

### Great War at Sea! Ship Counter Key

COUNTER ID SPEED PRIMARY SECONDARY TERTIARY

FLAG

BB43 1 10-3-0

Tennessee

GUNS

TORPEDOES

NAME

1 = Has sails 2 = Shallow Draft 3 = Low Freeboard

4 = Minelayer 5 = Minesweeper

Round Torpedo Factors = Fixed, hull-mounted torps  
 Triangle Torpedo Factors = Aimable, deck-mounted torps  
 Circled 'Speed' value = "Slow" version of speed  
 Boxed 'Tertiary' value = Tertiary guns do damage as Primary

LANDING TYPE

NATIONALITY

AIR-TO-AIR ATTACK

RANGE

TORPEDO

AIRCRAFT TYPE

BOMB ATTACK

Circle Behind Value = Adds one to die  
 Can use bomb attack OR torpedo attack in one turn, not both

### Tactical Turn Sequence of Play

- Roll 1d6 for initiative, highest wins (+1 for leader present, -1 for each additional nationality present in fleet, fleet in port automatically loses)
- Non-initiative player sets up in center hexes
- Initiative player sets up on numbered hexes (Per hex: min 4 [Raid = 1], max 8 same nation) (All fleet groups must be in the same or adjacent hexes) (If more than 4 ships in a hex, countries cannot be mixed)

BBs	'98	'05	Impulse Activities
2			Initiative player moves speed 2+ ships
3			Gunfire
4			Torpedo
5			Non-initiative player moves speed 2+ ships
6	2	2	Initiative player moves 2, 2+ ships
7	3	3	Gunfire
8	4	4	Torpedo
9	5	5	Non-initiative player moves 2, 2+ ships
		6	Initiative player moves 1+, 2
		7	Gunfire
		8	Torpedo
		9	Non-initiative player moves 1+, 2
10	6	10	Initiative player moves all except 1S
11	7	11	Gunfire
12	8	12	Torpedo
13	9	13	Non-initiative player moves all except 1S
14	10,14	14	Initiative player moves all including 1S
15	11,15	15	Gunfire
16	12,16	16	Torpedo
17	13,17	17	Non-initiative player moves all including 1S
18	18	18	Initiative player moves all
19	19	19	Gunfire
20	20	20	Torpedo

If both sides have ships remaining in sighting distance then determine initiative, bump logs by one zone, re-roll for initiative & restart sequence at impulse 2. Else end combat, check fuel use, & write new orders.

\* Groups move together at the speed of the slowest ship, and ships cannot be split off unless crippled or scuttled.

### Ship Status Line Symbol Key

Ship	Name	VP	Primary	Secondary	Tertiary	Torp.	Move	Hull	Fuel
B13	Virginia	35	□□□	□□□	□	□	1s	□□□□□	○○○○○ ○○○○○

Hull  
 □ = Heavy Armor  
 □ = Light Armor  
 □ = No Armor  
 □ = Armored Deck

Fuel  
 ○ = Coal Fuel  
 ● = Oil Fuel

Torpedoes  
 □ = Hull mounted  
 □ = Swivel mounted

- All torpedo factors on a ship must be fired at once, and have no reloads

### Weapon Ranges

Weapon	'98-'05	Bs	BBs
Tertiary	0	□	□
Secondary	□	□	□
Primary	□	□	□
16" Primaries (11 or more factors)	n/a	n/a	□
Torpedoes	□	□	□
Visibility	●●●●	●●●●	●●●●

- When multiple ships fire at the same target, gunnery halved  
 - When primaries fire at light units, gunnery halved  
 \* When primaries fire at 4 hexes, gunnery factors are halved  
 \*\* Ships at maximum spotting range and greater are placed face down

