

★ ★ ★ ★

ADMIRAL OF THE FLEET



FLEET ACTIONS 1880 - 1945



Battleship TSESSAREVITCH

NAVAL ANNUAL 1885 - 1906



ADMIRAL OF THE FLEET

FLEET ACTIONS 1880-1945

NAVAL ANNUAL
1885-1906

SHIP LOGS FOR

ADMIRAL
OF THE
FLEET

by

Richard R. Sartore

and

Jack L Joyner



ARGENTINA



Armored and Unarmored Cruising Ships

BATTLESHIPS BB

LA PLATA 1874 1500 ts 186 ft 9 kts **MAIN GUNS:** 2 x 7.8"/12.5 12.5-Ton BL **SECONDARY GUNS:** 2 x 4"/50

Ships in Class: LA PLATA, LOS ANDES

LIBERTAD 1890 2330 ts 230 ft 14 kts **MAIN GUNS:** 2 x 24cm MRKL/35 C/86 **SECONDARY GUNS:** 4 x 4.7"/40 Pattern P

Ships in Class: LIBERTAD, INDEPENDENCIA

ARMORED CRUISERS CA

ALMIRANTE BROWN 1880 4200 ts 240 ft 14 kts **MAIN GUNS:** 8 x 8"/26.1 11.5-Ton BLR **SECONDARY GUNS:** 6 x 4.7"/23.5 BLR

Ships in Class: ALMIRANTE BROWN

PATAGONIA 1885 1450 ts 213 ft 14 kts **MAIN GUNS:** 1 x 10"/32.5 27-Ton BLR **SECONDARY GUNS:** 3 x 6"/30.5 BLR Pattern K

Ships in Class: PATAGONIA

VEINTICINCO DE MAYO 1892 3180 ts 330 ft 22 kts **MAIN GUNS:** 2 x 21cm MRKL/35 C/86 **SECONDARY GUNS:** 8 x 12cm SKL/40 C/88

Ships in Class: VEINTICINCO DE MAYO

GARIBALDI 1895 6773 ts 344 ft 20 kts **MAIN GUNS:** 2 x 10"/40 Pattern P **SECONDARY GUNS:** 10 x 6"/40 Patterns W, Z

Ships in Class: GENERAL BELGRANO, GENERAL GARIBALDI, GENERAL PUEYRREDO, GENERAL SAN MARTIN

BUENOS AIRES 1897 4788 ts 396 ft 24 kts **MAIN GUNS:** 2 x 8"/45 Pattern U **SECONDARY GUNS:** 4 x 6"/45

Ships in Class: BUENOS AIRES

LIGHT CRUISERS CL

NUEVE DE JULIO 1893 3600 ts 354 ft 22 kts **MAIN GUNS:** 4 x 6"/40 **SECONDARY GUNS:** 8 x 4.7"/40 Pattern P

Ships in Class: NUEVE DE JULIO

LA PLATA Class
BB ARGENTINA

2838-0
Displacement 1,500 ts
Complement 200

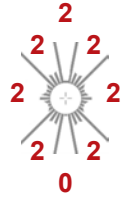
Length 186 ft
Beam 44 ft
Draft 10.5 ft
Low-freeboard coast defence battleships

2 x 7.8"/12.5 12.5-Ton

DIRECTORS

1

ARCS OF FIRE



Range	4,500 yds	9.0"
FC Radar	+0	None

GUNNERY (FCS)						
TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	9	5	5	3	4	2
10-18	6	4	4	2	3	2
19-26	5	3	3	2	2	1
27-32	4	2	2	1	2	1

29% PENETRATION TABLE				
AP	SHORT		MEDIUM	LONG
YDS	2,000	2,000	4,500	
ROF	2	2	2	
HORZ	0	0	0	
VERT	3	3	3	

Targ Sz	Crew	Sea
0		
Searchlights	Port	Stbd

PROTECTION	
ARMOR VALUE	
HORIZONTAL	0
VERTICAL	4

HIT LOCATION		
RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

5	3	DAMAGE CONTROL (DCR)			

FLAG COMMAND RATING (FCR)						

PD-01-2

DAMAGE DETERMINATION

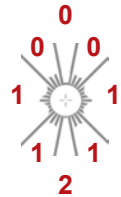
ROLL	CLASS 1	CLASS 2	CLASS 3
01-02	100	202	304
03-04	128	201	302
05-06	102	203	303
07-08	103	205	301
09-10	109	210	305
11-13	104	200	306
14-16	106	204	307
17-19	107	206	308
20-22	105	207	310
23-25	110	211	311
26-28	112	213	312
29-31	121	214	313
32-34	144	215	314
35-37	171	217	315
38-40	122	218	316
41-43	135	219	317
44-46	132	220	318
47-49	145	221	-
50-52	123	222	-
53-55	124	223	316
56-58	125	224	-
59-61	127	226	317
62-64	141	227	-
65-67	133	229	318
68-70	126	230	-
71-73	118	231	-
74-76	116	237	-
77-79	115	238	-
80-83	108	208	311
84-87	113	212	310
88-91	129	248	307
92-95	148	244	308
96-98	167	242	-
99-00	101	241	-

2 x 4"/50

DIRECTORS

1

ARCS OF FIRE



Range	11,500 yds	23.0"
FC Radar	+0	None

GUNNERY (FCS)						
TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	6	3	3	2	2	1
10-18	4	2	2	1	2	1
19-26	3	2	2	1	1	1
27-32	2	1	1	1	1	1

