Brandenburg

BB GERMANY 1893 to 1903

0402-0 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	A G Vulcan, Stettin	
Complement	568	*Beam*	64 ft	*Launched*	09/21/1891
Stricken 05/13/1919		*Draft*	25.9 ft	*Completed*	11/19/1893

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	16,109 yds 32.2"	11.0" 529.0 lbs.

Fire Control	FC Radar	+ 0
1 1Y1	None	

AP	SAP
COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	9	5	5	3	4	2	3	2
10 - 18	6	4	4	2	3	2	2	1
19 - 27	5	3	3	2	2	1	2	1
28 - 36	4	2	2	1	2	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.1						
Rge	S	S	S	M	M	L	L	E						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control	FC Radar	+ 0
1 2Y1	None	

AP	SAP
COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

6 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	11,811 yds 23.6"	4.1" 38.4 lbs.

Fire Control	FC Radar	+ 0
2 2Y1	None	

AP	SAP
COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	600

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.2	5.6	4.3	3.5	2.8	2.3								
Rge	S	M	M	L	L	E								
H	0.1	0.2	0.4	0.6	0.9	1.3								
V	3.1	2.1	1.8	1.5	1.2	1.0								

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES		
			Rack		
			Ammo		

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0	Catapult	0

2 1 4 3 6 5

TORPEDOES

TT	6	Ammo	16

45cm C45/91S

Damage Class	G

Settings: 550/33; 1,300/27

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30 C/86			
Max Rg	7,633	15.3"	4	3	
Eff Rg	3,435	6.9"	6	5	

RF 18						
	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA S	Port	0	0	0	0	0
	Stbd	0	0	0	0	0

RF2		None
Max Rg		
Eff Rg		

RF 0						
	Port					
	Stbd					
AA	Port					
	Stbd					

RF3		None
Max Rg		
Eff Rg		

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Wet at high speed in head sea with severe pitching.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Brandenburg

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	16

Engine Rm	2	16	9	0	0	0	0
Prop/Shaft	2	16	8	0	0	0	0
Boiler Rm	4	16	14	10	4	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt
Increase	2.0	1.0

Crew

Bridge Command Rating

Flag Command Rating

Damage Control (DCR): 5

Fuel Code	BB1B

ARMOR	0.68	Actual
1H DECK	1.6	2.4
2H TURRET	1.3	2.0
3H SUPERSTR	2.2	3.3
4V CON	8.0	11.8
5V BELT MID	10.7	15.8
6V BELT END	8.0	11.8
7V BARBETTE	8.0	11.8
8V TURRET	3.2	4.7
9V SUPERSTR	3.9	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Brandenburg

BB GERMANY 1904 to 1915

0402-1 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	A G Vulcan, Stettin	
Complement	581	*Beam*	64 ft	*Launched*	09/21/1891
Stricken 05/13/1919		*Draft*	25.9 ft	*Completed*	11/19/1893

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,900 yds 31.8"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		1R1	None		COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	11	7	7	4	5	3	4	2
10 - 18	8	5	5	3	3	2	3	2
19 - 27	6	4	4	2	3	2	2	1
28 - 36	5	3	3	2	2	1	2	1
37 - 45	4	3	3	2	2	1	1	1

APC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.2	0.4	0.6	0.8	1.1	1.5	2.5	2.9						
V	11.5	8.9	6.9	5.5	4.7	4.2	3.5	3.3						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

8 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	12,117 yds 24.2"	4.1" 38.4 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		2Y1	None		COM	HE

AA	2.3	Level	S	Ammunition	100 rpg	800

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.3	5.7	4.5	3.5	2.8	2.2	2.2							
Rge	S	S	M	L	L	E	E							
H	0.1	0.2	0.3	0.4	0.7	1.1	1.2							
V	2.4	1.7	1.3	1.1	0.9	0.7	0.7							

