

CASABLANCA

0815 8 November 1942

Background: The naval action fought off Casablanca between U.S. and Vichy French forces helped to seal the doom of German and Italian forces in North Africa, and so move the Mediterranean naval campaign closer to Allied victory. This engagement resulted from the landings of U.S. troops in the Vichy-controlled colony of Morocco. The Allies hoped that Vichy would not resist the North African landings, but the French decided to fight at each point.

There was a concentration of French naval strength at Casablanca, just south of one of the Allied landing areas. The French admiral commanding directed these forces to close the Allied transports and attempt to disrupt the landing operations. Screened to some degree by shore batteries, French surface forces began to sortie at 0815.

Forces:

French Navy
(Contre-Amiral Gervais
de Lafond)

Division 1

Milan (Aigle - flag)
Albatros (Aigle)

Division 2

L'Alcyon (L'Adroit - flag)
Brestois (L'Adroit)
Boulonnais (L'Adroit)
Fougueux (L'Adroit)
Frondeur (L'Adroit)

Division 3

Primauguet (Duguay-Trouin - flag)

United States Navy
(Rear Admiral H. Kent
Hewitt)

Division 1

Massachusetts (South Dakota - flag)
Tuscaloosa (New Orleans)
Wichita (Wichita)

Division 2

Wainwright (Sims - flag)
Mayrant (Benham)
Rhind (Benham)
Jenkins (Fletcher)

Division 3

Augusta (Northampton - flag)
Brooklyn (Brooklyn)

Division 4

Wilkes (Livermore - flag)
Swanson (Livermore)
Bristol (Bristol)
Ludlow (Livermore)

Division 5

Winsooki (Large Tanker)
Stanton (Large Merchantman)
Ancon (Large Merchantman)
Thurston (Large Merchantman)
Hewes (Large Merchantman)
Bliss (Large Merchantman)
Rutledge (Large Merchantman)
Scott (Large Merchantman)
Procyon (Large Merchantman)
Biddle (Large Merchantman)
Oberon (Large Merchantman)
Arcturus (Large Merchantman)
Wood (Large Merchantman)
Jefferson (Large Merchantman)
Carroll (Large Merchantman)
Dickman (Large Merchantman)

Set-up:

[Note: North is really north-northwest, but represented as north for simplicity's sake.]

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The French ships all begin in Casablanca harbor, 48 inches from the east edge. One French division may exit the harbor each turn.

U.S. Division 3 begins in line ahead formation with Augusta leading, heading due east (course 090). Augusta is 22 inches from the east edge and 5 inches from the south edge.

The individual ships of U.S. Division 4 are spread in an east-west line, in order with Wilkes east most. All are 8 inches from the south edge; Wilkes is 20 inches west of the east edge with the other destroyers extending beyond her at 4 inch intervals. All are steaming due west (course 270).

U.S. Division 5 consists of anchored transports engaged in unloading troops. They cannot move during the course of the scenario. They are in a box formation of 4 rows and 4 columns with 2 inches of separation between ships in each direction, in any order desired by the U.S.N. player. The southeastern-most ship is 10 inches from the south edge and 17 inches from the east edge.

The south edge is land. The harbor and all shore batteries are located there.

Victory Conditions:

- 1 point per destroyer sunk,
- 2 points per light cruiser sunk,
- 3 points per heavy cruiser sunk,
- 4 points per battleship or merchantman sunk.

Special Rules:

1. Massachusetts, Brooklyn and Jenkins have SG radar and Mark 8 fire control radar. All other U.S. ships have SC radar and Mark 3 or Mark 4 fire control radar.
2. Visibility is Level **-1** with a base of **18** inches, daylight with some haze.
3. U.S. Divisions 1 and 2 do not begin on the playing surface. They both enter on the north edge within 12 inches of the west edge on a 1D6 roll of 1, in the precise location picked and any formation desired by the U.S.N. player. Roll for their arrival each turn before movement is plotted.
4. French submarines are present in the area and can make attacks in the course of the scenario. Each attack is made with 4 torpedoes at a range of 3 inches, at a 90 degree target angle (although the angle can change if the target turns). The torpedoes have a range of 7 inches at a speed of 5.50, and are launched without benefit of fire control. An attack occurs on a 2D6 roll of **4** or less, rolled each turn after movement is plotted. Only battleships and cruisers may be attacked, the target being selected randomly.
5. As the scenario begins, the French player has 2 shore batteries in action and 2 more that might come into action. The 2 in action are both located at El Hank, 55 inches from the east edge. Battery 1 consists of 4 7.6 inch guns with a range of **13** inches. Battery 2 has 4 5.4 inch guns with a range of **21** inches. Battery 3, at Fedhala, has 3 3.9 inch guns with a range of **17** inches. It is 26 inches from the east edge. Battery 4, with 4 5.4 inch guns having a range of **21** inches, is at Sherki, 18 inches from the east edge. Each battery has a size of **-6** and an armor rating of **-1**. Hits on batteries use this hit location table:

Die Roll:	1-2	3-5	6
Location	Fire Control	Gun	Magazine

Hits on batteries can be repaired or made permanent just like hits on ships. Fires and explosions are handled in the same way.

6. Dive bombers from the carrier Ranger operated in the area during this engagement. On a 2D6 roll of **4** or less, 6 of these aircraft attack 1 French ship. The American player chooses the target. The roll is made each turn (and any target announced) before movement plotting each turn. Ignore AA gunnery for the purpose of these attacks. Each plane carries one 500 lb bomb and has a 0 crew quality modifier. Check the bomb type for each hit by rolling 1D6:

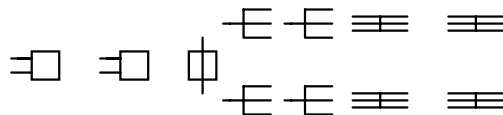
Die Roll:	Bomb Type:
1-4	HEI
5-6	SAP

Outcome: The French made a run for the the transport area, but were headed off by Augusta and Brooklyn. They then laid smoke and dodged in and out of the screen, firing intermittently. Fougueux became the first French casualty, when Massachusetts found her range. Boulonnais followed, and Brestois, Primauguet, Milan and Albatros were all seriously damaged. The only damage that the French did was to Brooklyn, which suffered a single hit.

Dougay-Trouin

<u>Navy</u>	French Navy				<u>Date</u>	1940		
<u>Class</u>	Light cruiser							
<u>Surface Armament</u>					<u>Ranges</u>		<u>Directors</u>	
Main Battery:	6.1 inch guns in 4 twin turrets				23 inches		Fore and aft	
Torpedoes:	21 inch torpedoes in 4 triple mounts				7 inches at 5.50"		Port and starboard	
Maximum Value:	8				13 inches at 3.50"			
<u>Gun:</u>	5"	10"	15"	19"	23"	Power	Relia	
5.9 inch twin	A/12	8/10	3/8	2/6	1/3	5	B	
<u>Speed</u>	4.00"	8 boilers	4 engines	<u>Torpedo Hits</u>		17.7"-18": ±1	20.5"-22.5": ±2	24": ±4
<u>Flotation</u>	Total: 60	DIW: 30	Sinking: 20					

Armament Arrangement



Notes

- Class of 3, including Lamotte-Picquet and Primaguet.
- Secondary armament of 3 inch guns not effective against surface targets.

Hits

	Fuel Oil 1	11-12	Void
	Fuel Oil 2	13-14	Void
...	Main Magazine A	15-21	Main A
...	Main Magazine B	22-24	Main B
	Fuel Oil 3	25	Bridge, AAMGs
	Fuel Oil 3	26	Bridge,
			Forward Main Director
	Boiler Room 1	31-32	Funnel
	Boiler Room 1	33	Secondary 1 or 2
	Boiler Room 2	34	Port or StarboardSecondary Director
	Boiler Room 2	35	Secondary 3 or 4
	Boiler Room 2	36	Funnel
	Secondary Magazine	41-42	Funnel, Torpedo 1 or 2
	Engine Room 1	43	Torpedo 1 or 2, Searchlight 1 or 2
	Engine Room 1	44	AAMGs
	Engine Room 1	45	Torpedo 3 or 4
	Engine Room 2	46-51	Torpedo 3 or 4
	Engine Room 2	52	Aft Main Director
...	Main Magazine X	53-55	Main X
...	Main Magazine Y	56-61	Main Y
	Propshaft 1 or 2, Fuel Oil 4	63-64	Catapult
	Propshaft 3 or 4, Void	65	Catapult, Aircraft
	Steering	66	Catapult, Aircraft