14% PENETRATION TABLE				
CP	SHORT		MEDIUM	LONG
YDS	2,000	4,000	8,000	11,500
ROF	8	7	5	3
HORZ	0	0	0	1
VERT	5	3	2	1

KTS 9

TORPEDOES			
TT	0	RL	0

PROPULSION / MANEUVER

Engine Rm	2	9	5	0	0	0	0	Std Turn
Prop/Shaft	2	9	5	0	0	0	0	60
Boiler Rm	2	9	6	0	0	0	0	Emg Turn
				0	0	0	0	90

Speed Increase	00-02 kt	3+ kt				
	2.0	1.0				

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE



LIBERTAD Class
BB ARGENTINA

1891 to 1925

0002-0
Displacement 2,330 ts
Complement 230

SHIP LOG SHEET

Version AOTF-2022A



Launched as NUEVE DE JULIO, renamed in 1892

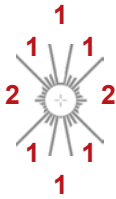
Length 230 ft
Beam 43 ft
Draft 13 ft



2 x 24cm MRKL/35 C/8

DIRECTORS
1

ARCS OF FIRE



Range	
11,000 yds	22.0"
FC Radar	
+ 0	None

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG		
	SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	10	6	6	4	5	3	
10-18	7	4	4	3	3	2	
19-26	5	3	3	2	2	1	
27-32	4	3	3	2	2	1	

AP	PENETRATION TABLE			
	SHORT	MEDIUM	LONG	
YDS	2,000	4,000	8,000	11,000
ROF	2	2	2	2
HORZ	0	1	1	1
VERT	9	7	5	4

Targ Sz	Crew	Sea
0		
Searchlights		
Port	Stbd	

PROTECTION	
ARMOR VALUE	
HORIZONTAL	1
VERTICAL	4

HIT LOCATION		
RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

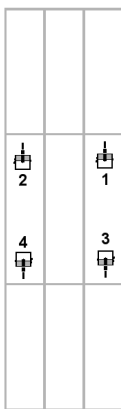
DAMAGE CONTROL (DCR)	
6	3

FLAG COMMAND RATING (FCR)									

PD-01-2

DAMAGE DETERMINATION

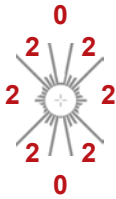
ROLL	CLASS 1	CLASS 2	CLASS 3
01-02	100	202	304
03-04	128	201	302
05-06	102	203	303
07-08	103	205	301
09-10	109	210	305
11-13	104	200	306
14-16	106	204	307
17-19	107	206	308
20-22	105	207	310
23-25	110	211	311
26-28	112	213	312
29-31	121	214	313
32-34	144	215	314
35-37	171	217	315
38-40	122	218	316
41-43	135	219	317
44-46	132	220	318
47-49	145	221	-
50-52	123	222	-
53-55	124	223	316
56-58	125	224	-
59-61	127	226	317
62-64	141	227	-
65-67	133	229	318
68-70	126	230	-
71-73	118	231	-
74-76	116	237	-
77-79	115	238	-
80-83	108	208	311
84-87	113	212	310
88-91	129	248	307
92-95	148	244	308
96-98	167	242	-
99-00	101	241	-



4 x 4.7"/40 Pattern P

DIRECTORS
2

ARCS OF FIRE



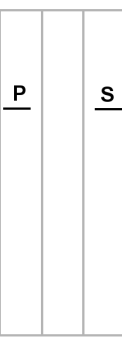
Range	
7,000 yds	14.0"
FC Radar	
+ 0	None

TARGET	SHORT		MEDIUM		LONG		
	SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	7	4	4	3	3	2	
10-18	5	3	3	2	2	1	
19-26	4	2	2	1	2	1	
27-32	3	2	2	1	1	1	

AP	PENETRATION TABLE			
	SHORT	MEDIUM	LONG	
YDS	2,000	2,000	6,000	7,000
ROF	8	8	6	4
HORZ	0	0	0	1
VERT	3	3	2	2

KTS	14								
-----	----	--	--	--	--	--	--	--	--

PROPULSION / MANEUVER										
Engine Rm	2	14	8	0	0	0	0	Std Turn		
Prop/Shaft	2	14	7	0	0	0	0	60		
Boiler Rm	2	14	9	0	0	0	0	Emg Turn		
			0	0	0	0	0	90		



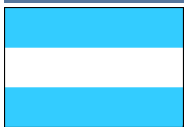
TORPEDOES	
TT	2 RL 6
18" Mk II	
Damage Class	H
Settings	
1,000/25	
1,500/22	

Speed Increase	00-08 kt	9+ kt				
	2.0	1.0				

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD											
T#	RANGE	TARGET	RNDS	TBL	H	T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE



ALMIRANTE BROWN Class
CA ARGENTINA

1882 to 1898

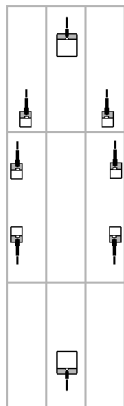
2588-0
Displacement 4,200 ts
Complement 520

SHIP LOG SHEET

Version AOTF-2022A



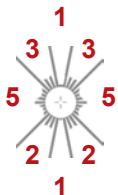
Length 240 ft
Beam 50 ft
Draft 20.5 ft
Ram bow



8 x 8"/26.1 11.5-Ton B

DIRECTORS
2

ARCS OF FIRE



Range
6,500 yds 13.0"
FC Radar **+0**
None

31%

PENETRATION TABLE

AP	SHORT	MEDIUM	LONG
YDS	2,000	2,000	6,500
ROF	2	2	2
HORZ	0	0	1
VERT	5	5	3

GUNNERY (FCS)

