

IRCWCC RULES

PART I - SAFETY

A. RULE ONE

Safety is the individual responsibility of each member at all times.

B. CANNONS

1. Each cannon shall be equipped at all times with a metal safety pin which, when inserted crosswise through holes in the barrel, is capable of stopping the discharge of a BB. Such safety pins must be permanently attached to the barrel or to a point on the ship within 6 inches of the cannon for which it is intended.
2. Safety pins shall be in place in cannon barrels or a commercially manufactured paint ball condom covering the entire end of the cannon barrel at all times except when a ship is on the water ready for battle, or during the process of “tweaking” the ship’s cannons, provided that the process is carried out in a safe designated area. A safety pin shall be inserted through the barrel of each cannon or a commercially manufactured paint ball condom covering the entire end of the barrel of each cannon prior to or immediately after lifting a ship from the water. A safety violation shall be recorded against a member for a violation occurring during an event. Safety penalty points shall be assessed in accordance with section G., below, for violations which occur during an event.
3. No Cannon shall be discharged if it fires at an angle above horizontal.
4. Except as allowed by Part V, Section J (Shore Batteries), there shall be no firing at another ship from shore or firing from shore to water during a battle by any means.

C. PERSONAL SAFETY

1. Except as provided in section C. 3., below, safety glasses with side shields shall be worn by all persons, including members, guests, or spectators, when they are in the marked pit area, or when they are battling or observing combat events. Members are responsible for ensuring compliance by their guests and minor children. A safety violation shall be recorded against a member for a violation occurring during an event.
2. A reasonable number of safety glasses with side shields shall be obtained and made available to the public if spectators are to be permitted to observe the pit area or to observe combat events from within 25 yards of the shore. The number of spectators shall be limited to the

number of safety glasses available.

3. If all ships competing at an event are off the water and in the pit area, a Contest Director may give the command "Make the area safe!" or "Going Cold!" All Captains shall immediately remove any supply of gas, vent any residual pressure including expansion tanks with check valves, and verify that each cannon is pinned. When the C. D. is satisfied that these actions have been taken by all Captains, the announcement "The area is safe!" or "Range Cold!" may be made, and safety glasses may be temporarily removed. No Captain shall reconnect or turn on a gas supply until the C. D. announces "The area is no longer safe!" or "Range Hot!" and all persons have again put on safety glasses.
4. While a battle is in progress no person shall be permitted to sit, kneel or lie on the ground within 50 feet of the water's edge bordering the combat area. The immediate shore area shall be kept clear of spectators to a depth of 10 feet to permit Captains to move freely while controlling their ships.
5. When any person enters the water to recover a ship the command "Man in the water!" shall be given. All firing of cannons both by ships on the water and on shore shall immediately stop. Unless otherwise ordered by the Contest Director, all ships shall stop and hold their relative positions until the person is again on shore. A safety violation shall be recorded against a member for a violation occurring during an event. Safety penalty points shall be assessed in accordance with section G., below, for violations which occur during an event.
6. When any person must swim or submerge to recover a sunken ship, that person shall have a suitable item of flotation equipment close at hand, and shall be accompanied by at least one other adult who is able to render immediate assistance to the person if necessary. No IRCWCC event shall take place unless a suitable item of flotation equipment, equipped with a line for throwing and recovery, is present and continuously accessible on site in a prominent location.
7. Except when the pit area has been declared "safe" by a C. D. as provided in section C. 3., above, only Captains, persons who are assisting Captains with the operation of a ship and persons who are officiating at the event shall be permitted in the pit area.
8. Captains shall wear suitable footwear that covers the entire foot when operating a ship.

D. RADIOS

1. All radios shall operate on a Federal Communications Commission (FCC) approved R/C "surface" frequency. Members who are licensed amateur radio operators may also utilize appropriate "Ham" frequencies.

2. The 27 MHz band is designated for the use of both convoy ships and combat ships.
3. A frequency board (or the equivalent) shall be used at events to prevent the operation of multiple ships on the same frequency.

E. CO2 GAS SYSTEMS

1. All CO2 tanks used on ships or as land-based storage containers must be commercially manufactured and certified for use with CO2 and shall not be modified thereafter in any manner.
2. All CO2 systems must have a commercially manufactured pressure regulator set to no more than 150 PSI. The pressure regulator must be connected to the tank using only manufactured hoses or unions rated for CO2. The regulator serves to divide the system into a high-pressure side, consisting of the CO2 tank and pressure relief valve, and a low-pressure side, consisting of a distribution manifold, poppet valves or solenoids, and conventional R/C BB cannons. Items on the low-pressure side of the regulator do not need to be commercially manufactured or certified.
3. All CO2 systems using refillable tanks must have a commercially manufactured pressure relief valve (e.g., a rupture disk or the equivalent) located on the high-pressure side.
4. All CO2 systems must have a 10/32 threaded hole on the low-pressure side that allows the measurement of the pressure being delivered to the Cannons.

F. CONTEST DIRECTORS

1. The Contest Director (aka C.D. or CD) or a person appointed by the Contest Director shall visually check each CO2 system for any evidence of non-compliance with sections E. 1. through E. 4., above. Systems that do not comply with the above sections shall not be used during an event.
2. A Contest Director is authorized to measure the pressure on the low-pressure side of any CO2 system at any time before or during an event, or when a measurement is requested by another member. A system that exceeds the maximum allowed pressure shall be adjusted immediately, and a safety violation shall be recorded against a member for a violation occurring during an event. If a ship or ship(s) operated by the same member exceed(s) the maximum pressure more than once in a single event, that member shall not participate further in the event and the member's name shall be forwarded to the Executive Board for further action.

3. The Contest Director at any sanctioned event may order a member to “sit out” portions of an event or eject a member from an event for a period of time or for the remainder of the event for violating any safety rule. At the request of an interested member, any disciplinary action taken by any Contest Director shall be reviewed by the Executive Board, which shall affirm or modify the action. An on-going event shall not be delayed to accommodate such a review.

4. A Contest Director who does not actively attempt to obtain compliance with applicable Safety Rules may be banned from acting as a Contest Director at future events for as long as the Executive Board shall deem necessary in their sole discretion.

G. SAFETY VIOLATIONS

Safety violation recorded against an individual shall result in the following actions. Violations are cumulative during an event, but only one violation shall be recorded per occurrence (i.e., if all safety pins are out at one time, it shall be considered to be one violation).

First Violation Written warning
Second Violation Sit out next sortie
Third Violation Event disqualification

H. REVIEW BY EXECUTIVE BOARD

The Executive Board shall review all recorded Safety Rule violations. If, in the Board’s opinion, a member has shown a pattern of repeated non-compliance, the Board may impose such sanctions, including but not limited to termination of membership or barring the member from participating in certain Club events, as it shall in its sole discretion deem necessary.

--- End ---

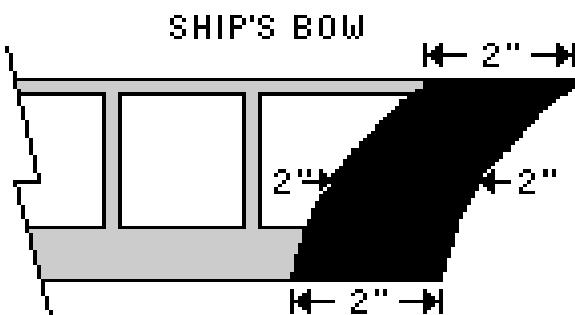
IRCWCC RULES

PART II - SHIP CONSTRUCTION AND CLASSIFICATION

A. CONSTRUCTION REQUIREMENTS

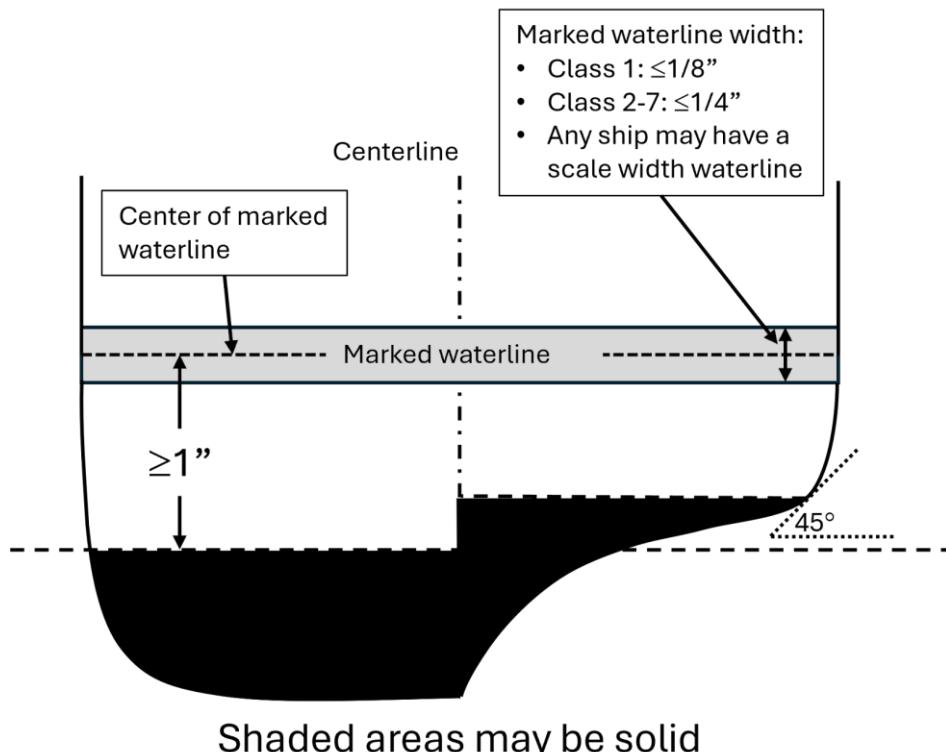
1. All ships shall have penetrable balsa "windows" which make up specific areas of their hull skin and are constructed in accordance with the following requirements.
2. The amount of required penetrable area shall be based upon the length of the hull measured along the longitudinal centerline of the ship. The total percentage of the hull length which shall be penetrable shall be not less than 85%. The percentage that may be impenetrable shall not exceed 15%. This 15% shall include all ribs, solid material at the bow and at the stern and fillets.
 - a. A rib is any solid material attached to the hull skin, which is perpendicular or nearly perpendicular to the plane of the waterline, and whose function is supporting or defining the shape of the hull.
 - b. Ribs shall not be made of material exceeding 3/8" in width at their widest point.
 - c. Ribs shall not be spaced less than 1" apart measured from their centers.
3. Solid material in the bow shall extend no more than 2" aft following the contour of the bow (see **Diagram A**).

DIAGRAM A:



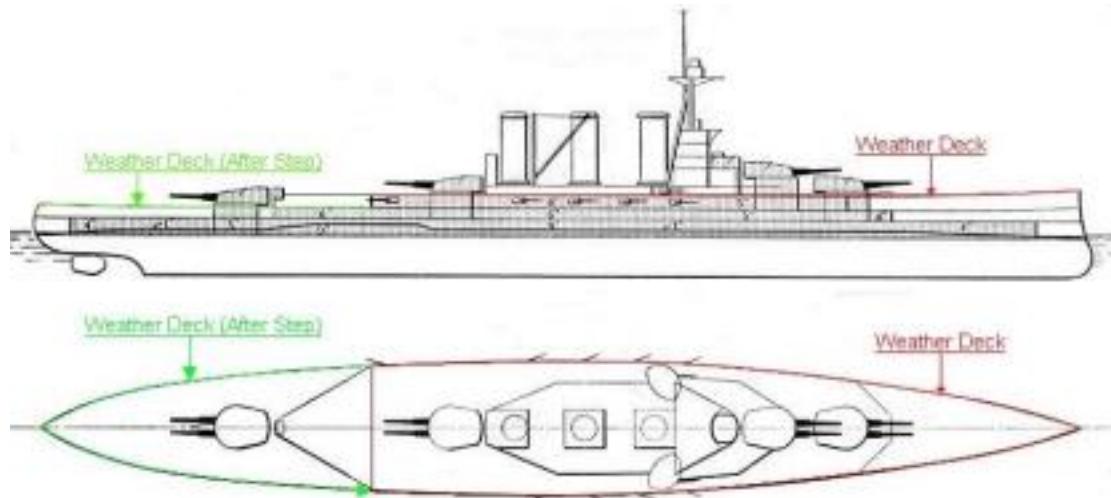
4. Solid material in the stern shall extend no more than 1" forward following the contour of the stern.
5. The main deck(s) shall be no more than 3/8" thick (maximum thickness for a single or a multiple deck assembly) measured at the edge contacting the hull.
6. Impenetrable material may be used as hull skin on a ship's bottom, but it shall end at least 1" below the center of the marked waterline, or more than 45 degrees down the turn of the bilge (see **Diagram B**).
7. The hull skin immediately around the prop and rudder shafts may be impenetrable material if it does not interfere with the inherent penetrability of the hull.