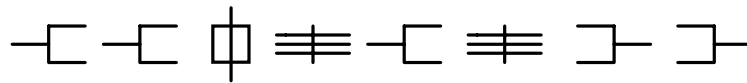
Internal Diagram

FO1 1FP	FO2 2FP	MM A 2FP	MM B 2FP	FO3 2FP	BR1 B1,2 B3,4 10FP	BR2 B5,6 B7,8 10FP	SM 2FP	ER1 E1 E2 10FP	ER2 E3 E4 10FP	MM X 2FP	MM Y 2FP	FO4 2FP	V 2FP	ST 1FP
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Guepard/Aigle/Vauquelin

<u>Navy</u>	French Navy				<u>Date</u>	1942		
<u>Class</u>	Destroyer (Contre Torpilleur)				<u>Armor</u>	None		
<u>Surface Armament</u>					<u>Ranges</u>	<u>Directors</u>		
Main Battery:	5.4 inch guns in 5 single mounts				17 inches			Fore
Torpedoes:	21.6 inch torpedoes in 2 triple mounts				7 inches at 5.50"			Port and starboard
Maximum Value:	8				13 inches at 3.50"			
<u>Gun:</u>	5"	10"	15"	17"	Power	Relia		
5.4 inch single	A/9	8/6	2/3	1/0	4	B		
<u>Speed</u>	4.50"	4 boilers	2 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±3	24": ±5	
<u>Flotation</u>	Total: 30	DIW: 15	Sinking: 20					

Armament Arrangement



Notes

- Large French destroyers designed as destroyer killers.
- Six ships in each class, including Guepard and Valmy (Guepard class), Milan, Eprevier and Albatros (Aigle class) and Chevalier Paul (Vauquelin class).

Hits

Fuel Oil 1	11-13	Void
Fuel Oil 1	15-21	Main A
Forward Main Magazine	22-24	Main B
Fuel Oil 2	25	Bridge
Fuel Oil 2	26	Bridge, Main Director
Fuel Oil 2	31	Search Radar
Boiler Room 1	32	Funnel
Boiler Room 1	33	Torpedo A
Boiler Room 2	34-35	Torpedo A
Engine Room 1	36	Funnel
Engine Room 1	41-42	AAMGs
Boiler Room 3	43	Main M
Boiler Room 3	44	Main M
Boiler Room 4	45	Main M
Boiler Room 4	46	Searchlight
Engine Room 2	51-53	Torpedo B
Fuel Oil 3	54-55	Main X
Aft Magazine	56	Main X
Aft Magazine	61-62	Main Y
Fuel Oil 4, Propshaft 1 or 2	63	Main Y
Fuel Oil 4, Propshaft 1 or 2	64	Void
Steering	65-66	Steering

Internal Diagram

FO1 1FP	FM AB 1FP	FO2 3FP	BR1 B1 3FP	BR2 B2 3FP	ER1 E1 5FP	BR3 B3 3FP	BR4 B4 3FP	ER2 E2 4FP	FO3 1FP	AM MX 1FP	FO4 1FP	ST 1FP
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L'Adroit

<u>Navy</u>	French Navy				<u>Date</u>	1942		
<u>Class</u>	Destroyer (Torpilleur d'Escadre)							
<u>Surface Armament</u>					<u>Ranges</u>		<u>Directors</u>	
Main Battery:	5.1 inch guns in 3 single mounts				20 inches		Fore	
Torpedoes:	21.6 inch torpedoes in 1 triple mount				7 inches at 5.50"		Aft	
Maximum Value:	8				13 inches at 3.50"			
<u>Gun:</u>	5"	10"	15"	17"	Power	Relia		
5.1 inch single	A/10	8/5	2/2	1/-2	4	B		
<u>Speed</u>	4.00	3 boilers	2 engines	<u>Torpedo Hits</u>	17.7"-18": ±2	20.5"-22.5": ±4	24": ±6	
<u>Flotation</u>	Total: 26	DIW: 13	Sinking: 18					

Armament Arrangement



Notes

- Smaller French destroyer class meant for use in a torpedo boat role.
- Reflects wartime removal of one 5.1 inch gun and one torpedo mount in favor of increased AAMGs
- Class of 14 included Boulonnais, Fougueux, Brestois and Frondeur.

