



by Daniel Kast

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Iron Stars is a game of space combat in an age of steam and steel. Set in a fictional universe based loosely on the writings of H. G. Wells and other fantasists, it provides a back story and ship designs from an alternate history in which the Martian Invasion actually happened, the ether is all-pervasive, and Cavorite is a reality. But, as with *Starmada* and other **Majestic Twelve Games** products, the focus is on players' imaginations; a clear and concise ship construction system is provided so you can pit your own space dreadnoughts against the likes of the Royal Navy Ether Squadron or the German *Äthermarine*.



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GAME DESIGN

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Some images ©2003-2004 ClipArt.com

ISBN 0-9715979-7-9

First Printing, April 2004

Printed in the United States of America by

Gorham Printing, Rochester, WA

www.gorhamprinting.com

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Game Components

The following items are provided with this game:

- The *Iron Stars* rulebook, which includes:
 - The rules of play;
 - An historical briefing, including five scenarios from the Far East War of 1904-1906;
 - Specifications for twenty-eight ships of the British & Russian fleets and their allies; and
 - Instructions for constructing your own ships.
- Two (2) full-color counter sheets, representing British and Russian ether-ships;
- One (1) clear plastic sheet containing firing arc and minefield templates. These will need to be cut out before use.

In addition, players will need to have the following items on hand:

- A flat playing surface, preferably 4' by 6', but at least 3' square;
- At least one ruler or tape measure;
- At least one (and preferably several) of each of the following dice: d4, d6, d8, d10, d12, and d20. If you don't already know, these are collectively referred to as "polyhedral" dice and should be available at any well-stocked gaming or hobby store. The number after the "d" indicates the number of sides on the die;

e.g., a "d6" is the typical six-sided die you will find in most board games. The number of sides on a die is often referred to as its *size* or its *type*;

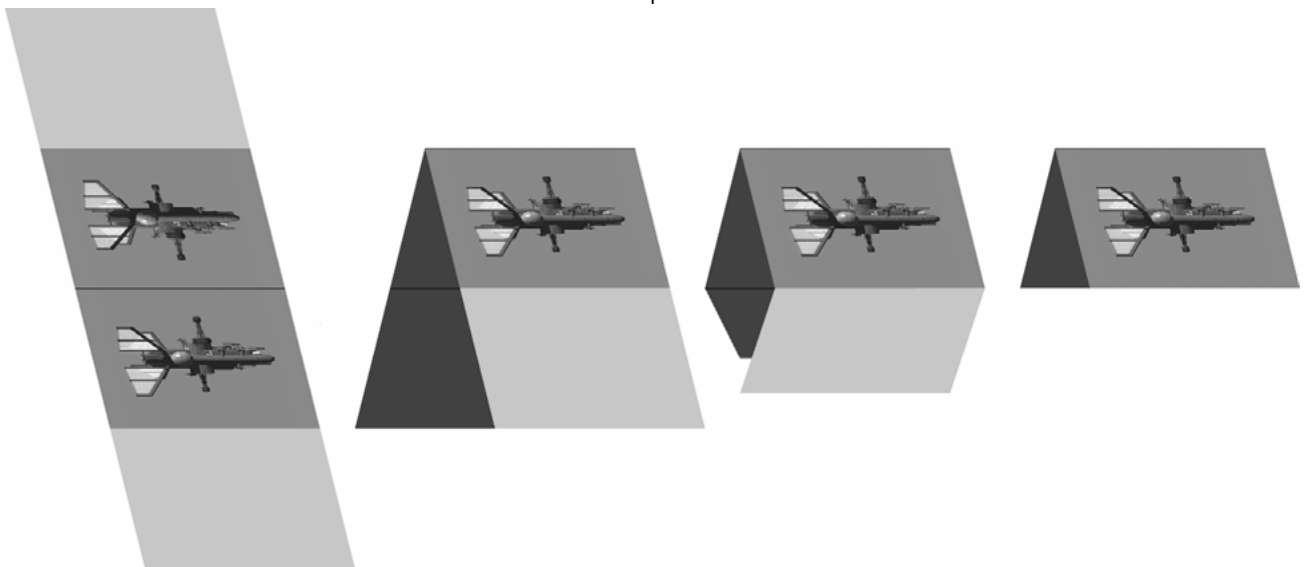
- Pens and scratch paper.

The counters included with this game require a bit of assembly, as shown at the bottom of this page.

1. First, the counter should be carefully separated from its sheet with a pair of scissors or a hobby knife.
2. Next, fold the counter in half so that the ship profiles are on opposite sides.
3. Then, fold each side in half again, forming two flaps at the bottom of the counter.
4. Finally, glue the two flaps together, one on top of the other, so that the counter forms a three-sided tent shape with equal sides. Be sure that the ship's name appears on the bottom of the assembled counter.

Advanced Rules: Throughout this book, you will see text that appears in a shaded box. This indicates an advanced rule, and as such you should feel free to ignore it when first learning how to play *Iron Stars*.

Once you have a feel for how the game works, it is strongly encouraged that you incorporate the advanced rules—they are considered "official" and should be used in tournament play and other competitive environments.



The World of *Iron Stars*

The world of *Iron Stars* is our own, with all of its trials and tribulations, heroism and villainy, courage and cowardice. Of course, there is one tiny difference between our world and theirs. . .

At most terrestrial men fancied there might be other men upon Mars, perhaps inferior to themselves and ready to welcome a missionary enterprise. Yet across the gulf of space, minds that are to our minds as ours are to those of the beasts that perish, intellects vast and cool and unsympathetic, regarded this earth with envious eyes, and slowly and surely drew their plans against us. And early in the twentieth century came the great disillusionment.

H.G. Wells, *The War Of The Worlds*

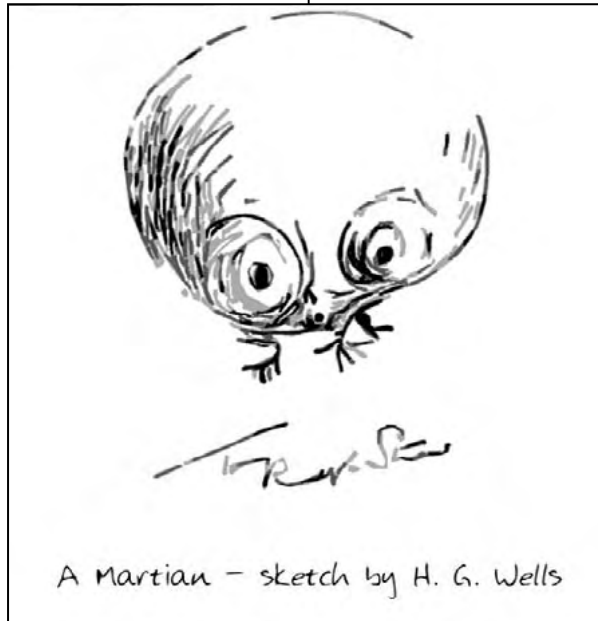
During the Martian opposition of 1894, a "great light" was observed on the face of Mars by several astronomers. Further observations taken at the next two oppositions revealed strange markings on the surface of the Red Planet, which some claimed were co-located with the Great Light of 1894. Few took these developments seriously, as the Great Powers were busily occupying themselves with the activities of imperialism.

During the nineteenth century, Great Britain, France, Russia, the German states, and Austria-Hungary dominated the politics of the globe. Alliances were ever-shifting, and regional warfare was commonplace. Since the fall of Napoleon, the Great Powers had avoided open warfare for the most part (the Franco-Prussian War of 1870 being one notable exception), mainly content to divide the rest of the world among themselves. However, by 1901, things had started to change.

