

# Red Star - White Star



## Modern Naval Rules for the 21st Century

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## Design Notes

The rules have been designed to give players an accurate, yet manageable game in a 23 hour playing time. In these rules, combat occurs in three distinct zones. (1) Within the horizon. (2) Over the horizon and (3) Underwater. The horizon has a nominal range of up to 24 inches, while beyond the horizon is limited to 48 inches or the average width of a gaming table. Most torpedo attack ranges are limited to 12 inches, although some torpedoes can operate beyond the horizon. The game system allows for a movement rate of 8" per game turn for all vessels and unlimited for aircraft. This gives a reasonable appearance of movement for 1:3000 scale ships.

Modern ships possess a much more sophisticated weapon and sensor array than was available in WW2. Most defensive systems are 'layered' in that they are capable of engaging incoming attacks at long range (over the horizon or at very high altitude) within the horizon, (about 15 miles) and very close to the vessel itself. Missiles form the long and medium range defense while gatling weapons deal with threats under 1500m. Many of these systems are fully automated and do not require operator intervention to engage a target. This is especially true of 'CIWS' systems that are a final defense against incoming missiles. In addition, a large array of sophisticated electronic support measures (ESM and ECM) attempt to mislead or jam enemy radar and missile control signals. The Russians and presumably NATO, both deploy nuclear evasion torpedoes designed to cause a significant blast wave in front of incoming enemy torpedoes.

All major navies spend a considerable amount of time gathering electronic intelligence (ELINT) information about their possible adversaries. This includes radar and electronic emissions, machinery noises as well as signal traffic. Included in this category is the IFF signal designed to prevent friendly fire against your own ships.

The combat system is based on a contestable dice roll. This is designed to reflect both the maneuver and electronic counter measures (ECM, ECCM and decoys) of the target. It works very simply. The attacker rolls the number of dice listed for the weapons system they allocate for an attack. The target rolls an equal number of dice and the highest dice roll(s) win. When comparing each group of dice to determine the winner, players should read them in the following manner. Remove all matched dice; i.e. those with the same number rolled, continuing until you are left only with those dice that cannot be matched. The remaining dice are paired off, highest against highest. If the defender's dice roll is the highest, the pair is removed and it is considered to be a miss. If the attacker's dice roll is higher, it is considered to be a hit. For each dice pair that is a 'hit', subtract the lower dice roll number from the higher, and this becomes the number of 'damages' the target sustains. Place a counter for

each **damage** beside the target ship. Roll 2D6 for each new **hit** (not **damages** or those already recorded) and any doubles rolled result in the immediate destruction of the target.

Each damage is assumed to degrade the efficiency of the ship by reducing its firing capacity and speed. Damage is repaired by rolling 1D6 and removing the appropriate number of damage counters from each damaged ship. This reflects damage control parties repairing or bypassing damage. However, once a ship retains a certain number of unrepaired damages, it sinks. This reflects out of control flooding or fire that ultimately causes the loss of the ship. The smaller the ship the smaller the number of unrepaired damages leading to its loss.

For the purposes of the rules, all targets within the horizon are automatically detected, while those over the horizon are automatically detected by aircraft or helicopters once they are within the target's horizon or are assumed to reach sufficient altitude to gain a direct line of sight to the target. Satellites give targeting information but not in 'real time', therefore satellite targeting should always be treated as a 'bearing only launch'. Specialised attack aircraft may always launch air to surface missiles at the maximum 'Over the Horizon' 48inch range but are treated as being within the radar horizon.

#### **Scales and Movement:**

These rules are intended for ships in the 1200<sup>th</sup> /3000<sup>th</sup> or 6000<sup>th</sup> scale. All dice are D6

#### **Ranges:**

Visibility within the horizon - 4 dice rolled and their total added together. (4 – 24 inches)

Radar range – surface to surface at sea level – 24 inches. Airborne search radar range is unlimited.

ESM range – up to 36 inches. This allows for the detection of electronic emissions just over the horizon.

#### **Game Turn Sequence – Players move alternate moves**

1. At the beginning of the game turn, players dice for who moves first. The winning player moves and fires first.
2. First player moves all ships and places submarines and aircraft for attack.
3. Second player conducts all AA (including fighter interception of enemy attack aircraft) and ASW fire
4. First player, in the order listed, conducts air attacks, fires ship missiles and guns and launches torpedoes
5. All damages are recorded against their targets and ships tested for sinking.
6. Second player now repeats the above sequence.

