

Surface Fire - World War Two Naval Action

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Turn Sequence

- I. Mark/Record torpedo launchings (Ships and U-boats)
- II. Orders placement
- III. Movement: Declare retirements/Move surface ships & lay smoke
- IV. Move aircraft (if any)/Resolve fighter bounces
- V. Detection/Damage control
- VI. Aerial combat: 1. Air to air combat & AA defense
2. Air to surface combat (Bombers/Torpedo planes ect.)
- VII. Resolve torpedo fire/Surface combat/Depth charge attacks
- VIII. Determine Squadron and Fleet morale/Retire broken squadrons

Core Rules

- 1) No pre-measurement of distances before targets are declared
- 2) All measurements are made based on the location of the command Bridge of a given ship model. For example: from firing ship's bridge to target ship's bridge. Torpedoes have to intersect any part of the ship model.
- 3) These rules are intended for 1/2400th scale ships. One game turn is equal to 15 minutes.
- 4) This game uses a d10 (ten sided-die) engine.

I. Torpedo Fire/ Ships and Subs

Permitted patterns of torpedo fire: Torpedoes must be fired in sets of 2. In a single game turn, a ship (or U-boat) can never fire more torpedoes than the configuration of its torpedo tubes would allow. The maximum range of all torpedoes is 12" with 6" as short range. The *Japanese Long Lance* torpedo has a maximum range of 24" with 6" as short range.

-Ships with a single set of center line torpedo tubes may only fire to port or starboard in a single turn. Ships with more than one set of center line tubes, or ships with port/starboard configurations can fire to both sides in a single turn. Torpedo fire comes first to reflect the torpedoes being in the water during the movement phase. Torpedoes set to run deep (D) will pass under Destroyers, Destroyer Escorts, and any other lighter ships with no chance of a hit. To hit these ships torpedoes must be set to shallow (S). The results of plotted torpedo fire are resolved after all movement, simultaneously occurring with surface gunnery and depth charge attacks.

Recording torpedo fire: To fire a single spread of torpedoes, five items must be clearly noted down on the Ship roster:

- 1) Firing ship's name
- 2) Number of torpedoes in the spread
- 3) Torpedo bearing (based on the torpedo template)
- 4) Whether the spread is running shallow (S) or deep (D)
- 5) Whether the spread is being fired to port (P) or to starboard (S)

Examples: {*Bonham* #4 #1 S S}
 {*Akitsuki* #2 #7 D P}

Ships can fire torpedoes on multiple bearings in one turn if possible. The origin of fire is marked before the movement phase.

II. **Orders placement**

Orders are written out for each fleet squadron or markers can be placed face down. This is done by both sides. Six general orders are chosen from and any combination of them can be used. They are:

- 1) Ahead full
- 2) Turn (*port/starboard*)
- 3) Change formation
- 4) Evasive
- 5) Launch (*aircraft*)
- 6) Retire

Both sides move simultaneously after orders have been placed and revealed.

III. **Ship Movement and Squadron Maneuvering/Retirements/Smoke Placement**

-Ship movement occurs in groups called squadrons. These squadrons are organized as such for morale and command /control purposes. Ships do not have to be in a squadrons and can choose to operate alone as a “*squadron of one*”. Squadrons can not move through one another by alternating back and forth their movement. The laying of smoke, retiring of damaged ships, and collision occur simultaneous to movement.

-All ships in a given squadron must always attempt to maintain formation.

-*Altering speed*: During any game turn, ships can speed up or slow down only 1 inch compared to the speed of the previous turn.

-*Transports, oilers, troop ships, U-boats*: Far slower than contemporary warships, the speed of freighters, transports, oil-tankers, and troop ships is arbitrarily set at 10 knots (2”). U-boats/subs move 4” while riding on the surface and 2” while submerged. Subs turn like *DD/DE* class.

- Turns must be made by pivoting (in place) the ship model at the point corresponding to the ship’s bridge. All ships in a given squadron will attempt to turn the same direction. This means that squadrons with slower ships may take several moves to complete a turn (more so if traveling in line astern). To replicate the wide curves of ships changing direction, a turn will cost ships different amounts of movement based on their class:

<u>Class of Ship</u>	<u>Any Turn Up to 90°</u>	<u>Any Turn Up to 180°</u>
DE, DD, SS Cargo, Oilers	0”	1”
CL, CA	1”	2”
BC, BB CVL, CV	2”	3”

-Any ships moving 1” or less are considered *dead in the water* for targeting purposes.

-*DD/DE* class vessels and smaller may perform evasive maneuvers for the duration of the turn at the cost of 1” of movement (this must be declared at the beginning of movement).