Queen Victoria died in January, marking a literal and symbolic end to the 'Victorian' era. Two new powers—the United States and Japan—were entering the world stage, even as many in the old guard began to creak under the weight of their own might. Communism, in the person of

Vladimir Ilych Lenin, had begun to rear its head in Czarist Russia. Technology and the industrial revolution were changing everything, including the weapons of war. And while the "Boxer Rebellion" in China was easily quashed, the incident demonstrated growing resentment of European dominance. It was into this powder keg that the first Martian cinder fell, in a Surrey field during the spring of 1901.

No one yet knows (and it is likely we will never discover) just how many people died during those fateful weeks. It is telling that the best record of what actually happened during the Martian War is that of an English civilian, Herbert George Wells, set down six years after the fact. While there is certainly much more to the story, the chaos and desperation of these events were such that not even the highest-ranking and most privileged members of European governments truly know everything that happened in that terrible fortnight, when Humanity struggled merely to survive.



A Martian - sketch by H. G. Wells

As we know now, the world did survive—although nothing would ever be the same again.

* * * * *

After the debris was cleared, and the Martian bodies burnt, it was time to examine the machines that brought such destruction in their wake. While many scientists, including such brilliant minds as Nikola Tesla and Max Planck, focused on reverse-engineering the Martian "death ray", the Germans took a keen interest in the lightweight yet somehow ultra-dense material of which the Martian tripods were manufactured.

Late in 1901, Graf Ferdinand von Zeppelin unveiled his latest rigid airship design, encased

not in cloth or aluminum, but *Wasserstahl*. The manufacturing process of "hydro-steel", as it came to be known in the English-speaking world, was a jealously-guarded secret, one which the other Powers had great difficulty in penetrating. The urgency of this task was increased when, in 1902, the newly-formed German *Luftflotte* began to patrol the borders between Germany, France, and Russia. It seemed that, despite the existence of an other-worldly threat, old animosities would not quickly be forgotten.

* * * * *

The world-wide impact of the Martian War was largely psychological in nature. Outside of the cities of London, Paris, New York, Chicago, and Berlin, the physical devastation wrought by the Martian war machines was limited. In many areas, notably Africa, China, and Japan, the Martians were conspicuous only by their absence.

The primary effect of the War in China was due to the Great Powers' withdrawal from Peking during the first days of the invasion. After the War ended, the Powers were too busy with other things to concern themselves with wrapping up suppression of the Boxers.

As a result, the *I Ho Ch'uan* ("Fists of Righteous Harmony", or FRH) regrouped and, under the new leadership of recently-repatriated Dr. Sun Yat-Sen, laid siege to the Forbidden City in July of 1901. Within a month, the Empress Dowager had been chased into exile in Japanese-controlled Taiwan, and the FRH had mainland China firmly in its grip. While they spent the better part of the next two years fortifying their hold on power, the FRH would soon play a pivotal role in the affairs of the Great Powers.

* * * * *

Another major beneficiary of the Martian War was the Orange Free State. Over the strenuous objections of Lord Kitchener, the British withdrew nearly half their forces from South Africa during the summer and early fall of 1901, in response to security concerns at home. Faced with a determined opponent and dwindling resources, Kitchener was obliged to restrict his occupation to the Transvaal, effectively granting the Orange Free State its independence.

Despite continued guerilla attacks and minor border skirmishes, the Boers in the Transvaal eventually capitulated and, in 1902, recognized the sovereignty of Edward VII in exchange for limited autonomy. Unfortunately, the gold mines of South Africa were unable to produce the anticipated economic boom, as the world economy was still shaken by the Martian invasion and subsequent reconstruction. As a result, the British territories of the Transvaal, Natal, and Cape Colony were never settled extensively, and were eventually annexed (some would say "lib-erated") in 1905 by the Orange Free State, while Great Britain was dis-tracted by the Far East War.

The *Vrijstaaten van Zuid-Afrika* (VZA, or Free States of South Africa) were formally created in 1907 after lengthy

negotiations. True to their Boer heritage, the inhabitants of the Transvaal, Orange Free State, Natal, and Cape Colony were unwilling to fully give up their autonomy—the government that took power under Prime Minister Hertzog in May of that year may have been popular, but it was not powerful.

* * * * *

On September 6, 1901, U.S. President McKinley was shot while in New York attending opening ceremonies for the rebuilt Stock Exchange. The assassin, Leon Czolgosz, was quickly apprehended by Secret Service agents, and



although a frenzied mob attempted several times to exact vigilante justice, he was conveyed safely to a local prison. McKinley died eight days later.

Czolgosz went to trial later in the month, at which time he showed no remorse for his crime. His only explanation for the murder was that he was a devotee of Emma Goldman, a New York feminist and anarchist rumored to have connections to the Bolsheviks in Russia and a shadowy group known only as *Libertà Rossa*. Czolgosz was executed on October 29.

Taking the reins of government was Theodore "Teddy" Roosevelt, a war hero for whom it was felt the Vice Presidency had been a perfect fit; high visibility and the appearance of power without any real authority. Czolgosz' bullet changed all that, and the country had a new leader who saw the Martian invasion as a call to arms. Whereas McKinley wished to present a united front among nations in the hopes of peaceful negotiation with any remaining Martians, Roosevelt believed the only way to beat back any further invasion attempt—extraterrestrial or otherwise—was with as big a stick as possible.

Within months of taking the Presidency, Roosevelt announced his plans for a National Advisory Committee for Aeronautics (NACA), headed by Secretary of the Smithsonian Institution Samuel Pierpoint Langley. NACA was one of many programs intended to bolster American defensive capabilities; and while Roosevelt went to great lengths to publicly identify the Martians as his primary concern, it cannot be denied that the potential threat posed by the German *Luftflotte* played a role in the American decision to focus on heavier-than-air flight.

Less than a year after NACA's creation, Langley and two brothers from Ohio, Orville and Wilbur Wright, successfully flew the "Aerodrome", a

gasoline-powered aeroplane, along the Potomac River. In 1903, after lengthy correspondence with Russian scientist Konstantin Tsiolkovsky, Langley brought a proposal to Roosevelt that would lead to the expansion of NACA's experimentation into orbit, heralding Russo-American cooperation in astronautics that would last well into the next decade.

* * * * *

As in most scientific fields around this time, Great Britain found herself in the vanguard of space exploration. British rule of the seas was a matter of national survival; it was only natural to expect this dominance would extend to the stars. The Admiralty was not about to let such a potentially huge gap in England's "Iron Walls" go unplugged for long, and in 1903, the sloop *RMES Cavor* became the first true "ether ship"—named for the world's first space traveler and the inventor of Cavorite.

Cavorite, developed in 1899, is a necessary first step in the progress of a space-faring nation. It is true that ether-propellers are the primary method of propulsion once in space, Cavorite blinds being simply too cumbersome for ships to maneuver with any degree of precision. However, the anti-gravity

properties of Cavorite are essential for lifting ships into orbit in the first place.

Unfortunately for the British, the secret of Cavorite could not be contained for long—within six months, France and then Germany had launched their own ether ships.

Thus, by the time the United States and Russia made the leap into space, the Europeans had already been there for eight months.

The Space Race had begun.

* * * * *



A less-than-successful early test flight of the Aerodrome



The years immediately following the Martian War saw increased cooperation between the Great Powers; unfortunately for succeeding generations, this cooperation was far from unilateral. While there was a general recognition that states were stronger together than alone, the alliances that formed were still based primarily on narrow self-interest, rather than any concept of world unity. More damaging in the long term was the Great Powers' continued refusal to see the rest of the (non-European) world as little more than colonies to be (re-)gained. China, in particular, was snubbed diplomatically time and again by Great Britain, France, and Germany, who continued to recognize the Empress Dowager in Taiwanese exile as the rightful ruler. Only Russia seemed interested in developing a normal relationship with the new government in Peking—most likely in order to gain Chinese blessings for Russian “stewardship” of Mongolia and Port Arthur.

