

## **DREADNOUGHTS & BATTLECRUISERS GUN RANGE CHART**

**By Gary Greenhalgh**

The rules booklet for Minden Games' tactical naval game *Dreadmought & Battlecruisers* specifies a maximum gunnery range of 20,000 yards for battleships/battlecruisers, 16,000 yards for armored cruisers/pre-dreadnoughts and 10,000 yards for light cruisers. Since this seemed a bit arbitrary, I created a table of maximum main battery ranges for each class of ships included in the game based on data listed in Sartore Associates' *Seekrieg IV* ship data booklet. It is interesting to note that the maximum range for several dreadnought battleships (*Courbet*, *Dreadnought*, *Invincible*, etc.) fall several thousand yards shy of the maximum range specified in the rules. Conversely, several pre-dreadnought battleships (*Minnesota*, *Virginia*, etc.) and armored cruisers (*Rurik*, *San Marco*, etc.) possess maximum gunnery ranges greater than the game's specified maximum range. It can also be seen that all light cruiser classes, except the *Danzig* class, exceed the 10,000-yard maximum range. Since the maximum range of naval guns of this era exceeded the effective range, especially for older ships with poor fire control systems, a possible way to apply this table would be to retain the rulebook's specified maximum firing ranges (20,000/16,000/10,000 yards) for those ships able to shoot that far. The table values can then be imposed on ships possessing a maximum range, rounded to the nearest thousand yards, which fall short of the maximum allowed for ships of that particular type. All in all, this was an interesting exercise and I hope that the data can be put to some use.

The second remedy is to use either the rules' maximum range, or that in this Gun Range Chart, whichever is shorter, without rounding. This permits the simulation of guns with shorter reach than their calibers might indicate, and differences in optical and fire control systems, without permitting excessively long-range sniping by the likes of the American and Japanese dreadnoughts. Throughout, it retains the principle that theoretical and practical gunnery ranges could be totally different principles. **Editor's Note: This rule was approved by both the author and the game's designer, who was given an advanced draft of the project before publication.**

SHIP NAME	TYPE	NATION	GUNS	RANGE (YARDS)
REVENGE ROYAL OAK ROYAL SOVEREIGN RAMILLIES RESOLUTION	BB	BRITAIN	15" x 8	28,700
IRON DUKE BENBOW MARLBOROUGH	BB	BRITAIN	13.5" x 10	23,800
KING GEORGE V CENTURION AUDACIOUS AJAX	BB	BRITAIN	13.5" x 10	23,800
CANADA	BB	BRITAIN	14" x 10	24,000
MONARCH THUNDERER ORION CONQUEROR	BB	BRITAIN	13.5" x 10	23,500
ERIN	BB	BRITAIN	13.5" x 10	22,500
NEPTUNE	BB	BRITAIN	12" x 10	21,000
AGINCOURT	BB	BRITAIN	12" x 14	18,600
VALIANT BARHAM WARSPITE MALAYA QUEEN ELIZABETH	BB	BRITAIN	15" x 8	28,700
SUPERB BELLEROPHON TEMERAIRE	BB	BRITAIN	12" x 10	16,500
COLLINGWOOD VANGUARD ST. VINCENT	BB	BRITAIN	12" x 10	21,000
DREADNOUGHT	BB	BRITAIN	12" x 10	16,500
HERCULES COLOSSUS	BB	BRITAIN	12" x 10	21,000
BLACK PRINCE DUKE OF EDINBURGH	CA	BRITAIN	9.2" x 6	14,500
DEFENCE	CA	BRITAIN	9.2" x 4	16,400
MINOTAUR SHANNON	CA	BRITAIN	9.2" x 4	16,400
WARRIOR COCHRANE	CA	BRITAIN	9.2" x 6	14,500
HAMPSHIRE ANTRIM	CA	BRITAIN	7.5" x 4	13,900
COURAGEOUS GLORIOUS	CA	BRITAIN	15" x 4	23,500
TIGER	BC	BRITAIN	13.5" x 8	23,800
INDEFATIGABLE NEW ZEALAND	BC	BRITAIN	12" x 8	18,600
INFLEXIBLE INDOMITABLE INVINCIBLE	BC	BRITAIN	12" x 8	16,500
PRINCESS ROYAL LION	BC	BRITAIN	13.5" x 8	23,500
QUEEN MARY	BC	BRITAIN	13.5" x 8	23,500
REPULSE	BC	BRITAIN	15" x 8	23,500