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES			
			Rack			
			Ammo			

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	5	Ammo	10

45cm C/03

Damage Class	G

Settings: 1,640/31; 3,280/26

2 / 4 — 5 — 1 / 3

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30			
Max Rg	8,701	17.4"	5	4	
Eff Rg	3,915	7.8"	8	6	

RF 24						
	Port	4	3	2	1	1
	Stbd	4	3	2	1	1

AA S						
	Port	9	7	5	3	1
	Stbd	9	7	5	3	1

RF2		None				
Max Rg						
Eff Rg						

RF 0						
	Port					
	Stbd					

AA						
	Port					
	Stbd					

RF3		None				
Max Rg						
Eff Rg						

RF						
	Port					
	Stbd					

AA						
	Port					
	Stbd					

Captain	

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Using 28cm M1901 APC shell.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Brandenburg

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	15

Engine Rm	2	15	9	0	0	0	0
Prop/Shaft	2	15	8	0	0	0	0
Boiler Rm	4	15	14	9	3	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt				
Increase	2.0	1.0				

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
5				

Fuel Code	BB1B

ARMOR	0.68	Actual
1H DECK	1.6	2.4
2H TURRET	1.3	2.0
3H SUPERSTR	2.2	3.3
4V CON	8.0	11.8
5V BELT MID	10.7	15.8
6V BELT END	8.0	11.8
7V BARBETTE	8.0	11.8
8V TURRET	3.2	4.7
9V SUPERSTR	3.9	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Kurfurst Friedrich Wilhelm

BB GERMANY 1894 to 1904

0404-0 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	Imperial Dockyard, Wilhelmshaven	
Complement	568	*Beam*	64 ft	*Launched*	06/30/1891
Sunk 08/08/1915		*Draft*	25.9 ft	*Completed*	04/29/1894

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	16,109 yds 32.2"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE								
T Kts	Short		Medium		Long		Extreme	
0 - 9	9	5	5	3	4	2	3	2
10 - 18	6	4	4	2	3	2	2	1
19 - 27	5	3	3	2	2	1	2	1
28 - 36	4	2	2	1	2	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE														
Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.1						
Rge	S	S	S	M	M	L	L	E						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE								
T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE														
Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

6 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	11,811 yds 23.6"	4.1" 38.4 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	600

FIRE CONTROL TABLE								
T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP — PENETRATION TABLE														
Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.2	5.6	4.3	3.5	2.8	2.3								
Rge	S	M	M	L	L	E								
H	0.1	0.2	0.4	0.6	0.9	1.3								
V	3.1	2.1	1.8	1.5	1.2	1.0								

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES			
			Rack			
			Ammo			

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0			Catapult	0	

2 1 4 3 6 5

TORPEDOES

TT	6	Ammo	16

45cm C45/91S

Damage Class	G

Settings: 550/33; 1,300/27

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30 C/86			
Max Rg	7,633	15.3"	4	3	
Eff Rg	3,435	6.9"	6	5	

RF						
18	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA	Port	0	0	0	0	0
S	Stbd	0	0	0	0	0

RF2		None
Max Rg		
Eff Rg		

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

RF3		None
Max Rg		
Eff Rg		

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Wet at high speed in head sea with severe pitching.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Kurfurst Friedrich Wilhelm

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	16

Engine Rm	2	16	9	0	0	0	0
Prop/Shaft	2	16	8	0	0	0	0
Boiler Rm	4	16	14	10	4	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt
Increase	2.0	1.0

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		5

Fuel Code	BB1B

ARMOR	0.83	Actual
1H DECK	2.0	2.4
2H TURRET	1.6	2.0
3H SUPERSTR	2.7	3.3
4V CON	9.8	11.8
5V BELT MID	13.1	15.8
6V BELT END	9.8	11.8
7V BARBETTE	9.8	11.8
8V TURRET	3.9	4.7
9V SUPERSTR	4.8	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL		DAMAGE CONTROL	
ROLL	EFECT ON FIRE	ROLL	EFECT ON FIRE
01-03	-20 from severity	01-05	Fire extinguished
04-12	-10 from severity	06-15	-30 from severity
13-50	No change	16-45	-20 from severity
51-85	+10 to severity	46-75	-10 from severity
86-95	+30 to severity	76-90	No change
96-00	+40 to severity	91-00	+10 to severity