TARGET SPEED	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	9	5	5	3	4	2
10-18	6	4	4	2	3	2
19-26	5	3	3	2	2	1
27-32	4	2	2	1	2	1

Targ Sz	Crew	Sea
0		

Searchlights Port Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	1
VERTICAL	4

HIT LOCATION

	RANGE	HORZ	VERT
SHORT	01-05		06-00
MEDIUM	01-19		20-00
LONG	01-39		40-00

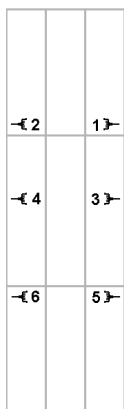
8 4 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

PD-01-2

DAMAGE DETERMINATION

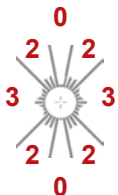
ROLL	CLASS 1	CLASS 2	CLASS 3
01-02	100	202	304
03-04	128	201	302
05-06	102	203	303
07-08	103	205	301
09-10	109	210	305
11-13	104	200	306
14-16	106	204	307
17-19	107	206	308
20-22	105	207	310
23-25	110	211	311
26-28	112	213	312
29-31	121	214	313
32-34	144	215	314
35-37	171	217	315
38-40	122	218	316
41-43	135	219	317
44-46	132	220	318
47-49	145	221	-
50-52	123	222	-
53-55	124	223	316
56-58	125	224	-
59-61	127	226	317
62-64	141	227	-
65-67	133	229	318
68-70	126	230	-
71-73	118	231	-
74-76	116	237	-
77-79	115	238	-
80-83	108	208	311
84-87	113	212	310
88-91	129	248	307
92-95	148	244	308
96-98	167	242	-
99-00	101	241	-



6 x 4.7"/23.5 BLR

DIRECTORS
2

ARCS OF FIRE



Range
5,000 yds 10.0"
FC Radar **+0**
None

15%

PENETRATION TABLE

CP	SHORT	MEDIUM	LONG
YDS	2,000	2,000	5,000
ROF	6	6	5
HORZ	0	0	0
VERT	2	2	2

GUNNERY (FCS)

TARGET SPEED	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	6	3	3	2	2	1
10-18	4	2	2	1	2	1
19-26	3	2	2	1	1	1
27-32	2	1	1	1	1	1

KTS **14**

TORPEDOES
TT 0 RL 0

PROPULSION / MANEUVER

Engine Rm	1	14	0	0	0	0	0	0	0	Std Turn
Prop/Shaft	2	14	7	0	0	0	0	0	0	90
Boiler Rm	2	14	9	0	0	0	0	0	0	Emg Turn
			0	0	0	0	0	0	0	120

None
Damage Class
Settings

Speed Increase	00-05 kt	06+ kt			
	2.0	1.0			

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

PATAGONIA Class
CA ARGENTINA

1887 to 1909
2840-0
Displacement 1,450 ts
Complement 210

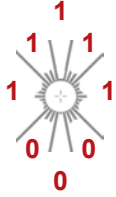
Length 213 ft
Beam 33 ft
Draft 12.8 ft
Ram bow.



1 x 10"/32.5 27-Ton BL

DIRECTORS
1

ARCS OF FIRE



Range
10,500 yds 21.0"
FC Radar +0
None

GUNNERY (FCS) table with columns for TARGET, SHORT, MEDIUM, LONG and rows for SPEED, BRD, NAR.

PENETRATION TABLE with columns for AP, YDS, ROF, HORZ, VERT and rows for SHORT, MEDIUM, LONG.

Targ Sz, Crew, Sea table with values 0.

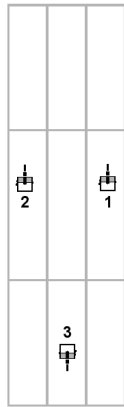
PROTECTION ARMOR VALUE table with HORIZONTAL and VERTICAL values of 1.

HIT LOCATION table with columns for RANGE, HORZ, VERT and rows for SHORT, MEDIUM, LONG.

5 2 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

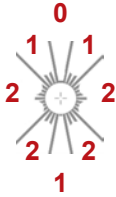
PD-01-2



3 x 6"/30.5 BLR Patter

DIRECTORS
2

ARCS OF FIRE



Range
8,500 yds 17.0"
FC Radar +0
None

GUNNERY (FCS) table for the 6-inch BLR Pattern.

PENETRATION TABLE for the 6-inch BLR Pattern.

DAMAGE DETERMINATION table with columns for ROLL, CLASS 1, CLASS 2, CLASS 3 and rows for damage events.

KTS 14

TORPEDOES
TT 0 RL 0

PROPULSION / MANEUVER

Table for Engine Rm, Prop/Shaft, and Boiler Rm with performance metrics.

None
Damage Class
Settings

Speed Increase table with columns for 00-05 kt and 06+ kt.

LOSS OF SPEED DURING TURNS

Table showing loss of speed during turns for STD and EMG conditions.

GUNNERY RECORD

Gunners record table with columns for T#, RANGE, TARGET, RND, TBL, H.

T# RECORD table with columns for T#, RANGE, TARGET, SETNG, TORPS, ANG, TGT MOVE, ARRIVE.



