the tactical rules being used by your group.

3.1 **GLOSSARY.** This contains common terms used in the tactical rules, the campaign rules and the scenario section. It does not include ship code data.
D6 = Use a standard six sided dice.
D10 = Use a ten-sided dice.
Percentile dice = Thisrefers to the use of two d10s with one representing 10s and the other die representing ones. As a result a number between 1 and 100 can be produced.
Player I = The player with the INITIATIVE.
Player R (Reaction) = The Player that is reacting to the player with initiative.
Random Locator = Used for placement of objects. Divide the board into nine equal sections and number them 1-9. The number 0 may indicate a re-roll or rollers choice.

3.2 **Initiative.** Each side will roll percentile dice and adjust the Axis roll by the Year-Location modifier. The player with the highest total is the player with initiative (Player I). having initiative will allow the player to influence further elements of the scenario.
Axis Initiative Roll Modifiers By Year

Year >	1939-40	1941	1942	1943	1944-45
Mediterranean	+10	+20	+10	0	-50
North Sea	0	0	0	-10	-50
Pacific	+30	+20	+10	-10	-50

3.3 **Morale and Fatigue**. Morale ratings are used to evaluate a crew's alertness or willingness to stay with a damaged vessel. In campaigns all crews begin with a rating of Green (Controllers may use Experienced). Once a crew has completed six missions , then is advanced to Experienced. Once ten missions has been completed , then it is veteran rated. Green replacement crew sections are absorbed without affecting the crews status. The one exception is if over half of the crew sections are replaced in a single mission turn.

A Green crew will abandon ship if 50% of its hull sections are damaged or if 50% of all combined crew and equipment sections are damaged. An experienced crew will abandon ship if over 755 of its hull sections are damaged. A Veteran crew will abandon ship only if it has suffered 75% hull point damage AND all of its gun sections are destroyed.

. A crew's morale rating will affect how susceptible it is to fatigue. Fatigue in turn affects a vessels ability to react to certain situations and function. Most tactical rules will have modifiers to reflect fatigue. In non-campaign scenarios players may designate their crew morale or roll a percentage dice. A roll of 01-25 indicates a Green Crew. A roll of 26-79 indicates an Experienced crew. A roll of 80-100 indicates a Veteran crew. Use the chart below to determine fatigue. Roll for each vessel separately.

Fatigue Status	Modifers	
1-5 = Alert	Green Crew = +1	Rough Seas = +1
6-8 = Tired	Experienced Crew = 0	Night = +1
9-0 = Exhausted	Veteran Crew = -1	Fog = +1

3.4A **Time of Day**. If the time of day is variable, Player I will roll a die with Odd being night and even being day. Though in reality the chance for night operations is closer to 70%. To set the time roll a d10 and add six if day or 18 if night. Add 00 to the result. All results over 23 will indicate a midnight start time. The number will be the start hour in military time. (Day = die roll 8 + 6 = 1300. Night die roll 9 + 17 = 27 for 2400 or midnight.

3.4B Low Visibility. The hour after dawn and before dusk are the low visibility shadow period. Low visibility will affect tactical firing rules. Rain is a low visibility period. Fog is also but has additional rules as well. Of course night is low visibility with special rules.

3.5 **Variable Entry**. Since the board represents only part of a patrol sector, random entry points representing the continuation of a patrol, are used. The players may also elect to use one of several formations for entry. Divide the boardedge into ten equal zones. Do not include sections covered by land. Player I will designate his preferred board-edge, then roll to determine location. If both sides use variable entry, Player R will roll last. Players may also roll on the Variable Formation Chart to determine initial formation.

Variable Formation Chart

Die Roll	Formation	Interval in Turns
0-3	Line Abreast	None
4-6	Column of Two	2
7-8	Two Ranks Abreast	2
9-0	2 or four boat sections	3

3.6 **Battle-Board Setup & Feature Definitions**. The board represents only part of a patrol zone. Therefore, the recording of exact feature locations are not recorded. Later battles may occur in a different part of the zone. Players with the resources to use actual naval charts may find that the time to divide the map into patrol zones, identify actual features and locations to add flavor to the scenario.

If 1/600 scale castings are used, hen a flowing battle board will need to be designed. This is easy for patrol zones that are open sea, coastal or containing islands. However channel or bay boards can be difficult. The board can be restrictive by the use of a fixed non-flowing system. With hex maps and small scale castings flowing boards should not be needed. The feature availability and placements will depend on Patrol zone type.

Open Sea = Use the Random Locator Method. In the Pacific, change all results except free-floating mines to reefs.

Coastal-Channel-Island = man-made obstacles must be placed in the underwater shelf area. Other features can go anywhere except on land. Land location rolls are re-rolled. If the zone is a Pacific island, change man-made obstacle results to reef results. The number of features per battle-board are determined by a d10 roll. Modify the roll by the type of Zone: Open Sea = -2; Island = +1; Channel = +2; Coastal = 0. The result is the number of rolls on the feature type Chart.