### Hit Table

Die	Result
1-5	Miss
6	Hit

If hit oiler or minelayer w/mines, roll another 1d6; 6 = sunk

**Die Roll Modifiers - All Weapon Types:**  
 Target dead in the water: +1 (+2 for aircraft or ramming)  
 Target towing or being towed: +1 (applies to aircraft, submarines)  
**Torpedoes:**  
 Target is capital ship or F-# transport\*: +1  
 Target is a ship in port: n/a (torpedo cannot be used)  
 Ace submarine commander firing: +1  
**Non-Submarine Torpedoes:**  
 Target in same hex: +1 (+0 for '98-'05, Bs)  
 Firing ship is capital ship\*: -1  
 Firing from hull mount (boxed on sheet, round on counter): -1  
 Firing ship is Italian MTB: +1  
 Target is one hex away: -0 (-1 for '98-'05, Bs)  
**Aircraft vs Ship/Ground:**  
 Target is speed 1 Slow: +1  
 Target is capital ship or fast transport: +1  
 Target is port, base, or airbase: +1  
**Ship vs Ship Gunnery:**  
 Non-MTB target in same or adjacent hex: +1  
 Ship's name italicized on Ship Data Sheet: +1  
**Firing unit not fired on this turn (set of 20 impulses): +1**  
 \* Ship types are identified by the counter ID and are:  
 'Capital': AC, AMC, B, BB, BC/CC, BCV, CA, CD, CV, CVS, IC  
 'Light': AR, AY, BS, C, CL, CS, DC, DD, DL, GB, ML/MS, PC, RC, SL, TB

### Air to Ship Combat

- Strike already divided into 'attack' and 'escort' force
- CAP allocated against 'escort' first (at least one each before a second)
- CAP roll for hits against 'escort' elements
- Escort allocated against CAP (one each before a second can attack)
- Escort roll for hits against CAP
- CAP not hit by escort or attack force allocated against 'attack' element
- CAP roll for hits against units in 'attack' element
- Attack force not destroyed continue to the strike target
- Place task force ships on tactical map, one ship to a hex
- Strike player places attack aircraft in hex of each ship to be attacked
- AA fire resolved. Capital ships have 2 AA factors, light ships have 1, ports or bases have 3. Total the AA factors up for as many as 8 ships in the fleet - including targeted ships - and divide by 3 (round up) for fleet's AA factors. Player allocates AA fire as desired, at least one per aircraft first. Each 'hit' by AA fire eliminates one step of aircraft
- Aircraft now roll for torpedo or bomb attacks (one or the other, not both) against target ships.

### Firing Steps

- Roll 1 dice for every weapon factor to determine hits (see 'Hit Table')\*
- Resolve each hit vs units (Ships- roll on 'Gunnery Damage Table' for gunnery and bomb hits, or 'Torpedo Damage Table' for torpedo hits, Aircraft-flip counter on hit, unit destroyed if already flipped.)

### Gunnery Damage Table

Die	Hit Type
2	Critical damage**
3	Torpedo mount
4	1 Secondary
5	1 Hull
6	1 Secondary
7	1 Primary
8	1 Tertiary
9	1 Primary
10	1 Hull*
11	2 Hull, -1 full speed factor
12	Critical damage**

- Must be able to penetrate armor to do damage, including criticals (note that hull-mounted torpedoes have same armor as hull, deck mounts have none) ‡
- If Primary fire or aircraft bomb hit vs. area w/light or no armor, roll 1d6; if result 4-6, +1 hit of same type. n/a for 'Critical' or plunging
- If gun type hit and target never had that gun type, hit goes against next gun type down (Primary->Secondary, Secondary->Tertiary, Tertiary-> Hull, until a box is hit). Torpedo hits do not. Ships with NO guns *only* take tertiary hits.
- If weapon hit and target weapon existed, but destroyed, hit goes to hull except for tertiary weapon hits - which are ignored in this case
- \* 'Plunging fire' - If from Primary fire hit at 3 or 4 hexes or any aircraft bomb hit, add 2nd hull hit unless target's hull "boxed" (armored deck) or in 'USN Plan Black' (where bombs cannot penetrate armored decks, and get no 'plunging fire' bonus)
- \*\* NA from tertiary fire (unless tertiary factor is highlighted on counter)

### Secondary Penetration:

Range 0	Range 1
3-6: Secondary > heavy armor ('05)	5-6: Secondary > heavy armor ('05)
5-6: Tertiary > light armor ('05)	4-6: Secondary > heavy armor (BBs, '98)
4-6: Secondary > heavy armor (BBs, '98)	4-6: Tertiary > light armor (BBs, '98)