In 1902, Great Britain signed a mutual-defense pact with Japan, as King Edward realized the Royal Navy, while still pre-eminent, was being stretched to its limit. The Anglo-Japanese treaty

was aimed at protecting British interests in the Far East, while at the same time placing limits on Russian ambitions in Manchuria and Korea. Whether Russian overtures to the FRH were a cause or effect of this arrangement is unknown, and probably irrelevant, as Moscow and Peking would likely have grown closer together in any event.

With the *Entente Cordiale*, established in 1904, Germany found herself isolated as, at a stroke, Great Britain and France resolved all outstanding points of contention between them. Kaiser Wilhelm, along with Alfred von Tirpitz, succeeded in manipulating nationalist stirrings within Germany so that the military budget was doubled within the first five years of the century, and would double again before a decade had passed. Again, cause and effect cannot be separated; certainly, the expansionist leanings of the German people worried the other Powers, while German isolation only served to justify the need for additional military spending.

Across the globe, it seemed as if battle lines were being drawn. . .

Ships

HMES <i>Nike</i>					
Light Cruiser (38 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
10 (M/2)	2	4	4/d10 (x2)	6/d6 (x1)	4/d4 (x1)
OOOOO OOOOO	OO	OOOO	OOOO	OOOOO O	OOOO
1-12	13	14-15	16	17-18	19-20
Torpedoes: 4/d8 (x2) OOOO		Notes:			

Each ship in *Iron Stars* will have a corresponding ship record that lists its capabilities and armament. Given above is a sample ship record for the light cruiser HMES (His Majesty's Ether-Ship) *Nike*. The various sections of the ship record are explained below:

Point Value (pts): This is a quantitative indication of the ship's combat effectiveness. The higher this number, the more damage it can give and/or receive in battle.

HMES *Nike* is worth 38 points.

Hull: The number of hull hits the ship can take before destruction. Hull sizes range from 1 to 35. The number of hull points determines the ship's size class, which in turn determines the size of the ship's counter:

Hull Points	Size Class	Counter Size
1-3	Very Small	1/2" x 3/4"
4-8	Small	3/4" x 1 1/8"
9-15	Medium	1" x 1 1/2"
16-24	Large	1 1/4" x 1 7/8"
25-35	Very Large	1 1/2" x 2 1/4"

HMES *Nike* has 10 hull points, and is therefore size class medium (M). The number after the slash (2) is *Nike's* Hull Victory Point value (HVP), which is defined on p. 10.

Armour: The amount of physical protection the ship possesses. This number is added to the target number for an opposing to-hit roll. Armour values range from 0 to 5.

HMES *Nike* has an armour value of 2.

Thrust: The amount (in inches) by which the ship can accelerate its movement across the game board each turn. Thrust ratings normally range from 4 to 8, but can be as low as 2 or as high as 10.

HMES *Nike* has a thrust rating of 4.

Primary: The number and size of the guns in the ship's main battery. The number after the die type indicates the damage value of the guns. Gun size is given as a die type; damage values are x1, x2, or x3.

HMES *Nike* has four guns in her primary battery; these are size d10 and have a damage value of x2.

Secondary: The number and size of the guns in the ship's secondary battery. The number after the die type indicates the damage value of the guns. Sizes are again given as die types; damage values are either x1 or x2.

HMES *Nike* has six guns in her secondary battery; these are size d6 and have a damage value of x1.

Light Guns: The number of small-caliber weapons carried by the ship. All light guns are size d4, and have a damage value of x1.

HMES *Nike* has four light guns.

Damage Location Track: The shaded row is the ship's damage location track, and determines how often the ship takes various kinds of damage. The numbers correspond to results on a d20 roll.

HMES *Nike* suffers hull damage on a roll of 1 through 10, armour damage on a roll of 11, thrust damage on a roll of 12 or 13, etc.

Torpedoes: The number, size, and damage value of any torpedoes carried by the ship. Sizes range from d4 to d12; damage values range from x1 to x5.

HMES *Nike* has four torpedoes; these are size d8 and have a damage value of x2.

Notes: This section is used to indicate any special equipment possessed by the ship, and/or other unique characteristics or circumstances.

HMES *Nike* carries no special equipment.

Setting Up



Iron Stars is intended to be played on a 4' x 6' area; about the size of a large dining room table. It is possible to play on a smaller surface, although things may get a little cramped if the length or width is less than 3'. Generally speaking, the playing surface should be flat and empty; there is not much in the way of "terrain" in space. However, if desired, players can litter the field of battle with various objects such as asteroids, meteorites, and the occasional piece of Fortean flotsam. Players should decide upon the effects of such objects before the game begins; for example, asteroids might block line of sight (see p. 14) and prohibit movement.

The forces on each side should be balanced using the ships' point costs. An arbitrary point total should be selected, such as 300 or 500, and then each side should select ships whose point values add up to this number, or as close to it as possible. As long as the difference between the two sides is no greater than 10% of the lesser total, the game can be considered balanced. For example, if one fleet has 260 points and the other 280, the battle is

even, since the difference (20) is less than 10% of the lower total (26).

Each ship should be represented by a playing piece. *Iron Stars* comes with cardstock counters, whose bases vary between $\frac{3}{4}$ " and $\frac{2}{4}$ " in length. The game can also be played with plastic or metal miniatures, which should be based on stands approximately 1"-1½" in diameter. In all cases, the exact location of the ship is indicated by the centre-point of the counter or miniature. In addition, each playing piece must have an easy way of determining the direction in which it is pointing; this is called the ship's *facing*.

Once the ships have been selected, they are placed on the playing area. Each side should choose one long edge of the table; then, sides alternate placing their ships, one at a time.

1. The side with more ships should place first. If both sides have an equal number of ships, each side should roll a d6; the side with the higher roll chooses whether to place first or second.
2. Ships are placed according to size class: all of a side's very large ships are placed first, followed by its large ships, then its medium ships, and so on.
3. The first ship placed should be within 12" of the owning side's edge of the game board. When placed, a ship can be facing in any direction, and is assigned a *momentum* from zero up to its thrust rating (see "Movement").
4. The second ship (i.e., the first placed by the opposing side) must be placed between 24" and 36" from the first.
5. Subsequent ships may be placed anywhere, as long as they are no further than 6" from an already-placed friendly ship, and no closer than 24" to any already-placed opposing ship.

The above guidelines assume that you are playing a "pick-up" game of *Iron Stars*; pre-designed scenarios, such as those starting on p. 22, may have their own rules for force composition and set-up.

Sequence of Play

Iron Stars is played in a series of turns, each of which is divided into six phases. Each phase should be completed before moving on to the next; e.g., all movement must be finished before the combat phases can begin. Once all phases have been completed, one game turn is over, and the next begins with the initiative phase.

Unless playing a pre-designed scenario, which may have its own rules for game length and victory conditions, the game ends after six turns have been completed, at which time the side with the most *victory points* is the winner. Victory points (VPs) are scored by destroying and/or damaging enemy ships:

- Each ship destroyed awards a number of VPs equal to its point value.
- Each hull hit scored on a ship that was not destroyed awards a number of VPs equal to the ship's Hull VP value (HVP), which is determined by the following formula:

$$\text{(Point Value} \times \frac{1}{2}) / \text{Hull Points}$$

(rounded to the nearest integer)

For example, if HMES *Nike* were destroyed, her opponent would receive 38 VPs; if she took 4 hull hits but was not destroyed, her opponent would receive 8 VPs (4 x *Nike's* HVP of 2).