DieRoll	Pacific	North Sea	Mediterranean
0-3	Reef	Minefield	Sandbar
4-6	Minefield	Sandbar	Minefields
7-8	Obstacle	Obstacle	Obstacle
9-0	Free-floating Mine	Free-Floating Mine	Free-Floating Mine

Free-Floating Mines are isolated mines that can be either contact or magnetic. Use the Random Locator method for placement. The roller will record their position (having been spotted by friendly aerial recon. The mines are placed on the board once an enemy vessel comes within ten inches (six hexes) of it. They are affected by drift rules.

Minefields include anchored mines of either all contact or all magnetic types for ease of play. The field will be 6" x 6" or a hex and the six surrounding hexes. The fields can be played as unknown to both sides or known to both sides by a combination of markers, aerial recon and field reports. Use the Random Locator Method.

Man-made Obstacles can include coastal engineer works, or sunken vessels. They cannot be placed in Open Sea and engineer works cannot be placed around undefended (no shore batteries) islands. They will change Boat-draft shallows to Impassable-shallows. Obstacles are placed by the roller (controller) and their positions are known only to him. The recommended size of an obstacle is 2" x 6" or a single hex.

Shallows include coral reefs, sandbars, obstacles and coastal shelf areas. Shallows are classified as Boat-Draft only or Impassable-Draft. Boat-draft only shallows will affect only vessels with a deep ship draft. Impassable-drafts cannot be crossed by any vessel. And contact requires the vessel to refer to the Grounding rules. Impassable shallows are classified as being either underwater or visible (breaking the surface). If low tide conditions are used, then all impassable features are present. Coasts and non-reefs will have a boat draft shallow area which extends ten inches or four hexes from any land mass. Players can declare all shallow features as known and place them on the board.

Coral Reefs are common in the Pacific. Contacted reefs may result in grounding and hull damage. Reefs are as boat-draft and or Impassable draft. The size of an isolated reef is 6" x 2' or a single hex. Reefs can be adjacent to each other for an extended section. In the Pacific, reefs near islands are larger with the length determined by a d6 roll for a total number of hexes or number of 6" x 2" sections.

LAND if Coastal is placed at the absolute edge of the table. The edge area is beach if no shore emplacements are deployed or if a port is not used. The land will extend one to three inches or one hex row into the battle-board when shore emplacements are used. If jetties or small peninsulas are used, they should not dominate play. Certain scenarios such as raids may require that the players use larger land masses.

LAND if an Island will vary in size according to the random rolls or Player Is choice. Recommended sizes for 1/600 is ten inches in diameter. For smaller scales, use five inches in diameter or one or two central hexes and the surrounding hexes. Larger islands may be predetermined or regarded as Land-Coastal. Classify all islands as defended or undefended. A defended island will roll a d6 to determine how many shore emplacements are deployed.

Pacific Islands will have a 65% chance that a reef will encircle it. If a reef is present, then roll a d10 to determine how far in inches or cms that it is from the island. The area between the island and reef is rated as boat-draft shallows. If hex maps are used, there will be no more than one row of shallow hexes (boat-draft) between the island and the reef. A gap in the reef of three inches or one hex will allow access to the island.

3.7 **Night Engagements**. Fighting night battles will require the players to react with understanding to limitations of simulating such engagements. As stated earlier, the castings are placed on the board (due to locating by radar/sound as to any general direction.) though they are not automatically sighted. They cannot be targeted until spotted. Visibility is the key to night battles. The radar rules cover the use of them in poor visibility situations. Other spotting methods will include moonlight, flares, searchlights and gun flashes. There will be a moonlight rating of Full, partial or no moonlight. The Tactical rules being should have rules concerning types of moonlight

Flares cannot be used until a vessel has been spotted by other means. The use of a flare will also spot the firer of the flare as well. Flare rules are that vessels and non-searchlight aided shore batteries can use flares. The area with in a six inch radius or the hexes adjacent to the point of the flare will have visibility rating of daylight. The row of hexes or on non-hex maps a further ten inch radius adjacent to the daylight rated hexes are upgraded from current level one grade (Ex = partial moon to Full moon). Flares will not improve visibility in rain or fog but can be used to give command signals.

Searchlights are used to spot all vessels which break the path of the beam. For targets within 300 yards of the light's position, there is a 90% chance of being spotted. For targets of 301 to 700 yards/meters, there is a 60% chance of being spotted. For targets between 701 yards and out to the maximum of 1500 yards/meters , there is a 20% chance of being spotted. Once a vessel is spotted, the beam will adjust to remain focused on that target until the light is destroyed OR the target uses Evade maneuvers. If the target uses Evade maneuvers, roll to re-spot each turn (divide the chance based on distance by ½) that he uses it.

Searchlights have a range of 1500 and will sweep (change direction) up to 30% in a single turn. We use a chenille stem to represent the beam.

Craft firing their guns will reveal their position and be spotted. They can be sighted as a target using partial light modifiers. Vessels with burning fires on them (a destroyed gun/equipment section) are automatically spotted.