Kurfurst Friedrich Wilhelm

BB GERMANY 1905 to 1910

0404-1 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	Imperial Dockyard, Wilhelmshaven	
Complement	581	*Beam*	64 ft	*Launched*	06/30/1891
Sold to Turkey 09/12/1910		*Draft*	25.9 ft	*Completed*	04/29/1894

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,900 yds 31.8"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		1R1	None		COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE								
T Kts	Short		Medium		Long		Extreme	
0 - 9	11	7	7	4	5	3	4	2
10 - 18	8	5	5	3	3	2	3	2
19 - 27	6	4	4	2	3	2	2	1
28 - 36	5	3	3	2	2	1	2	1
37 - 45	4	3	3	2	2	1	1	1

APC	PENETRATION TABLE													
Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.2	0.4	0.6	0.8	1.1	1.5	2.5	2.9						
V	11.5	8.9	6.9	5.5	4.7	4.2	3.5	3.3						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE								
T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP	PENETRATION TABLE													
Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

8 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	11,811 yds 23.6"	4.1" 38.4 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	800

FIRE CONTROL TABLE								
T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP	PENETRATION TABLE													
Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.2	5.6	4.3	3.5	2.8	2.3								
Rge	S	M	M	L	L	E								
H	0.1	0.2	0.4	0.6	0.9	1.3								
V	3.1	2.1	1.8	1.5	1.2	1.0								

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES			
			Rack			
			Ammo			

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	5	Ammo	10

45cm C/03

Damage Class	G

Settings

1,640/31

3,280/26

2 / 4 — 1 / 3 — 5

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30			
Max Rg	8,701	17.4"	5	4	
Eff Rg	3,915	7.8"	8	6	

RF 24						
	Port	4	3	2	1	1
	Stbd	4	3	2	1	1

AA S						
	Port	9	7	5	3	1
	Stbd	9	7	5	3	1

RF2		None				
Max Rg						
Eff Rg						

RF 0						
	Port					
	Stbd					

AA						
	Port					
	Stbd					

RF3		None				
Max Rg						
Eff Rg						

RF						
	Port					
	Stbd					

AA						
	Port					
	Stbd					

Captain	

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Using 28cm M1901 APC shell.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Kurfurst Friedrich Wilhelm

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	15

Engine Rm	2	15	9	0	0	0	0
Prop/Shaft	2	15	8	0	0	0	0
Boiler Rm	4	15	14	9	3	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt				
Increase	2.0	1.0				

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
5				

Fuel Code	BB1B

ARMOR	0.83	Actual
1H DECK	2.0	2.4
2H TURRET	1.6	2.0
3H SUPERSTR	2.7	3.3
4V CON	9.8	11.8
5V BELT MID	13.1	15.8
6V BELT END	9.8	11.8
7V BARBETTE	9.8	11.8
8V TURRET	3.9	4.7
9V SUPERSTR	4.8	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Weissenburg

BB GERMANY 1894 to 1903

0403-0 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	A G Vulcan, Stettin	
Complement	568	*Beam*	64 ft	*Launched*	12/14/1891
Sold to Turkey 09/12/1910		*Draft*	25.9 ft	*Completed*	10/14/1894

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	16,109 yds 32.2"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	9	5	5	3	4	2	3	2
10 - 18	6	4	4	2	3	2	2	1
19 - 27	5	3	3	2	2	1	2	1
28 - 36	4	2	2	1	2	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.1						
Rge	S	S	S	M	M	L	L	E						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

