Anderson (DD 411)

DD **UNITED STATES** 1939 to 1940

6619-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Bath Iron Works	
Complement	192	*Beam*	36 ft	*Launched*	04/08/1938
Lost 05/07/1942		*Draft*	12.9 ft	*Completed*	08/01/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1	1C3	None	COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		

DEPTH CHARGES			
Rack	2		
Ammo	12		

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

P F S

TORPEDOES

TT	12	Ammo	16

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	None
Max Rg	
Eff Rg	

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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

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

COPYRIGHT © Richard R. Sartore 2009

Anderson (DD 411)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Anderson (DD 411)

DD **UNITED STATES** 1941 to 1942

6619-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Bath Iron Works	
Complement	192	*Beam*	36 ft	*Launched*	04/08/1938
Lost 05/07/1942		*Draft*	12.9 ft	*Completed*	08/01/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	**7.7**	**6.4**	**5.2**	**4.3**	**3.5**	**2.9**	**2.2**	**1.6**	**1.5**					
Rge	**S**	**S**	**S**	**M**	**M**	**L**	**E**	**E**	**E**					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Anderson (DD 411)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Buck (DD 420)

DD **UNITED STATES** 1940 to 1941

6628-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Philadelphia Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	05/22/1939
Lost 10/09/1943		*Draft*	12.9 ft	*Completed*	05/15/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1 1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class: B

Settings: 6,000/45; 10,000/33; 15,000/26

MINES

RAPID FIRE BATTERIES

RF1	None
Max Rg	
Eff Rg	

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		
1 K-Gun		

DEPTH CHARGES			
Rack	2		
Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Buck (DD 420)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Buck (DD 420)

DD **UNITED STATES** 1941 to 1942

6628-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Philadelphia Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	05/22/1939
Lost 10/09/1943		*Draft*	12.9 ft	*Completed*	05/15/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	**7.7**	**6.4**	**5.2**	**4.3**	**3.5**	**2.9**	**2.2**	**1.6**	**1.5**					
Rge	**S**	**S**	**S**	**M**	**M**	**L**	**E**	**E**	**E**					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Buck (DD 420)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Buck (DD 420)

DD **UNITED STATES** 1943 to 1943

6628-2 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Philadelphia Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	05/22/1939
Lost 10/09/1943		*Draft*	12.9 ft	*Completed*	05/15/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

PENETRATION TABLE

COM 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF 10						
	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA H	Port	14	11	8	5	2
	Stbd	14	11	8	5	2

RF2	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF 4						
	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA L	Port	15	12	8	5	2
	Stbd	15	12	8	5	2

RF3		None		
Max Rg				
Eff Rg				

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Buck (DD 420)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Hammann (DD 412)

DD **UNITED STATES** 1939 to 1940

6620-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Federal Shipbuilding	
Complement	192	*Beam*	36 ft	*Launched*	02/04/1939
Lost 06/06/1942		*Draft*	12.9 ft	*Completed*	08/11/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1	1C3	None	COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

P F S

TORPEDOES

TT	12	Ammo	16

21" Mark 15

Damage Class	B

Settings: 6,000/45 | 10,000/33 | 15,000/26

MINES

RAPID FIRE BATTERIES

RF1	None
Max Rg	
Eff Rg	

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		

DEPTH CHARGES			
Rack	2		
Ammo	12		

COPYRIGHT © Richard R. Sartore 2009

Hammann (DD 412)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Hammann (DD 412)

DD UNITED STATES 1941 to 1942

6620-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Federal Shipbuilding	
Complement	192	*Beam*	36 ft	*Launched*	02/04/1939
Lost 06/06/1942		*Draft*	12.9 ft	*Completed*	08/11/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Hammann (DD 412)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Hughes (DD 410)

DD UNITED STATES 1939 to 1940

6618-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Bath Iron Works	
Complement	192	*Beam*	36 ft	*Launched*	06/17/1939
Scuttled 10/16/1948		*Draft*	12.9 ft	*Completed*	09/21/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1 1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

P F S

TORPEDOES

TT	12	Ammo	16

21" Mark 15

Damage Class	B

Settings: 6,000/45 | 10,000/33 | 15,000/26

MINES

RAPID FIRE BATTERIES

RF1	None
Max Rg	
Eff Rg	

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		

DEPTH CHARGES			
Rack	2		
Ammo	12		

COPYRIGHT © Richard R. Sartore 2009

Hughes (DD 410)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Hughes (DD 410)