7. Repair damage
8. Test Morale

All ships move 8" (200mm) in a straight line, 7" (180mm) if the ship turns up to 90 degrees and 6"(150mm) if it turns more than 90 degrees. CV may only turn up to 90 degrees per game turn. Aircraft movement is unlimited on the table

The radar horizon is assumed to be 24 inches (600mm) from the observer. Therefore, players may deploy markers for those units outside visual range and beyond 24". The marker should state the type, (large, medium or small target) but not the identity of the ship. Helicopters and aircraft are placed as they are.

Gun Range = 12" (300mm)

Torpedo Range = 12" (300mm) unless capable of very long-range.

Missile Range = 24" (610mm) within the horizon

Missile Range – Over the Horizon (OTH) or Beyond Visual Range (BVR) = 48" (1220mm)

#### **Surface Attack – Missiles and Guns (rate of fire) within the horizon**

When an attacker engages a target (the defender), with missiles, guns, or both, the attacker rolls the number of D6 dice listed for that ship under **Rate of Fire – Surface** in the **ship data tables**. Add +1D6 to each gun armed ship once range closes to within 12". Vessels classified as '**stealth ships**' have -1 from all dice rolls for missile fire against them. The defender rolls the same number of dice to defend against the attack. If the target ship has any retained damage points, the number of retained damage points is removed from each of their defending dice roll(s). Damage sustained in the current game turn is not counted.

The dice are then matched off and the highest individual dice rolls win. Each time an attacker wins a dice roll, it inflicts one **hit** against the defender that inflicts 1D6 **damages**

#### **Surface attack – Missiles Fired Over The Horizon (OTH) or Bearing Only Launch (BOL)**

Attackers firing missiles **Over The Horizon** must either have a helicopter or aircraft in visual or radar contact with the target, or fire on a 'Bearing Only Launch'. The firer rolls the number of dice listed in the Surface Warfare - OTH column, and the target must equal or beat the number rolled to avoid being hit.

Attackers using Bearing Only Launches (those beyond 24 inches range) have no mid course correction capability. The firer rolls 1D6, but the target rolls 2D6, the highest dice roll winning. This reflects the inaccuracy of such a targeting method. Submarines firing cruise missiles from OTH must use BOL firing rules.

Ships may target beyond the horizon using their helicopters as forward observers, which cannot be shot down. They are too small to detect and effectively engage. Firing using OTH targeting reduces the rate of fire. Aircraft, such as the Tu22M, Tu95 Bear D, F14, Tornado etc, may attempt the same attack from beyond visual range (BVR) – over 24 inches. Such specialized attack aircraft do not reduce their rate of fire when firing OTH or BVR.

### **Air Defense Rates of Fire**

Some warships have a 'layered' AA defense that allows them to engage targets from OTH. Ships shown in the "ship stats" at having an OTH capability, may roll an extra dice in their AA defense to simulate their ability to engage a target at a longer range than those that don't. This only applies to defense against missile fire from OTH.

### **Damage and Repair**

Each successful hit causes damages to the target. Damaged ships may attempt repairs at the beginning of their next game turn. Damage is removed by rolling 1D6 dice and reducing the number of damages by the number rolled. Any damage not repaired, remains with the ship as 'retained damages'. It may take several dice throws to remove all damage, but until all damage is removed the ship may only move and fire at a reduced rate. For each retained damage, reduce speed by 1". Damaged ships have no radar or ESM capability; therefore all types of fire are reduced by 1 point, for every retained damage, on each dice rolled in attack or defense. CV with 4 or more retained damage points cannot operate aircraft. Land targets, which need to have their defense values set at the start of the game, cannot be repaired once damaged.

### **Sinking ships or destroying land targets.**

All targets are destroyed by rolling any double, (with two dice), for each successful hit (not damage), scored against that target. Destroyed targets are immediately removed from the game. Once ships reach their maximum number of damage points as retained damages, they sink and are immediately removed from the game.

### **Submarine Attacks using torpedoes**

These are different to all other attacks. Submarines are placed within 12" of their intended target during the movement phase of the game turn. They don't move across the table as do surface warships. Any defending warship with ASW capability, then attempts to drive off or destroy the submarine BEFORE the submarine attacks – using ASW warfare. The defender(s) may attack the submarine using 1D6 dice roll for every ASW capable warship (not freighter, aircraft carrier or assault ship) within 12" of the submarine. The Submarine defends against these attacks by throwing the same number of dice as the attacker(s). The highest dice rolls win. If the ASW defense wins, the submarine suffers the number of

damages equal to the difference between the defender and attacker's highest dice roll. For each damage suffered, the defender may make a 'sink test' against the submarine. If they succeed they immediately destroy the submarine. If not, the submarine withdraws – being removed from the game.