1. **Initiative Phase.** Each side rolls a d6, with the higher roll winning; in the case of a tie, the side which lost the initiative in the previous turn wins (during the first turn, re-roll any ties). The winning side declares if it will be the *active* side or the *reactive* side for the current turn. As there are benefits to conducting the second movement phase, or the first combat phase, the choice will depend greatly upon the tactical situation.
2. **Active Movement Phase.** The active side moves all of its ships.
3. **Reactive Movement Phase.** The reactive side moves all of its ships.
4. **Active Combat Phase.** The active side attacks with all of its ships. All damage is applied at the end of the phase.
5. **Reactive Combat Phase.** The reactive side attacks with all of its ships. All damage is applied at the end of the phase.
6. **End Phase.** For the most part, the end phase merely marks the end of the game turn. However, there may be special activities required of players during this phase; such actions are detailed in the relevant sections of the rules.



Movement

During the appropriate movement phase, each ship may move a number of inches equal to its current thrust rating, plus its *momentum*, which is defined as half of the distance moved in the previous turn (rounded up). For example, if HMES *Nike* (thrust 4) moved 3" in turn 1 its momentum would be 2" ($3 \times \frac{1}{2} = 1\frac{1}{2}$, rounded up). Therefore, it could move up to 6" in turn 2. At the beginning of the game, a ship may have any amount of momentum up to its starting thrust rating; e.g., a ship with a thrust rating of 5 could have up to 5" of momentum during the first turn.

If a ship's momentum is greater than its current thrust rating, it must move *at least* the difference between the two during the current turn; otherwise, it does not have to move at all.

Suppose, for example, HMES *Nike* has been reduced to a thrust rating of 3 due to battle damage. In the previous turn, *Nike* moved 7"; therefore, *Nike's* momentum is 4" ($7 \times \frac{1}{2} = 3\frac{1}{2}$, rounded up to 4). *Nike* must therefore move at least 1" ($4 - 3$) and no more than 7" ($4 + 3$) in the current turn.

A ship must move straight ahead. Ships are allowed to change their facing by up to 90° once per turn by pivoting about their centre-point. This may be done at any point during the ship's movement; the only limitation is that a ship may not move farther after a turn than it did before. For example, if a ship moves 3" and then makes a turn, it may only move a maximum of another 3".

Ships may never finish their movement on top of another ship's counter, although ships may move through each other at will. Ramming is not allowed.

When moving, a ship's counter may pass over an object defined as blocking movement, so long as the centre-point of the counter does not move over

the object. A ship may not end its move with any part of its counter on top of any object.

A ship may move off of the table—however, if it does so, it is considered destroyed and the opposing side is awarded the appropriate number of VPs.

After a ship has moved, place a marker or small die next to the ship indicating its momentum.

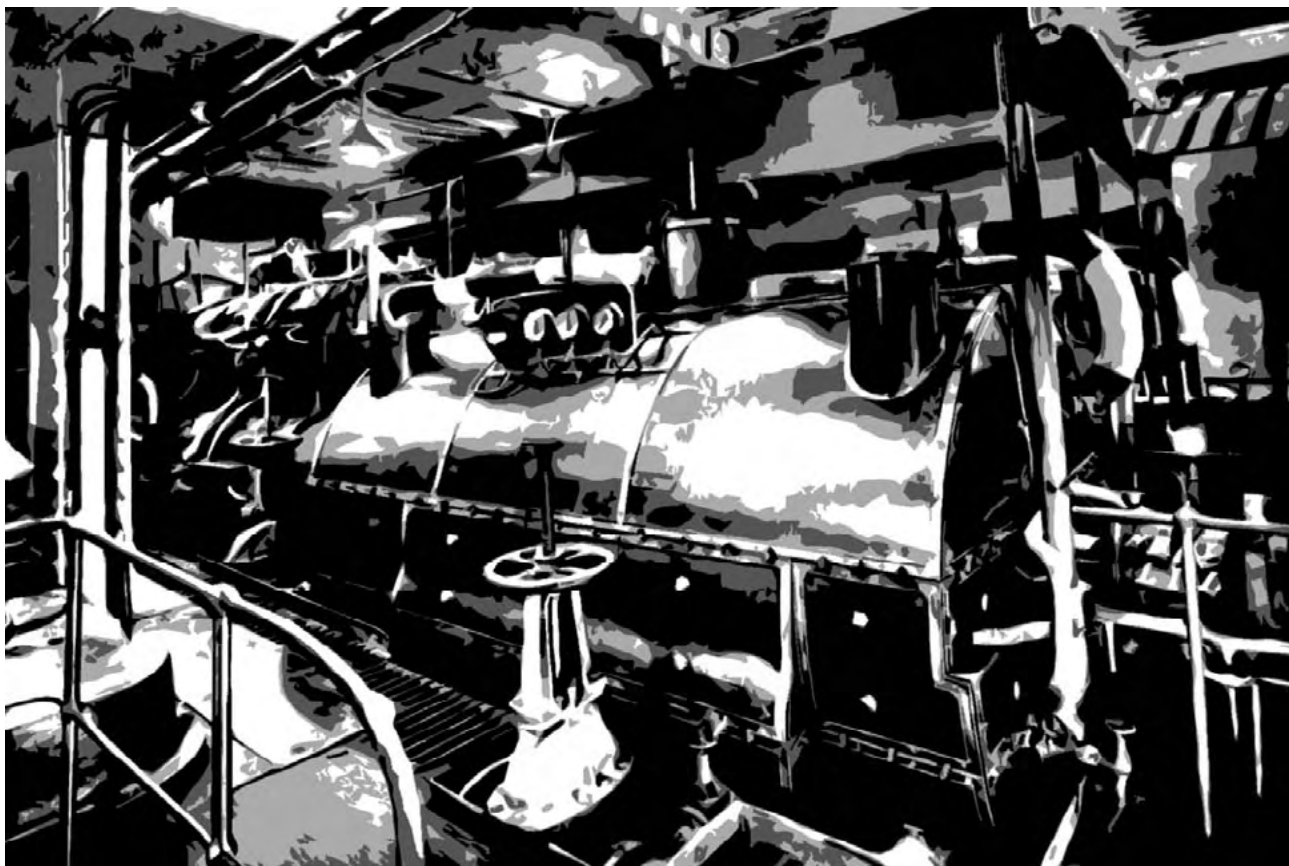
For example, HMES *Nike* moves 4", then turns 45°, and moves another 3", for a total of 7". Half of this is 3½, rounded up to 4. Therefore, *Nike's* momentum is 4", and a die is placed next to her counter with the "4" side showing.



Moving Backwards (Advanced Rule): A ship may only move backwards if its thrust rating exceeds its current momentum. If this is the case, the ship

may move backwards up to one-half the difference between its thrust and momentum (rounded up). For example, a ship with thrust 6 and a momentum of 3 would be able to move backwards up to 2" ($6 - 3 = 3$, divided by 2 is 1½, rounded up to 2). A ship may only move directly backwards; it may not turn. A ship may not move backwards and forwards in the same turn. A ship that moves backwards has zero momentum.

¹ Please note that pillbugs may not wheel.



Advanced Turning (*Advanced Rule*): The basic movement rules imply that large ships are just as maneuverable as small ships. However, this has never historically been the case; thus, the following rules for turning can be used.

With this rule, a ship is still limited to a single turn during its movement; however, the maximum allowable turn is based on the ship's size and the point at which the turn is made:

Size Class	Start	Mid.	End
Very Small	135°	180°	180°
Small	90°	135°	180°
Medium	45°	90°	135°
Large	-	45°	90°
Very Large	-	-	45°

Start: The ship can turn up to this amount at the very beginning of its movement—i.e., before any forward move is made.

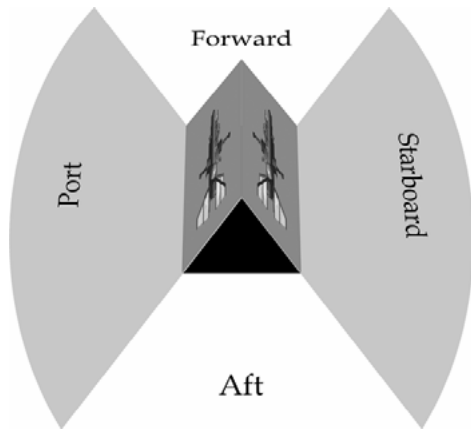
Middle (*Mid.*): The ship can turn up to this amount as long as it does not move farther after the turn than it did before.