DD UNITED STATES 1941 to 1942

6618-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Bath Iron Works	
Complement	192	*Beam*	36 ft	*Launched*	06/17/1939
Scuttled 10/16/1948		*Draft*	12.9 ft	*Completed*	09/21/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	**7.7**	**6.4**	**5.2**	**4.3**	**3.5**	**2.9**	**2.2**	**1.6**	**1.5**					
Rge	**S**	**S**	**S**	**M**	**M**	**L**	**E**	**E**	**E**					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Hughes (DD 410)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Hughes (DD 410)

DD UNITED STATES 1943 to 1945

6618-2 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Bath Iron Works	
Complement	192	*Beam*	36 ft	*Launched*	06/17/1939
Scuttled 10/16/1948		*Draft*	12.9 ft	*Completed*	09/21/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 — 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF						
10	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	14	11	8	5	2
H	Stbd	14	11	8	5	2

RF2	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

RF3		None		
Max Rg				
Eff Rg				

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

Captain	

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

COPYRIGHT © Richard R. Sartore 2009

Hughes (DD 410)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Morris (DD 417)

DD **UNITED STATES** 1940 to 1941

6625-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	03/05/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1		None
Max Rg		
Eff Rg		

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Morris (DD 417)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Morris (DD 417)

DD UNITED STATES 1941 to 1942

6625-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	03/05/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Morris (DD 417)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Morris (DD 417)

DD UNITED STATES 1943 to 1945

6625-2 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	03/05/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF						
10	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	14	11	8	5	2
H	Stbd	14	11	8	5	2

RF2	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

RF3		None		
Max Rg				
Eff Rg				

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Morris (DD 417)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Morris (DD 417)

DD UNITED STATES 1945 to 1945

6625-3 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	03/05/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	
1 1C3	Mark 28	+ 3

AP	SAP
COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	0	Ammo	0

None

Damage Class

Settings

MINES

RAPID FIRE BATTERIES

RF1	8	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	11	8	
Eff Rg	5,010	10.0"	14	11	

RF						
10	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA H	Port	28	22	15	9	4
	Stbd	28	22	15	9	4

RF2	6	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	3	2	2	1	0
	Stbd	3	2	2	1	0
AA L	Port	23	18	13	8	3
	Stbd	23	18	13	8	3

RF3		None		
Max Rg				
Eff Rg				

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SL
SC-2

ASW MORTARS/ATW		
4 K-Gun		

DEPTH CHARGES			
Rack	2		
Ammo	36		

COPYRIGHT © Richard R. Sartore 2009

Morris (DD 417)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Mustin (DD 413)

DD UNITED STATES 1939 to 1940

6621-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1938
Scuttled 04/18/1948		*Draft*	12.9 ft	*Completed*	09/15/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

P F S

TORPEDOES

TT	12	Ammo	16

21" Mark 15

Damage Class	B

Settings: 6,000/45 | 10,000/33 | 15,000/26

MINES

RAPID FIRE BATTERIES

RF1		None
Max Rg		
Eff Rg		

RF	Port					
0	Stbd					
AA	Port					
	Stbd					

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

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		

DEPTH CHARGES			
Rack	2		
Ammo	12		

COPYRIGHT © Richard R. Sartore 2009

Mustin (DD 413)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Mustin (DD 413)

DD UNITED STATES 1941 to 1942

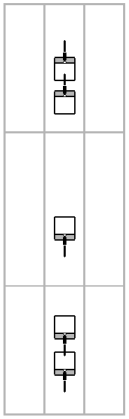
6621-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1938
Scuttled 04/18/1948		*Draft*	12.9 ft	*Completed*	09/15/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009



5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

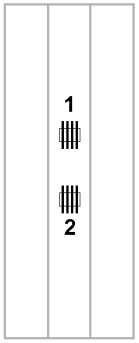
COM — PENETRATION TABLE

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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	



TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF 4						
	Port	2	2	1	1	0
	Stbd	2	2	1	1	0

AA L						
	Port	15	12	8	5	2
	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Mustin (DD 413)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Mustin (DD 413)