A -1 is applied to any die roll for surface gunnery by and against ships using this option. Surfaced submarines may not go evasive.

Four general formations are permitted in the game and players will have to agree ahead of time as to how strictly they must adhere to these formations:

Line Abreast = all ships lined up next to one another: | | | | | | (↑)

Line Astern = all ships lined up behind (astern of) one other: --- --- --- --- --- (→)

Echelon Left: | (↑)

|
|

Echelon Right: | (↑)

|
|

Collision can occur anytime two ship stands touch, regardless of angle. Ships of equal size suffer 2 boxes of damage each. When a larger ship is in a collision with a smaller ship, the larger ship takes 2 boxes and the smaller ship takes damage equal to receiving 1 gunnery hit from the larger ship. Ships may intentionally ram other ships in order to cause collision damage. Subs are automatically sunk by collision if hit by *DD/DE* class and larger.

Retirements are possible whenever a vessel has reached half damage or more. Certain critical hits can also allow a ship to retire early. The ship's controller can elect to *retire from combat* or fall-out (this must be declared at the beginning of movement). The ship is removed from the squadron listing and is not counted as a loss for the squadron during the morale phase (retiring ships can never rejoin a squadron). Retirees are still counted for fleet morale purposes. During movement, the retiring ship is treated as a *squadron of one* and must move at best possible speed directly away from the enemy and may only engage the closest enemy ship with gunfire (same with illumination). If a retiring ship can not avoid coming closer to an enemy (if surrounded for example) the retiree will avoid the larger enemy ship(s). Retiring ships may lay smoke.

Smoke placement: Smoke must be declared before movement. Ships can lay smoke (no subs). Each ship can lay smoke during any two game turns. All ships in a squadron must lay smoke at the same time. Smoke extends the length of a ship's movement. Smoke is a linear obstacle with no depth for the purposes of spotting. A ship can only exist on one side of the smoke or the other (a ship can not be "in" the smoke). The lead ship laying smoke is not obscured in the front arc (180° off the bridge). Gunnery is prevented by targets obscured by smoke. Torpedo fire is plotted with bearings that do not rely on a target and so is unaffected. Smoke endures on the table top for two turns, counting the turn it is generated.

IV. Aircraft Movement

Aircraft are grouped into squadrons containing any number of planes to a maximum of 10. A squadron can contain one of four types of planes: *fighters*, *dive bombers*, *torpedo bombers*, and *level bombers*. Fighter bombers operate as bombers when carrying ordinance, and as fighters after dropping their payload.

Aircraft must move into base to base contact to cause combat to occur with surface ships or other aircraft. Torpedo planes are an exception to this and have a 6” maximum torpedo range (with a 3” short range). Fighters can move up to 30” per turn. Bombers can move up to 20” per turn.

Aircraft can operate at two altitudes: low and high. Planes can only attack other planes at the same altitude. Planes can change altitude once for free during any point in their movement. Ships with light anti-aircraft guns can not fire on planes operating at high altitude. Aircraft torpedoes and dive bombing can only be done at low altitude.

Fighters may lock opponents into a fight before they can move. If a player contacts the enemy before he has a chance to move (i.e. moves first and causes combat), the enemy’s move is lost because the opponent has gotten the jump on him. This applies only to enemy fighters and fighter/bombers and not to level bombers, torpedo bombers, or dive bombers. In the case of level, torpedo, and dive bombers; fighter squadrons make their attack and the target defends itself immediately upon coming into contact with the enemy if the enemy has not yet moved. This is considered a *fighter bounce* and the attack/defense happens out of normal sequence. Movement is continued normally after the fighter bounce(s).

V. Detection/U-boats (Subs), Illumination/Damage Control

Damage control, sub detection and illumination occur after all movement is completed. These events occur simultaneously.

Detection must occur every turn. Undetected targets can not be attacked. Submerged subs detect intended surface targets on a 4+ out to 20”. Escort ships and aerial reconnaissance have a chance of detecting any and all submerged subs within 12”. Rolling 1d10 (once for each sub) 8+ is a success. Transports/Oilers can detect subs rolling 2d10 and needing an 18+ for success. Apply the modifiers below:

- | |
|---|
| <ul style="list-style-type: none">➤ +1 Escort with sonar➤ +2 Escort with sonar (‘43+)➤ -1 Sub not moving and <i>submerged</i> (escorts/aerial recon only)➤ +1 Aerial recon |
|---|

Previously detected targets have to be detected again to be attacked again. Illumination at night is possible in order to direct gunnery. Illumination, like detection, must occur every turn. All players must declare their intended targets before attempting illumination. A ship can illuminate an enemy ship out to 30” distance (or maximum gunnery range for smaller ships). This may occur either from use of searchlights (up to 12”) or the firing of star shells (illumination rounds). When using star shell, only one ship in the squadron may fire. Rolling a d10, a score of 7+ means the target and any other ships within 5” are illuminated and count as being in daylight for gunnery purposes. This includes the ship’s base. If searchlights are used, both the target and the ship with searchlights are automatically illuminated. Ships can elect to turn off their searchlights during the illumination phase.