End: The ship can turn up to this amount if it does not make any forward movement after the turn.

For example, HMES *Nike* is size class medium. Looking at the chart, we see that *Nike* can turn up to 45° before moving forward; she can turn 90° as long as she doesn't move farther after the turn than she did before it; or she can turn up to 135° if it is the last thing she does during her move.

Combat

A ship may fire its primary guns at one target, and its secondary guns at this first target or a second target. The maximum number of each class of gun that can be fired depends upon the location of the target relative to the firing ship. The area around each ship is divided into four firing arcs, defined by imaginary lines drawn between opposite corners of the ship counter's base, as illustrated below:



If using miniatures or counters other than those provided with this game, you will have to make use of the firing arc templates included with this game. Simply place the dot in the middle of the template over the centre-point of the counter or miniature, and orient it so that it is facing in the same direction as the ship.

Use the centre-point of the target counter to determine its location. In the rare situation where a target lies directly on the line between two arcs, each side should roll a d6; the side with the higher roll gets to choose in which arc the target lies.

The number of each class of gun that can fire into each of the firing arcs is as follows:

Battery	Fwd.	Aft	Port	Stbd.
Primary	$x\frac{1}{2}$	$x\frac{1}{2}$	x1	x1
Secondary	$x\frac{1}{4}$	$x\frac{1}{4}$	$x\frac{1}{2}$	$x\frac{1}{2}$

All fractions should be rounded up. For example, if a ship has 5 secondary guns, and is firing at a target in its forward arc, it may only attack with 2 of those guns ($5 \times \frac{1}{4} = 1\frac{1}{4}$, rounded up to 2).

A ship's light guns are a special case; they may be fired at any number of targets, with the limitation that no more than half of the light guns may be fired into any single arc (rounded up). For example, a ship with 7 light guns could attack up to 7 different targets, but no more than 4 guns could be fired into any one of the forward, aft, port, or starboard arcs ($7 \times \frac{1}{2} = 3\frac{1}{2}$, rounded up to 4).

When making an attack, roll one die for each gun; the type of die rolled is equal to the size of the gun. Each die is compared to a target number; if the die equals or exceeds this target, the gun has hit. The target number for an attack is computed as follows:

One-half the die size + target's armour value + 1 per full 5" of range



The range modifiers work out to the following:

Range	Modifier
Less than 5"	0
5" to less than 10"	+1
10" to less than 15"	+2
15" to less than 20"	+3
20" to less than 25"	+4
25" to less than 30"	+5
30" to less than 35"	+6
35" or more	No attack possible

For example, if HMES *Nike* were firing her primary battery (d10; half of this die size is 5) at a target 6" away (+1) with an armour value of 2, the target number would be 8 (5 + 1 + 2). Thus, a d10 roll of 8 or higher is required for each gun to score a hit.

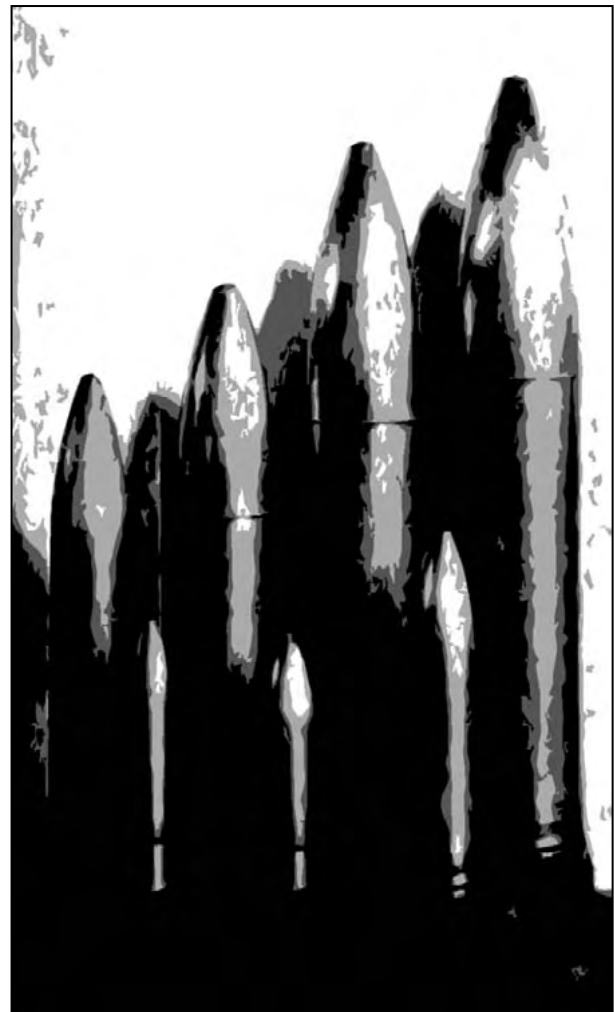
Measure all distances between the centre-points of the firing ship and the target. If the line of measurement crosses over another ship's counter, the attack may still continue without hindrance—i.e., ships do not block *line of sight* (LOS). Line of sight is blocked if the line of measurement crosses any part of an object that has been defined as blocking LOS.

Players may notice that, against unarmoured targets at close range, smaller guns are actually more effective than larger ones (i.e., a d4 gun will hit 75% of the time, while a d12 gun only has a 58% chance of success). This is intentional, and reflects the higher accuracy and volume of fire of lighter armaments.

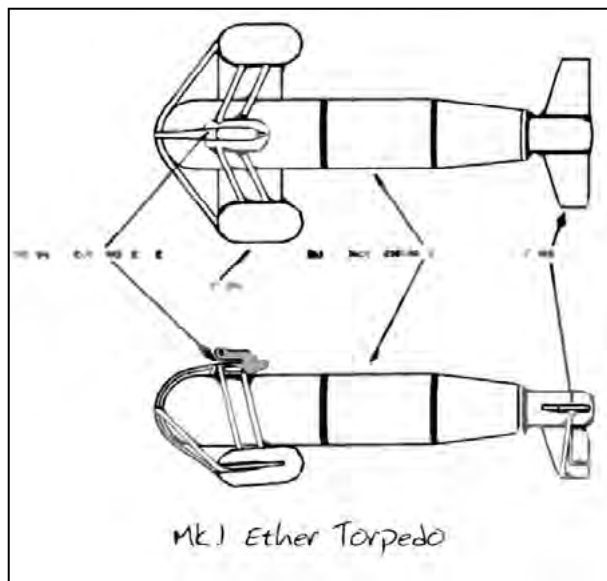
If a gun hits the target, roll a number of d20s equal to the damage value of the gun. For example, a "x3" gun would roll 3d20 for damage. Each die is then compared to the target's damage location track, which indicates what type of damage is inflicted:

- **Hull:** The target loses one hull point. When the ship has been reduced to zero hull points, it is destroyed and should be removed from the game.
- **Armour:** The target's armour value is reduced by one.
- **Thrust:** The target's thrust rating is reduced by one.
- **Primary:** One of the target's primary guns is lost.
- **Secondary:** One of the target's secondary guns is lost.
- **Light Guns:** One of the target's light guns is lost.

Once the type is determined for each damage point, fill in the next circle in the appropriate section of the ship record. If the indicated damage cannot be applied because all of the circles in that section have already been filled, the damage



Iron Stars



should be applied to the next system to the left. The damage progression is as follows:

Light Guns → Secondary Battery → Primary Battery → Thrust → Armour → Hull

Remember that all damage takes effect at the end of the phase in which it is inflicted. This means that any ships destroyed in the active combat phase cannot return fire in the reactive combat phase.