VEINTICINCO DE MAYO Class
CA ARGENTINA

1891 to 1915

2589-0
Displacement 3,180 ts
Complement 300

SHIP LOG SHEET

Version AOTF-2022A

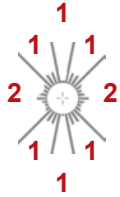


Length 330 ft
Beam 43 ft
Draft 16 ft

2 x 21cm MRKL/35 C/8

DIRECTORS
2

ARCS OF FIRE



Range: 12,500 yds 25.0"
FC Radar: +0
None

GUNNERY (FCS) table with columns for TARGET, SHORT, MEDIUM, LONG and rows for SPEED, 0-9, 10-18, 19-26, 27-32

32% PENETRATION TABLE with columns for AP, YDS, ROF, HORZ, VERT and rows for SHORT, MEDIUM, LONG

Targ Sz, Crew, Sea table with values 1, 1, 1

PROTECTION ARMOR VALUE table with HORIZONTAL 2 and VERTICAL 1

HIT LOCATION table with columns for RANGE, HORZ, VERT and rows for SHORT, MEDIUM, LONG

DAMAGE CONTROL (DCR) table with values 7, 4

FLAG COMMAND RATING (FCR) table

PD-01-2

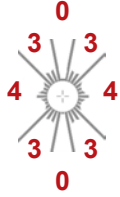
DAMAGE DETERMINATION

Large table for DAMAGE DETERMINATION with columns for ROLL, CLASS 1, CLASS 2, CLASS 3 and rows for various roll numbers (01-02 to 99-00)

8 x 12cm SKL/40 C/88

DIRECTORS
2

ARCS OF FIRE



Range: 11,500 yds 23.0"
FC Radar: +0
None

GUNNERY (FCS) table with columns for TARGET, SHORT, MEDIUM, LONG and rows for SPEED, 0-9, 10-18, 19-26, 27-32

18% PENETRATION TABLE with columns for AP, YDS, ROF, HORZ, VERT and rows for SHORT, MEDIUM, LONG

KTS 22 table

PROPULSION / MANEUVER table with columns for Engine Rm, Prop/Shaft, Boiler Rm and rows for Std Turn, Emg Turn

Speed Increase table with columns for 00-08 kt, 09-12 kt, 13+ kt

TORPEDOES table with TT 3, RL 6, 18" Mk II, Damage Class H, Settings 1,000/25, 1,500/22

LOSS OF SPEED DURING TURNS table with columns for KTS, STD, EMG and rows for various turn speeds

GUNNERY RECORD table with columns for T#, RANGE, TARGET, RND, TBL, H and rows for recording gunnery data

Table with columns for T#, RANGE, TARGET, SETNG, TORPS, ANG, TGT MOVE, ARRIVE



BUENOS AIRES Class
CA ARGENTINA

1896 to 1913

2593-0
Displacement 4,788 ts
Complement 350

SHIP LOG SHEET

Version AOTF-2022A



Length 396 ft
Beam 42 ft
Draft 18.4 ft

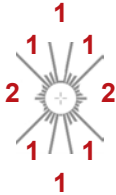


2 x 8"/45 Pattern U

DIRECTORS
2

TARGET SPEED	GUNNERY (FCS)					
	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	10	6	6	4	5	3
10-18	7	4	4	3	3	2
19-26	5	3	3	2	2	1
27-32	4	3	3	2	2	1

ARCS OF FIRE



Range
11,500 yds 23.0"

FC Radar **+0**
None

32%

AP YDS	PENETRATION TABLE		
	SHORT	MEDIUM	LONG
ROF	4	4	4
HORZ	0	0	1
VERT	9	6	4

Targ Sz	Crew	Sea
1		

PROTECTION	
ARMOR VALUE	
HORIZONTAL	1
VERTICAL	1

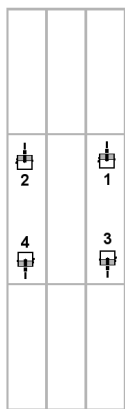
HIT LOCATION	RANGE	HORZ	VERT
	SHORT	01-05	06-00
MEDIUM	01-19	20-00	
LONG	01-39	40-00	

Searchlights	Port	Stbd

9 5 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

PD-01-2

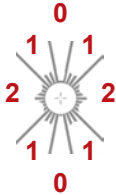


4 x 6"/45

DIRECTORS
2

TARGET SPEED	GUNNERY (FCS)					
	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	7	4	4	3	3	2
10-18	5	3	3	2	2	1
19-26	4	2	2	1	2	1
27-32	3	2	2	1	1	1

ARCS OF FIRE



Range
11,500 yds 23.0"

FC Radar **+0**
None

22%

AP YDS	PENETRATION TABLE		
	SHORT	MEDIUM	LONG
ROF	8	7	3
HORZ	0	0	1
VERT	7	5	3

ROLL	DAMAGE DETERMINATION		
	CLASS 1	CLASS 2	CLASS 3
01-02	100	202	304
03-04	128	201	302
05-06	102	203	303
07-08	103	205	301
09-10	109	210	305
11-13	104	200	306
14-16	106	204	307
17-19	107	206	308
20-22	105	207	310
23-25	110	211	311
26-28	112	213	312
29-31	121	214	313
32-34	144	215	314
35-37	171	217	315
38-40	122	218	316
41-43	135	219	317
44-46	132	220	318
47-49	145	221	-
50-52	123	222	-
53-55	124	223	316
56-58	125	224	-
59-61	127	226	317
62-64	141	227	-
65-67	133	229	318
68-70	126	230	-
71-73	118	231	-
74-76	116	237	-
77-79	115	238	-
80-83	108	208	311
84-87	113	212	310
88-91	129	248	307
92-95	148	244	308
96-98	167	242	-
99-00	101	241	-

KTS 24

1		
2	3	
4	5	

TORPEDOES	
TT	5 RL 10
18" Mk IV	
Damage Class	H
Settings	
1,000/26	
2,000/18	

PROPULSION / MANEUVER

Engine Rm	2	24	14	0	0	0	0	Std Turn
Prop/Shaft	2	24	12	0	0	0	0	60
Boiler Rm	4	24	22	15	6	0	0	Emg Turn
			0	0	0	0	0	90