DD UNITED STATES 1943 to 1945

6621-2 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1938
Scuttled 04/18/1948		*Draft*	12.9 ft	*Completed*	09/15/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 — 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF						
10	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	14	11	8	5	2
H	Stbd	14	11	8	5	2

RF2	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

RF3		None			
Max Rg					
Eff Rg					

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Mustin (DD 413)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Mustin (DD 413)

DD UNITED STATES 1945 to 1945

6621-3 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1938
Scuttled 04/18/1948		*Draft*	12.9 ft	*Completed*	09/15/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 — 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 3	AP	SAP
1		1C3	Mark 28		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	0	Ammo	0

None

Damage Class

Settings

MINES

RAPID FIRE BATTERIES

RF1	8	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	11	8	
Eff Rg	5,010	10.0"	14	11	

RF						
10	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA	Port	28	22	15	9	4
H	Stbd	28	22	15	9	4

RF2	6	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	3	2	2	1	0
	Stbd	3	2	2	1	0
AA	Port	23	18	13	8	3
L	Stbd	23	18	13	8	3

RF3		None			
Max Rg					
Eff Rg					

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SL
SC-2

ASW MORTARS/ATW			DEPTH CHARGES			
4 K-Gun			Rack	2		
			Ammo	36		

COPYRIGHT © Richard R. Sartore 2009

Mustin (DD 413)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

O'Brien (DD 415)

DD **UNITED STATES** 1940 to 1941

6623-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Boston Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	10/20/1939
Lost 10/19/1942		*Draft*	12.9 ft	*Completed*	03/02/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		
1 K-Gun		

DEPTH CHARGES			
Rack	2		
Ammo	22		

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1		None
Max Rg		
Eff Rg		

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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	

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

COPYRIGHT © Richard R. Sartore 2009

O'Brien (DD 415)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

O'Brien (DD 415)

DD UNITED STATES 1941 to 1942

6623-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Boston Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	10/20/1939
Lost 10/19/1942		*Draft*	12.9 ft	*Completed*	03/02/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

O'Brien (DD 415)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Roe (DD 418)

DD **UNITED STATES** 1940 to 1941

6626-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Charleston Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/21/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	01/05/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1		None
Max Rg		
Eff Rg		

RF	Port					
0	Stbd					
AA	Port					
	Stbd					

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Roe (DD 418)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Roe (DD 418)

DD UNITED STATES 1941 to 1942

6626-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Charleston Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/21/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	01/05/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Roe (DD 418)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Roe (DD 418)

DD UNITED STATES 1943 to 1945

6626-2 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Charleston Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/21/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	01/05/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	
1 1C3	Mark 4 (FD)	+ 2

AP	SAP
COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

PENETRATION TABLE — COM

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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF 10	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA H	Port	14	11	8	5	2
	Stbd	14	11	8	5	2

RF2	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF 4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA L	Port	15	12	8	5	2
	Stbd	15	12	8	5	2

RF3		None			
Max Rg					
Eff Rg					

RF	Port					
	Stbd					
AA	Port					
	Stbd					

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW		
1 K-Gun		

DEPTH CHARGES			
Rack	2		
Ammo	22		

Captain	

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

COPYRIGHT © Richard R. Sartore 2009

Roe (DD 418)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Russell (DD 414)

DD **UNITED STATES** 1939 to 1940

6622-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	11/03/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1	1C3	None	COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

P F S

TORPEDOES

TT	12	Ammo	16

21" Mark 15

Damage Class	B

Settings: 6,000/45 | 10,000/33 | 15,000/26

MINES

RAPID FIRE BATTERIES

RF1	None
Max Rg	
Eff Rg	

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		

DEPTH CHARGES			
Rack	2		
Ammo	12		

COPYRIGHT © Richard R. Sartore 2009

Russell (DD 414)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Russell (DD 414)

DD **UNITED STATES** 1941 to 1942

6622-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	11/03/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	**7.7**	**6.4**	**5.2**	**4.3**	**3.5**	**2.9**	**2.2**	**1.6**	**1.5**					
Rge	**S**	**S**	**S**	**M**	**M**	**L**	**E**	**E**	**E**					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Russell (DD 414)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Russell (DD 414)

DD **UNITED STATES** 1943 to 1945

6622-2 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	11/03/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF						
10	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	14	11	8	5	2
H	Stbd	14	11	8	5	2

RF2	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

RF3		None		
Max Rg				
Eff Rg				

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Russell (DD 414)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Russell (DD 414)