Special Equipment Hits: Some of the circles in the hull section of a ship's record may be replaced by a "Q". When such a "circle" is filled in, the ship will lose one piece of special equipment in addition to the hull hit (see p. 17). Because of this, it is important to fill in the hull point circles sequentially, left to right.

The exact piece of equipment lost is chosen by the player controlling the damaged ship.

- For the purposes of this rule, each mine factor is considered a separate piece of special equipment.
- When a player chooses to remove rockets as a result of special equipment damage, roll 2d4—the total on the two dice is the number of rockets lost. If the number rolled is greater than the number of rockets remaining on the ship, another piece of special equipment must be taken as damage instead. If there is no other special equipment, then all remaining rockets are destroyed.

Torpedoes: Many ships carry ether-torpedoes; these are handled in the same way as guns, with the following exceptions:

1. Torpedoes may be fired into any arc.
2. Any number of torpedoes may be fired in a single turn; however, all must be aimed at the same target. This target may be different than those engaged by the ship's guns.
3. Torpedoes are expendable weapons. Once a torpedo is fired, one of the appropriate circles is filled in on the ship record.
4. Only half the target's armour value is added to the target number (rounded up); however, add +1 to the target number for every full 2" of range, instead of every 5".

Torpedo range modifiers work out to the following:

Range	Modifier
Less than 2"	0
2" to less than 4"	+1
4" to less than 6"	+2
6" to less than 8"	+3
8" to less than 10"	+4
10" to less than 12"	+5
12" to less than 14"	+6
14" or more	No attack possible

5. When rolling for torpedo damage on the target's damage location track, players should use d12s instead of d20s. This means that torpedoes have a much greater chance of causing hull and armour hits.

Open-Ended Results (Advanced Rule): Smaller guns will often be unable to cause damage to well-armoured targets. While this is in keeping with historical reality, it may be more fun for players if there is a chance of scoring hits with lighter guns; therefore, the following rule may be utilized:

When a volley is fired (a "volley" is a grouping of one ship's primary, secondary, light guns, or torpedoes fired at a single target), and more than one of the dice come up as the maximum result (e.g., "6" on a d6, "10" on a d10, and so on), these rolls can be combined to yield a higher result than would normally be possible. Two maximum rolls can be combined into one result at +1; three maximum rolls can be combined into one result at +2; four maximum rolls can be combined into one

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The British Empire is fighting for its existence”
—Lord Kitchener

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I shall want more men and still more until the enemy is crushed
Lord Kitchener

Come forward now and be trained to do your share.

Every fit man owes this duty to himself and to his country.

result at +3; and so on. For example, four rolls of “6” on d6s can be combined into two “7” results or one “9” result.

Target Size (Advanced Rule): Historically, large-caliber guns had a difficult time engaging smaller, more maneuverable targets. To simulate this in *Iron Stars*, apply the modifiers from the following chart to gunfire target numbers:

Target Size	d4	d6	d8	d10	d12
Very Small	0	+1	+2	+3	+4
Small	0	0	+1	+2	+3
Medium	0	0	0	+1	+2
Large	0	0	0	0	+1
Very Large	0	0	0	0	0

For example, when using d10-sized guns to attack a medium-sized target, the target number for the attack is increased by +1.

For the purposes of this rule, keel bombardrs (see p. 17) are considered size d12 guns.

Torpedo Nets (Advanced Rule): All ships of size class medium or larger are assumed to have torpedo nets—sheets of interlocking steel rings that can be deployed along a ship’s broadsides to help protect against torpedo attack. The decision to raise or lower the nets is made during the end phase; a ship may not begin a game with the nets deployed, unless the scenario states that the ship is “at anchor”. Place (or remove) a marker next to the ship’s counter to indicate whether or not the torpedo nets have been deployed. While the nets are lowered, the target number for torpedo attacks originating from the target’s port or starboard firing arc are modified by +1. However, a ship with deployed torpedo nets may not make any turns, as an even keel must be maintained in order for the nets to work effectively.

Scenarios

During the Far East War, space operations were of limited scope, having little to no impact on the planet-side situation. Orbital bombardment was highly inaccurate, and it was still much more economical to transport supplies via land and sea, rather than through the ether.

In addition, there were as of yet no real strategic positions in space; while individuals had already visited the Moon, no Power had yet established a firm presence there, and space stations were still years away.

That having been said, the War was no less hotly-contested in space than on the ground or at sea. Supremacy in orbit was a matter of national pride, if not strategic necessity, and those who served in the ether took their duty no less seriously than their Earth-bound counterparts.

The scenarios that follow are outlined in the following manner:

Description: Each scenario is given a title and provides a brief summary of the historical circumstances in which the battle took place.

Forces: This is a list of the nations and ships involved in the battle. To assist in preparation, the necessary ship records have been filled out for each scenario, beginning on p. 42. Players are given permission to copy these pages for personal use.

Setup: Here is given a description of how the game board should be arranged and any special rules that must be followed when placing the ships on the board. All of these scenarios are designed to be played on a 4' by 6' playing area.

Special Rules: Any changes or additions to the standard *Iron Stars* rules will be given in this section.

Victory Conditions: This section tells you how long the game should last, and how to determine who won the scenario.

Variant: Each scenario may also be played under slightly different conditions; these variations are given at the end of the scenario description.

SCENARIO ONE: Meeting Engagement

Most of the space battles that took place during the Far East War were unforeseen by both sides – radar and other methods of remote detection had yet to be invented. Squadrons out on patrol occasionally encountered each other and opened fire. This scenario recreates one such engagement early in the War.

Britain: *Gauntlet, Golem, Sycorax, 5x Alpha* (188 pts.)

Russia: *Tsargrad, Petrograd, Kaliningrad, Ekaterinburg, 5x Volga* (192 pts.)

Setup: Follow the normal rules for setup as given on p. 9, with the following exception:

1. *Gauntlet, Golem, and Sycorax* must be set up in a line so that the first ship is in the forward arc of the second ship, the second ship is in the aft arc of the first ship and in the forward arc of the third ship, and the third ship is in the aft arc of the second ship. Each must be within 6" of the next ship in the line.
2. The five *Alpha* destroyers must each be in the port or starboard arc, and within 6", of one of the three above ships.
3. Similarly, the *Tsargrad* and the three *Petrograds* must be in a line, and the five *Volga* destroyers must be arranged on their flanks.

The British ships have a starting momentum of 3, while the Russians have a starting momentum of 4.

Special Rules: None.

Victory Conditions: The side with the most victory points after six turns have elapsed is the winner.

Scenario One Ship Records

British Ships

<i>HMES Gauntlet</i> Battlecruiser (95 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
19 (L/3)	3	6	4/d8 (x3)	6/d6 (x2)	6/d4 (x1)
OOOOO OOOOQ OOOOO OOOO	OOO	OOOOO O	OOOO	OOOOO O	OOOOO O
1-12	13	14-15	16	17-18	19-20
Torpedoes: 6/d6 (x3) OOOOO O		Notes: 5 Congreve Rockets (OOOOO)			

<i>HMES Golem</i> Haemonculous-class Cruiser (43 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
14 (M/2)	1	5	4/d8 (x2)*	4/d6 (x1)	4/d4 (x1)
OOOOO OQOOO OOOO	O	OOOOO	OOOO	OOOO	OOOO
1-12	-	13-14	15-16	17-18	19-20
Torpedoes: 4/d8 (x3) OOOO		Notes: *Lightning Projectors, Gyroscopic Stabilizer			

<i>HMES Sycorax</i> Caliban-class Light Cruiser (25 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
7 (S/2)	1	7	2/d8 (x2)	4/d6 (x1)	6/d4 (x1)
OOOOO OO	O	OOOOO OO	OO	OOOO	OOOOO O
1-8	9	10-13	14	15-16	17-20
Torpedoes: 3/d6 (x3) OOO		Notes:			