RENOWN				
HINDUSTAN AFRICA BRITANNIA ZEALANDIA COMMONWEALTH HIBERNIA DOMINION KING EDWARD VII	B	BRITAIN	12" x 4	16,000
TRIUMPH SWIFTSURE	B	BRITAIN	10" x 4	14,700
QUEEN PRINCE OF WALES LONDON BULWARK VENERABLE FORMIDABLE IRRESISTABLE IMPLACABLE	B	BRITAIN	12" x 4	15,600
CANOPUS	B	BRITAIN	12" x 4	14,900
DUNCAN RUSSELL CORNWALLIS ALBEMARLE EXMOUTH	B	BRITAIN	12" x 4	15,600
LORD NELSON AGAMEMNON	B	BRITAIN	12 " x 4	16,500
VINDICTIVE	CV	BRITAIN	7.5" x 4	21,400
FURIOUS	CV	BRITAIN	5.5" x 10	18,500
ARGUS	CV	BRITAIN	4" x 2	13,700
DANAE DRAGON	CL	BRITAIN	6" x 6	19,000
CERES CARDIFF CALEDON	CL	BRITAIN	6" x 6	19,000
CENTAUR CONCORD	CL	BRITAIN	6" x 5	15,000
CAMBRIAN	CL	BRITAIN	6" x 4	15,000
CALLIOPE CHAMPION	CL	BRITAIN	6" x 4	15,000
CAROLINE	CL	BRITAIN	6" x 4	15,000
AURORA PENELOPE	CL	BRITAIN	6" x 3	15,000
NOTTINGHAM BIRMINGHAM	CL	BRITAIN	6" x 9	13,500
CHATHAM SOUTHAMPTON WEYMOUTH	CL	BRITAIN	6" x 8	13,500
BRISTOL GLASGOW	CL	BRITAIN	6" x 2	13,500
BRETAGNE LORRAINE PROVENCE	BB	FRANCE	13.4" x 10	26,600
COURBET JEAN BART PARIS FRANCE	BB	FRANCE	12" x 12	15,800
DANTON MIRABEAU	B	FRANCE	12" x 4	14,000

DIDEROT CONDORCET VERGNIAUD VOLTAIRE				
DEMOCRATIE JUSTICE VERITE	B	FRANCE	12" x 4	13,700
REPUBLIQUE PATRIE	B	FRANCE	12" x 4	13,700
SUFFREN	B	FRANCE	12" x 4	13,100
ST. LOUIS CHARLEMAGNE GAULOIS	B	FRANCE	12" x 4	13,100
BOUVET	B	FRANCE	12" x 2	13,100
E. QUINET W. ROUSSEAU	CA	FRANCE	7.6" x 14	15,300
E. RENAN	CA	FRANCE	7.6" x 4	13,100
J. MICHELET	CA	FRANCE	7.6" x 4	13,100
V. HUGO J. FERRY	CA	FRANCE	7.6" x 4	13,100
IMP. ALEKSANDR IMP. MARIA IMP. EKATERINA	BB	RUSSIA	12" x 12	26,300
GANGUT POLTAVA PETROPAVLOSK SEVASTOPOL	BC	RUSSIA	12" x 12	26,300
EVSTAFI ZLATOUST	B	RUSSIA	12" x 4	14,200
SVOBODU	B	RUSSIA	12" x 4	14,200
ROSTISLAV	B	RUSSIA	10" x 4	13,900
RESPUBLIKA A. PERVOSANNI	B	RUSSIA	12" x 4	16,000
SLAVA	B	RUSSIA	12" x 4	14,200
GRAJDANIN	B	RUSSIA	12" x 4	14,200
TRI SVIATITELIA	B	RUSSIA	12" x 4	14,200
RURIK	CA	RUSSIA	10" x 4	21,200
BAYAN	CA	RUSSIA	8" x 2	14,600
GROMOBOI	CA	RUSSIA	8" x 4	14,600
DUILIO ANDREA DORIA	BB	ITALY	12" x 13	26,200
C. DI CAVOUR G. CESARE L. DA VINCI	BB	ITALY	12" x 13	26,200
D. ALIGHIERI	BB	ITALY	12" x 12	26,200
REGINA ELENA V. EMMANUELE NAPOLI ROMA	B	ITALY	12" x 4	16,400
B. BRIN R. MARGHERITA	B	ITALY	12" x 4	16,400
ST. BON FILIBERTO	B	ITALY	12" x 4	16,000
SAN GIORGIO SAN MARCO	CA	ITALY	10" x 4	18,200
PISA AMALFI	CA	ITALY	10" x 4	18,200
ISE HIUGA	BB	JAPAN	14" x 12	29,700