### Critical Damage Table

Die	Hit Type
2	6 Hull, 3 Primary, -1 speed*
3	3 Primary
4	Leader killed
5	2 Primary
6	2 Hull
7	2 Secondary
8	2 Hull**
9	1 Primary
10	1 Hull, -1 full speed factor
11	3 Hull
12	5 Hull, 5 Primary, -All Speed

### Torpedo Damage Table

Die	Hit Type
2	Critical damage
3	2 Hull
4	No damage
5	1 Hull
6	1 Hull
7	2 Hull
8	1 Hull
9	1 Primary
10	2 Hull, -1 full speed factor
11	3 Hull, -1 full speed factor
12	Critical damage

- \* British BC explodes and sinks in scenarios before 1917
- \*\* Secondary guns can damage 1 Hull against ship w/heavy armor hull

### Emergency Repairs

Die	Result
1	Speed = 1S, don't roll again
2-4	Roll again next impulse/turn
5-6	Speed = 0, don't roll again

- Losing more than half of hull boxes reduces ship 1 full speed factor
- A ship at speed 0 is 'dead in the water' and cannot move or fire
- Ship crippled if > 50% largest guns or > 50% hull boxes or speed lost

### Play-Aid (v1.03) Conventions

- References to 'BBs' indicate Dreadnought-level technology warships
- References to 'Bs' indicate pre-Dreadnought-level technology warships (Bs, ACs, CDs) in the Dreadnought-era (see 7.62 for exceptions)
- '98 refers to "1898 Spanish American War" era only, '05 refers to "1904-1905 Russo-Japanese War" era only
- Where present, yellow text indicates a "house rule"

## 'Great War at Sea' Campaign Scenario Preparation

- Designate any needed MTB and submarine patrol zones
- Randomly draw and deploy any needed airships
- Assign units to fleets
  - Fleets can only contain ships of 1 nationality unless fleet <=4 ships
    - German = any nationality; Canadian & Australian = British.
- Assign missions to fleets (can be changed if fleet spends 6 turns in port)

## Campaign Game Turn Sequence of Play

- Check weather
  - Attempt to re-float grounded ships
  - 'Air Search' and 'CAP' missions committed to for day on first daylight turn
- Write orders for fleets for required number of turns ahead - see chart below
  - May combine two fleets in same zone
- Move fleets (check for fuel and check for foundering)
- Air Operations phase
  - 'Air Strike' missions plotted and conducted
- Check for contact
- If contact made, perform tactical combat
- Write orders for all turns for fleets newly on Abort mission

## Mission Allocation

Mission	Possible Orders	Turns	Ships Allowed
Transport *	Common, Load, Unload	All	All
Bombard **	Common, Shell	All	Warships
Escort	Escort	All	Warships
Intercept	Common, Pursue	2	Warships
Abort †	Common	All	All
Minelaying	Common, Mine	All	Minelayers
Sweep Mines	Common, Detect, Sweep	All	Minesweepers
Raid ‡	Common, Shell, Mine, Search, Pursue	2	Warships
Search	Search	1	Aircraft
CAP ††	Combat Air Patrol (CAP)	1	Aircraft
Strike ‡‡	Strike	1	Aircraft

\* Common Orders = Move to zone #, Fuel, Divide, Combine, Launch, Recover - Oilers, Colliers & aux. Minelayers = Warships for mission purposes  
 - Fleets move at speed of slowest unit in fleet

† If tactical combat interrupts orders, orders are delayed but not changed

\* Transports begin loaded unless noted, takes 3 turns in a row to unload for VPs  
 \*\* Ship must remain in target hex for one full turn 'bombarding' for VPs, gunnery factors halved for first turn of any tactical combat before then

† Issued in orders phase, plot new orders to nearest port from 2 turns ahead on  
 ‡ - Maximum of 2 ships in a fleet with 'Raid' orders & fleet needs a leader  
 - Raid fleets are plotted as usual, but not placed on the map unless detected  
 - Only 1 raiding fleet per side allowed, unless scenario dictates otherwise

†† CAP missions take off on the first turn of a day, and stay up all day (6 turns)

‡‡ Strike missions can only be plotted against targets spotted in the current turn