Damage control: Every ship has damage control teams that can attempt to repair damage or fight fires. Teams can only attempt to fix one area (box) of the ship, or fight one fire per turn. Each ship rolls a d10, needing 9+ for success. Damage control successfully fights a fire on a 7+. Americans after mid '42 need a 7+ for success in repairing damage and a 6+ at fighting fire. *Damage control can only repair half the total number of hull boxes on any given ship during a game.* Usually this means a ship with 6 hull boxes can only repair 3 damaged areas during a game (this does not include any repairable special damage). Any ship passing half damage on the ship roster is considered in need of docking and shipyard repair. Fighting fires is not considered repairing damage and so damage control teams can perform this action any number of times during a game.

VI. Aerial combat

Aerial combat is resolved in two phases: Air to air combat and ship's anti-aircraft defense with aircraft casualty resolution come *before* air to surface combat resolution. The phases are not simultaneous and are played in order. The value of superior versus inferior aircraft is determined during the actual combat. For example: *A Sea Hurricane may be superior versus a Stuka dive bomber, but it is inferior versus a FW 190D. Players will have to make determinations themselves.* In the case of bombers, players should determine them to be superior or inferior based on their defensive armament and size. For example: *A FW 190D attacking a B-17 – in this case both would be treated as superior. Players will of course have to make determinations themselves.*

Plane vs. plane combat: 2 d10 must be rolled for every squadron of 10 planes (bombers, fighters, ect.). A squadron reduced to 5 planes or less rolls 1 d10. A squadron reduced to 2 planes or less must retire from combat immediately. Hits are scored using the chart below and each hit is a destroyed aircraft.

Apply any modifiers.

<u>Number of Planes</u>	<u>Number of Dice</u>	<u>Superior Fighters To Hit</u>	<u>Inferior Fighters To Hit</u>	<u>Superior Bombers To Hit</u>	<u>Inferior Bombers To Hit</u>
10 – 6	2	4+	6+	8+	9+
5 – 3	1	5+	7+	8+	9+
2 – 1	Leave the Battle				

<i>Modifiers:</i>	Attacking from higher altitude (+1)	Squadron ace (+1)
	Attacking superior bombers (-1)	Outnumbered (-1)

Squadrons that dropped from high to low altitude and attacked another squadron in the same turn receive the *attacking from higher altitude* bonus. Squadrons with an ace pilot receive the *Squadron ace* bonus. If the squadron is completely destroyed the ace is shot down.

Anti-aircraft combat: The range of heavy A.A. is 8". The range of light A.A. is 4". Anti-aircraft fire is triggered as soon as enemy planes fly within range. Ships can only direct A.A. fire against one squadron of planes, the exception being the following ship classes: CLAA, Old BB, Old BC, New Battle Cruiser (BC), New Battleship (BB), and New Aircraft Carrier (CV). These classes can divide their A.A. fire between up to three targets. Light A.A. can only hit

targets at low altitude. The number of d10 rolled and the score needed to hit are noted below. Suppressed aircraft are suppressed until the beginning of the next A.A. phase. Air squadrons can not be suppressed more than once. If an aircraft squadron changes altitude it may be subject to both types of flak. For example: *A dive bomber squadron attack starting at high altitude would be subject to light A.A. when the dive to attack and change altitude.*

<u>SHIP TYPE</u>	<u>NUMBER OF DICE THROWN</u>	
	Heavy A.A.	Light A.A.
AK/AP/AO, SS, DE, DD	0	1 (DDAA +1)
CL, CVE	1	3
CLAA, CA, CVL, CVE	2	4
OLD BC, OLD BB	3	4
French New BC, New BB	4	5
Italian New BC, New BB		
OTHER New BC, New BB	5	5
CV	5	6

Heavy A.A. suppresses on a 9+ and hits on a 10. Light A.A. suppresses on a 7-8 and hits on a 9+. Each hit destroys an aircraft. Any hits automatically cause suppression.