FUSO YAMASHIRO	BB	JAPAN	14" x 12	29,700
KONGO HI-YEI HARUNA KIRISHIMA	BC	JAPAN	14" x 8	29,700
SETTSU	BB	JAPAN	12" x 12	25,400
KARAMA IBUKKI	B	JAPAN	12" x 4	23,100
AKI SATSUMA	B	JAPAN	12" x 4	23,100
IKOMA	B	JAPAN	12" x 4	23,100
NEW MEXICO MISSISSIPPI	BB	US	14" x 12	36,800
PENNSYLVANIA ARIZONA	BB	US	14" x 12	21,000
OKLAHOMA NEVADA	BB	US	14" x 10	21,000
NEW YORK TEXAS	BB	US	14" x 10	21,000
ARKANSAS WYOMING	BB	US	12" x 12	23,500
UTAH FLORIDA	BB	US	12" x 10	23,000
DELAWARE NORTH DAKOTA	BB	US	12" x 12	21,600
SOUTH CAROLINA MICHIGAN	BB	US	12" x 8	21,600
KANSAS VERMONT MINNESOTA NEW HAMPSHIRE LOUISIANA CONNECTICUT	B	US	12" x 4	21,600
VIRGINIA GEORGIA NEW JERSEY NEBRASKA	B	US	12" x 4	19,000
OHIO MAINE MISSOURI	B	US	12" x 4	19,000
INDIANA MASSACHUSETTS	B	US	13" x 4	12,100
IOWA	B	US	12" x 4	11,800
OREGON	B	US	13" x 4	12,100
CALIFORNIA COLORADO	CA	US	8" x 4	16,400
AUSTRALIA	BC	AUSTRALIA	12" x 8	16,500
SYDNEY MELBOURNE	CL	AUSTRALIA	6" x 8	13,500
SVERIGE DROTTNING VICTORIA G. DEN FEMTA	CA	SWEDEN	11" x 4	20,200
O. DEN ANDRA	CA	SWEDEN	8.3" x 2	16,000
ARAN	CA	SWEDEN	8.3" x 2	16,000
NORGE EIDSVOLD	CA	NORWAY	8.2" x 2	14,200
HAARFAGRE TARDENSKJOLD	CA	NORWAY	8.2" x 2	14,200