<i>Alpha-1</i> Destroyer (5 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
1 (VS/3)	0	9	-	-	2/d4 (x1)
O	-	OOOOO OOOO	-	-	OO
1-3	-	4-17	-	-	18-20
Torpedoes: 2/d6 (x2) OO		Notes:			

<i>Alpha-2</i> Destroyer (5 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
1 (VS/3)	0	9	-	-	2/d4 (x1)
O	-	OOOOO OOOO	-	-	OO
1-3	-	4-17	-	-	18-20
Torpedoes: 2/d6 (x2) OO		Notes:			

Iron Stars

<i>Alpha-3</i> Destroyer (5 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
1 (VS/3)	0	9	-	-	2/d4 (x1)
O	-	OOOOO OOOO	-	-	OO
1-3	-	4-17	-	-	18-20
Torpedoes: 2/d6 (x2) OO		Notes:			

<i>Alpha-4</i> Destroyer (5 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
1 (VS/3)	0	9	-	-	2/d4 (x1)
O	-	OOOOO OOOO	-	-	OO
1-3	-	4-17	-	-	18-20
Torpedoes: 2/d6 (x2) OO		Notes:			

<i>Alpha-5</i> Destroyer (5 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
1 (VS/3)	-	9	-	-	2/d4 (x1)
O	-	OOOOO OOOO	-	-	OO
1-3	-	4-17	-	-	18-20
Torpedoes: 2/d6 (x2) OO		Notes:			

Russian Ships

<i>Tsargrad</i> Cruiser (53 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
12 (M/2)	2	6	4/d8 (x2)	8/d6 (x1)	8/d4 (x1)
OOOOO OOOOO OO	OO	OOOOO O	OOOO	OOOOO OOO	OOOOO OOO
1-9	10	11-12	13-14	15-17	18-20
Torpedoes: 6/d6 (x2) OOOOO O		Notes:			

<i>Petrograd</i> Light Cruiser (28 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
8 (S/2)	1	6	4/d6 (x2)	6/d4 (x1)	4/d6 (x2)
OQOQO QOO	O	OOOOO O	OOOO	OOOOO O	OOOO
1-9	10	11-13	14-15	16-17	18-20
Torpedoes: 4/d6 (x2) OOOO		Notes: 3 Mine Factors (OOO)			

Kaliningrad Petrograd-class Light Cruiser (28 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
8 (S/2)	1	6	4/d6 (x2)	6/d4 (x1)	4/d6 (x2)
OOOQO QOO	O	OOOOO O	OOOO	OOOOO O	OOOO
1-9	10	11-13	14-15	16-17	18-20
Torpedoes: 4/d6 (x2) OOOO		Notes: 3 Mine Factors (OOO)			

Ekaterinburg Petrograd-class Light Cruiser (28 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
8 (S/2)	1	6	4/d6 (x2)	6/d4 (x1)	4/d6 (x2)
OOOQO QOO	O	OOOOO O	OOOO	OOOOO O	OOOO
1-9	10	11-13	14-15	16-17	18-20
Torpedoes: 4/d6 (x2) OOOO		Notes: 3 Mine Factors (OOO)			

Volga-1 Destroyer (11 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
3 (VS/2)	-	8	-	-	6/d4 (x1)
QOQO	-	OOOOO OOO	-	-	OOOOO O
1-6	-	7-14	-	-	15-20
Torpedoes: 6/d6 (x2) OOOOO O		Notes: 2 Mine Factors (OO)			

Volga-2 Destroyer (11 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
3 (VS/2)	-	8	-	-	6/d4 (x1)
QOQO	-	OOOOO OOO	-	-	OOOOO O
1-6	-	7-14	-	-	15-20
Torpedoes: 6/d6 (x2) OOOOO O		Notes: 2 Mine Factors (OO)			

Volga-3 Destroyer (11 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
3 (VS/2)	-	8	-	-	6/d4 (x1)
QOQO	-	OOOOO OOO	-	-	OOOOO O
1-6	-	7-14	-	-	15-20
Torpedoes: 6/d6 (x2) OOOOO O		Notes: 2 Mine Factors (OO)			

<i>Volga-4</i> Destroyer (11 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
3 (VS/2)	-	8	-	-	6/d4 (x1)
QQO	-	OOOOO OOO	-	-	OOOOO O
1-6	-	7-14	-	-	15-20
Torpedoes: 6/d6 (x2) OOOOO O		Notes: 2 Mine Factors (OO)			

<i>Volga-5</i> Destroyer (11 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
3 (VS/2)	-	8	-	-	6/d4 (x1)
QQO	-	OOOOO OOO	-	-	OOOOO O
1-6	-	7-14	-	-	15-20
Torpedoes: 6/d6 (x2) OOOOO O		Notes: 2 Mine Factors (OO)			

Scenario Two Ship Records

Chinese Ships

<i>Tai Zhou</i> Cruiser (53 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
10 (M/3)	2	6	4/d6 (x2)	6/d6 (x1)	10/d4 (x1)
OOOOO OOOOO	OO	OOOOO O	OOOO	OOOOO O	OOOOO OOOOO
1-7	8	9-11	12-13	14-16	17-20
Torpedoes: 4/d6 (x2) OOOO		Notes:			

<i>Min Zhou</i> Armoured Frigate (28 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
6 (S/2)	2	6	2/d6 (x2)	4/d6 (x1)	4/d4 (x1)
OOOOO O	OO	OOOOO O	OO	OOOO	OOOO
1-8	9	10-13	14	15-17	18-20
Torpedoes: 4/d6 (x2) OOOO		Notes:			

<i>Fei Yu-1</i> Destroyer (8 pts.)					
Hull	Armour	Thrust	Primary	Secondary	Light Guns
2 (VS/2)	-	8	-	-	4/d4 (x1)
QO	-	OOOOO OOO	-	-	OOOO
1-5	-	6-15	-	-	16-20
Torpedoes: 3/d6 (x2) OOO		Notes: 5 Fire Arrows (OOOOO)			

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Hull	Armour	Thrust	Primary	Secondary	Light Guns
Torpedoes:		Notes:			

Hull	Armour	Thrust	Primary	Secondary	Light Guns
Torpedoes:		Notes:			

Hull	Armour	Thrust	Primary	Secondary	Light Guns
Torpedoes:		Notes:			

Hull	Armour	Thrust	Primary	Secondary	Light Guns
Torpedoes:		Notes:			

Hull	Armour	Thrust	Primary	Secondary	Light Guns
Torpedoes:		Notes:			

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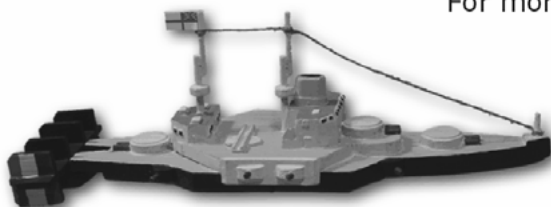
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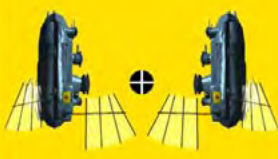

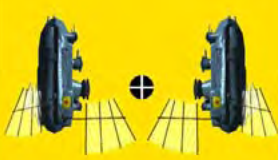
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Alpha-1		Alpha-3		Alpha-5		Beta-2		Morozko-1
	Alpha-2		Alpha-4		Beta-1		Beta-3	
Fei Yu-3		Gamma-4		Beta-4		Gamma-1		Morozko-2
	Gamma-3		Gamma-5		Beta-5		Gamma-2	
Huo Shi-1		Huo Shi-2		Fei Yu-1		Fei Yu-2		Morozko-3
	Huo Shi-4		Huo Shi-5		Fei Yu-4		Fei Yu-5	
Huo Shi-3		Volga-2		Volga-4		Kojishi-1		Morozko-4
	Volga-5		Volga-3		Volga-1		Kojishi-2	
Kojishi-3		Kojishi-5		Saidan-2		Saidan-4		Morozko-5
	Kojishi-4		Saidan-5		Saidan-3		Saidan-1	