Speed Increase	00-03 kt	04-12 kt	13-15 kt	16+ kt
	4.0	3.0	2.0	1.0

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE



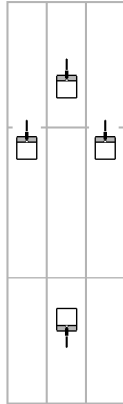
NUEVE DE JULIO Class
CL ARGENTINA

1893 to 1914

2591-0
Displacement 3,600 ts
Complement 327

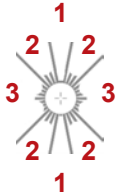
SHIP LOG SHEET

Version AOTF-2022A



4 x 6"/40

ARCS OF FIRE



DIRECTORS

2

Range	
9,500 yds	19.0"
FC Radar	
+0	
None	

GUNNERY (FCS)

TARGET SPEED	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	10	6	6	4	5	3
10-18	7	4	4	3	3	2
19-26	5	3	3	2	2	1
27-32	4	3	3	2	2	1

22% PENETRATION TABLE				
AP	SHORT		MEDIUM	LONG
YDS	2,000	4,000	8,000	9,500
ROF	8	6	5	4
HORZ	0	0	1	1
VERT	5	4	3	2

Targ Sz	Crew	Sea
1		

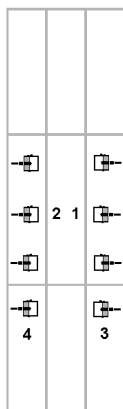
PROTECTION ARMOR VALUE	
HORIZONTAL	2
VERTICAL	1

HIT LOCATION		
RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

Searchlights	Port	Stbd

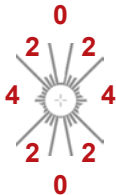
8 4 DAMAGE CONTROL (DCR)									

FLAG COMMAND RATING (FCR)									



8 x 4.7"/40 Pattern P

ARCS OF FIRE



DIRECTORS

2

Range	
7,500 yds	15.0"
FC Radar	
+0	
None	

GUNNERY (FCS)

TARGET SPEED	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	7	4	4	3	3	2
10-18	5	3	3	2	2	1
19-26	4	2	2	1	2	1
27-32	3	2	2	1	1	1

17% PENETRATION TABLE				
AP	SHORT		MEDIUM	LONG
YDS	2,000	2,000	6,000	7,000
ROF	8	8	6	4
HORZ	0	0	0	1
VERT	3	3	2	2

PD-01-2

DAMAGE DETERMINATION

ROLL	CLASS 1	CLASS 2	CLASS 3
01-02	100	202	304
03-04	128	201	302
05-06	102	203	303
07-08	103	205	301
09-10	109	210	305
11-13	104	200	306
14-16	106	204	307
17-19	107	206	308
20-22	105	207	310
23-25	110	211	311
26-28	112	213	312
29-31	121	214	313
32-34	144	215	314
35-37	171	217	315
38-40	122	218	316
41-43	135	219	317
44-46	132	220	318
47-49	145	221	-
50-52	123	222	-
53-55	124	223	316
56-58	125	224	-
59-61	127	226	317
62-64	141	227	-
65-67	133	229	318
68-70	126	230	-
71-73	118	231	-
74-76	116	237	-
77-79	115	238	-
80-83	108	208	311
84-87	113	212	310
88-91	129	248	307
92-95	148	244	308
96-98	167	242	-
99-00	101	241	-

KTS 22

PROPULSION / MANEUVER

Engine Rm	2	22	13	0	0	0	0	Std Turn
Prop/Shaft	2	22	11	0	0	0	0	60
Boiler Rm	2	22	14	0	0	0	0	Emg Turn
			0	0	0	0	0	90

TORPEDOES	TT	5	RL	10
18" Mk II				
Damage Class		H		
Settings				
1,000/25				
1,500/22				

Speed Increase	00-04 kt	05-09 kt	10-14 kt	15+ kt
	5.0	4.0	2.0	1.0

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE



AUSTRIA-HUNGARY



Armored and Unarmored Cruising Ships

BATTLESHIPS BB

KRONPRINZESSIN ERZHERZOGIN STEF 1889 5075 ts 286 ft 17 kts **MAIN GUNS:** 2 x 30.5cm RKL/35 C/80 **SECONDARY GUNS:** 6 x 15cm SKL/35 C/86

Ships in Class: KRONPRINZESSIN ERZHERZOG STEFANI

KRONPRINZ ERZHERZOG RUDOLF 1889 6829 ts 320 ft 15 kts **MAIN GUNS:** 3 x 30.5cm RKL/35 C/80 **SECONDARY GUNS:** 6 x 12cm SKL/35 C/87

Ships in Class: KRONPRINZ ERZHERZOG RUDOLF

MONARCH 1897 5547 ts 320 ft 17 kts **MAIN GUNS:** 4 x 24cm SKL/40 C/94 **SECONDARY GUNS:** 6 x 15cm SKL/40 C/96

Ships in Class: BUDAPEST, MONARCH, WIEN

HABSBURG 1902 8340 ts 371 ft 19 kts **MAIN GUNS:** 3 x 24cm SKL/40 C/97 **SECONDARY GUNS:** 12 x 15cm L/40 K/00

Ships in Class: ARPAD, BABENBERG, HABSBURG

ERZHERZOG KARL 1906 10472 ts 408 ft 20 kts **MAIN GUNS:** 4 x 24cm L/40 K/01 **SECONDARY GUNS:** 12 x 19cm L/42 K/03