Air /Surface combat: When planes come into base to base contact with surface ships (with the exception of torpedo planes), surface combat occurs. Similar to plane versus plane combat, a full squadron of 10 planes roll 2d10 and squadrons reduced to 5 or less roll 1d10. Bombers are eligible for *special damage* (chart). When torpedo planes score a hit, the torpedo damage chart is used. Torpedo planes are eligible for *special damage*. Determine hits using the chart below:

<u>NUMBER OF PLANES</u>	<u>NUMBER OF DICE</u>	<u>LEVEL BOMBERS TO HIT (High/Low)</u>	<u>DIVE AND TORPEDO BOMBERS TO HIT</u>
10 or 6	2	9+/8+	7+
5 or 3	1	9+/8+	7+
2 or 1	Leave the Battlefield		

Modifiers: Suppressed by flak (-1) Small target (DD or smaller) (-1)
Target *dead in water* (+2) Short range torpedo fire (+1)

* **Note:** If Level Bombers are of a type that drops a stick of bombs, they are assumed to hit with half the bomb load whenever they score a hit.

Damage from level bombers and dive bombers: The amount of damage done by a successful bombing attack is determined by the conversion list below:

1,000 pound bomb =

- vs. A Battleship or Battle Cruiser = 1 box.
- vs. A Heavy Cruiser or Fleet Aircraft Carrier = 2 boxes.
- vs. A Light Cruiser or Light Carrier = 3 boxes.
- vs. A Destroyer, Destroyer Escort, or a Sub = 4 boxes

500 pound bomb =

- vs. A Battleship or Battle Cruiser = 1/2 box. **Does not penetrate armor.
- vs. A Heavy Cruiser or Fleet Aircraft Carrier = 1 box.
- vs. A Light Cruiser or Light Aircraft Carrier = 2 boxes.
- vs. A Destroyer, Destroyer Escort or a Sub = 3 boxes

250 pound bomb =

- vs. A Battleship, Battle Cruiser, Heavy Cruiser, or Fleet Aircraft Carrier = 1/2 box. **
- vs. A Light Cruiser or Light Aircraft Carrier = 1 box.
- vs. A Destroyer, Destroyer Escort or a Sub = 2 boxes

100 pound bomb =

- vs. A Battleship, Battle Cruiser, Aircraft Carrier, Heavy Cruiser, or Light Cruiser = 1/2 box. **
- vs. A Destroyer, Destroyer Escort, or Sub = 1 box

Fighter strafing runs can be conducted against ships in order to suppress/distract A.A. fire. The target ship can not be damaged by the attack but the ship must direct at least one attack (d10) of it's A.A. defense fire against the fighter squadron conducting the run.

VII. Resolve torpedo fire/Surface Gunnery/Depth charge attacks

-The results of torpedo fire from surface ships and subs occur simultaneously with surface gunnery and depth charge attacks.

-Ship torpedo fire: Using the torpedo template (in conjunction with the previously recorded torpedo launch information) and measuring the appropriate distance based on the type of torpedo, determine if any part of a ship model is intersected by the torpedo spread. Torpedoes can pass under their first target, or miss it through poor aim or an unfavorable die roll. These torpedoes continue on to the full extent of their range and may hit other ships. Torpedoes are eligible for *special damage* (see below). Torpedoes set to run deep will pass under *DD* class and smaller vessels.

-A torpedo hit can occur any time part of a ship model is intersected by a spread with the controlling player rolling 1d10 per spread, scoring a hit on a 7+. *Japanese Long Lance* torpedoes roll 2d10 per torpedo spread if the effected target is in the 12" to 24" range, scoring a hit on 17+. Apply the modifiers below and consult the damage chart.

- +2 target is dead in water (moving 1" or less)
- +1 short range (6" or less)
- +1 four torpedoes in spread
- +2 more than 6 torpedoes in spread

Torpedo Damage Chart

Loss of boxes from 1 Torpedo hit

Against a Battleship or Battle Cruiser 2 boxes.

Against a Heavy Cruiser or Fleet Aircraft Carrier ... 3 boxes.

Against a Light Cruiser or Light Carrier 4 boxes.

Against a Destroyer or other Light Ships 5 boxes.

Against Freighters, Oilers, Troop Ships, Liners,
and other ships of this type..... Ship is sunk

-Torpedoes set to run shallow cause half damage to targets with an armor belt (Capital ships and some Cruisers).

Surface Gunnery

Surface fire targets must be declared by entire squadron. Ships that possess secondary or even tertiary batteries can fire these at separate targets from that of the primary guns. Ships roll 3d10 for targets in short range, 2d10 for medium range, and 1d10 for long range. Ships with gun batteries that have a total of less than 5 guns roll one less die at all ranges. Ships add 1d10 at short and medium ranges if their batteries contain 10 guns or more. Fire from 8" guns or larger against *DD/DE* class ships and smaller vessels roll one less die at all ranges. Ships with batteries that contain two guns or less roll 2d10 at short range, 1d10 at medium and long ranges, needing a 9+ to hit. 1d10 is the minimum number of dice thrown.