Diagram B

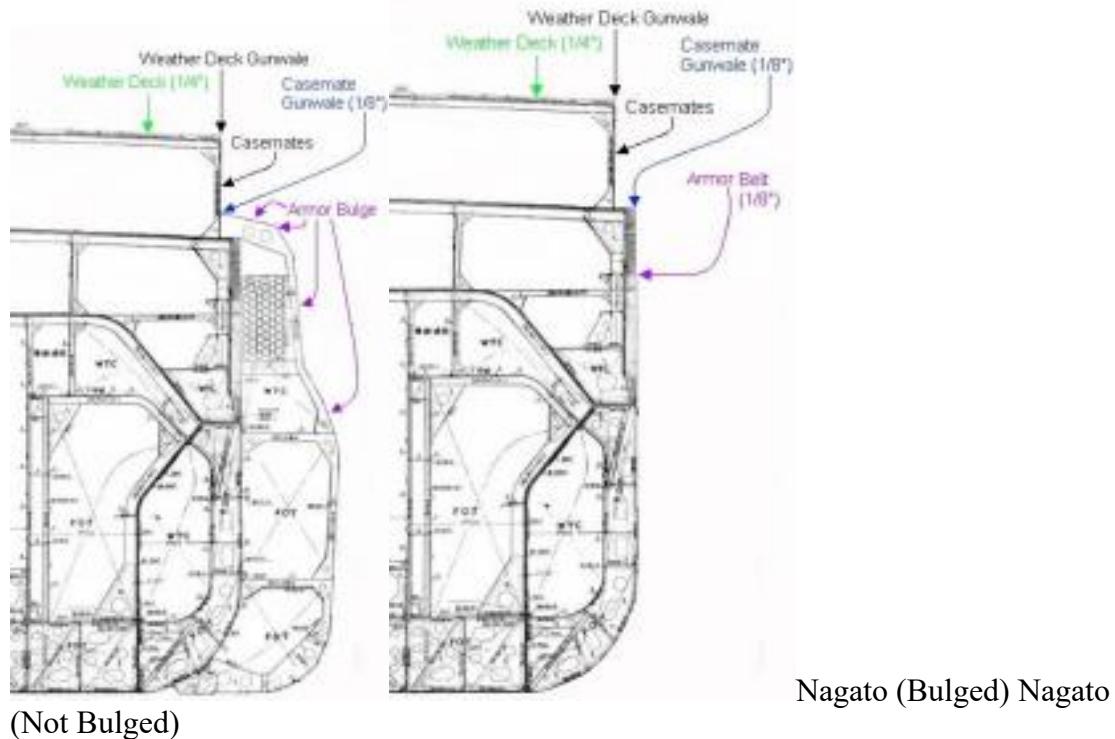


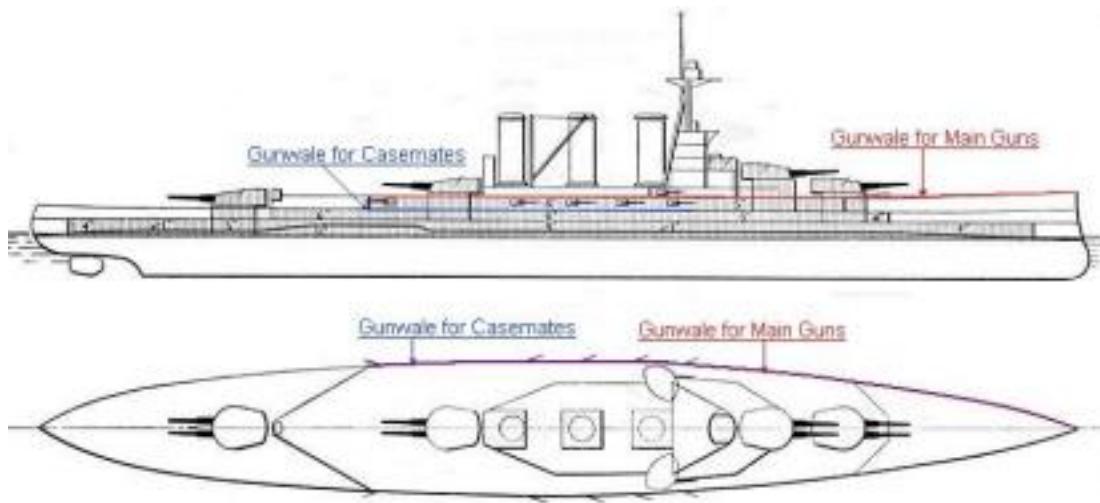
8. No water belts, double hull areas, watertight compartments, or other construction techniques may be used that are attempts to defeat the intent of these rules.

9. Watertight boxes may be used for the purpose of protecting electronic equipment. Such boxes shall not, due to their buoyancy, prevent the ship from sinking. For the purposes of this section only, “sinking” is defined to mean that the model completely submerges when its hull is flooded with water.
10. No interior boxes, bulkheads, or other interior construction details shall subdivide the hull into separate compartments that affect the penetrability of the hull skin or the buoyancy of the ship.
11. A stringer shall be defined as any solid material that hull skin is attached to that forms the shape of the hull and is not classed as a rib.
 - a. No stringers shall be used unless the shape of the hull dictates. Hull features that dictate the use of a stringer are: bulges, casement decks, casemate guns, knuckles, or armor belts. The stringer may not extend more than one rib beyond where that hull feature is prominent.
 - b. The surface of the stringer which is against the penetrable area of the hull skin shall be no thicker than 1/8" material but may be any width.
 - c. The total vertical hard area cannot exceed 1/2" between any two ribs in the penetrable area of the hull e.g., a ship with both a casemate deck and a defined armor bulge or belt may use two stringers provided that the weather deck is no more than 1/4" so that the combined vertical hard area between the ribs is no more than 1/2".
 - d. **Appendix A** shall contain examples of classes and their maximum deck and stringer hard area. In cases where there are questions, the drawing shall be final.
12. Penetrable hull areas shall be skinned with balsa no thicker than 1/32" and shall not be constructed so they are self-sealing.
13. Bilge keels shall be no more than 3/8" wide measured at the hull surface, and shall extend no more than 3/8" out from the hull surface. They shall be constructed to scale in number, and relatively to scale in length, shape and location.
14. Superstructure surfaces may be constructed of any material. At any given point along a ship, any portion above the weather deck is considered superstructure. The following are defined as:
 - a. Weather Deck: The uppermost deck exposed to the weather that has the forward most gun of the highest caliber mounted on the ship. On a ship without guns, it is the uppermost deck exposed to the weather at the bow of the ship. The weather deck may be no more than 3/8" thick. There may be only one weather deck at any given section along the hull. In the case of aircraft carriers, the hanger deck is considered the weather deck.



b. Gunwale: The edge of the deck that the gun in question is sitting on. I.e. The gunwale for the casemate guns is the edge of the deck that the casemate guns are sitting on. The top or side of a bulge is not the gunwale. The following diagrams are an example of a Nagato Class battleship in the bulged and not bulged version and a general example of gunwales.

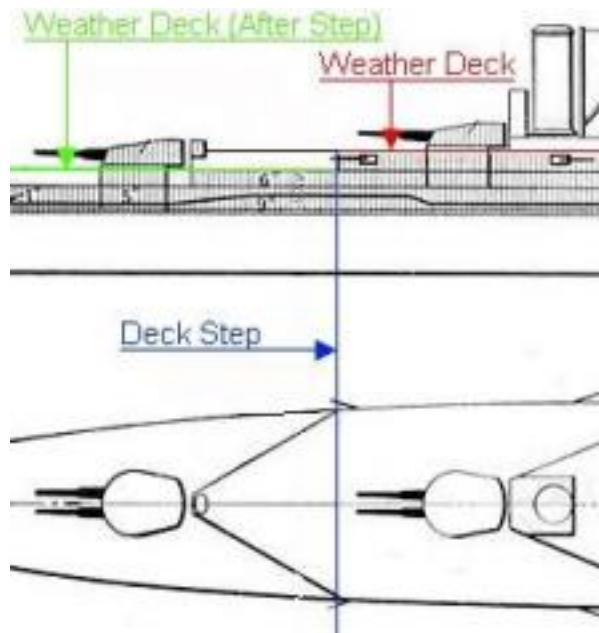




c. Deck Step: The point on a ship where the weather deck is allowed to step down to the next lower deck. A “deck step” can occur for two reasons:

- 1) When the weather deck of the ship continues but moves inwards from the next lower deck’s gunwale more than $\frac{1}{2}$ " and does not at any point come back to $\frac{1}{2}$ " or less from that gunwale with respect to viewing a ship from bow to stern.
- 2) The weather deck ceases, but there are lower decks that continue with respect to viewing a ship from bow to stern.

If the inset that leads to the step deck does not incorporate any casemates between where it begins and where it goes $>1/2$ " inset, then the step may move to the beginning of the inset rather than at the $>1/2$ " mark.

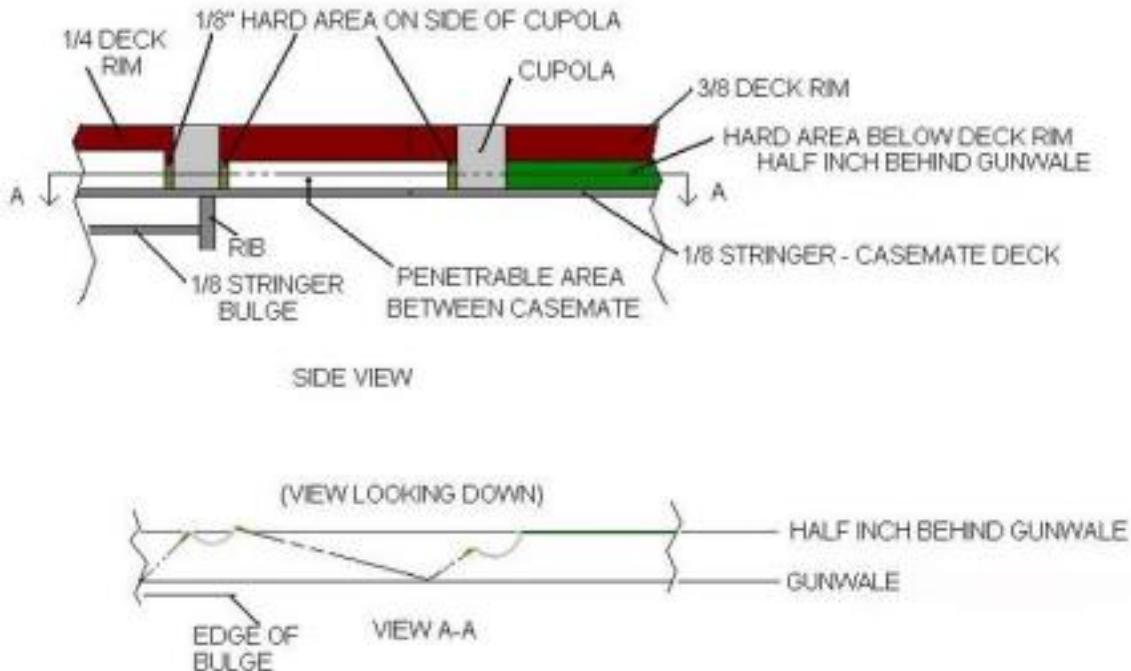


- d. Casemate: An armored enclosure for guns on a warship. This consists of the cupola and armored areas surrounding the cupola on the same deck.
- e. Cupola: The armored housing where a casemate gun is mounted.
- f. Deck Rim: The uppermost outer edge of the weather deck.
- g. Casemate Deck: The deck that casemate guns are sitting on.

15. No form of positive hull pressurization shall be utilized.

16. On ships which have casemate mounted cannons, the cupolas may be constructed of impenetrable material. A 1/8" wide strip on each side of the cupola may also be impenetrable. If a flat bulkhead area between cupolas is inset more than 1/2" from the edge of the gunwale the entire casemate area (cupolas and all flat bulkhead areas inset greater than 1/2") may be made impenetrable.