Ships in Class: ERZHERZOG FERDINAND MAX, ERZHERZOG FRIEDRICH, ERZHERZOG KARL

ARMORED CRUISERS CA

KAISER FRANZ JOSEF I 1890 4031 ts 341 ft 19 kts **MAIN GUNS:** 2 x 24cm MRKL/35 C/86 **SECONDARY GUNS:** 6 x 15cm SKL/35 C/86

Ships in Class: KAISER FRANZ JOSEF I, KAISERIN ELISABETH

KAISERIN und KONIGIN MARIA THERES 1895 5330 ts 366 ft 19 kts **MAIN GUNS:** 2 x 24cm MRKL/35 C/86 **SECONDARY GUNS:** 8 x 15cm SKL/35 C/86

Ships in Class: KuK MARIA THERESIA

KAISER KARL VI 1900 6166 ts 387 ft 20 kts **MAIN GUNS:** 2 x 24cm SKL/40 C/97 **SECONDARY GUNS:** 8 x 15cm L/40 K/00

Ships in Class: KAISER KARL VI

SANKT GEORG 1905 7289 ts 404 ft 22 kts **MAIN GUNS:** 2 x 24cm L/40 K/01 **SECONDARY GUNS:** 5 x 19cm L/42 K/03

Ships in Class: SANKT GEORG

LIGHT CRUISERS CL

PANTHER 1885 1557 ts 234 ft 18 kts **MAIN GUNS:** 2 x 12cm SKL/35 C/87 **SECONDARY GUNS:**

Ships in Class: LEOPARD, PANTHER

TIGER 1888 1657 ts 243 ft 18 kts **MAIN GUNS:** 4 x 12cm SKL/35 C/87 **SECONDARY GUNS:**

Ships in Class: TIGER

ZENTA 1900 2350 ts 315 ft 20 kts **MAIN GUNS:** 8 x 12cm L/40S C/96 **SECONDARY GUNS:**

Ships in Class: ASPERN, SZIGETVAR, ZENTA



KAISERIN und KONIGIN MARIA THERE
CA AUSTRIA-HUNGARY 1894 to 1909

0073-0
Displacement 5,330 ts
Complement 475

SHIP LOG SHEET

Version AOTF-2022A



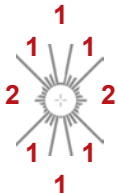
Length 366 ft
Beam 53 ft
Draft 22.4 ft



2 x 24cm MRKL/35 C/8

DIRECTORS
2

ARCS OF FIRE



Range	
15,000 yds	30.0"
FC Radar	
+0	None

GUNNERY (FCS)

TARGET SPEED	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	9	5	5	3	4	2
10-18	6	4	4	2	3	2
19-26	5	3	3	2	2	1
27-32	4	2	2	1	2	1

43% PENETRATION TABLE

AP YDS	SHORT		MEDIUM	LONG
	2,000	4,000	10,000	15,000
ROF	3	2	2	2
HORZ	0	1	1	2
VERT	10	8	6	4

Targ Sz	Crew	Sea
1		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	1
VERTICAL	2

HIT LOCATION

	RANGE	HORZ	VERT
	SHORT	01-05	06-00
MEDIUM	01-19	20-00	
LONG	01-39	40-00	

9	5	DAMAGE CONTROL (DCR)									

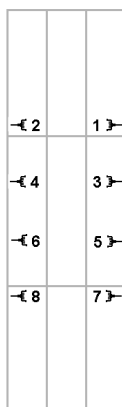
FLAG COMMAND RATING (FCR)

--	--	--	--	--	--	--	--	--	--	--	--

PD-01-2

DAMAGE DETERMINATION

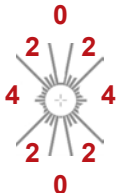
ROLL	CLASS 1	CLASS 2	CLASS 3
01-02	100	202	304
03-04	128	201	302
05-06	102	203	303
07-08	103	205	301
09-10	109	210	305
11-13	104	200	306
14-16	106	204	307
17-19	107	206	308
20-22	105	207	310
23-25	110	211	311
26-28	112	213	312
29-31	121	214	313
32-34	144	215	314
35-37	171	217	315
38-40	122	218	316
41-43	135	219	317
44-46	132	220	318
47-49	145	221	-
50-52	123	222	-
53-55	124	223	316
56-58	125	224	-
59-61	127	226	317
62-64	141	227	-
65-67	133	229	318
68-70	126	230	-
71-73	118	231	-
74-76	116	237	-
77-79	115	238	-
80-83	108	208	311
84-87	113	212	310
88-91	129	248	307
92-95	148	244	308
96-98	167	242	-
99-00	101	241	-



8 x 15cm SKL/35 C/86

DIRECTORS
2

ARCS OF FIRE



Range	
8,500 yds	17.0"
FC Radar	
+0	None

GUNNERY (FCS)

TARGET SPEED	SHORT		MEDIUM		LONG	
	BRD	NAR	BRD	NAR	BRD	NAR
0-9	7	4	4	3	3	2
10-18	5	3	3	2	2	1
19-26	4	2	2	1	2	1
27-32	3	2	2	1	1	1

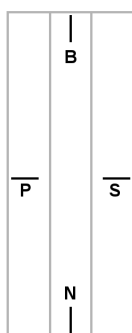
24% PENETRATION TABLE

AP YDS	SHORT		MEDIUM	LONG
	2,000	4,000	7,000	8,500
ROF	9	6	5	4
HORZ	0	0	1	1
VERT	5	4	3	2

KTS	19													
-----	----	--	--	--	--	--	--	--	--	--	--	--	--	--

PROPULSION / MANEUVER

Engine Rm	3	19	15	6	0	0	0	Std Turn		
Prop/Shaft	2	19	10	0	0	0	0	60		
Boiler Rm	4	19	17	12	4	0	0	Emg Turn		
								90		