6 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	11,811 yds 23.6"	4.1" 38.4 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	600

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.2	5.6	4.3	3.5	2.8	2.3								
Rge	S	M	M	L	L	E								
H	0.1	0.2	0.4	0.6	0.9	1.3								
V	3.1	2.1	1.8	1.5	1.2	1.0								

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES		
			Rack		
			Ammo		

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0			Catapult	0	

2 1 4 3 6 5

TORPEDOES

TT	6	Ammo	16

45cm C45/91S

Damage Class	G

Settings: 550/33; 1,300/27

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30 C/86			
Max Rg	7,633	15.3"	4	3	
Eff Rg	3,435	6.9"	6	5	

RF						
18	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA	Port	0	0	0	0	0
S	Stbd	0	0	0	0	0

RF2		None
Max Rg		
Eff Rg		

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

RF3		None
Max Rg		
Eff Rg		

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Wet at high speed in head sea with severe pitching.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Weissenburg

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	16

Engine Rm	2	16	9	0	0	0	0
Prop/Shaft	2	16	8	0	0	0	0
Boiler Rm	4	16	14	10	4	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt
Increase	2.0	1.0

Crew

Bridge Command Rating

Flag Command Rating

Damage Control (DCR): 5

Fuel Code	BB1B

ARMOR	0.83	Actual
1H DECK	2.0	2.4
2H TURRET	1.6	2.0
3H SUPERSTR	2.7	3.3
4V CON	9.8	11.8
5V BELT MID	13.1	15.8
6V BELT END	9.8	11.8
7V BARBETTE	9.8	11.8
8V TURRET	3.9	4.7
9V SUPERSTR	4.8	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Weissenburg

BB GERMANY 1904 to 1910

0403-1 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	A G Vulcan, Stettin	
Complement	581	*Beam*	64 ft	*Launched*	12/14/1891
Sold to Turkey 09/12/1910		*Draft*	25.9 ft	*Completed*	10/14/1894

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,900 yds 31.8"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1R1	None		COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	11	7	7	4	5	3	4	2
10 - 18	8	5	5	3	3	2	3	2
19 - 27	6	4	4	2	3	2	2	1
28 - 36	5	3	3	2	2	1	2	1
37 - 45	4	3	3	2	2	1	1	1

APC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.2	0.4	0.6	0.8	1.1	1.5	2.5	2.9						
V	11.5	8.9	6.9	5.5	4.7	4.2	3.5	3.3						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

8 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	11,811 yds 23.6"	4.1" 38.4 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	800

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.2	5.6	4.3	3.5	2.8	2.3								
Rge	S	M	M	L	L	E								
H	0.1	0.2	0.4	0.6	0.9	1.3								
V	3.1	2.1	1.8	1.5	1.2	1.0								

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES			
			Rack			
			Ammo			

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	5	Ammo	10

45cm C/03

Damage Class	G

Settings: 1,640/31; 3,280/26

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30			
Max Rg	8,701	17.4"	5	4	
Eff Rg	3,915	7.8"	8	6	

RF 24						
	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA S	Port	9	7	5	3	1
	Stbd	9	7	5	3	1

RF2		None				
Max Rg						
Eff Rg						
RF 0	Port					
	Stbd					
AA	Port					
	Stbd					

RF3		None				
Max Rg						
Eff Rg						
RF	Port					
	Stbd					
AA	Port					
	Stbd					

Captain

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Using 28cm M1901 APC shell.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Weissenburg

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	15

Engine Rm	2	15	9	0	0	0	0
Prop/Shaft	2	15	8	0	0	0	0
Boiler Rm	4	15	14	9	3	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt				
Increase	2.0	1.0				

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
5				

Fuel Code	BB1B

ARMOR	0.83	Actual
1H DECK	2.0	2.4
2H TURRET	1.6	2.0
3H SUPERSTR	2.7	3.3
4V CON	9.8	11.8
5V BELT MID	13.1	15.8
6V BELT END	9.8	11.8
7V BARBETTE	9.8	11.8
8V TURRET	3.9	4.7
9V SUPERSTR	4.8	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Worth

BB GERMANY 1893 to 1902

0401-0 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	Germania Dockyard, Kiel	
Complement	568	*Beam*	64 ft	*Launched*	08/06/1892
Stricken 05/13/1919		*Draft*	25.9 ft	*Completed*	10/31/1893

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	16,109 yds 32.2"	11.0" 529.0 lbs.