- a. Measurement of the inset of casemates is determined by scale plans, not actual built measurements. In the case of a discrepancy between plans, the plans in question should be submitted to the Executive Board and the Casemate Committee for review and a final decision. This is to keep captains from modifying the location of casemates to allow making the casemates hard.

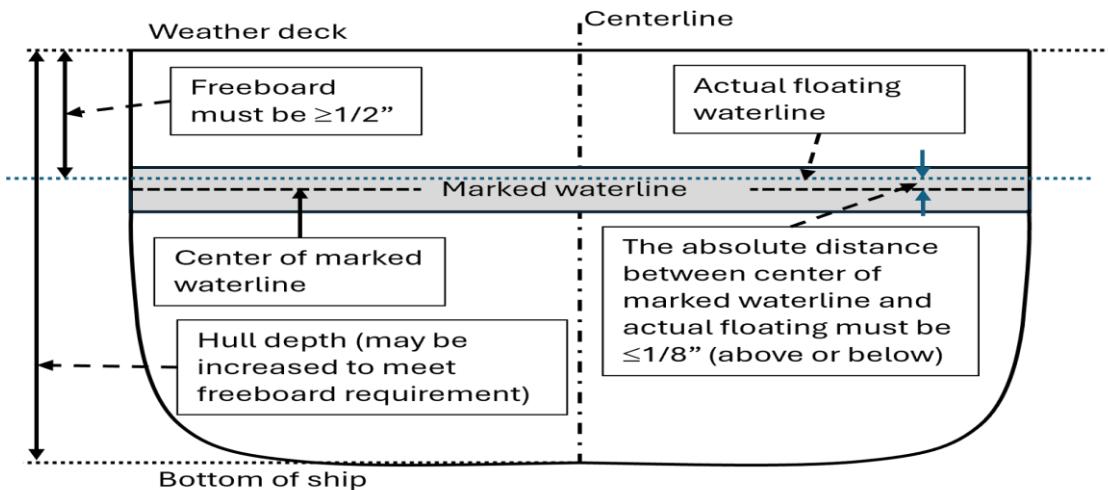


17. Scaled Ship Weight in pounds shall be calculated by dividing Full Displacement of the actual ship in long tons by 1333. The Maximum Model Weight shall not exceed the standard weight plus 37.5%.

18. The Maximum Model Weight of Class 2 and lower ships shall be the Full Displacement in long tons divided by 1333 plus 37.5% or one (1) pound (whichever is greater)

19. All ships shall have a minimum of $\frac{1}{2}$ inch of freeboard (defined as the distance from the surface of the water to the top of the weather deck) while the ship is floating at rest without battle damage at all points along the hull. Hull depth may be increased as required. (see Diagram C)

Diagram C



20. All ships shall be able to change from forward to reverse by radio control.

B. HULL PENETRABILITY

1. All ships shall pass the following hull penetrability test to be able to participate in any IRCWCC event:

The ship to be tested shall be placed on its side. One end of a 3/16" (or larger) diameter by 18" long brass tube shall be placed perpendicular to and touching the ship's penetrable hull area at a spot between two ribs. A 12" long by 1/8" diameter solid brass rod shall be placed about 1/8" into the brass tube. No lubricant of any kind shall be present in the tube or on the rod. The rod shall be released and allowed to fall freely through the tube so it strikes the hull material. The rod shall penetrate the ship's hull. The test shall be repeated up to 4 additional times at other penetrable locations on the ship. The rod shall penetrate the hull at 3 different locations out of a maximum of 5 tries.

It is recommended that a ship be built so that it is able to pass the above test with a 12" drop to allow for battle repairs and the hardening of balsa with age.

2. All ships shall undergo penetrability testing prior to the start of the Annual Championship. Hull penetrability testing at events other than the Annual Championship shall be performed as the result of a challenge by another Captain only. The challenger shall submit to the same test at the time of the challenge.
3. A Contest Director may require that a ship undergo penetrability testing at any time at any event.

C. SCALE AND PROPORTIONS

1. All ships shall be 1/144 scale.
2. The allowable error in the beam of a model ship shall be +/- 1/8" or 2% of the listed scale dimension, whichever is greater. The allowable error in the length of a model ship shall be +/- 1/2" or 2% of the listed scale dimension, whichever is greater.
3. Hull shape shall be relatively to scale. Running gear (such as skegs and bilge keels) shall be relatively scale and in the correct scale location.
4. Each ship shall have a marked waterline. The center of the marked waterline shall be within 1/8" of the actual floating waterline of the ship. Ships in Classes 7 through 2 may have up to a 1/4" wide taped or painted waterline, and ships in Classes 1 and 1/2 may have up to a 1/8" wide taped or painted waterline. Any class of ship may have a scale width waterline. (**see Diagrams B and C**).
5. Each ship shall be equipped with the proper scale number of shafts and rudders, all in relatively scale locations with respect to the longitudinal centerline of the ship, and with scale relative fore/aft placement between components. Each ship must have either one powered prop or one non-powered prop/disk combination per shaft, mounted at the aft end of the shaft. Non-powered props must not exceed the size of the powered props.
 - a. A non-powered prop/disk combination must consist of either one (1) non-powered prop, one (1) non-powered prop and one (1) disk, or one (1) disk.
 - b. If a ship only has two shafts, one disk may be used on each powered shaft only if its diameter is less than or equal to the diameter of the powered prop.
 - c. Disks must be circular, have flat fore/aft faces, have uniform thickness, and must be center mounted about and perpendicular to the shaft. Disk diameter must not exceed 1/4" greater than the diameter of the powered props. Disks may not be any type of device that is designed to create variations in drag force from one direction to another.
 - 1) The circular profile of the disk may be cut to have one flat section as desired.
 - 2) Some examples of prohibited devices include, but are not limited to: cups, domes, hinged disks, hinged flaps, sea anchors, etc.
 - d. All powered props must power the ship in forward and reverse.

6. Ships shall have barrels installed in all main battery turrets.
7. Each ship shall have all model superstructure parts which exceed one cubic inch in volume in place in their scale locations.

D. RUDDERS

1. Only rudders shall be used to steer ships. Any non-rudder turn assisting system, differential steering, or the active varying of shaft speeds relative to each other to assist in turning is prohibited.
2. The maximum movable rudder area allowed for a ship shall be determined by ship's allowed total offensive/defensive units. For each 1/2 unit, a ship will be allowed 1/2 sq. in of rudder area.
 - a. Ships with 2 or less total offensive/defensive units, will be allowed 2 sq. in. rudder area.
 - b. The following table lists allowed rudder area per offensive/defensive combat units:

Combat Units	Rudder Area (sq. in.)
8	8.0
7.5	7.5
7	7.0
6.5	6.5
6	6.0
5.5	5.5
5	5.0
4.5	4.5
4	4.0
3.5	3.5
3	3.0
2.5	2.5
2	2.0
1.5	2.0
1	2.0

3. Deleted.
4. Deleted.
5. The combined width of movable rudders on a ship shall not exceed 7/8".

E. CANNONS

1. A cannon is an offensive battle unit which shall not fire any projectile other than a standard BB (.177" diameter steel shot).
2. Maximum cannon firing pressure shall not exceed 150 pounds per square inch (psi). Use of chlorofluorocarbons (CFC's) or other ozone depleting chemicals as a propellant is prohibited.
3. Cannon units are defined as follows:
 - a. A one-unit cannon carries a load of 50 BB's if fired single shot, or 15 BB's if spurted.
 - b. A $\frac{1}{2}$ unit cannon carries 25 BB's if fired single shot, or 10 BB's if spurted.
 - c. Rule deleted in 2025 Version
4. A $\frac{1}{2}$ unit cannon magazine may be added to a 1-unit cannon magazine, making a one and one-half ($1\frac{1}{2}$) unit single shot cannon with 75 BB's.
5. Rule deleted in 2011 version.
6. All cannons, except those designated as spurt guns, shall be single shot cannons.
 - a. A single shot cannon is defined as one which fires one BB for each movement of the transmitter control from neutral to a fire position and then back to neutral.
 - b. A spurt gun is a cannon designed to fire one or more BB's with one movement of the transmitter control from neutral to a fire position, and then back to neutral. A spurt gun may, but is not required to, expend its entire magazine with one control movement.
 - c. Only ships in Classes 1, 2 and 3 may be armed with spurt guns.
 - d. Each spurt gun shall have an O-ring or restrictor tube, and the inside diameter of the barrel at the muzzle shall be no more than .190".
7. The maximum length of each cannon barrel shall be limited as follows:
 - a. O-ring cannons: 5" from O-ring to tip of muzzle.
 - b. Restrictor tube cannons: 6" from the outlet side of the restrictor tube to the tip of the muzzle.

8. For test purposes a single shot cannon shall be allowed a 20% variance in the ratio of transmitter control movements to BB's fired. Example: for 30 transmitter control movements the cannon may fire anywhere from 24 to 36 BB's and still be acceptable.
 - a. A Contest Director shall determine compliance based on both shore testing and firing characteristics during battle.
 - b. Single shot cannon testing shall be by challenge only. The challenger's cannons shall be tested at the same time as the challenged cannons.
9. Cannons shall be placed in the appropriate turrets or casemates occupied by the main battery of the ship being modeled.
 - a. Cannons mounted in turrets shall extend from the face of the turret in the same manner as the actual ship being modeled.
 - b. Turret barbettes shall be of scale size and shape and shall not be modified to increase the down angle of the cannon.
 - c. Turrets shall sit flat on their barbettes.
 - d. No cannons shall be mounted near the waterline or below the waterline.
 - e. Cannons may be mounted in the superstructure if the main turrets are physically too small to house the cannon.
 - f. Ships in Class 4 and above which had their actual main armament all located forward of their superstructures may use an aft secondary battery to mount a single stern cannon.
10. All firing cannons shall be positioned as follows to cover one of 4 quadrants. The forward and stern quadrants are each 30 degree segments arranged 15 degrees to either side of the ship's longitudinal centerline. The side quadrants are the two remaining 150 degree segments, one on each side of the model, between the forward and stern quadrants.
 - a. Ships in Class 4 through 7 may have side firing cannons. Side firing cannons are those which are set to fire within a side quadrant (i.e., to shoot at an angle greater than 15 degrees measured from the ship's longitudinal centerline). Such cannons may cover either or both of a ship's side quadrants. However, unless otherwise provided in section 11.b or 11.c, below, only one (1) side firing cannon may be used per side.
 - b. Ships in Class 3 and below shall have cannons which fire only in the bow and stern quadrants.
 - c. Unless otherwise provided in section 11.a, below, all ships shall leave one specific

quadrant undefended at all times.

- d. Unless otherwise provided in section 11.b or 11.c, below, there shall be no more than one (1) firing cannon covering a side quadrant.
- e. Bow and stern firing cannons on all classes of ships shall not be angled more than 15 degrees left or right of the longitudinal centerline of the ship. The maximum number of firing cannons covering the bow and stern quadrants of any ship shall be limited to the number of main battery guns that could fire in those quadrants on the original ship.
- f. Turrets on any ship having them may pivot. Pivoting turrets can only be used to move guns as permitted within their appropriate quadrants.
- g. Ships in Class 4 and above may have rotating turrets. Rotating turrets are those that are able to traverse from one quadrant to another, including from one side to the other. A ship with rotating turrets may not violate section 11.b or 11.c, below.
- h. Any cannons carried on board a ship but not used in battle shall be pinned.
- i. No firing cannon shall be positioned so that it fires at an angle above horizontal. No firing cannon shall be positioned so that it fires at an angle greater than 20 degrees below horizontal.
- j. Unless otherwise provided in section 11.c below, side firing cannons covering the same side quadrant must be housed in turrets located a minimum distance of 14" apart, measured from the center of the cylindrical turret base.