TORPEDOES	
TT	4
RL	12

45cm L/4	
Damage Class	H
Settings	
440/28	
880/26	

Speed Increase	00-08 kt	09-11 kt	12+ kt				
	3.0	2.0	1.0				

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE



KAISER KARL VI Class
CA AUSTRIA-HUNGARY

1900 to 1912

2597-0
Displacement 6,166 ts
Complement 535

SHIP LOG SHEET

Version AOTF-2022A



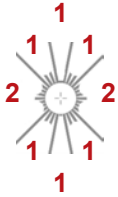
Length 387 ft
Beam 57 ft
Draft 22.1 ft



2 x 24cm SKL/40 C/97

DIRECTORS
2

ARCS OF FIRE



Range
15,500 yds 31.0"
FC Radar **+0**
None

TARGET	GUNNERY (FCS)					
	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	11	7	7	4	5	3
10-18	8	5	5	3	3	2
19-26	6	4	4	2	3	2
27-32	5	3	3	2	2	1

AP	PENETRATION TABLE			
	SHORT		MEDIUM	LONG
YDS	2,500	6,000	10,000	15,500
ROF	6	5	5	3
HORZ	0	1	1	2
VERT	11	8	6	4

Targ Sz	Crew	Sea
1		

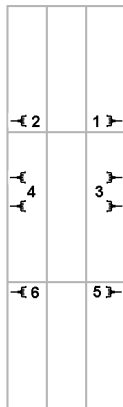
PROTECTION	
ARMOR VALUE	
HORIZONTAL	2
VERTICAL	5

RANGE	HIT LOCATION	
	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

10	5	DAMAGE CONTROL (DCR)											

FLAG COMMAND RATING (FCR)											

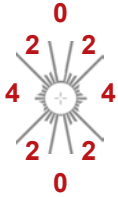
PD-01-2



8 x 15cm L/40 K/00

DIRECTORS
2

ARCS OF FIRE



Range
10,000 yds 20.0"
FC Radar **+0**
None

TARGET	GUNNERY (FCS)					
	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	8	5	5	3	4	2
10-18	5	3	3	2	2	1
19-26	4	3	3	2	2	1
27-32	3	2	2	1	1	1

APC	PENETRATION TABLE			
	SHORT		MEDIUM	LONG
YDS	2,000	4,000	8,000	10,000
ROF	9	7	5	3
HORZ	0	0	1	1
VERT	6	4	3	2

DAMAGE DETERMINATION				
ROLL	CLASS 1	CLASS 2	CLASS 3	
01-02	100	202	304	
03-04	128	201	302	
05-06	102	203	303	
07-08	103	205	301	
09-10	109	210	305	
11-13	104	200	306	
14-16	106	204	307	
17-19	107	206	308	
20-22	105	207	310	
23-25	110	211	311	
26-28	112	213	312	
29-31	121	214	313	
32-34	144	215	314	
35-37	171	217	315	
38-40	122	218	316	
41-43	135	219	317	
44-46	132	220	318	
47-49	145	221	-	
50-52	123	222	-	
53-55	124	223	316	
56-58	125	224	-	
59-61	127	226	317	
62-64	141	227	-	
65-67	133	229	318	
68-70	126	230	-	
71-73	118	231	-	
74-76	116	237	-	
77-79	115	238	-	
80-83	108	208	311	
84-87	113	212	310	
88-91	129	248	307	
92-95	148	244	308	
96-98	167	242	-	
99-00	101	241	-	

KTS	20								
-----	-----------	--	--	--	--	--	--	--	--

PROPULSION / MANEUVER											
Engine Rm	2	20	11	0	0	0	0	Std Turn			
Prop/Shaft	2	20	10	0	0	0	0	90			
Boiler Rm	6	20	19	17	12	7	2	Emg Turn			
			0	0	0	0	0	120			

Speed Increase	00-08 kt	09-11 kt	12+ kt			
	3.0	2.0	1.0			

TORPEDOES			
TT	2	RL	8
45cm L/5 M98			
Damage Class	I		
Settings			
440/30			



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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD											
T#	RANGE	TARGET	RNDS	TBL	H	T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE



SANKT GEORG Class
CA AUSTRIA-HUNGARY

1905 to 1915

2598-0
Displacement 7,289 ts
Complement 630

SHIP LOG SHEET

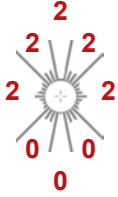
Version AOTF-2022A



2 x 24cm L/40 K/01

DIRECTORS
2

ARCS OF FIRE



Range	
16,000 yds	32.0"
FC Radar	
+0	None

GUNNERY (FCS)						
TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	14	8	8	5	6	4
10-18	9	6	6	3	4	2
19-26	7	4	4	3	3	2
27-32	6	4	4	2	3	2

43% PENETRATION TABLE				
APC	SHORT		MEDIUM	LONG
YDS	2,500	6,000	12,000	16,000
ROF	8	6	5	3
HORZ	0	1	1	2
VERT	11	9	6	4

Targ Sz	Crew	Sea
1		
Searchlights		
Port		Stbd

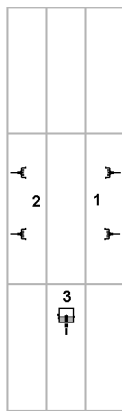
PROTECTION	
ARMOR VALUE	
HORIZONTAL	2
VERTICAL	6

HIT LOCATION		
RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

11	6	DAMAGE CONTROL (DCR)					

FLAG COMMAND RATING (FCR)									