Fire Control	FC Radar	+ 0
1 1Y1	None	

AP	SAP
COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	9	5	5	3	4	2	3	2
10 - 18	6	4	4	2	3	2	2	1
19 - 27	5	3	3	2	2	1	2	1
28 - 36	4	2	2	1	2	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.1						
Rge	S	S	S	M	M	L	L	E						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control	FC Radar	+ 0
1 2Y1	None	

AP	SAP
COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

6 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	11,811 yds 23.6"	4.1" 38.4 lbs.

Fire Control	FC Radar	+ 0
2 2Y1	None	

AP	SAP
COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	600

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.2	5.6	4.3	3.5	2.8	2.3								
Rge	S	M	M	L	L	E								
H	0.1	0.2	0.4	0.6	0.9	1.3								
V	3.1	2.1	1.8	1.5	1.2	1.0								

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES		
			Rack		
			Ammo		

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0	Catapult	0

2 1 4 3 6 5

TORPEDOES

TT	6	Ammo	16

45cm C45/91S

Damage Class	G

Settings: 550/33; 1,300/27

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30 C/86			
Max Rg	7,633	15.3"	4	3	
Eff Rg	3,435	6.9"	6	5	

RF 18						
	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA S	Port	0	0	0	0	0
	Stbd	0	0	0	0	0

RF2		None
Max Rg		
Eff Rg		

RF 0						
	Port					
	Stbd					
AA	Port					
	Stbd					

RF3		None
Max Rg		
Eff Rg		

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Wet at high speed in head sea with severe pitching.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Worth

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	16

Engine Rm	2	16	9	0	0	0	0
Prop/Shaft	2	16	8	0	0	0	0
Boiler Rm	4	16	14	10	4	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt
Increase	2.0	1.0

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		5

Fuel Code	BB1B

ARMOR	0.83	Actual
1H DECK	2.0	2.4
2H TURRET	1.6	2.0
3H SUPERSTR	2.7	3.3
4V CON	9.8	11.8
5V BELT MID	13.1	15.8
6V BELT END	9.8	11.8
7V BARBETTE	9.8	11.8
8V TURRET	3.9	4.7
9V SUPERSTR	4.8	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Worth

BB GERMANY 1903 to 1915

0401-1 BRANDENBURG Class

Displacement	10,500 ts	*Length*	373 ft	Germania Dockyard, Kiel	
Complement	581	*Beam*	64 ft	*Launched*	08/06/1892
Stricken 05/13/1919		*Draft*	25.9 ft	*Completed*	10/31/1893

SEEKRIEG 5

SHIP LOG SHEET

Version 2/18/2009

4 x 28cm MRKL/40 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,900 yds 31.8"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1R1	None		COM	HE

AA	0.0	Level	S	Ammunition	60 rpg	240

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	11	7	7	4	5	3	4	2
10 - 18	8	5	5	3	3	2	3	2
19 - 27	6	4	4	2	3	2	2	1
28 - 36	5	3	3	2	2	1	2	1
37 - 45	4	3	3	2	2	1	1	1

APC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.2	0.4	0.6	0.8	1.1	1.5	2.5	2.9						
V	11.5	8.9	6.9	5.5	4.7	4.2	3.5	3.3						