11. Authorized exceptions:

- a. Any ship over 40,000 tons standard displacement or 60" scale length (in 1/144 scale) may cover all four quadrants with firing cannons.
- b. Any ship over 40,000 tons standard displacement or over 720' in length or battlecruisers over 688' in length may have three (3) side firing cannons in separate turrets. When so equipped a ship may have no more than two side firing cannons covering the same side quadrant.
 - 1) The following ships may have two side firing cannons in a single turret covering a side quadrant *provided that* they are the only side firing cannons covering that quadrant, for a maximum of three (3) side firing cannons: HMS Vanguard
- c. The following ships may have two side firing cannons in a single turret covering a side quadrant *provided that* they are the only side firing cannons covering that quadrant, for a maximum of four (4) side firing cannons:

- 1) HMS Nelson class.
- 2) Deleted.
- 3) USS Iowa class.
- 4) IJN Yamato class.
- 5) FS Jean Bart and Richelieu class.

d. Any authorized $\frac{1}{2}$ battle unit may be used as any of the following:

- 1) A $\frac{1}{2}$ unit pump, primary or additional.
- 2) A $\frac{1}{2}$ unit may be added to a 1 unit cannon magazine, making a one and one-half (1 $\frac{1}{2}$) unit single shot cannon with 75 BB's as long as it is the only 1 $\frac{1}{2}$ unit cannon on the ship.
- 3) A $\frac{1}{2}$ unit cannon, provided that it does not violate any other provision of these rules.

e. 11.e. Ships in Class 2 or smaller may divide their battle units into one-half (1/2) unit increments for multiple $\frac{1}{2}$ pumps, multiple $\frac{1}{2}$ cannons or combinations of the two. Ships in Class 3 with 3.0 units may divide one (1) battle unit into one-half (1/2) unit increments for multiple $\frac{1}{2}$ pumps, multiple $\frac{1}{2}$ cannons or combinations of the two. Ships in Class 3 and smaller may also combine a $\frac{1}{2}$ unit to a gun magazine to create a 1 $\frac{1}{2}$ unit single shot cannon as long as it is the only 1 $\frac{1}{2}$ unit cannon on the ship.

f. Pre-dreadnoughts with a 73' or greater beam may have a single side mount cannon.

g. **Armored Cruisers with a beam over 73' and a displacement \geq 14,500 standard tons shall be allowed a single $\frac{1}{2}$ unit sidemount.**

12. Automatic-tracking and automatic-ranging systems for cannons are prohibited.

F. OTHER DESTRUCTIVE DEVICES

All devices, other than BB cannons, which are capable of producing damage to an opponent's ship, including mines, torpedoes, depth charges, rockets, explosives, chemicals, fire, etc., are prohibited.

G. PUMPS

1. A pump is a defensive battle unit and shall not be of a positive displacement design.
2. A one-unit pump shall have one round 1/8" inside diameter discharge port. A one-half unit pump shall have one round 3/32" inside diameter discharge port. A one and one-half unit pump will have a 9/64" inside diameter discharge port. The pump, outlet tubing, and discharge port (restrictor) shall be assembled in such a way as to facilitate quick and easy checking of the restrictor by the contest director when requested.
3. Except as provided in section 11.e, above, a one-unit pump may not be subdivided into two $\frac{1}{2}$ unit pumps.
4. A pump shall have only one electric motor, one impeller and one intake.
5. A submarine may have a pump provided that the pump can only be used to pump water into and out of an enclosed ballast tank. The pump shall not be used for damage control.
6. A pump outlet shall be aimed so that it discharges water outside of the ship at an angle which is either not more than 10 degrees above horizontal, or an angle which is not more than 10 degrees from vertical.

H. COMBAT SHIP CLASSES

1. Only combat ships which were launched between January 1, 1904 and December 31, 1946, and were completed, are approved for IRCWCC semi-scale model combat. Refer to the IRCWCC Ship List for a list of approved combat ships.
2. Listed below are the authorized classes for combat ships and the total offensive/defensive units allowed. This list takes precedence over any entries shown in the Ship List.

CLASS 7 7 1/2 units

Battleships \geq 60,000 tons.

7 units

Battleships \geq 44,000 tons to 59,999 tons.

CLASS 6 6 1/2 units

Battleships \geq 40,000 tons to 43,999 tons.

6 units

Battleships \geq 33,000 tons to 39,999 tons.

Battlecruisers \geq 40,000 tons.

CLASS 5 5 1/2 units

Battleships \geq 27,000 tons to 32,999 tons.

Battlecruisers \geq 35,000 tons to 39,999 tons.

5 units

Battleships \geq 25,000 tons to 26,999 tons.

Battlecruisers \geq 30,000 tons to 34,999 tons.

CLASS 4 4 1/2 units

Battleships \geq 22,500 tons to 24,999 tons.

Battlecruisers \geq 25,000 tons to 29,999 tons.

4 units

Battleships $<$ 22,500 tons.

Battlecruisers $<$ 25,000 tons.

CLASS 3 3 1/2 units

Heavy cruisers \geq 12,000 tons.

Pre-Dreadnought battleships.

Armored Cruisers built before 1922, \geq 14,500 tons.

3 units

Heavy cruisers built after 1922, 8,000 tons to 11,999 tons.

Light cruisers built after 1922, \geq 9,000 tons.

Armored Cruisers built before 1922, 11,500 tons to 14,499 tons.

CVAs in Lexington and Akagi classes.

CLASS 2 2 1/2 units

Heavy cruisers built after 1922, $<$ 8,000 tons.

Light cruisers built after 1922, 6,500 tons to 8,999 tons.

Armored cruisers built before 1922, $<$ 11,499 tons.

Other CVAs

2 units

Monitors \geq 7000 tons.

Light cruisers built after 1922, 4,500 tons to 6,499 tons.

CLASS 1 1 1/2 unit

Monitors $<$ 7000 tons.

Light cruisers built after 1922, $<$ 4,500 tons.

Protected cruisers built before 1922.

Destroyers 2500 tons and above.

Submarines 2500 tons and above.

CVLs

1 unit

Destroyers $<$ 2,499 tons.

Submarines $<$ 2,499 tons.

Gunboats, CVEs and all other ship types not listed above.

3. Authorized exceptions:

- a. The IJN Nagato (B) class is class 6 and shall have 6.0 units.
- b. Ships of the USS Iowa and IJN Yamato classes (built in 1/144 scale are class 7 and shall have 8.0 units.
- c. Deleted.
- d. Deleted.
- e. The two ships listed as light cruisers when launched but listed as heavy cruisers by the London Naval Treaty will be heavy cruisers on the IRCWCC Ship List: USS Pensacola class and USS Northampton class.
- f. Appendix B shall contain all single ship classes directly added by rule proposal action

4. All displacement values shown above are standard displacement. All displacement tonnages listed above are in English tons (long tons) of 2240 pounds each.

5. All ships are classified according to their original AS BUILT specifications; reconstruction at a later date shall not affect the class of the ship except as otherwise stated in the Ship List.

6. The manner in which offensive and defensive units are combined and used is the choice of each captain, but it may not be changed during the course of a battle. Offensive unit positioning may be changed between sorties of a battle.

I. SPEED

1. A combat ship's maximum speed shall be determined from the table below:

Battleships LOA \geq 720' 24 sec./100'

Battleships LOA \geq 600' 26 sec./100'

Battleships LOA $<$ 600' 28 sec./100'

Battlecruisers LOA \geq 650' 24 sec./100'

Battlecruisers LOA $<$ 650' 26 sec./100'

Predreadnought BBs 28 sec./100'

Heavy Cruisers (After 1922) 23 sec./100'

Armored Cruisers (Before 1922) 26 sec./100'

Light Cruisers (After 1922) 22 sec./100'

Light Cruisers & Protected Cruisers (Before 1922) LOA \geq 435' 22 sec./100'

Light Cruisers & Protected Cruisers (Before 1922) LOA $<$ 435' 24 sec./100'

Protected Cruisers (Before 1922) 24 sec./100'

Destroyers LOA \geq 300' 21 sec./100'

Destroyers LOA $<$ 300' 22 sec./100'

Submarines 28 sec./100'

Convoy Ships 34 sec./100'

Gunboats 28 sec./100'

Monitors 30 sec./100'

CVAs, CVLs, CVEs LOA >= 740' 24 sec./100'

CVAs, CVLs, CVEs LOA >= 660' 26 sec./100'

CVAs, CVLs, CVEs LOA < 660' 28 sec./100'

2. The values listed in the table above take precedence over any values listed in the IRCWCC Ship List.
3. No change in the resistance in the throttle section of a ship is allowed between sorties.
4. A ship shall not exceed its maximum allowable speed in any direction of movement, whether forward, in a turn, or reverse.
5. A ship shall not employ a timed throttle system that enables a ship to exceed its maximum allowable speed for any portion of the measured course.

J. COMPLIANCE WITH CONSTRUCTION RULES

1. Any member who reasonably believes that a ship's construction is not in compliance with one or more of the above construction rules may bring the matter to the attention of the Contest Director. The Contest Director or someone appointed by the Contest Director shall view the construction details and take measurements or apply any tests that may be needed.
2. If it is determined that the ship in question is not in compliance with one or more of the above construction rules, a Citation of Non-Compliance shall be issued to the member who owns the ship and a copy provided to the President to be kept on record until the ship is reported to be in compliance.
3. If the determination that a ship is not in compliance is made immediately prior to or during an event, a secret ballot shall be taken among all participating captains (on both sides) to decide if the ship can compete without correcting the non-compliant condition.
 - a. If a battle is in progress, the vote shall be taken prior to the next sortie. The vote shall also be taken prior to each subsequent battle as long as the ship is still in violation.
 - b. If one dissenting vote is received, the ship CANNOT compete until the condition is corrected. This voting procedure shall only be allowed during the sanctioned event in which the non-compliance was first determined.
4. Prior to the start of the Annual Championship each hull will be floated at "battle ready tonnage" (full weight and compliment of batteries, ammo, gas etc.) and the displacement of the hull will be verified by the ability to float within one eighth (1/8) of one inch above or below the center of the marked waterline for the length of the hull entirely.
5. A copy of all outstanding citations shall be provided to the Contest Directors of all future IRCWCC sanctioned events by the Vice President. The ship receiving the citation shall not

be permitted to compete in any future sanctioned events until it has been inspected and/or tested by a Contest Director and found to be in compliance with all applicable rules. The Contest Director who finds the ship to be in compliance shall inform the Vice President and the outstanding citation shall be removed from the record.

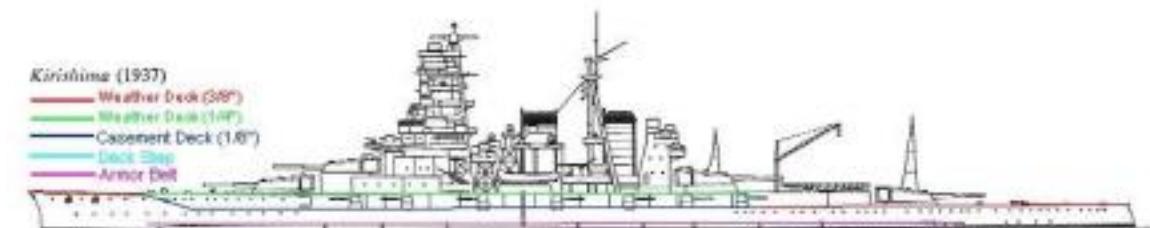
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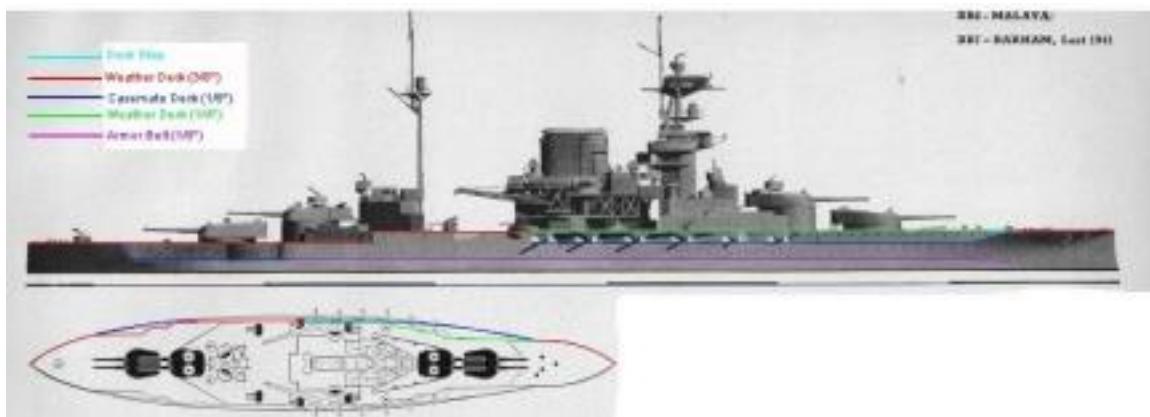
IRCWCC RULES

PART II – APPENDIX A

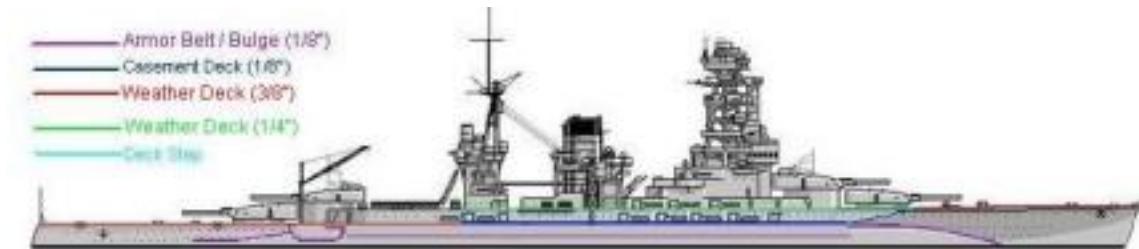
The following are examples of classes and their maximum deck and stringer hard area. In cases where there are questions, the drawing shall be final.