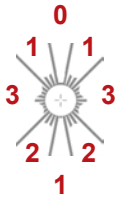
PD-01-2



5 x 19cm L/42 K/03

DIRECTORS
2

ARCS OF FIRE



Range	
16,000 yds	32.0"
FC Radar	
+0	None

GUNNERY (FCS)						
TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	9	6	6	3	4	2
10-18	6	4	4	2	3	2
19-26	5	3	3	2	2	1
27-32	4	2	2	1	2	1

31% PENETRATION TABLE				
APC	SHORT		MEDIUM	LONG
YDS	3,000	6,000	12,000	16,000
ROF	7	6	5	3
HORZ	0	0	1	2
VERT	10	7	4	3

DAMAGE DETERMINATION

ROLL	CLASS 1	CLASS 2	CLASS 3
01-02	100	202	304
03-04	128	201	302
05-06	102	203	303
07-08	103	205	301
09-10	109	210	305
11-13	104	200	306
14-16	106	204	307
17-19	107	206	308
20-22	105	207	310
23-25	110	211	311
26-28	112	213	312
29-31	121	214	313
32-34	144	215	314
35-37	171	217	315
38-40	122	218	316
41-43	135	219	317
44-46	132	220	318
47-49	145	221	-
50-52	123	222	-
53-55	124	223	316
56-58	125	224	-
59-61	127	226	317
62-64	141	227	-
65-67	133	229	318
68-70	126	230	-
71-73	118	231	-
74-76	116	237	-
77-79	115	238	-
80-83	108	208	311
84-87	113	212	310
88-91	129	248	307
92-95	148	244	308
96-98	167	242	-
99-00	101	241	-

KTS	22									
-----	----	--	--	--	--	--	--	--	--	--

PROPULSION / MANEUVER												
Engine Rm	2	22	13	0	0	0	0	Std Turn				
Prop/Shaft	2	22	11	0	0	0	0	90				
Boiler Rm	6	22	21	18	14	8	3	Emg Turn				
			0	0	0	0	0	120				

Speed Increase	00-03 kt	04-09 kt	10-13 kt	14+ kt		
	4.0	3.0	2.0	1.0		

TORPEDOES			
TT	2	RL	8
45cm L/5 M05			
Damage Class	H		
Settings			
3,300/32			
6,600/19			

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD											
T#	RANGE	TARGET	RNDS	TBL	H	T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE



PANTHER Class
CL AUSTRIA-HUNGARY

1885 to 1909

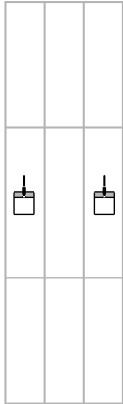
2872-0
Displacement 1,557 ts
Complement 186

SHIP LOG SHEET

Version AOTF-2022A



Length 234 ft
Beam 34 ft
Draft 14 ft

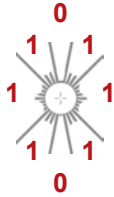


2 x 12cm SKL/35 C/87

DIRECTORS

1

ARCS OF FIRE



Range

9,000 yds 18.0"

FC Radar +0

None

TARGET	GUNNERY (FCS)					
	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	9	5	5	3	4	2
10-18	6	4	4	2	3	2
19-26	5	3	3	2	2	1
27-32	4	2	2	1	2	1

AP	PENETRATION TABLE			
	SHORT		MEDIUM	LONG
YDS	2,000	4,000	6,000	8,500
ROF	8	6	5	4
HORZ	0	0	0	1
VERT	4	3	2	2

Targ Sz	Crew	Sea
0		

Searchlights	Port	Stbd

PROTECTION	
ARMOR VALUE	
HORIZONTAL	0
VERTICAL	0

HIT LOCATION		
RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

5	3	DAMAGE CONTROL (DCR)												

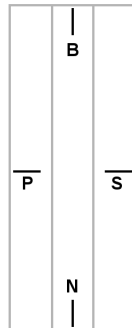
FLAG COMMAND RATING (FCR)											

PD-01-1

DAMAGE DETERMINATION				
ROLL	CLASS 1	CLASS 2	CLASS 3	
01-02	100	202		304
03-04	128	201		302
05-06	102	203		303
07-08	103	205		301
09-10	109	210		305
11-13	111	200		306
14-16	117	200		307
17-19	107	200		308
20-22	105	207		310
23-25	120	207		311
26-28	112	207		312
29-31	121	214		313
32-34	144	215		314
35-37	171	217		315
38-40	122	218		316
41-43	135	219		317
44-46	132	220		318
47-49	145	221		-
50-52	123	222		-
53-55	124	223		316
56-58	125	224		-
59-61	127	226		-
62-64	141	227		317
65-67	133	229		-
68-70	126	230		318
71-73	118	231		-
74-76	130	237		-
77-79	115	237		-
80-83	131	248		307
84-87	136	231		308
88-91	111	248		310
92-95	148	244		311
96-98	167	242		-
99-00	101	241		-

KTS 18

PROPULSION / MANEUVER										
Engine Rm	2	18	10	0	0	0	0	0	0	Std Turn
Prop/Shaft	2	18	9	0	0	0	0	0	0	90
Boiler Rm	2	18	11	0	0	0	0	0	0	Emg Turn
			0	0	0	0	0	0	0	120



TORPEDOES	
TT	4
RL	8
35cm C	
Damage Class	I
Settings	
650/24	

Speed Increase	00-04 kt	05-07 kt	08-10 kt	11+ kt
	5.0	4.0	2.0	1.0

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	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD											
T#	RANGE	TARGET	RNDS	TBL	H	T#	RANGE	TARGET	RNDS	TBL	H

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