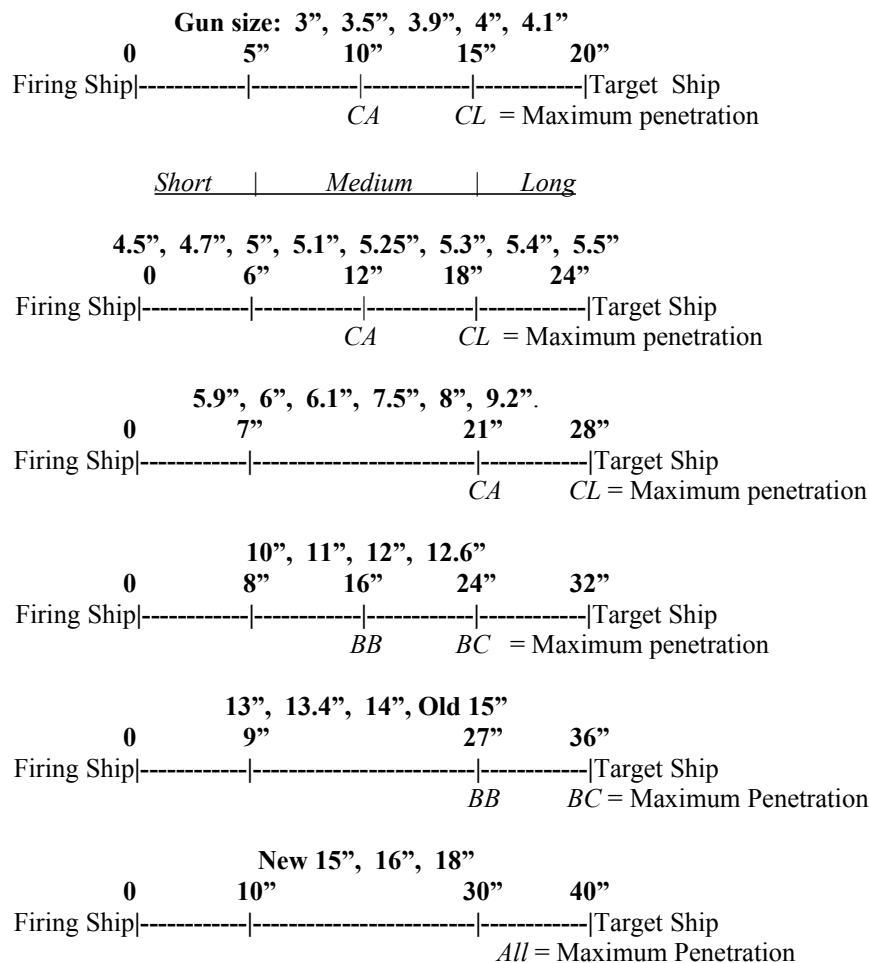
Blocking fire and Screening: Larger ships can fire over intervening smaller vessels if they are more than 2 inches away. Smaller ships can fire over larger ships, and ships of the same class can shoot over intervening vessels of the same size, if they are more than 4 inches away.

Half battery fire: Ships produce best gunnery results when they have a broadside to their target. When this is not possible, half battery fire is in effect. This is also the case when a firing ship has reached half damage on the player's ship roster. Gunnery is treated as a (-1).

Over-concentration: When more than one ship fires on the same target in a given turn, gunnery is negatively impacted. There is a -1 on gunnery rolls for each additional ship shooting at the target. This includes secondary battery fire but not tertiary battery fire.

Gunnery at 1": Vessels with 8" guns or larger are restricted to firing at half battery (-1) when attempting to hit targets at 1" or less because of the inability to depress the large guns low enough.

Gun sizes/range chart:



Hits from gunnery are scored rolling a 7+ and are eligible for *special damage*. Apply the die roll modifiers below and consult the damage value chart to determine the amount of damage caused:

- +2 target is dead in water (moving 1" or less)
- +1 short range
- -1 over-concentration (cumulative)
- -1 half battery/ no broadside
- +1 gunnery radar
- -1 first time firing at target
- +2 third or more time firing at same target
- -1 firing ship evasive
- -1 target *DD/DE* evasive
- -1 target moved more than 6" in movement phase

Damage value chart (gunnery effects assuming armor penetration):