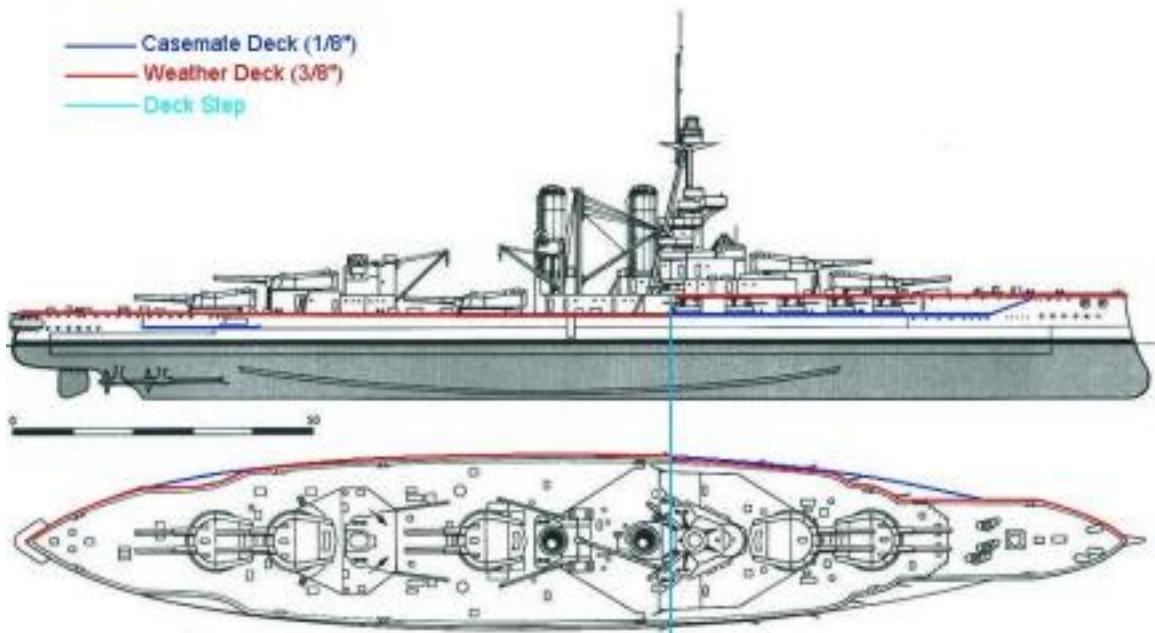
Kongo Class (Kirishima)



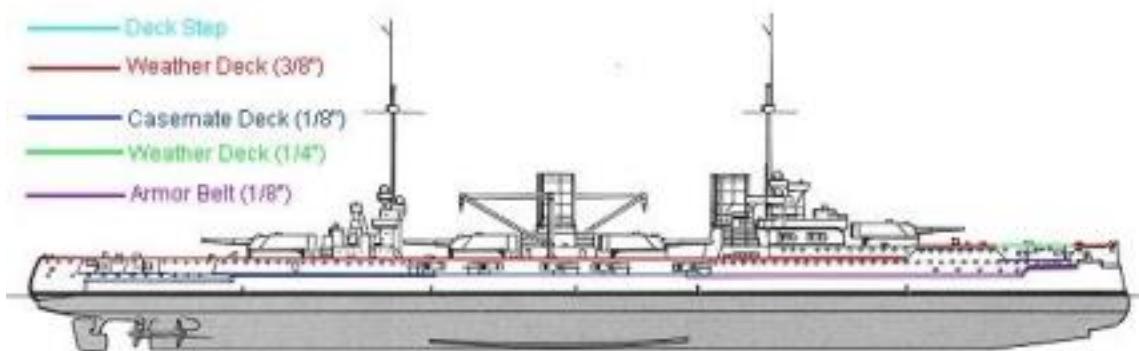
HMS Queen Elizabeth Class (Malaya)



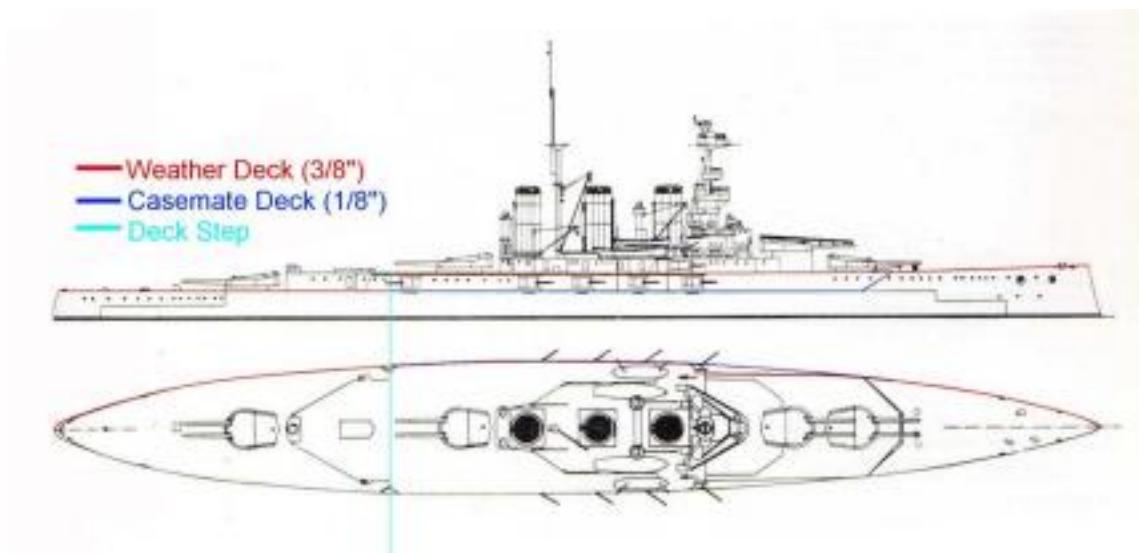
IJN Nagato Class [Bulged]



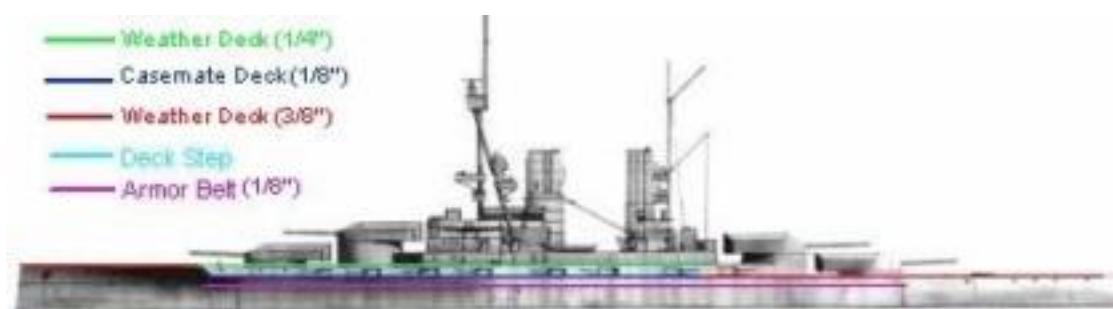
HMS Iron Duke Class



SMS Von der Tann



HMS Tiger



SMS Baden

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IRCWCC RULES

PART II – APPENDIX B

The following are ship classes that have been specifically added via exception, through a properly voted upon and approved rules change according to IRCWCC bylaws.

1) The 1920 South Dakota class will be legal for IRCWCC semi-scale model combat with the following Ship List characteristics using USN Bureau of Construction and Repair Contract Plans number 1 - 9 alternatively numbered C&R 51401-51409:

- Ship Characteristics: 684' LOA, 106' Beam, 43,200 Long Tons Std., 47,000 Long Tons Full, Single Rudder, 4 Shaft

2) The Russian Izmail class will be legal for IRCWCC semi-scale model combat with the following Ship List characteristics using the posted plans available on the IRCWCC Resources webpage.

- Ship Characteristics: 734' 5" LOA, 100' Beam, 32,500 Long Tons Std., 36,646 Long Tons Full, 2 rudders (inline), 4 Shafts

3) The Mackensen class will be legal for IRCWCC semi-scale model combat with the following Ship List characteristics:

- Ship Characteristics: 731' 8" LOA, 99'9" Beam, 30,510 Long Tons Std, 34,700 Long Tons Full, 4 Shafts, Dual Rudders (Tandem)

IRCWCC RULES

PART III - BATTLE

A. SUMMARY

1. Ships shall be divided by mutual agreement into two fleets, and launched at a mutually agreed time.
2. When all participants have announced that they are ready to battle, the Contest Director (or someone appointed by the Contest Director) shall announce, "LET THE BATTLE BEGIN."
3. A battle shall consist of one or more sorties. The number of sorties shall be agreed upon by both sides prior to the start of the battle.
4. A sortie is officially counted as started when a ship is on the water at the time battle is declared between two sides.
5. A sortie shall be declared over when all ships have been removed from the water due to being sunk or in accordance with the Five Minute Rule (or Two Minute Rule).
6. If additional sorties are scheduled in the battle, cannon magazines may be reloaded with BB's and gas systems may be reloaded with CO2. Hull damage shall not be repaired until all sorties have been completed. At the appointed time all ships shall be re-launched for the next sortie. Batteries will be changed in accordance with section C. a. and b., below.
7. At the end of the last sortie the battle is declared over, total combat damage is assessed and tabulated, and a winning fleet is declared. Combat damage may then be repaired and batteries may be replaced in preparation for another battle.

B. PREPARING FOR BATTLE

1. Each ship entering a sanctioned event shall have all old damage repaired and painted prior to entering its first battle of that event.
2. A ship mistakenly launched with the barrel safety pins still inserted in the barrels or the guns' gas or electricity turned off may, during the first two minutes of the sortie, be brought to shore and have the pins removed or guns turned on. The ship shall not be fired upon while returning to shore, and after the mistake has been corrected, shall not be fired upon until the

captain declares that the ship is reentering the sortie.

3. Night combat illumination devices shall not impede the night vision of other combatants.

C. BATTLE

1. The 5 Minute Rule

- a. A Captain may withdraw a ship from a sortie by announcing to all participants that "The [name of ship] is on five!" For ships in Class 1, the announcement shall be "The [name of ship] is on two!"
- b. After invoking the Five Minute Rule (or Two Minute Rule) the captain shall start a timer, and the ship must remain in the battle for five minutes (two minutes for Class 1) before being touched by its captain or removed from the water. During that five minute (or two minute) period, the ship trying to withdraw shall not fire on opposing ships, but it may be fired upon by any other ship which is not also "on five" or "on two."
- c. A captain may not announce that a ship is "on five" or "on two" while anyone is in the water.
- d. At the expiration of the required five minute or two minute period the withdrawing ship must be brought to shore immediately and may not be fired upon. After the ship has been touched by its captain or removed from the water it may not reenter the ongoing sortie. The ship may enter subsequent new sorties if any are scheduled in the same battle.