## Weather Table

Die	Mediterranean	North Sea / Baltic	Caribbean	Pacific / Sea of Japan
1	-1	-1	-1	-1
2	-1	no change	-1 Nov-Jun	-1
3	-1	no change	no change	no change
4	no change	no change	no change	no change
5	no change	+1 Nov-Mar	no change	no change
6	1d6: 1-3=n/c, 4-6=+1	+1	1d6: * 1-2=n/c, 3-5=+1, 6=+2	1d6: 1-3=n/c, 4-5=+1, 6=+2

\* In 'USN Plan Black', treat '5' as '6' Jul-Oct only, Nov-Jun, '5' is "no change"

## Weather Effects

Type	Air Ops	Visibility	Search	Founder	Speed		Strk
					DD, TB	Airship	
Clear	+0	4 day-2 night	+0	+0	Any	Any	+0
Mist	+0	3 day-1 night	+0	+0	Any	Any	+0
Fog†	-1	2 day-1 night	-1	+0	Any	Any	-1
Squall**‡	-2	2 day-1 night	-1	+1	1	1	n/a
Storm**‡	-3	2 day-1 night	-1	+2	1	1	n/a
Gale**‡	lost	1 day-0 night	-2	+3	1‡	lost	lost

\* Can only fire primaries, ships with 'low freeboard' cannot fire any guns

† Airships may not attack, and may only spot ships in same sea zone

‡ Aircraft and airships may not attack, spot ships, or assist in making contact

‡ No torpedo attacks, including those made by submarines

‡ Roll 2d6, on a result of '12', the ship is sunk

## Search Table

Die	Result
1-3	No contact
4-6	Contact

If unmodified roll = 6, setup as 'surprised' (see 7.28)  
**Modifiers:** (see 'Search' weather effects)  
 Ace commander on submarine: +1  
 Leader present: +1  
 Fleet has 20+ ships: +1  
 MTB Attempting search: +1  
 Fleet w/Intercept mission: +2  
 Airship in sea zone (not bad weather): +2  
 Fleet has only DD, DL, or TB: -1  
 Submarine attempting search: -1  
 Night: -2  
 Fleet w/Raid mission (owner's choice): +1/-1

## Movement Allowance Modifiers

Unit/Condition	Speed
Ship w/damaged speed < 1S	0
Ship out of fuel or fueling	0
Towed or towing ship	1 zone / 3 turns
CVS launching, CV/CVS recovering	0

## 'Merchants Destroyed' Table

Die	Density			
	1	2	3	4
1	-/1	1/1	1/2	2/2
2	-/-	-/1	-/1	1/2
3	-/-	-/-	-/1	1/1
4	-/-	-/-	-/-	-/1
5	-/-	-/-	-/-	-/1
6	-/-	-/-	-/-	-/-

### Die Roll Modifier:

- Night: +1  
 - Roll 1d6 per Warship with 'Raid' mission  
 - Chart shows merchants destroyed with one movement point spent in sea zone / two points spent  
 - Densities:  
 Major route = 4, adjacent = 3  
 Minor route = 2, adjacent = 1  
 - If merchants destroyed, raiding fleet placed on map  
 - Each merchant destroyed worth 1/2 victory point

## Pursuit

Die	Result
1-5	Miss
6	Move w/enemy fleet; auto contact

**Die Roll Modifiers:**  
 Daylight: +2  
 All pursuers faster than slowest enemy: +1

## Fuel Usage & Colliers‡

- One box used for every 12 sea zones moved
  - If a ship moves speed 2 for the turn, treat each zone moved as 3 zones (for a total of 6 zones)
  - Fuel always expended, unless refueling or in port
  - Ships with sails may move speed 1 without using fuel
  - After tactical combat, roll 1d6 and add that many zones traveled to the fuel usage total for the turn
  - Ships in port with 'fuel' orders refuel 1 box a turn
  - Colliers in port with 'fuel' orders refuel 2 boxes a turn\*
  - Capital ships in a coastal sea zone with 'fuel' orders may refuel 1 box per turn from a collier at the expense of 1 of its boxes of fuel\*
  - A collier may only refuel 1 ship at a time
  - A ship cannot refuel from more than 1 source in a turn
- \* After 1920, American colliers fuel ships at 3 boxes/turn and refuel from port at 6 boxes/turn  
 ‡ Oilers act in any year as post-1920 American colliers