If the submarine player succeeds in beating the ASW defender's dice rolls, they may then attack the target with 4 dice. The defender counters with 4 dice, the highest dice rolls winning. Each successful hit causes the number of damages, as described in 'the combat system'. Each successful hit also allows the attacker to roll a double, which if successful, sinks the target immediately.

Once the submarine attack is concluded, the submarine is removed from the table until it is required for another attack, in the next or future game turns. Submarines may only attack one target per game turn. Surface ASW ships may only attack one submarine per game turn. They may not attack any other target while doing so, but may defend themselves if attacked.

#### **Submarine versus Submarine.**

At the beginning of the game, players may allocate one of their submarines to a dedicated ASW role. This allows the player to counter attack an enemy submarine, from 6" range, which has declared an attack on a friendly surface warship, by rolling 4 dice against the enemy submarine. The enemy submarine must attempt to avoid the attack by equaling or beating the attacker's dice rolls and then must elect to either return fire against the attacking submarine or continue against the original surface target. All damage and sinking is assessed using the original system.

#### **Air to Surface Attacks – within the horizon**

Aircraft are placed over their intended targets. Before any air attack commences, each ship, within 6", or Fighter Group within 24" of the attackers may attempt to repel the air attack by rolling the appropriate number of dice. Each attacking aircraft group must exceed the defenders dice roll(s) to press home the attack. If they fail, they are driven off and suffer casualties.

#### **Air to Surface Attacks – over the horizon (OTH) or Beyond Visual Range (BVR)**

Only specialized maritime attack aircraft may attempt OTH or BVR attacks against shipping. The attacking aircraft are deemed to have either satellite or long-range radar tracking of the intended target. Each aircraft group is allocated 3D6 attack against the target and must exceed the defender's die roll in order to hit the target.

If they succeed, the number of damages are recorded against the ship and then the attacker attempts to roll a 'double' for each hit (not damages) to see if the target is sunk or destroyed. Once the air attack is complete, the aircraft group withdraws from the table. Because of the time required to mount such an attack, only one OTH or BVR attack may be made per aircraft group in each game.

#### Ship Morale

Ships that have remaining 'retained damages' at the beginning of the player's game turn, must roll 1D6 and equal or exceed the number of retained damages to remain in the battle. If they fail the morale test, the ship must immediately withdraw at 'best speed' from the table. It may continue to roll to remove retained damages, but must still leave the table.

#### Air to Air Combat

Aircraft units may engage in combat once within 24 inches of each other. Both sides roll off the number of D6 allocated for each aircraft type. The highest dice rolls being the winner. The losing unit is considered to have suffered losses and damage and immediately withdraws from the battle. The difference between the two highest opposing dice rolls, represents the number of actual aircraft lost. The loser may take no further part in the battle unless it is a campaign game that allows reinforcements. The winner must immediately withdraw to their base or aircraft carrier and may take part in only one other combat mission in current game.

#### Aircraft air to air combat dice allocations.

US Navy/Marine F14, AV8 and F18 =3D6

Soviet FSU Mig29 and Su27=2D6

Royal Navy Sea Harrier =3D6.

French Naval Rafale = 3D6

All other naval fighter or attack aircraft =2D6.

All bombers and maritime patrol aircraft=1D6.

NATO land based fighters = 3D6,

Soviet and FSU land based fighters =2D6

#### Battle Group Composition

##### US Navy Carrier Battle Group

1 CV or CVN with 1 CGN or CG acting as close AA defense (goal keeper).

It may not leave the carrier.

1 CG with 3 DDG acting as anti submarine and outer AA screen.

1 SSN acting as anti submarine or attack boat

### **Russian Surface Action Group**

1 CV, CVH (Kiev) or BCGN (Kirov) acting as Group Commander

1 CG with 2-3 DDG as screen and attacking force

1-2 SSN attack submarines

1-2 Naval Aviation Sqns land based (Tu95, Tu22M) or Fighters in direct support

### **NATO Battle Group**

1 CVL or CVH with 1- CG acting as AA close defense (Goal Keeper). It may not leave the carrier.

1- CG with 3-5 DDG acting as screening force. Their primary duty is ASW.

1- SSN or SS acting as anti-submarine or attack boat.