2. The Fleet Five Minute Rule

- a The Fleet Five Minute Rule varies from the normal Five Minute Rule in that all ships in a fleet shall announce "on five" simultaneously and no individual Five Minute Rule announcements shall be allowed. The rule shall only be established if a majority of the participants in a battle agree, or if directed in the discretion of the Contest Director.
- b. Only a fleet admiral (or other designated fleet commander) can announce a Fleet Five Minute Rule for a fleet.
- c. When a fleet is on a Fleet Five Minute, the Fleet Admiral may ask the opposing Admiral for permission to remove all ships from the battle prior to completion of the Fleet Five.

3. Out of control

- a. If a ship is out of control, a captain may announce "[Name of ship] Out of Control - Five Minutes" for ships in Classes 2 through 7, or "[Name of ship] Out of Control - Two

Minutes" for ships in Class 1.

b. A ship may be declared out of control only when:

- 1) The ship loses controlled propulsion in either direction.
- 2) The ship loses controlled steering.
- 3) The ship is *accidentally* beached.

c. A ship which has announced "out of control" may fire on opposing ships and may be fired on by any other ship not already "on five" (or "on two").

d. If control of a ship which has announced "out of control" is regained within the required five minute or two minute period the captain may, after announcing that control has been regained, return the ship to full battling status. Time accumulated while in "out of control" status is cancelled when the ship reenters the battle in full status.

4. Moss checks

a. In every event a 30 second "moss rule" shall apply.

b. A captain may announce "30 second moss check" in order to check for suspected fouling of a ship's propeller(s). After making the announcement the captain must start a timer and the ship must remain in the battle for 30 seconds before being touched by the captain.

c. During the 30 second period the ship may fire upon opposing ships and may be fired upon. After the required 30 seconds have elapsed the ship must be brought to shore as quickly as possible and the ship may not fire or be fired upon.

d. The captain must immediately clear the fouling material from the ship's propellers and return the ship to the sortie. No other action other than the clearing of propellers may be taken with the ship.

5. Between sorties

a. Water may be removed from a ship's hull between sorties, but battle damage shall not be repaired, except damage repaired in accordance with section III.C.7.e below.

b. No weights may be shifted inside a hull between sorties if the effect is to change the actual waterline.

c. If a ship is not ready to battle at the time a sortie is scheduled to start, it may not

participate in the remainder of that battle unless the captain's admiral requests permission for the battler to enter the battle late. If permission is received, the ship may enter the battle late, but it must be within five minutes of the start of the sortie.

d. If the ship does not enter the sortie, if both admirals agree, the ship may enter the battle at the beginning of a later sortie.

6. Batteries

a. Ships may change or charge all batteries between sorties.

b. Deleted.

7. Sinks

a. A sink shall be declared when a ship has any portion of the weather deck awash on both sides of the hull and is unable to recover, or when part of the hull is resting on the lake bottom. This applies to sinking from any and all causes.

b. A ship that is declared sunk shall not fire on other ships.

c. The Contest Director, or someone appointed by him, must rule on any ambiguous or questionable sinks; i.e. a ship which is beached.

d. Submarines are not considered sunk when their decks are awash or when the boat is resting on the bottom. A submarine shall be declared sunk by its failure to surface at the end of a battle and return to port.

e. At the Annual Championship, ships sunk during a battle may not reenter the battle in a later sortie. At other events outside of the Annual Championship, ships sunk in a battle may repair all or some of the damaged received and reenter the battle in a subsequent sortie provided that:

1) Battle damage is counted and noted for any holes patched. At the end of the final sortie of the battle, the number of holes patched shall be added to the final damage total of the ship, AND

2) The opposing fleet admiral grants permission for the ship to reenter the battle.

8. Secondary ships

- a. A captain whose ship is sunk by battle damage in the first sortie of a battle may use a secondary ship of Class 3 or below to reenter the battle at the beginning of a later sortie. The captain shall use the secondary ship to fight on the same fleet as the captain's primary ship.

D. SCORING

1. Battle damage points are scored by shooting holes in the penetrable hull areas of an opponent's ship.
 - a. A BB entry or exit hole in the hull above the marked waterline shall count 10 points.
 - b. A BB entry or exit hole on or touching the marked waterline shall count 20 points.
 - c. A BB entry or exit hole below the marked waterline shall count 30 points. If a BB makes a hole partially in the marked waterline and partially in the area below the waterline, it shall count as a below-the-waterline hit.
 - d. If a BB makes both an entry hole and an exit hole, the highest scoring hole is counted and the second hole is not counted.
 - e. A hole shall be counted for scoring purposes if a BB strike causes a visible break through the hull skin. In the case of large holes, if there is evidence that more than one BB caused the damage (e.g., rounded dimples around the edge of the damage), then each BB strike that can be identified shall be assessed as a BB hole.
 - f. Points shall not be awarded for superstructure damage. Dents in areas which are properly constructed to be impenetrable shall not be counted as holes.
2. The assessment of battle damage and penalty points shall be done at the end of each battle and recorded on a combat damage report.
 - a. When battle damage is assessed an opposing captain must be present to verify battle damage/penalties. This opposing captain shall initial the combat damage report signifying acceptance of the figures recorded for that sortie.

b. A combat damage report shall be filled out for each ship which participated in the battle.
At the end of a battle, the completed reports shall be turned in to the Contest Director.

3. Points for the sinking of a ship shall be awarded as follows:

Ship Class	Sink Points
7	1100
6	1000
5	900
4	800
3	700
2	600
1	400

a. Authorized exceptions: ships of the Iowa class and Yamato class are worth 1200 battle sink points.

E. RAM DAMAGE AND PENALTIES

1. Any contact between ships may result in a ram penalty being assigned to the captain of the ship causing the contact.
2. Contact between ships which causes damage affecting one ship's combat serviceability, its watertight integrity, and/or the breakage of superstructure parts, is defined as ram damage.
3. The Contest Director shall assess ram damage penalty points against a ship which causes ram damage in accordance with the following:
 - a. 50 points for superstructure damage
 - b. 100 points for hull damage above the waterline
 - c. 200 points for hull damage below the waterline
 - d. Ram damage which causes a ship to sink shall result in penalty points being assessed equal to the sink points of the sunken vessel.
 - e. Non-damaging rams shall have no penalties

4. The captain of a ship which has been rammed must immediately make every effort to bring the ship to shore for determination of ram damage.
 - a. The rammed ship cannot be fired on while returning to shore for inspection or thereafter until the captain declares that the ship is reentering the battle.
 - b. If no damage to the ship's watertight integrity or its combat serviceability is found by the captain, the ship shall immediately return to battle. If the ship is not immediately returned to battle it is considered to have withdrawn from combat voluntarily and is classified as "scuttled."
 - c. If damage to the hull is found and it can be repaired within five minutes the captain may reenter the sortie in progress after making the necessary repairs. If repairs to the hull cannot be carried out within five minutes, the rammed ship shall remain out of the sortie but may reenter the battle in a later sortie. If repairs cannot be made in time to reenter either the sortie in progress or any remaining sorties, no penalty shall be assessed against the captain of the rammed ship.
 - d. The Captain must also announce the area which was rammed using one of the following 6 areas: starboard bow; starboard amidships; starboard stern; port bow; port amidships; port stern.
 - e. At the captain's discretion, adhesive tape may be used to repair the hull as a temporary measure to rejoin the current sortie. The tape must not excessively extend beyond the ram damage and should not unnecessarily cover adjacent battle damage. After re-entering the battle, the CD may direct the Captain to temporarily exit the battle to remove any excessive tape. The Captain must stop any timers if removing tape at the CD's discretion. After the conclusion of the current sortie, the tape shall be removed and the ram may be repaired by traditional means prior to the next sortie. Any/all materials used in this manner should be pre-approved by the CD.
5. If the captain of a ship which has been rammed refuses to immediately bring the ship in for inspection, and the ship later sinks as a result of the ram, the sinking shall not count as a ram sink, but shall count as a combat sink and the opposing fleet or captain shall be awarded full battle sink points. If the rammed ship is inspected and is repaired or not repaired, and the ship later sinks as a result of the ram, the sinking shall not count as a ram sink, but shall count as a combat sink and the opposing fleet or captain shall be awarded full battle sink points.
6. If a rammed ship goes out of control immediately following a ram, the captain must

immediately recover the ship for inspection. The procedure in section E.4, above, shall then apply.

7. A ship that has sunk due to ram damage shall be recovered immediately.

- a. If damage to the hull can be repaired within five minutes the captain may reenter the sortie in progress after making the necessary repairs. If repairs to the hull cannot be carried out within five minutes the rammed ship shall remain out of the sortie but may reenter the battle in a later sortie. If repairs cannot be made in time to reenter either the sortie in progress or any remaining sorties, no penalty shall be assessed against the captain of the rammed ship.
- b. Penalty points shall be assessed against the captain responsible for the ram regardless of whether the ram sunk ship is repaired and returned to battle.

8. When a damaging ram occurs, all ships involved shall stop their timers while the ram is repaired.

9. The ship which caused the ram damage shall be removed from the water while the rammed ship is being repaired. The ramming ship may reenter the sortie only if repairs to the rammed ship can be made within five minutes and the rammed ship returns to the sortie in progress. If the rammed ship cannot reenter the sortie in progress because of the ram damage, the ramming ship shall also remain out of that sortie. The fact that the rammed ship may not be able to enter any remaining sorties in the battle shall not prevent the ramming ship from reentering any remaining sorties in the battle.

F. OTHER PENALTY POINTS

1. Penalty points shall be assigned for the following:

- a. A ship that has received no BB hits in penetrable areas of the hull during a battle but which sinks shall be declared an “unseaworthy” sink shall be penalized one-half (1/2) of the ship's battle sink points by class.
- b. There is no longer a penalty for changing batteries.
- c. A ship which is intentionally beached to avoid sinking due to combat damage shall be penalized two times the ship's battle sink points by class.

- d. A ship's captain may declare the ship scuttled and immediately withdraw at any time during a battle. The opposing fleet or captain shall be awarded points equal to one and one-half times the sink points of the scuttled ship.
- e. A ship's captain may withdraw the ship from a battle between sorties for any reason other than ram damage. The opposing fleet or captain shall be awarded points equal to the sink points of the withdrawn ship.
- f. Speed violations during an event shall be penalized as follows:

First Offense 250 points
Second Offense 500 points
Subsequent Offense(s) 1000 points each

- 2. At any sanctioned event, the Contest Director, with the concurrence of the two fleet admirals, may assess penalty points for actions which violate the spirit and intent of IRCWCC rules even though the actions are not specifically addressed by the rules or Bylaws.
- 3. The Contest Director may test randomly for magazine loads at any time. If more than 55 BB's are present in a one (1) unit magazine (28 for a one-half (1/2) unit magazine and 82 for a one and a half (1 1/2) unit magazine), a 1000 point penalty shall be assessed and the captain shall sit out the rest of the battle.

G. BATTLE POINTS, WEIGHTS and COMPUTATIONS

- 1. At the end of a fleet battle, points shall be weighted by ship class in accordance with the following:

Ship Class	Weight Factor
7	10*
6	10
5	9
4	8
3	7
2	6
1	4

* If three or more Class 7 ships are present at an event, their weight factor shall be 11 (for Class 7 ships) and 12 (for Yamato and Iowa class ships)

2. To determine the points awarded to a particular ship, the following computation shall be performed:
 - a. The total battle damage points for each fleet shall be computed by adding all battle damage points for each ship in that fleet.
 - b. A total fleet weight factor for each fleet is computed by adding together the full weight factor of each ship that participated in all sorties in a battle plus one-half the weight factor for each ship that participated in less than all sorties in the battle.
 - c. Each ship is awarded a portion of the total battle damage points equal to its weight factor (full or half) divided by the total fleet weight factor.
3. Any individual penalty points assessed against a captain or ship shall be deducted from the ship's battle points to produce the final score for the captain of that ship.
4. The final scores of all captains participating in a battle shall be added together to obtain the final fleet score. The opposing fleets' final scores shall then be compared. The fleet with the highest final fleet score shall be the winner of the battle.
5. Ship-to-ship battles shall be scored as if they were fleet battles with only one ship in each fleet.

H. SPEED TESTING

1. Speed testing at events other than the Annual Championship shall be by challenge only, and may be conducted immediately before a sortie begins or immediately after a sortie has been fought.
 - a. The ship being challenged may not be opened or modified in any manner before the test is performed. The test shall be conducted using the batteries installed in the ship at the time the ship is challenged. Pumps may be turned on only if the ship is in danger of sinking during the speed test (or if the pump is always on or automatic). The challenger's ship shall be tested at the same time in the same manner.
 - b. Testing shall be over a measured course from a running start. The challenged ship shall be piloted by the challenger and the challenger's ship shall be piloted by the captain he challenged. The timing shall be done by the Contest Director or by someone appointed

by him. The actual length of the course for measuring speed can be any distance with the above-listed speeds being a rate rather than an absolute.