3.8 RADAR will tend to alter play and unbalance scenarios. It should be optional for campaigns and at most limited to one or two craft per squadron. In individual scenarios, its use should be agreed to by both sides. It can be rolled for on the Random availability (35% = d6 with a 1-2) situation but only available for certain years based on the table below. There is a 30% chance that the radar is available is non-functional. If it is an experimental craft, then the failure chance is increased to 50%. Vessels with air capable warning radars will know at the start of the scenario, if the enemy will have any air sorties allowed and when. Most tactical rules will have rules concerning the use of radar
Radar Type and Availability

Radar = Warning	Country & Year	Radar = Warning	County & Year
271 = Surface	UK 1941	SG = Air & Surface	US 1941 @DD
291 = Air Warning	UK 1941	SL = Surface	US 1942 @DE
21 Air & Surface	Japan 1942@ DD	SA = Air	US 1943 @DE
FMO = Air /Surface	Ger =1939 @ DD	SO = Surface	US 1943 @ PT

3.9 **Mine Operations** procedures can be found in the Campaign section. This section will provide guidelines for situations that you tactical rules may not cover. Minefields in an underwater shallow shelf area are known to both sides (surfaced). Mines dropped during the scenario will not arm until the battle has ended. Therefore mines cannot be dropped on or in the path of an enemy boat and expected to blow it up. Mines dropped by aircraft and vessels other than MLs are recorded for use in later campaign scenarios. For these rules mines will not affect minesweepers.

Once a vessel enters a minefield, roll a d10 for each turn/impulse that the vessel is in the field. Wood hull vessels will not roll if they are in a magnetic minefield. Magnetic Mines will explode and damage the hull on a roll of 1-4 (40%). A Contact Mine will explode and do damage on a roll of 1-6.(60%). Boats stopped or drifted into a field or moving at 5 knots per hour or less will not roll for mine contact.

Free-floating contact mines will explode if contacted or their hex is entered. F-F magnetic mines will explode on if the vessel contacting it or entering the hex has a steel hull. Free-floating mines are subject to drift rules.

Damage from mine explosions is based on the size of the vessel. Boat class vessels are destroyed by the explosion. Ship class vessels will have 25% of the total (not only undamaged) hull points destroyed. Also the ship's equipment section closest to the mine (or roll randomly0 will be destroyed. Critical hit rolls are optional

3.10 **Grounding & Towing** operations were common for these small craft operating in shallow waters. Grounding may occur due to contacting reefs, obstacles and sand bars. While most features are known, operating within six inches (one hex) of land causes the vessel to encounter an unknown shifting sandbar. (The boat captain will roll a d10 with a 0 result resulting in an unexpected grounding.) A vessel will automatically ground if it

contacts impassable-draft shallows. Once a vessel grounds it must determine any damaged caused to the hull.
For Damage roll a d10 and check the table. Modify it by +1 if it is steel hull

Die Roll	Damage Boats	Damage Ships
1-3	Two hull hits	Five hull hits
4-6	One hull hit	Three hull hits
7-0	No hull Damage	No hull damage

If the vessel is on a reef or obstacle, then a second damage roll must be made once it is freed.

Length of Period Stuck. Steel hulled vessels are stuck for the rest of the battle. The battle's duration is not considered long enough to include towing operations. The amount of time needed to get a shallow craft boat free includes actions such as engine reversal, crew in the water pushing and other trial and error methods. Roll on the Time reuired to Free vessels and if the roll is a 1-2 then it is freed. If higher, then towing must be used to free the vessel. The roll is made when declared stuck. Wood hull ships can only be freed by towing.

Towing must be done by a vessel the same tonnage or greater than the stuck vessel (exception is a tug can tow any tonnage). The towing vessels must stop within 50 yards or in the adjacent hex in order to extend a line. A towing vessel will proceed at minimum (though actually reving the engines at a much higher rate) speed, while freeing the stuck vessel. In other circumstances a towing craft will move at ½ speed maximum while towing another vessel.
Time Required to Free a Stuck vessel Roll the first turn of towing (d10) The amount of time can be adjusted to suit any set of tactical rules.

Die Roll	Free in ? turns
1-2	Free Next Turn (any non-towing method as well)
3-4	Free in Four turns or two game minutes
5-7	Free in Five turns or five game minutes
8-9	Free in Ten turns or ten game minutes
0	Attempt fails. Stuck for the Entire battle

3.11 Victory Conditions are stated in most scenario guidelines. For simple patrol scenarios, a comparison of damage inflicted can also be used. Player may also want to establish their own victory conditions for the scenario. Campaign wins will depend on the total performance of the player/commander, not just the results of one battle. In campaign the controller or CCHQ will determine victory conditions. A combination of damage vs loss points and successfully completed missions can be used.

3.12 Balanced Scenarios can be created by using the ship values in the Ship Data section. Optional items such as mines, air sorties and shore emplacements are not calculated in the balancing. They are considered the 'fortunes of war'.