18"-14" vs. BB.... 1 hit =	<u>1</u> box	5.4" - 4.5" vs. BB...	<u>1/2</u> box
18"-14" vs. BC....	<u>1 1/2</u> boxes	5.4" - 4.5" vs. BC...	<u>1/2</u> box
18"-14" vs. CA/Fleet Aircraft Carrier...	<u>2</u> boxes	5.4" - 4.5" vs. CA/Fleet Carrier...	<u>1</u> box
18"-14" vs. CL/Light Carrier.....	<u>3</u> boxes	5.4" - 4.5" vs. CL...	<u>1</u> box
18" -14" vs. DD/DE or Sub...	<u>4</u> boxes	5.4" - 4.5" vs. DD/DE or Sub...	<u>1</u> box
13.4" - 10" vs. BB.... 1 hit =	<u>1</u> box	4.1" - 3" vs. BB...	<u>1/2</u> box
13.4" - 10" vs. BC....	<u>1</u> box	4.1" - 3" vs. BC...	<u>1/2</u> box
13.4" - 10" vs. CA/Fleet Aircraft Carrier..	<u>2</u> boxes	4.1" - 3" vs. CA/Fleet Carrier...	<u>1/2</u> box
13.4" - 10" vs. CL/Light Carrier.....	<u>3</u> boxes	4.1" - 3" vs. CL...	<u>1</u> box
13.4" - 10" vs. DD/DE or Sub...	<u>4</u> boxes	4.1" - 3" vs. DD/DE or Sub...	<u>1</u> box
9.2" - 7.5" vs. BB... 1 hit =	<u>1/2</u> box	6.1" - 5.5" vs. BB... 1 hit =	<u>1/2</u> box
9.2" - 7.5" vs. BC....	<u>1/2</u> box	6.1" - 5.5" vs. BC....	<u>1/2</u> box
9.2" - 7.5" vs. CA/Fleet Aircraft Carrier...	<u>1</u> box	6.1" - 5.5" vs. CA/Fleet Carrier...	<u>1</u> box
9.2" - 7.5" vs. CL/Light Carrier...	<u>2</u> boxes	6.1" - 5.5" vs. CL/Light Carrier...	<u>1</u> box
9.2" - 7.5" vs. DD/DE or Sub...	<u>3</u> boxes	6.1" - 5.5" vs. DD/DE or Sub...	<u>2</u> boxes

- Any hit not inside maximum penetration scores a 1/2 box of damage

Recording damage: Ships have between 10 and 4 damage boxes. As a ship takes damage, its combat capabilities (like speed and firepower) erode. Each destroyed box after the first three costs the ship 1" of movement. When a ship reaches half damage, it can only fire with *half battery* in effect (above) regardless of broadside. A vessel with half damage may only fire half its torpedo tube capacity. If all damage boxes are marked off (damaged), the ship is sunk.

BB/BC – 10 boxes	CV/CA/CL – 8 boxes
DD/DE – 6 boxes	Transports, subs & small ships – 4 boxes

Special damage can occur anytime an unmodified 10 is rolled during bombing, torpedo attacks, or gunfire. Critical damage also occurs automatically anytime a ship suffers more than 2 damage boxes from one shell/bomb/torpedo/mine attack. For example: *A destroyer (DD) is hit by a 16" shell. The destroyer takes 4 boxes of damage and an automatic critical hit because of the amount of damage. Unfortunately, the hit was scored on an unmodified 10 which means the destroyer takes an additional critical hit.*

When special damage occurs, roll a d10 and consult the chart below:

<u>Die roll:</u>	<u>Torpedo/Mine hit:</u>	<u>Shell/Bomb hit:</u>
1. Steering gear hit		1. Bridge hit
2. Flooding		2. Fire
3. Extra hull damage		3. Extra hull damage
4. Flooding		4. Turret/Flight deck damage
5. Engineering hit		5. Engineering hit
6. Magazine hit		6. Magazine Hit
7. Extra hull damage		7. Fire
8. Flooding		8. Turret/Flight deck damage
9. Extra hull damage		9. Damage to fire control
10. Engineering hit		10. Extra hull damage

Steering gear hit: the ship's rudder is jammed, roll a d10 to determine if it is jammed to port (1-5) or starboard (6-10). The ship is forced to turn in the direction of the jammed rudder (spending at least half its movement in the act of turning) until it is repaired by damage control teams.

Turret/Flight deck damage: the attack has knocked out one of the ship's main turrets permanently, roll a d10 to determine if it is one of the fore turrets (1-5) or an aft turret (6-10). If the ship is an aircraft carrier, the attack has severely damaged the flight deck to the point of preventing flight operations. This can not be repaired by damage control teams. Ignore this result if the armor is not penetrated.

Flooding: the ship is taking on water and is starting to list to one side. All gunnery is calculated as half battery. Damage control teams may attempt to *right the ship* in the damage control phase but may only do so once per game. If this result occurs on a ship that is already flooding or has half damage, the ship is sunk. Any vessel with flooding may *retire* at any time regardless of other damage.