2 x 28cm MRKL/35 C/92 — 33

Max ROF	Range	Shell Size/Weight
1.5 sh/min	15,655 yds 31.3"	11.0" 529.0 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		2Y1	None		COM	HE

AA	0.0	Level	S	Ammunition	100 rpg	200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

AP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	3.0	3.0	3.0	3.0	3.0	2.9	2.3	2.2						
Rge	S	S	M	M	M	L	L	L						
H	0.4	0.7	1.0	1.2	1.5	1.9	3.1	3.8						
V	8.0	6.4	5.1	4.2	3.6	3.4	2.7	2.6						

8 x 10.5cm SKL/35 C/91 — 11

Max ROF	Range	Shell Size/Weight
11.0 sh/min	12,117 yds 24.2"	4.1" 38.4 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
2		2Y1	None		COM	HE

AA	2.3	Level	S	Ammunition	100 rpg	800

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	7	4	4	3	3	2	2	1
10 - 18	5	3	3	2	2	1	2	1
19 - 27	4	2	2	1	2	1	1	1
28 - 36	3	2	2	1	1	1	1	1
37 - 45	3	2	2	1	1	1	1	1

SAP — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.3	5.7	4.5	3.5	2.8	2.2	2.2							
Rge	S	S	M	L	L	E	E							
H	0.1	0.2	0.3	0.4	0.7	1.1	1.2							
V	2.4	1.7	1.3	1.1	0.9	0.7	0.7							

Coal (ts)	1000	Oil (ts)	110
Engines	2 vertical 3-cyl TE		
Boilers	12 cylindrical		

Radius (nm/kts)	
4300	10
2180	14

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES		
			Rack		
			Ammo		

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	5	Ammo	10

45cm C/03

Damage Class	G

Settings

1,640/31

3,280/26

2 / 4 — 1 / 3 — 5

MINES

RAPID FIRE BATTERIES

RF1	8	8.8cm SKL/30			
Max Rg	8,701	17.4"	5	4	
Eff Rg	3,915	7.8"	8	6	

RF						
24	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA	Port	9	7	5	3	1
S	Stbd	9	7	5	3	1

RF2		None				
Max Rg						
Eff Rg						
RF	Port					
0	Stbd					
AA	Port					
	Stbd					

RF3		None				
Max Rg						
Eff Rg						
RF	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

Excellent sea boat with very easy motion and 30% speed loss under hard rudder. Using 28cm M1901 APC shell.

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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Worth

TIER	DP
1/70	186
2/80	372
3/75	558
4/85	744
5/80	931
6/90	1098
7/85	1265
8/95	1433
9/90	1600
10	1768
10	1880

DP	1861
KTS	15

Engine Rm	2	15	9	0	0	0	0
Prop/Shaft	2	15	8	0	0	0	0
Boiler Rm	4	15	14	9	3	0	0
			0	0	0	0	0

Standard Turn	
60	
Emergency Turn	
90	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-10 kt	11+ kt
Increase	2.0	1.0

Crew

Bridge Command Rating

Flag Command Rating

Damage Control (DCR): 5

Fuel Code	BB1B

ARMOR	0.83	Actual
1H DECK	2.0	2.4
2H TURRET	1.6	2.0
3H SUPERSTR	2.7	3.3
4V CON	9.8	11.8
5V BELT MID	13.1	15.8
6V BELT END	9.8	11.8
7V BARBETTE	9.8	11.8
8V TURRET	3.9	4.7
9V SUPERSTR	4.8	5.8

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS ##	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL		DAMAGE CONTROL	
ROLL	EFECT ON FIRE	ROLL	EFECT ON FIRE
01-03	-20 from severity	01-05	Fire extinguished
04-12	-10 from severity	06-15	-30 from severity
13-50	No change	16-45	-20 from severity
51-85	+10 to severity	46-75	-10 from severity
86-95	+30 to severity	76-90	No change
96-00	+40 to severity	91-00	+10 to severity