		Sycorax		Ekaterinburg
Stephano		Kaliningrad		
		Caliban		Stavropol
Herschel		Petrograd		
		Kepler		Fei Long
Tycho		Min Zhou		

Haemonculus



Senjo



Golem



Makuhari



Marquess



Sagami



Banneret



Tsargrad



Southam



Novosibirsk



Kenilworth



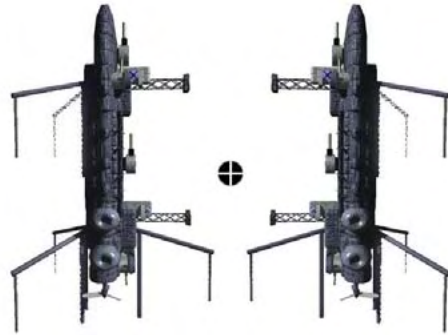
Severomorsk



Tai Zhou



Butakoff



Tochigi



Gauntlet

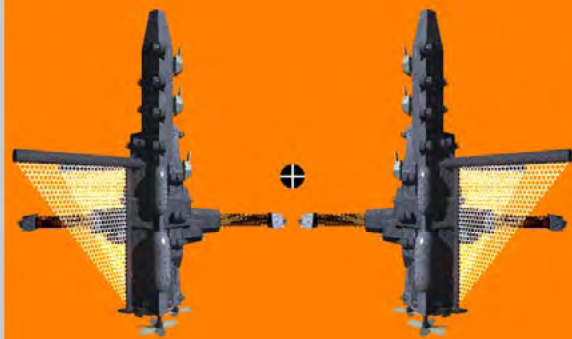


Cuirass

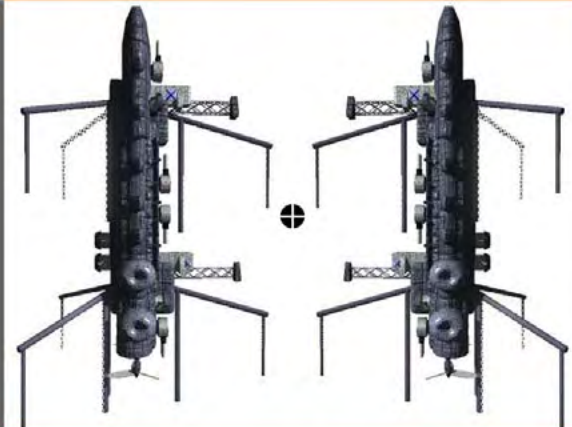




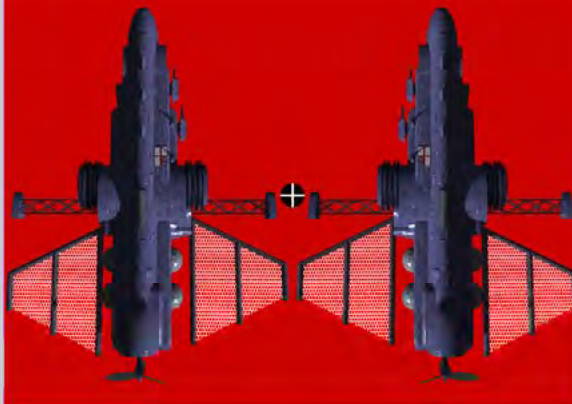
Hodaka



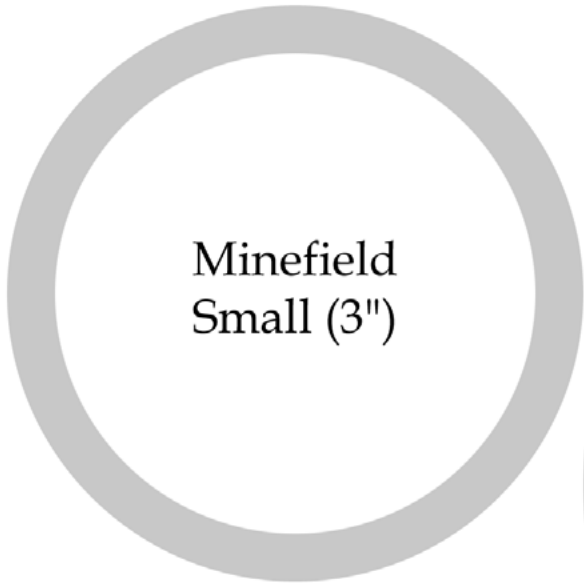
Nagano



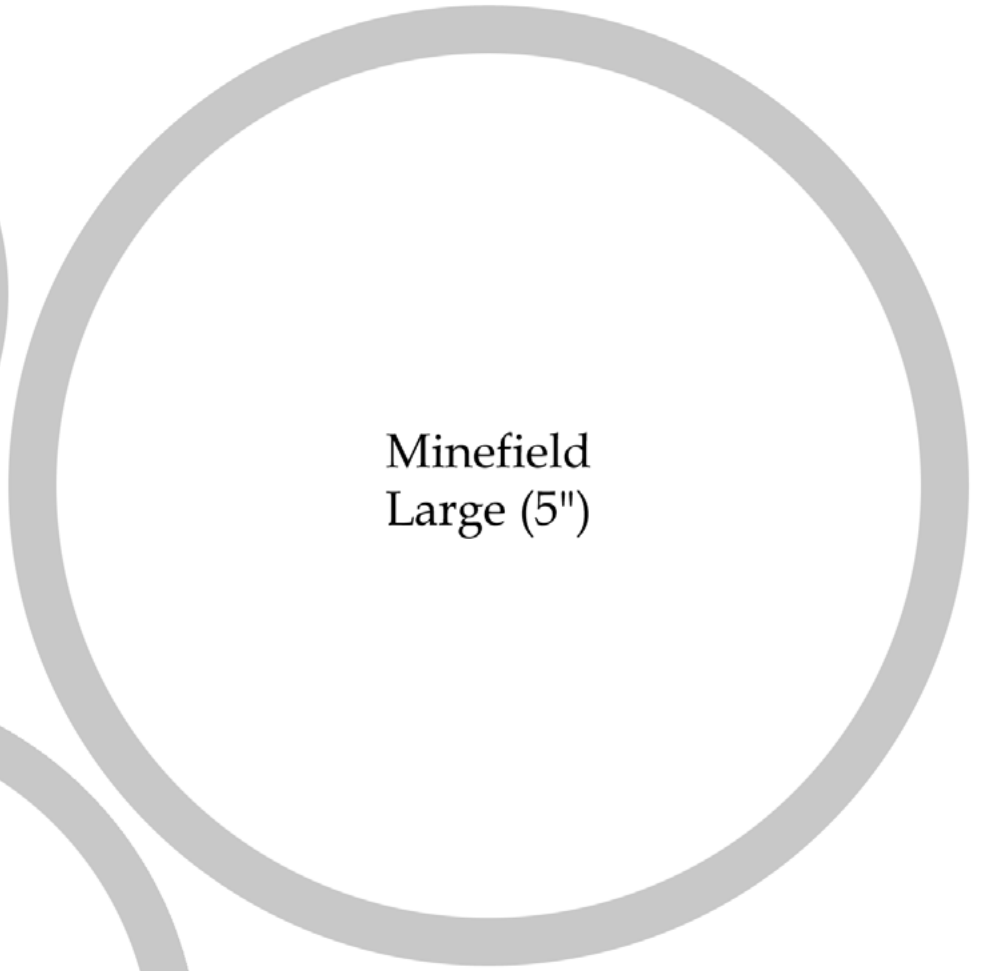
Spiridoff



Bantam



Minefield
Small (3")



Minefield
Large (5")



Minefield
Medium (4")

Firing Arc Template