Hits

Fuel Oil 1	11-13	Forward Void
Forward Magazine	14-16	Main A
Forward Magazine	21-23	Main B
Fuel Oil 2	24	Bridge
Boiler Room 1	25	Bridge, Main Director
Boiler Room 1	26-31	Funnel
Boiler Room 1	32-33	Searchlight
Boiler Room 2	34-35	AAMGs
Boiler Room 2	36	Funnel
Engine Room	41-44	Torpedo A
Engine Room	45-52	AAMGs
Aft Magazine	53-56	Main X
Fuel Oil 3, Propshaft 1 or 2	61-64	Aft Void
Steering	65-66	Steering

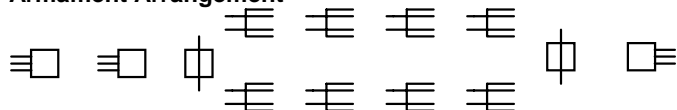
Internal Diagram

FO1 1FP	PM AB 1FP	FO2 FO 2FP	BR1 B1 B2 6FP	BR2 B3 3FP	ER E1,E2 8FP	PM Y 2FP	FO3 2FP	ST 1FP
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South Dakota

<u>Navy Class</u>	United States Navy Battleship				<u>Date</u>	1942				
<u>Surface Armament</u>					<u>Ranges</u>				<u>Directors</u>	
Main Battery:	16 inch guns in 3 triple turrets				37 inches				Fore and aft	
Secondary Battery:	5 inch guns in 8 twin mounts				18 inches				Fore and aft	
<u>Gun:</u>	5"	10"	15"	20"	25"	30"	35"	37"	Power	Relia
16 inch triple	A/9	8/9	6/9	5/8	4/7	3/3	2/2	1/1	8	B
5 inch twin	A/13	8/9	2/5	1/1					4	A
<u>Speed</u>	3.50 inches	8 boilers	4 engines							
<u>Torpedo Hits</u>					17.7"-18": 50%	20.5"-22.5": ±0	24": ±1			
Flotation	Total: 64	DIW: 32	Sinking: 42	Bulge	-1 for torpedo hits in way of locations 26-53					

Armament Arrangement



Notes

-- Four ships in class: South Dakota, Indiana, Massachusetts, Alabama.

Hits

Fuel Oil 1	11-12	Void
Fuel Oil 2	13-14	AAMGs
Main Magazine A	15-21	Main A
Main Magazine B	22-24	Main B
Plot/CIC	25	Bridge
Boiler Room 2 or Engine Room 1	26	Forward Primary Director
Boiler Room 2 or Engine Room 1	31	Forward Secondary Director
Boiler Room 4 or Engine Room 1	32	Bridge
Boiler Room 4 or Engine Room 1	33	Secondary 1 or 2
Engine Room 2 or Boiler Room 1	34	Funnel
Engine Room 2 or Boiler Room 1	35	Funnel
Engine Room 2 or Boiler Room 3	36	Secondary 3 or 4
Engine Room 2 or Boiler Room 3	41	Searchlight 1 or 2
Boiler Room 6 or Engine Room 3	42	AAMGs
Boiler Room 6 or Engine Room 3	42	Secondary 5 or 6
Boiler Room 8 or Engine Room 5	44	AAMGs
Boiler Room 8 or Engine Room 5	45	Searchlight 3 or 4
Engine Room 4 or Boiler Room 5	46	Secondary 7 or 8
Engine Room 4 or Boiler Room 5	51	AAMGs
Engine Room 4 or Boiler Room 7	52	AAMGs
Engine Room 4 or Boiler Room 7	53	Aft Primary Director, AAMGs
Main Magazine X	54	Aft Secondary Director, AAMGs
Main Magazine X	55-56	Main X
Propshaft 1 or 2, Fuel Oil 3	61	Main X
Propshaft 3 or 4, Fuel Oil 3	62	Catapult, Aircraft
Fuel Oil 3	63	Catapult, Aircraft
Steering	64	Steering
Fuel Oil 4	65-66	AAMGs