2. Speed testing at the Annual Championship shall be conducted under the direction of the Contest Director before the start of the first sortie of the first day. Speed testing for convoy ships shall be conducted the same day as the first campaign battle. After the verification of ship speed, all transmitter values pertaining to ship speed or propeller thrust should be logged onto the ship check-in sheet. This includes but is not limited to throttle endpoints, pitch curves, throttle curves, or channel mixing functions. At no time at any point in the transmitter's throttle range adjustment should the ship exceed its maximum speed.

I. RADIO FREQUENCIES

1. Only members in good standing who have battled in a sanctioned event in the 24 months prior to the date of their request shall be assigned a frequency. Members in good standing who have not battled in a sanctioned event in the past 24 months may be assigned a frequency on a tentative basis prior to their first battle.
2. The Vice President has sole discretion to allocate frequencies to members, subject to the following preferences to the maximum extent possible:
 - a. Any member already on the Frequency List who was a member in good standing and battled in a sanctioned event during a calendar year shall be permitted to keep the same frequency during the next calendar year.
 - b. Any member already on the Frequency List who battled in any sanctioned event during the last year shall be permitted to keep the same frequency during the next year.
 - c. All other frequencies shall be assigned at the sole discretion of the Vice President on a "first-come-first-served" basis but with consideration for the geographic location of the member and the number and location of events the member usually attends.
3. Members are advised to correspond with the Vice President before purchasing new radios to determine frequency availability.
4. Members may be assigned only one "primary" frequency. Secondary frequencies may be shown on the Frequency List to help resolve conflicts, but they are provided for reference purposes only.
5. The Vice President shall have the authority to require members to change frequencies in order to eliminate conflicts during a sanctioned event. The factors listed in section 2, above, shall be given maximum possible consideration with the goal of minimizing the total number of frequency changes necessary.

6. Prior to the Annual Championships the Vice President shall coordinate with the Site Host to determine if there are any potential conflicts involving members who have registered for the event. If a conflict is found, the members involved shall be contacted to resolve the conflict prior to the event. All other factors being equal, preference shall be given to the member who registered for the event first.

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IRCWCC RULES

PART IV – AWARDS

A. INDIVIDUAL AWARDS AT THE ANNUAL CHAMPIONSHIP

1. High Sortie Average for each ship class
 - a. At least three ships must participate in a class for an award to be given. If less than three ships in a class participate, they shall be counted in the next higher class for this award.
 - b. To be eligible for this award, a captain must have been present for and have battled in at least 60% of the fleet battles conducted during the event.
 - c. If a ship sinks in the first sortie of a two-sortie battle, or withdraws after the first sortie (except for mechanical reasons or ram damage), the ship is charged with participation in both sorties for sortie averaging purposes. If a ship sinks in the second sortie the captain shall be penalized 200 points against the sortie average. This penalty shall not count against the fleet score.
 - d. Points from unscheduled combat events shall not count towards calculating sortie averages. Points attained during "Small Ship" fleet battles shall not be included in sortie averages.
 - e. For each sortie a captain does not battle a zero (0) shall be added for that sortie for the calculation of sortie average.
2. Best of Scale Award
 - a. This award shall be given to the captain of the ship displaying the best overall scale ship construction and appearance (as voted on by all members present at the time of voting).
 - b. To be eligible for "Best of Scale," a ship must score at least 100 points (exclusive of penalties) and participate in 4 battles, one of which is night battle, during the event.
3. Rookie of the Year Award
 - a. This award shall be given to a battler whose combat debut was made after the previous Annual Championships

- b. A panel composed of the Contest Director and six experienced battlers appointed by the C.D. shall select the "Rookie of the Year."
- c. This award need not be given to the highest scoring rookie or the rookie with the highest sortie average.
- d. Voting shall be based on such factors as ship construction and appearance, captaining ability, sportsmanship, equipment reliability, battle conduct, and any other factors the panel may deem significant.

4. The Von Fluegel Trophy

- a. The captain with the highest overall point total accumulated during the whole year of battling including the Annual Championship shall be awarded this traveling trophy. Points scored during sanctioned regional events shall be included in this calculation. The Secretary shall record, tally and post the scores during the year of battling starting and ending with the Annual Championship.
- b. The winner of this award shall hold it until the Awards Banquet at the next Annual Championships, and is responsible for seeing that the trophy is present at the next Awards Banquet even if unable to attend in person.
- c. Deleted.

5. Individual Combat Trophy

- a. Only the winner(s) of unscheduled combat events (one-on-one or group) shall be awarded points. Only those points scored in excess of an opponent's points shall be awarded to the winner(s) of the event. (Example: if combatant A inflicts 800 points in damage to combatant B's ship, while combatant B inflicts 500 points in damage to combatant A's ship, then combatant A shall be awarded 300 points toward the Individual Combat Trophy and combatant B shall be awarded zero points for this event.)
- b. The combatant who has accumulated the greatest number of points (in accordance with a., above) in unscheduled combat events shall be awarded the individual Combat Trophy.

6. The Best Dress Award.

The captain who wears the best military dress to the Awards Banquet (as voted on by all members present at the time of voting) shall be awarded the Best Dress Award. This award

shall be based solely upon dress.

7. Brian Spychalski Memorial Award

- a. This traveling award shall be given to a captain who shows good sportsmanship, a spirit of helpfulness, and best exemplifies the behavior the Club would like to see from all battlers.
- b. A panel composed of the Contest Director and six experienced battlers appointed by the C.D. shall select the winner.
- c. The winner of this award shall hold it until the Awards Banquet at the next Annual Championships, and is responsible for seeing that the trophy is present at the next Awards Banquet even if unable to attend in person.

8. Most Feared Allied /Axis Captain

- a. This award shall be given to one captain from each fleet who displayed the greatest desire and ability to inflict battle damage in accordance with the rules.
- b. The winner shall be selected by a vote of the members of the opposite fleet.

B. FLEET AWARD - THE AXIS / ALLIED VICTORY TROPHY

1. This traveling trophy shall be presented to the Admiral of the victorious fleet at the Annual championships by the defeated Admiral at the Annual Championships Awards Banquet.
2. The winning Admiral shall hold the trophy until the Awards Banquet at the next Annual Championships, and is responsible for seeing that the trophy is present at the next Awards Banquet even if unable to attend in person.

C. AWARDS AT OTHER EVENTS

1. The following awards may be made at sanctioned local events:
 - a. Most Feared Allied / Axis Captain
 - b. Individual Combat
 - c. Best of Scale

- d. High Sortie Average by class
- e. Winning Fleet

2. Unofficial awards may be presented at the discretion of the participants.

3. Awards made under section C.1., above, shall be reported to the Vice President together with the names of the event's participants and their scores as required by IRCWCC rules.

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IRCWCC RULES

PART V - CAMPAIGN

A. SUMMARY

1. The purpose of Campaign is to recreate scenarios reminiscent of those conditions which naval powers faced during the time period from 1905 to 1946 when they attempted to attack or defend strategic land objectives. The safe passage of convoys and the control of surrounding waters in a war zone were often the crucial factors in the successful outcome of a campaign in war time. Campaign tries to simulate those crucial times of difficult supply and sea control in a game which is easy to play and highly enjoyable for all involved. The conditions being replicated during Campaign include the maintenance of water borne supply lines while at the same time trying to deny those lines to enemy forces. The fleets battle for control of the sea lanes and receive points for successful convoy missions, and the protection of troops and supplies on land.
2. Campaign is a game based on points. The fleet with the most points at the end is the winner.
3. There will be two Campaign Battles during the Annual Championship. The timing of the battles will be decided by a consensus vote of the Captains present at the Sunday Captain's Meeting before the Annual Championship.

B. PREPARATION

1. Standard setup
 - a. Each fleet shall have two bases at the beginning of Campaign: one home base, and one forward base.
 - b. Forward bases for opposing fleets shall be located at least 50 feet apart. The home base of each fleet shall be located on the opposite side of the enemy's forward base, but in a position so that the distance each fleet must traverse between home and forward bases is equal. The supply routes shall thereby cross each other, making highly contested waters surrounding the forward bases.
 - c. Deleted.

2. Alternate setup

- a. In ponds which are too small or not otherwise conducive to “two base” combat, a single base shall be set up for each fleet and shall serve as both forward and home base.
- b. Convoy ships shall be launched at the single base, circle a buoy or obstacle located somewhere distant from the base, and go back to the start point (marking their entry to the “forward” base).
- c. On large ponds at the discretion of the CD and admirals, two marker buoys (“Hayes buoys”) shall be placed approximately 70 feet out from each home base. A line drawn between the Hayes buoys and running parallel to the shore shall establish the maximum distance a convoy ship may travel from shore.

3. Base construction

- a. Home bases and forward bases shall have 10 to 12 feet of shore line 6 feet into the water marked off by stakes. The sides of the bases shall be enclosed to prevent entry from the side.
- b. A bombardment target frame upon which simulated supply and troop targets can be positioned shall be located at each forward base. This shall be constructed out of a large section of foam board and anchored to the pond bottom, adjacent to the shoreline, at a distance away from the forward base agreed to by the CD and admirals. The 20 targets simulating depots and troops will be manufactured, breakable, BB gun targets.
 - 1) The bombardment target frames shall be 15' x 1' x 1" boards floating in the water adjacent to but not in front of each forward base.
 - i) A physical boundary shall be set up in the water to keep combat ships at least two (2) feet away from the bombardment target frame. This boundary shall be constructed low enough so that it does not prevent the shooting of simulated supply and troop targets by attacking combat ships.
 - ii) Ten “supply depot” targets and 10 “troop battalion” targets shall be placed on each target frame at the beginning of Campaign. These targets shall be equipped with small magnets to hold them in place but which permit them to be knocked over by ships’ BB cannons. The depot targets shall be made of 1” round dowel or 1” square stock. Depot targets shall be 3” tall and troop battalions shall be 2” tall.
 - 2) The bombardment target frame is constructed of a large section of foam board and anchored to the bottom of the pond at a distance agreed to by the CD and admirals.

The 20 targets simulating depots and troops will be manufactured breakable BB gun targets.

c. Deleted.

d. Deleted.

C. CONVOY SHIP CONSTRUCTION

1. A convoy ship may be any ship built or specifically refitted to transport supplies or troops. These may include warships not normally used in fleet battles: aircraft carriers, submarines, small destroyers and patrol craft.
2. Only convoy ships which were launched starting in 1905 through 1946, inclusive, and were completed, are approved for IRCWCC Campaign.
3. Convoy ships shall be built in compliance with IRCWCC Construction Rules (see Part II)
4. The maximum speed of convoy ships shall be 34 seconds per 100 feet at full speed.
5. Convoy ships shall not carry any offensive units (cannons) or defensive units (pumps).
 - a. Convoy ships may have a pump installed to remove water between runs but shall not activate the pump during the run. These pumps are not “Defensive Units” and are not subject to the limitations on defensive units in C.5
 - b. The pump discharge must be visible when viewing the ship from all aspects. If a convoy ship activates these pump(s) at any time during a run, that convoy ship will be declared scuttled and must be immediately brought to shore and removed from the water.
6. The maximum rudder area for a convoy ship shall be determined by the following table:

Length of Combat Ship	Size of Rudder
19.9" or under	1.0 sq. in.
20" to 34.9"	1.5 sq. in.
35" to 59.9"	2.25 sq. in.
60" and over	4.0 sq. in.