## MTB Procedure

- MTB patrol in coastal zone up to 6 hexes from port
- MTB contacts enemy on roll of 3-6, chooses target
- If MTB attack succeeds, it can use both torpedo factors

## Ports

- Ships in minor ports may be attacked
- Ships in major ports cannot be attacked
- Ships in port always 'dead in the water'
- Torpedoes cannot be used in port
- Attackers cannot enter tactical hex or adjacent tactical hex of ship in port
- Submarines and MTBs cannot be placed in sea zone containing major ports
- Any ship remaining 6 turns in a neutral port is 'interned' and lost (no VPs given)
- If attacker wishes it, contact is automatic

## Airships

- Airship movement is plotted as warships on an 'Intercept' mission
- Airships have 60 turn endurance
- Airships in hex of or adjacent to enemy fleet make contact with it, and number and type of ships in fleet are reported
- Airships can attack fleets
- Airships can be attacked in air-to-air combat only
- CAP can intercept Airships, or air strike can be plotted against airships
- Airships in combat treated as 2-step air units

## Submarines

- Submarines roll for detection against any fleet passing through their hex
- Number and type of ships reported if 'Search' roll successful
- If submarine elects to attack, roll 1d6 on 'Anti-Submarine Attack' table if fleet escorted (roll on table once for every 3 DDs, TBs, or MSs present)
- If submarine survives attack, sub owner specifies TYPE of target to attack (capital ships vs light ship vs transport), and one target of that TYPE is randomly drawn

## Anti-Submarine Attacks

Die	Result
1-4	No effect
5	Sub sunk, can't attack
6	Sub sunk, can attack

- 1d6 for every 3 DDs, TBs, or MSs present

## Foundering Check

Die	Result
1-5	No effect
6	1 Hull

- Modifiers:** ('Founder')  
 Moved 2 zones last movement: +1  
 'Low Freeboard' indicator: +1  
 - Roll for foundering if hull damage > 75%

## Involuntary Grounding

Die	Result
1-5	No effect
6	Grounded‡

- Die Roll Modifiers:**  
 Land in ship's home country: -1  
 Capital ship\*: +1

\* Shallow draft capital ships = no penalty  
 ‡ Shallow draft Light ships never grounded

## Refloating

Die	Result
1	Freed - Roll 1d6; 50% of result = amount of hull damage*
2-6	Remains grounded

- \* **Die Roll Modifier:**  
 Ship has no armor: +1

## Minefield Table

Dice	Result
2-10	Miss
11-12	Hit

**Dice Roll Modifiers:**  
 Extra minefields (max +5): +1  
 Ship moving speed 2: +2

## Minefield Damage

Die	Hit Type
1-2	1 Hull
3	2 Hull
4	3 Hull, -1 Speed
5	5 Hull, -1 Speed
6	All Hull (ship sinks)

## Sweeping Mines

Die	Result
1	Minesweeper sunk
2-3	No effect
4-6	1 minefield removed

## Torpedo Boat Attacks

Die	Result
1	All enemy may defend*
2-3	Target ship may defend*
4-6	No defense, MTB attacks

\* Surviving MTBs attack

## Launching Aircraft

Die	Result
-1	Destroyed
0-6	No effect

- Modifiers:** ('Air Ops')  
 Taking off from CV: -1  
 Seaplane in coastal sea zone: -1  
 Night: -2\*  
 \* n/a in 'USN Plan Black'

## Recovering Aircraft

Die	Result
-1	Destroyed
0-6	No effect

- Modifiers:** ('Air Ops')  
 Landing on CV: -1  
 Seaplane in coastal sea zone: -2  
 Night: -3

## Air Search Table

Die	Aircraft Steps Needed
2	9 or more
3	6 to 8 steps
4	4 to 5 steps
5	2 to 3 steps
6	1 step

Die roll represents a successful search - number of capital and light ships in target fleet must be listed, and strike can be planned

## Air Strike Table

Die	Result
1-5	Strike attacks target
6	Strike returns, no attack

- Timing of strike decided by die roll. If additional roll of 1d6 is greater than the range to target, target hit this turn. If result less than range, target hit following turn. In either case, strike always returns following turn.

- Modifiers:** ('Strk')