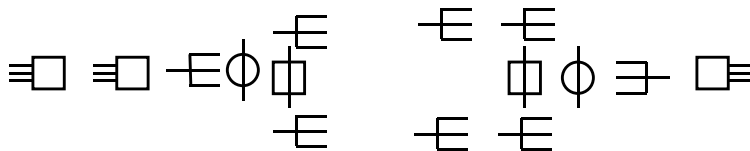
Internal Diagram

V1 1FP	FO 2FP	FM A 2FP	FM B 2FP	CIC Plot 1FP	ER1 E1 6FP	BR1 B1 3FP	BR3 B3 3FP	ER3 E3 6FP	BR5 B5 3FP	BR7 B7 3FP	AM Y 2FP	FO3 2FP	ST 2FP	FO4 2FP
					BR2 B2 3FP	BR4 B4 3FP	ER2 E2 6FP	BR6 B6 3FP	BR8 B8 3FP	ER4 E4 6FP				

Wichita

<u>Navy Class</u>	United States Navy Heavy cruiser			<u>Date</u>	1942				
<u>Surface Armament</u>				<u>Ranges</u>					
Main Battery:	8 inch guns in 3 triple turrets			32 inches					
Secondary Battery:	5 inch guns in 8 single mounts			14 inches					
<u>Directors</u>									
<u>Gun:</u>	5"	10"	15"	20"	25"	30"	32"	Power	Relia
8 inch triple	A/11	8/10	6/8	4/6	3/2	2/1	1/0	6	B
5 inch single	A/10	8/6	2/1					4	B
<u>Speed</u>	4.00"	8 boilers	4 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±2	24": ±3		
<u>Flotation</u>	Total: 67	DIW: 34	Sinking: 44						

Armament Arrangement



Notes

- Heavy cruiser based on Brooklyn class light cruisers.

Hits

Fuel Oil 1	11-14	Void
Aviation Gas	15	Void
Main Magazine A	16-22	Main A
Main Magazine B	23-25	Main B
Plot/CIC	26	Secondary C
Boiler Room 1	31	Bridge
Boiler Room 1	32	Forward Secondary Director, Bridge
Boiler Room 2	33	Forward Main Director, Secondary 1 or 2
Boiler Room 2	34	Search Radar
Boiler Room 3	35	Funnel
Boiler Room 3	36	Searchlight 1 and 2
Boiler Room 4	41	Funnel, Searchlight 3 and 4
Boiler Room 4	42	Secondary 3 or 4
Engine Room 1	43	Secondary 3 or 4
Engine Room 1	44-45	AAMGs
Engine Room 2	46	Void
Engine Room 2	46-51	Secondary 5 or 6
Engine Room 2	52	Aft Primary Director, AAMGs
Fuel Oil 2	53	Aft Secondary Director, AAMGs
Main Magazine X	54	Secondary X
Main Magazine Y	55-56	Main Y
Propshaft 1 or 2	61	Main Y
Propshaft 3 or 4, Av Gas	62	Aircraft
Aircraft	63-64	Aircraft, Catapult 1 or 2
Steering	65	Steering
Void	66	Aircraft Crane

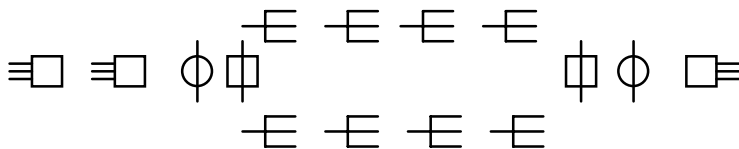
Internal Diagram

FO1 2FP	FO2 2FP	AM 3FP	BM 3FP	PLT 2FP	BR1 B1 B2 7FP	BR2 B3 B4 7FP	BR3 B5 B6 7FP	BR4 B7 B8 7FP	ER1 E1 E2 10FP	ER2 E3 E4 10FP	FO2 2FP	YM 3FP	AG 1FP	ST 1FP	V 0FP
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Northampton