D. CONVOY SHIPS AND THEIR DUTIES

1. A convoy run shall be attempted by each fleet at least once in every 10 minute period of Campaign. Otherwise, the opposing fleet shall be awarded 500 points.
2. Each convoy ship shall be given a 30 second grace period upon leaving its base to allow it to clear the shoreline. No combat ship may fire upon or impede its progress for 30 seconds. The 30 second grace period runs concurrently with the 5 minute timer.
3. There is no limit to the number of convoy runs which can be made during Campaign.
4. If one fleet has significantly more combat or convoy ships than the other, a transfer of ships to the undermanned fleet may be requested by the Contest Director with agreement of the captains and fleet admirals in the interest of fair play. Such action is not mandatory.
5. Convoy ships shall sail on the water for a minimum period of 5 minutes while transiting from their home base to their forward base, and the same period while returning from their forward base to their home base. Captains shall time their ships.
6. Convoy ships shall enter a base only as a result of one of the following: a.
Entering a friendly port at the end of a 5 minute running period on the water. b.
Sustaining declared ram damage, or being sunk due to ram damage.
c. Being sunk by cannon fire.
d. Being declared scuttled.
e. Being pushed or towed into a friendly port by a friendly ship at the end of a 5 minute running period on the water.
7. Convoy ships are targets for cannon fire until they can fully enter a friendly port. Convoy ships that sink before being touched (by human hands) inside the safe harbor are considered to be combat sunk. Convoy ships that exit the water without reaching port, or before their 5

minute timer has expired are considered to be declared sunk.

8. All Fleet Battle Ram Rules apply to convoy ships with few exceptions, as follows:

- a. If a convoy ship is rammed its captain will call ram and stop his timer. This does not interfere with any other event being timed in the Campaign. Both ships involved in the ram will come to shore, unless the ramming ship was also a convoy ship. The convoy ship will then be checked for ram damage. Careful examination to the ship must be done to prevent water from leaving the convoy's hull. Ram damage must be on the hull, either above or below the waterline. Damage to the superstructure or weight shifting does not constitute a damaging ram or give the ship a free run. Shifting weight may be readjusted without removing water from the hull.

1) If damage is found in the hull of the convoy ship in the location of the called ram or the convoy ship was ram sunk, several penalties will occur as follows:

- i) The convoy mission is deemed fully completed and the proper points shall be awarded.
- ii) Ram Damage Penalties on convoy ship hulls count double.
- iii) The penalty for ram sinking a convoy ship shall be the run points being attempted at the time of the ram. This is in addition to counting the convoy run as complete.

- iv) The ramming ship must stay off the water until the damaged convoy ship is seaworthy or 5 minutes pass. The offending ship's captain may assist in any repairs to the damaged convoy ship to make it seaworthy as quickly as possible.

2) If there is no ram damage to the convoy ship then both parties will return to sea. The convoy ship captain will reactivate his 5 minute timer after 30 seconds from leaving shore and may move in any direction desired. The convoy ship will not be a target for cannon fire for a grace period of 30 seconds after leaving the shore. This will give the convoy ship a chance to gain sea room. The ramming ship will remain at shore until the end of the 30 second grace period. The offending ramming captain times the 30 second grace period.

- b. If a convoy ship is rammed or ram sunk by a ship of its own fleet, the convoy ship's mission ends in failure.
- c. If a convoy ship rams another ship, the convoy ship continues on its mission as usual; however, ram damage penalty points are still counted, including the penalties listed above.

E. ATTACKS ON CONVOY SHIPS

1. Convoy ships may be attacked in accordance with one of two alternative rules.
 - a. The "no touch rule" - No combat ship may touch or be touched by a convoy ship during the convoy ship's transit. If the ships do touch during a Campaign the combat ship shall immediately be sailed to shore and then begin a 30 second "time out" period, after which time it may reenter Campaign. Note: a convoy ship may actively "hunt" a combat ship to affect the "touch," thereby sending the combat ship out of the battle for a 30 second penalty period. There shall be no limit on the number of combat ships which may attack a convoy ship or any other restrictions.
 - b. The "single attacker rule" - Only one combat ship attacker is allowed within 10 feet of the convoy ship at a time and NO defending combat ships shall be within 10 feet of the convoy ship at any time. Other combat ships can attack with long range cannons from outside the 10 foot circle provided there is never more than one combat ship within the 10 foot circle.
2. Prior to the start of Campaign, a vote shall be taken among all captains present to determine which rule shall be used.

F. COMBAT SHIPS AND THEIR DUTIES

1. Each combat ship shall begin Campaign with all operational cannons fully loaded with BB's and a fresh set of batteries.
2. Each Captain may utilize two (2) combat ships during a Campaign. One (the "primary") may be any combat ship in Classes 1 through 7. Another (the "secondary") may be any combat ship in Classes 1 through 3.
3. A Captain's primary ship may be replaced by that Captain's secondary ship if the primary ship has been sunk or has properly left the battle pursuant to the 2/5 minute rule. A Captain may start the battle with either ship on the water. For example they may start with a Class 1-3 secondary and change to a 1-7 primary, then back to their secondary ship.
4. Combat ships may begin Campaign at any location on the water, and may then undertake any combat missions assigned, such as sea patrol, forward base protection, bombardments, convoy interception and convoy escort.
5. Combat ships launched after the game has begun can be launched at any location and can then undertake any of the aforementioned missions. However, such combat ships shall have a grace period of only the customary time to gain "sea room" before being fired upon.

6. All combat ships not sunk during battle may reenter the battle at will during a campaign.
7. A combat ship in Class 4 or above may rearm only if there are supply depots still standing on its fleet's bombardment target at the time it comes ashore. Class 3 ships and below may rearm regardless of the status of their fleet's supply depots.
8. Each fleet must have a ship on the water at all times during campaign. If at any time the fleet does not have a ship on the water the opposing fleet will be awarded 1000 points.
9. If a warship is mossed during campaign but cannot make it into shore to remove the moss that ship shall be considered out of the battle and not be shot or fire its own cannons until a campaign Time Out is declared or it is assisted to shore by its own fleet. If the ship sinks during this time it will be counted as a sunk warship.

G. APPLICABLE RULES

1. All IRCWCC rules apply to Campaign unless specifically modified by the Campaign Rules in this Part.
2. Exceptions and modifications
 - a. The 2/5 minute rule - Combat ships shall sail immediately to shore, shall not linger or take part in any fleet actions along the way.
 - b. Deleted.
 - c. Deleted.
 - d. Convoy ships may repair damage after each run.
 - e. Convoy ships that are sunk may repair damage and re-enter the battle for further sorties.
3. The length of a Campaign is 1 hour. This does not include extension periods.
 - a. Each fleet shall be granted one 5 minute extension period. The extension shall be granted at the request of the fleet's admiral at any time before the end of Campaign.
 - b. The battle should begin on the hour or half hour to ease timing problems and the Fleet Admiral's and Contest Director's watches should be synchronized.

H. OTHER BATTLE CONDUCT

1. Ships in the square marked “safe harbor” area may not be fired upon.
2. Ships may not be fired upon when they are being launched or retrieved.
3. Deleted.
4. No warship or convoy may impede the progress of any other convoy ship. This includes blocking the convoy from moving forward or reverse, pushing the ship on the sides of the hull with any part of a warship, or preventing the convoy from turning in any direction. If the warship does the above only the convoy captain will make a “push” call and the offending warship will come to shore at once for a period of 30 seconds during which it is no longer part of the battle. It may not fire or be fired upon. It cannot declare its 2/5 minute rule and may not be taken out of the water.
5. When a ship is sunk or out of control its captain cannot retrieve it if a convoy mission is in progress. At the discretion of the CD a Campaign Time Out can be called to recover sunk and out of control ships. Each fleet admiral can request up to two (2) Time Outs per campaign battle. Once this time out is declared no more convoys maybe be launched and all convoy ships on the water will complete their current runs. Any warships that wish may call their 5. When the Time Out is active normal man in the water rules apply and the campaign battle timer will be stopped. Warships may come to shore and stay on the water and leave the water when off their 2/5. At the discretion of the CD sunken ships maybe removed from the water with a one-foot wet recovery without a time out being declared.
6. Deleted.

I. SHORE BOMBARDMENT

1. Supply depot targets and troop battalion targets on the forward base target frame shall be engaged by enemy fleet BB cannon fire. The supply depot and troop battalion targets shall be deemed destroyed if any part of the manufactured, breakable, BB gun target has been damaged or destroyed by BB gun fire.
2. Supply depot targets knocked over as the result of ship’s wake or ram may be reset by and at the discretion of the Contest Director.

J. SHORE BATTERIES

1. Each forward base may have one shore battery. Shore batteries will be constructed and operated to all existing IRCWCC cannon safety and CO2 gas system safety rules. Shore batteries will be immobile objects that are physically anchored in position/orientation.
2. Shore batteries may be positioned at the discretion of the owning team's admiral, with approval of the Contest Director for safety considerations. Batteries must be placed within reach of the "One Foot Wet" rule near the shoreline of the pond, and can not be placed in such a way as to fire directly into any of the Home/Forward bases, or up onto the shore, where people may be present. Shore batteries that float shall be anchored so as to not drift beyond the reach of the "One Foot Wet" rule near the shoreline of the pond.
3. Each shore battery is allowed one cannon with a 75 round BB magazine.
4. Shore Batteries may be retrieved, reloaded, recharged, and re-gassed so long as at least 1 friendly target on the forward base target frame remains undamaged. When retrieving the shore battery, the battery commander will announce "RECOVERING SHORE BATTERY" and is permitted to put ONE FOOT in the water, per the one foot wet rule, to retrieve the battery for re-arming. When replacing the battery after reloading, its overall position and orientation should remain the same, within a reasonable deviation.

K. SCORING

1. No points shall be awarded for convoy ship sinks.
2. No points are awarded for battle damage to combat ships.
3. Standard points shall be awarded for combat ship sinks.
4. Each fleet shall be awarded 125 points for each troop battalion or supply depot which is left standing at the end of the Campaign.
5. Points shall be awarded for each trip, either from the home base to the forward base, or vice versa, completed by a convoy ship in accordance with the following schedule:

Length of combat ship Points for completion of run

<u>Length of Combat Ship</u>	<u>Points for completion of run</u>
<u>19.9" or under</u>	<u>125</u>
<u>20" to 30.49"</u>	<u>300</u>
<u>35" to 59.9"</u>	<u>550</u>
<u>60" and over</u>	<u>850</u>

6. Each convoy ship captain is responsible for accurately recording a ship's completed number of runs. The admirals of each fleet shall have a debriefing meeting of their captains to tally convoy runs, sinks, rams and other points. The admirals, CD and score keeper shall then compare noted to come up with a final score.
7. A convoy ship declared sunk (or scuttled) shall result in 1000 points being awarded to the opposing fleet.
8. The Contest Director shall compile the fleet scores. The fleet which accumulates the greater number of points is the winner.
9. If there is a tie in points, the fleet with the most convoy runs wins.
10. Individual points are not awarded in Campaign.

L. AWARDS

1. Best of Scale Convoy - This award shall be given to the captain of the convoy ship displaying the best overall scale ship construction and appearance (as voted on by all members present at the time of voting). To qualify, the ship must have attempted at least one (1) convoy mission.
2. "Marty Hayes" Life Line Award - This award shall be given to the captain who has completed the greatest number of successful convoy missions. In the case of a tie, the captain with the larger convoy ship is the winner. In case there is still a tie, both captains shall receive the award.

--- End ---

IRCWCC RULES

PART VI –MEMBERS’ CONDUCT

A. STANDARDS OF CONDUCT

1. All members of the IRCWCC shall conduct themselves in a sportsmanlike manner at all club activities, during all club meetings and in all club forums (including e-mail sites).
2. All members shall refrain from the use of crude, abusive, insulting or profane language at all club activities, during all club meetings and in all club forums (including on e-mail sites).
3. The consumption of alcoholic beverages or illegal substances at waterside or in the pit area is prohibited at IRCWCC events at all times.

B. COMPLAINT PROCEDURE

1. A member may lodge a written complaint with the President within 10 days of any incident in which it is alleged that another member has violated IRCWCC standards of conduct.
2. The President may either present the complaint directly to the Executive Board for review, or attempt to mediate the matter between the parties. If this mediation is unsuccessful, the President shall present the complaint to the Executive Board for review.
3. The Executive Board, after reviewing the written statements of those involved, may impose such sanctions as are permitted by the Bylaws including suspension for a period of time or, upon a unanimous vote of the Executive Board, removal from membership.

C. CONTEST DIRECTOR AUTHORITY

The Contest Director at any sanctioned event may order a member to “sit out” portions of an event or eject a member from an event for a period of time or for the remainder of the event for failing to comply with the Club’s standards of conduct.

D. APPEAL AND REVIEW

At the request of an interested member, any disciplinary action taken by any Contest Director shall be reviewed by the Executive Board, which shall affirm or modify the same. An ongoing event shall not be delayed to accommodate such a review.

--- End ---