ZEVEN PROVINCIEN	CA	NETHERLANDS	11" x 2	20,600
HEEMSKERCK	CA	NETHERLANDS	9.4" x 2	17,800
M. TROMP	CA	NETHERLANDS	9.4" x 2	17,000
KONINGEN REGENTES HENDRIK DE RUYTER	CA	NETHERLANDS	9.4" x 2	17,000
EVERTSEN	CA	NETHERLANDS	8.2" x 3	13,200
RIVADAVIA MORENO	BB	ARGENTINA	12" x 12	23,500
GEN. SAN MARTIN	CA	ARGENTINA	8" x 4	16,000
GEN. BELGRANO GARIBALDI	CA	ARGENTINA	10" x 2	14,000
MINAS GERAIS SAO PAULO	BB	BRAZIL	12" x 12	21,000
KILKIS LEMNOS	B	GREECE	12" x 4	21,600
AVEROFF	CA	GREECE	9.2" x 4	14,500
KAISER PRINZ REGENT LUITPOLD FRIEDRICH DER GROSSE KAISERIN KONIG ALBERT	BB	GERMANY	12" x 10	21,000
WESTFALEN RHEINLAND POSEN NASSAU	BB	GERMANY	11" x 12	22,800
OLDENBURG HELGOLAND OSTFRIESLAND THURINGEN	BB	GERMANY	12" x 12	21,000
MARKGRAF GROSSER KURFURST KONIG KRONPRINZ WILHELM	BB	GERMANY	12" x 10	21,000
BADEN BAYERN	BB	GERMANY	15" x 8	22,200
SEYDLITZ	BC	GERMANY	11" x 10	19,700
DERFFLINGER LUTZOW HINDENBURG	BC	GERMANY	12" x 8	21,000
VON DER TANN	BC	GERMANY	11" x 8	22,800
MOLTKE GOEBEN	BC	GERMANY	11" x 10	19,700
DEUTSCHLAND HANNOVER POMMERN SCHLESSEN SCHLESWIG-HOLSTEIN	B	GERMANY	11" x 4	20,600
HESEN BRAUNSCHWEIG ELSASS PREUSSEN LOTHRINGEN	B	GERMANY	11" x 4	20,600
KAISER BARBAROSSA KAISER WILHELM II KAISER WILHEM D. GROSSE KARL DER GROSSE K. FRIEDRICH III	B	GERMANY	9.4" x 4	17,000
WORTH	B	GERMANY	11" x 6	14,000

BRANDENBURG				
WETTIN	B	GERMANY	9.4" x 4	17,000
BLUCHER	CA	GERMANY	8.2" x 12	19,500
SCHARNHORST GNEISENAU	CA	GERMANY	8.2" x 8	16,000
HURTHA HANSA	CA	GERMANY	8.2" x 2	16,000
ROON YORCK	CA	GERMANY	8.2" x 4	16,000
PRINZ ADALBERT FRIEDRICH KARL	CA	GERMANY	8.2" x 4	16,000
BRESLAU MADGEBURG	CL	GERMANY	5.9" x 4	18,000
KONIGSBERG EMDEN NURNBURG	CL	GERMANY	5.9" x 8	18,000
FRANKFURT	CL	GERMANY	5.9" x 8	18,000
PILLAU	CL	GERMANY	5.9" x 8	18,000
REGENSBURG GRAUDENZ	CL	GERMANY	5.9" x 7	18,000
STRALSUND STRASSBURG	CL	GERMANY	5.9" x 7	18,000
KOLBERG AUGSBURG	CL	GERMANY	5.9" x 6	18,000
STETTIN STUTT GART	CL	GERMANY	5.9" x 6	18,000
DANZIG HAMBURG BERLIN MUNCHEN	CL	GERMANY	4.1" x 10	10,000
LUBECK	CL	GERMANY	5.9" x 2	18,000
PRINZ EUGEN TEGETTHOF VIRIBUS UNITAS SZENT ISTVAN	BB	AUSTRIA	12" x 12	21,900
F. FERDINAND ZRINYI RADETZKY	B	AUSTRIA	12" x 4	21,900
ERZHERZOG KARL ERZHERZOG FRIEDRICH ERZHERZOG FERDINAND MAX	B	AUSTRIA	9.4" x 4	17,500
HABSBURG ARPAD BABENBERG	B	AUSTRIA	9.4" x 3	17,500
SANKT GEORG	CA	AUSTRIA	9.4" x 2	17,500
SULTAN SELIM	BC	TURKEY	11" x 10	19,700
BARBAROSSA TURGUT REIS	B	TURKEY	11" x 6	14,000
MESSUDIYEH	B	TURKEY	9.2" x 2	11,000
ESPANA ALFONSO	BB	SPAIN	12" x 8	21,000
PELAYO	B	SPAIN	12.5" x 2	11,000