Extra hull damage: the shell/bomb or torpedo has caused extra internal damage to the superstructure of the ship. 1 extra box of damage is caused. This box can not be repaired by damage control teams.

Damage to fire control: the gunfire control center of the ship has been destroyed. All gunnery is calculated as half battery fire (-1) for the remainder of the game. Ships with torpedo tubes can not launch for two turns.

Engineering hit: the engineering spaces of the ship have taken a direct hit. The ship loses all damage control capabilities and 2" of movement for the rest of the game. Ignore this result if armor is not penetrated.

Magazine hit: the ship's main magazine has been hit and the ship explodes and sinks. Any ship whose base is within 1" of the explosion immediately takes 1 box of hull damage. Ignore this result if armor is not penetrated by gunfire/bomb or if torpedo/mine attack strikes an armor belt.

Bridge hit: the ship's command bridge is destroyed. For two turns the ship can not turn, launch torpedoes, or make smoke. If the ship is the flag ship in

the squadron, the rest of the ships in the squadron must follow and attempt to stay in formation for the first turn (after which it is assumed that the flag is transferred to a new squadron leader). Ships with bridge hits may fall-out at any time (after turns of compulsory movement), regardless of additional damage.

Fire: the shell/bomb hit has started a fire aboard the vessel. Damage control teams must work on putting out the fire before they can work on repairing anything else. Ships on fire are counted as being in *daylight* for spotting purposes in night games. At the end of any turn, if a ship is on fire roll a **d10** and consult the chart below:

<u>Die roll</u>	<u>Result</u>
1-2	Fire has gone out
3-10	Fire continues to burn, add <u>+1</u> to next turn fire result roll
11+	Abandon ship (<i>ship is considered sunk</i>)
<u>Modifiers</u>	
On fire last turn <u>+1</u>	Ship moved more than <u>5</u> " during the turn <u>+1</u>

Depth charge attacks

In situations where an escort ship has detected a sub (u-boat) in the detection phase, depth charges can be used in the same phase as surface gunnery. Ships wishing to attack with depth charges must be within 1" of their intended target. Roll a **d10** and consult the chart:

Die Roll

1-5 = Miss

6 = Near miss. Sub sinks to bottom, inactive 2 turns. 1 damage box.

7-8 = Severe damage. 2 damage boxes.

9+ = A direct hit. Sub destroyed.

VIII. Division Morale/Fleet Morale

Retiring a division: As members of a division, each type of ship possesses a point value representing its value to the division and its desirability as a target:

Battleship or Battle Cruiser	10 Divisional Points
Fleet Aircraft Carrier.....	8 Divisional Points
Heavy Cruiser	6 Divisional Points
Light Cruiser or Light Carrier.....	4 Divisional Points
Destroyer, Destroyer Escort, or Submarine...	2 Divisional Points.

A ship subtracts half its points from its division when it reaches half damage, subtracting all of the points when it sinks or is abandoned. Divisions must retire when they reach half their points through sunken ships and battle damage. Ships that fall-out/retire, cause the point value of their parent division to be recalculated.

Retiring a fleet: Similar to division morale, a fleet point total is calculated based on the chart above. Retired ships are still factored in as they were part of the original fleet. When half the point total is reached the fleet must break contact with the enemy.

Additional Rules/Scenario Considerations

Aircraft spotter-assisted ship gunnery: Ships with launch capable scouts may use them to assist in surface gunnery. Spotter scouts operate in squadrons of one or

two and so ignore the standard rules for combat aircraft squadrons (they do not leave the battle if reduced below three). Spotters must be within 5" of the target and must fly at low altitude in order to convey a +1 bonus to the firing ship. Spotters can only assist the ship they launched from. If at any time a spotter becomes suppressed by A.A., the bonus is lost until the squadron becomes unsuppressed. If attacked by enemy planes, spotters always count as inferior aircraft in aerial combat.

CV/CVL(s) with aircraft on the deck: hits by bombs or gunnery against aircraft carriers that have planes on the deck automatically cause a *fire* in addition to any other damage.

CV/CVL(s) with armor decks: aircraft carriers with armored flight decks receive half damage from aircraft bomb hits.

Kamikaze attacks: Kamikaze attacks count as dive bombing attacks for the purposes of scoring a hit. Successful kamikaze attacks against ships automatically start a *fire* critical hit in addition to the bomb hit (see special damage). Kamikaze squadrons operate in maximum strength groups of 5 instead of the usual 10 and always count as *inferior* in aerial combat.