DD UNITED STATES 1945 to 1945

6622-3 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Newport News	
Complement	192	*Beam*	36 ft	*Launched*	12/08/1939
Scrapped 00/00/1947		*Draft*	12.9 ft	*Completed*	11/03/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 3	AP	SAP
1		1C3	Mark 28		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	0	Ammo	0

None

Damage Class

Settings

MINES

RAPID FIRE BATTERIES

RF1	8	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	11	8	
Eff Rg	5,010	10.0"	14	11	

RF						
10	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA	Port	28	22	15	9	4
H	Stbd	28	22	15	9	4

RF2	6	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	3	2	2	1	0
	Stbd	3	2	2	1	0
AA	Port	23	18	13	8	3
L	Stbd	23	18	13	8	3

RF3		None			
Max Rg					
Eff Rg					

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SL
SC-2

ASW MORTARS/ATW			DEPTH CHARGES			
4 K-Gun			Rack	2		
			Ammo	36		

COPYRIGHT © Richard R. Sartore 2009

Russell (DD 414)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Sims (DD 409)

DD **UNITED STATES** 1939 to 1940

6617-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Bath Iron Works	
Complement	192	*Beam*	36 ft	*Launched*	04/08/1938
Lost 05/07/1942		*Draft*	12.9 ft	*Completed*	08/01/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1 1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

P F S

TORPEDOES

TT	12	Ammo	16

21" Mark 15

Damage Class	B

Settings: 6,000/45 | 10,000/33 | 15,000/26

MINES

RAPID FIRE BATTERIES

RF1	None
Max Rg	
Eff Rg	

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		

DEPTH CHARGES			
Rack	2		
Ammo	12		

COPYRIGHT © Richard R. Sartore 2009

Sims (DD 409)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Sims (DD 409)

DD UNITED STATES 1941 to 1942

6617-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Bath Iron Works	
Complement	192	*Beam*	36 ft	*Launched*	04/08/1938
Lost 05/07/1942		*Draft*	12.9 ft	*Completed*	08/01/1939

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Sims (DD 409)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Wainwright (DD 419)

DD **UNITED STATES** 1940 to 1941

6627-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scuttled 07/02/1948		*Draft*	12.9 ft	*Completed*	04/15/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1 1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0	Catapult	0

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class: B

Settings: 6,000/45; 10,000/33; 15,000/26

MINES

RAPID FIRE BATTERIES

RF1	None
Max Rg	
Eff Rg	

RF						
0	Port					
	Stbd					
AA	Port					
	Stbd					

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

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW		
1 K-Gun		

DEPTH CHARGES			
Rack	2		
Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Wainwright (DD 419)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Wainwright (DD 419)

DD **UNITED STATES** 1941 to 1942

6627-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scuttled 07/02/1948		*Draft*	12.9 ft	*Completed*	04/15/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	**7.7**	**6.4**	**5.2**	**4.3**	**3.5**	**2.9**	**2.2**	**1.6**	**1.5**					
Rge	**S**	**S**	**S**	**M**	**M**	**L**	**E**	**E**	**E**					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Wainwright (DD 419)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Wainwright (DD 419)

DD **UNITED STATES** 1943 to 1944

6627-2 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scuttled 07/02/1948		*Draft*	12.9 ft	*Completed*	04/15/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	**7.7**	**6.4**	**5.2**	**4.3**	**3.5**	**2.9**	**2.2**	**1.6**	**1.5**					
Rge	**S**	**S**	**S**	**M**	**M**	**L**	**E**	**E**	**E**					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF						
10	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	14	11	8	5	2
H	Stbd	14	11	8	5	2

RF2	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

RF3		None			
Max Rg					
Eff Rg					

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

Captain	

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

COPYRIGHT © Richard R. Sartore 2009

Wainwright (DD 419)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Wainwright (DD 419)

DD **UNITED STATES** 1944 to 1945

6627-3 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Norfolk Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	06/01/1939
Scuttled 07/02/1948		*Draft*	12.9 ft	*Completed*	04/15/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

4 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

TORPEDOES

TT	4	Ammo	4

21" Mark 15

Damage Class	A

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	7	40mm/56 Mk1 Bofors			
Max Rg	11,133	22.3"	9	7	
Eff Rg	5,010	10.0"	13	10	