Ships may be mixed together from any NATO navy under the one command

### **Some further Ideas**

Players should form specialist or dedicated naval task forces for a particular purpose. The most common is the ASW group, usually of 3-5 ships. The Royal Navy Leander, Type 22 and later Type 42 Class ships were specifically constructed as ASW vessels. The Russians used their Krivak and Kotlin SAM Frigates as ASW ships, then, added the Soverimennyi and Udaloy classes to bolster an aging ASW fleet. In recent times they have tended towards a multi-role vessel, as have NATO and the US Navy.

The American carrier battle groups resulted in the Russians creating anti-carrier surface action groups centered on the Kiev Helicopter carrier class and then the Kirov battle cruiser class, post 1985.

The Russians also converted their ageing Tu95 'Bear D & G bomber fleet to naval attack squadrons and added the dedicated Tu22M to give their Naval Aviation a very potent strike weapon. Neither NATO nor the US Navy possesses such an air-arm.

Players should also seriously consider China, India and Japan as potential naval rivals, especially as China has modernized her fleet in the past decade and thus challenged Indian naval supremacy in the Indian Ocean. Much of the potential naval conflict revolves around the control of resources, especially oilfields.

Players should be careful to match off ships from the same area. With the possible exception of North Korea, no navy is going to deploy outdated ships against a modern naval task force. Players should therefore ensure that all combatants are from the same era.

Vessel	Surface Warfare		OTHAA	ASW	Damage Points	Carrier Attack	Air Groups	
	To Horizon	OTH					Fighter	Recon
<b>Soviet Union and FSU</b>								
	ROF							
Kuznetsov CV	2	2	Y	y	12	1	1	1
Kiev CVH	2	N	Y	Y	10			
Moskva CVH	1	N	Y	Y	10			
Kynda CG	3	1	Y	Y	7			
Kresta I CG	1	1	N	Y	7			
Kresta II CG	1	1	Y	Y	7			
Kara CG	3	1	Y	Y	7			
Kirov BCGN	3	2	Y	Y	8			
Sovremenny CG	3	2	Y	Y	7			
Udaloy CG	1	1	Y	Y	7			
Neustrashimy FFG	1	1	Y	Y	5			
Slava CG	4	2	Y	Y	7			
Kashin Mod DDG	2	1	Y	Y	5			
Krivak II FFG	1	N	Y	Y	5			
Krivak III FFG	1	1	Y	Y	5			
<b>United States</b>								
Kennedy Class CV	2AA	N	N	N	15	2	2	1
Nimitz Class CVN	2AA	N	N	N	15	2	2	1
Enterprise CVN	2AA	N	N	N	15	2	2	1
Arleigh Burke DDG 3	3	2	Y	Y	6			
Arleigh Burke DDG 1-2	2	1	Y	Y	6			
Ticonderoga CG	3	2	Y	Y	7			
Virginia CGN	3	1	Y	Y	7			
California CGN	2	1	Y	Y	7			
Kidd DDG	2	1	Y	Y	6			
Spruance DDG	2	1	Y	Y	6			
O.H.Perry FFG	2	1	Y	Y	5			
Knox FF	2	N	Y	Y	5			
<b>United Kingdom</b>								
Invincible CVH	2AA	N	N	N	10	1	1	1
Type 82 DDG Bristol	2	1	Y	Y	6			
Type 42 DDG	2	N	N	Y	6			
Type 22 FFG Batch 1 & 2	2	N	N	Y	5			
Type 22 FFG Batch 3	3	N	N	Y	6			
Type 23 FFG York Class	3	2	N	Y	5			
Leander Type 2TA	2	N	N	Y	5			
Leander 2B	1	N	N	Y	5			

**OTH - Over the Horizon**

**OTHAA - Over the Horizon Anti-aircraft**

**ECM Range to 36 inches**

### **Specialized Naval Attack Aircraft – Rate of Fire**

#### **FSU and Allies (each Attack Group contains 5 aircraft)**

Tu 95 Bear D	2
Tu95 Bear G	3
Tu22M Backfire	4
Su25T	1
Su27	3
MiG29	2

#### **United States & NATO Allies (each attack group contains 5 aircraft)**

Orion P3	3
F14 Tomcat	3
FA18 Hornet	3

#### **NATO (each attack group contains 5 aircraft)**

Bruget Atlantique	3
Tornado	2
Euro Fighter/Mirage 2000	2
Etendard	2

NOTE: These specialized naval attack aircraft DO NOT reduce their number of attacks when launching missiles from OTH or BVR.