Mines: Generally a scenario consideration, mines will be on the table at the start of the game laid out in a field that is treated as an obstacle to enemy ships. Mine attacks on ships occur in the surface gunnery/torpedo phase. Ships are considered "looking/not looking" if they are aware of the mines based on the scenario. The controlling player of the mines rolls 1d10 for each ship that spent any amount of movement in the field, scoring a hit on 8+ and applying the die roll modifiers below:

- +1 ship not looking
- -1 ship looking
- -2 minesweeper
- +2 ship moved more than 3" in a turn through the field during turn
- +1 heavily sewn field

Mine damage is treated the same as torpedo damage. When a mine strikes roll a (d10) / (1-5 strikes armor belt 6-10 strikes below the armor belt.) Mines are eligible for *special damage* (see above).

Naval escorts: Where convoys of transports, freighters, oilers, are present there are also a scenario determined number of escort ships. Escort ships must operate in formation with the convoy and no farther away than 6" from any ship in the convoy. Upon detecting subs or surface ships, escorts may break off and engage the enemy with each escort ship acting a *squadron of one*.

Night: Long range fire is not permitted in night games unless a target has been *illuminated* (see above) in which case it counts as being in *daylight*. British and Japanese score hits normally at short and medium ranges (7+). All others score hits on 9+ at short and medium ranges.

Radar controlled gunnery: Fire directed by radar is more accurate. To reflect this, all hits from ships with gunnery radar score an additional half box of damage. Ships with gunnery radar score hits normally (but with range restrictions) in *night* actions. If players wish, the gunnery bonus (+1) for radar assisted gunnery should only be applied to late war gunnery radar.

Reefs, Rocks and Running aground: Ships can get caught in shallow water and become stuck. Any ship entering shallow water (up to 5” from beach) risks running aground. Controlling player rolls a d10, striking bottom on an 8+ and becoming stuck on a 10. Players may intentionally run ships aground for any number of reasons. Ships that run aground or hit underwater obstacles suffer 1 box of damage. Vessels that have run aground must be freed by damage control teams in the damage control phase.

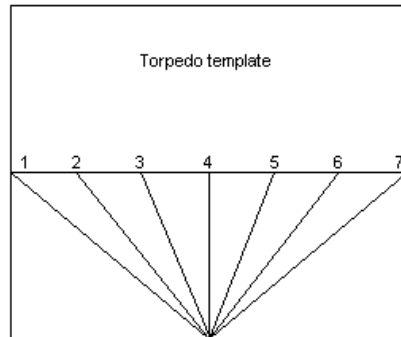
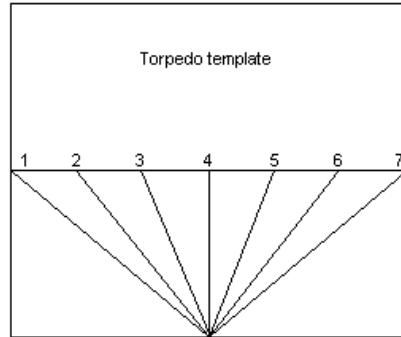
Strafing attacks against subs (U-boats)/ and other ships smaller than DD/DE class: Fighter strafing runs against subs and other ships smaller than DD/DE cause 1 box of damage on the ship roster.

Transports carrying combustible materials (oil, munitions, ect.) receive a +1 to the fire result roll at the end of any turn that they are on *fire*. Transports carrying combustible stores on deck (scenario consideration) receive *fire* special damage result automatically if hit by bombs/gunnery.

Weather: Weather should be dictated by the scenario and should be in effect at the start of play. Generally ships did not seek combat or operate aggressively in heavy seas. Weather is divided into two categories: good and poor. All surface gunnery in poor weather is calculated at half battery (this includes fog/rain/snow). Aircraft can not operate in poor weather. If variability is desired during game play, apply the chart below:

<u>Die roll</u>	<u>Effect</u>
1-4	Weather improves
5	Weather stays the same
6-10	Weather worsens.

Torpedo templates



End Notes

Surface fire is intended to give table-top gamers a flexible and fun way to re-create World War Two naval battles. Serious history buffs and more seasoned gamers may find this game a little simple for their tastes. The difference between horizontal and vertical armor value and the more complex nature of damage control for example, have been left out in order to make a large battle playable in an afternoon. Surface fire is meant to be an easy game for anyone to play. As such, there will be instances where gamers may want to “tweak” the rules in order to get more realism. This is happily encouraged.

Experienced players will be able to integrate sea and air forces seamlessly, while new players will find that the game has a comfortable learning curve. A game-centered campaign engine has intentionally been left out. I have tried many campaign systems with other players and we have still not found the “perfect” one.

Special thanks to: George Schneider, Jerry Dieruf, Chase Wager, Chris Green, and Dan W. (from the good old days).