RF						
10	Port	4	3	2	1	1
	Stbd	4	3	2	1	1
AA	Port	24	20	13	8	4
H	Stbd	24	20	13	8	4

RF2	6	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	9	7	
Eff Rg	2,160	4.3"	13	10	

RF						
4	Port	3	2	2	1	0
	Stbd	3	2	2	1	0
AA	Port	23	18	13	8	3
L	Stbd	23	18	13	8	3

RF3		None		
Max Rg				
Eff Rg				

RF						
	Port					
	Stbd					
AA	Port					
	Stbd					

Captain	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
2 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Wainwright (DD 419)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763
KTS	35

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Walke (DD 416)

DD UNITED STATES 1940 to 1941

6624-0 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Boston Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	10/20/1939
Lost 11/14/1942		*Draft*	12.9 ft	*Completed*	04/27/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 0	AP	SAP
1		1C3	None		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1		None
Max Rg		
Eff Rg		

RF	Port					
0	Stbd					
AA	Port					
	Stbd					

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Walke (DD 416)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763								
KTS	35								

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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

Walke (DD 416)

DD UNITED STATES 1941 to 1942

6624-1 SIMS Class

Displacement	1,764 ts	*Length*	341 ft	Boston Navy Yard	
Complement	192	*Beam*	36 ft	*Launched*	10/20/1939
Lost 11/14/1942		*Draft*	12.9 ft	*Completed*	04/27/1940

SEEKRIEG 5

SHIP LOG SHEET

Version 2/14/2009

5 x 5"/38 Mk 12 | 13

Max ROF	Range	Shell Size/Weight
17.0 sh/min	18,101 yds 36.2"	5.0" 55.2 lbs.

Fire Control			FC Radar	+ 2	AP	SAP
1		1C3	Mark 4 (FD)		COM	HE

AA	3.4	Level	V	Ammunition	300 rpg	1500

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	26	18	20	14	17	12	15	11
10 - 18	20	14	15	11	13	9	12	8
19 - 27	17	12	13	9	11	8	10	7
28 - 36	15	10	12	8	10	7	9	6
37 - 45	14	10	11	7	9	6	8	6

COM — 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	7.7	6.4	5.2	4.3	3.5	2.9	2.2	1.6	1.5					
Rge	S	S	S	M	M	L	E	E	E					
H	0.1	0.2	0.3	0.4	0.5	0.7	1.3	1.9	2.1					
V	6.6	4.9	3.6	2.8	2.3	1.5	1.4	1.5	1.6					

Crew	Sea	BR	Targ Sz	Ops
			0	

AIRCRAFT

Aircraft	0			Catapult	0	

1

2

TORPEDOES

TT	8	Ammo	8

21" Mark 15

Damage Class	B

Settings

6,000/45

10,000/33

15,000/26

MINES

RAPID FIRE BATTERIES

RF1	4	20mm/70 Mks 1-4			
Max Rg	4,800	9.6"	7	5	
Eff Rg	2,160	4.3"	11	8	

RF						
4	Port	2	2	1	1	0
	Stbd	2	2	1	1	0
AA	Port	15	12	8	5	2
L	Stbd	15	12	8	5	2

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	

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

Coal (ts)	0	Oil (ts)	484
Engines	Westinghouse GT		
Boilers	3 B&W		

Radius (nm/kts)	
6500	12

Search Radar
SC
None

ASW MORTARS/ATW			DEPTH CHARGES			
1 K-Gun			Rack	2		
			Ammo	22		

COPYRIGHT © Richard R. Sartore 2009

Walke (DD 416)

TIER	DP
1/70	76
2/80	153
3/75	229
4/85	305
5/80	382
6/90	450
7/85	519
8/95	588
9/90	656
10	725
10	771

DP	763								
KTS	35								

Engine Rm	2	35	20	0	0	0	0
Prop/Shaft	2	35	18	0	0	0	0
Boiler Rm	2	35	22	0	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
0	
Searchlights	
Port	Stbd

Speed	00-11 kt	12-19 kt	20-25 kt	26-28 kt	29+ kt	
Increase	12.0	9.0	5.0	3.0	1.0	

Crew

Bridge Command Rating				

Flag Command Rating				

Damage Control (DCR)				
2				

Fuel Code	DD5B

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

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
RF BATTERY																					
																				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