<u>Navy Class</u>	United States Navy Heavy cruiser			<u>Date</u>	1942				
<u>Surface Armament</u>				<u>Ranges</u>					
Main Battery:	8 inch guns in 3 triple turrets			32 inches					
Secondary Battery:	5 inch guns in 8 single mounts			14 inches					
<u>Directors</u>									
				Fore and aft					
				Fore and aft					
<u>Gun:</u>	5"	10"	15"	20"	25"	30"	32"	Power	Relia
8 inch triple	A/10	8/9	6/7	4/5	3/1	2/0	1/-1	6	B
5 inch single	A/10	8/6	2/1					4	B
<u>Speed</u>	4.00"	8 boilers	4 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±2	24": ±3		
<u>Flotation</u>	Total: 61	DIW: 31	Sinking: 40						

Armament Arrangement



Notes

- Class of 6 included Northampton, Houston and Chicago.

Hits

Fuel Oil	11-13	Void
Aviation Fuel	14	Void
Fuel Oil	15	Void
Main Magazine A	16-22	Main A
Main Magazine B	23-25	Main B
Plot/CIC	26	Secondary Director, Bridge
Boiler Room 1	31	Forward Main Director, AAMGs, Bridge
Boiler Room 1	32	Bridge
Boiler Room 1	33-34	Funnel
Engine Room 1	35-41	Aircraft, Catapult 1 or 2
Engine Room 1	42	AAMGs, Hanger
Boiler Room 2	43-44	AAMGs, Funnel
Boiler Room 2	45	Secondary 1 or 2
Boiler Room 2	46	Secondary 3 or 4
Engine Room 2	51	Secondary 5 or 6
Engine Room 2	52	Secondary 7 or 8
Engine Room 2	53	Void
Engine Room 2	54	Aft Secondary Director, AAMGs, Searchlight 1 or 2
Main Magazine X	55	Aft Main Director, AAMGs, Searchlight 3 or 4
Main Magazine X	56-61	Main X
Fuel Oil 3, Propshaft 1 or 2	62	Main X
Fuel Oil 3, Propshaft 3 or 4	63	Void
Steering	64-65	Steering
Void	66	Void

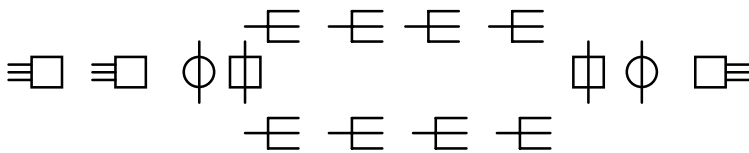
Internal Diagram

FO1 2FP	AG 1FP	FO2 1FP	AM 3FP	BM 3FP	PLT 2FP	BR1 B1 B2 12FP	ER1 E1 E2 10FP	BR2 B3 B4 12FP	ER2 E3 E4 10FP	YM 2FP	FO3 2FP	ST 1FP	V 0FP
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New Orleans

<u>Navy Class</u>	United States Navy Heavy cruiser			<u>Date</u>	1942				
<u>Surface Armament</u>				<u>Ranges</u>					
Main Battery:	8 inch guns in 3 triple turrets			32 inches					
Secondary Battery:	5 inch guns in 8 single mounts			14 inches					
<u>Gun:</u>	5"	10"	15"	20"	25"	30"	32"	Power	Relia
8 inch triple	A/10	8/9	6/7	4/5	3/1	2/0	1/-1	6	B
5 inch single	A/10	8/6	2/1					4	B
<u>Speed</u>	4.00"	8 boilers	4 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±2	24": ±3		
<u>Flotation</u>	Total: 67	DIW: 34	Sinking: 44						

Armament Arrangement



Notes

- Class included New Orleans, Astoria, Minneapolis, Tuscaloosa, San Francisco, Quincy and Vincennes.

Hits

Fuel Oil 1	11-14	Void
Aviation Gas	15	Void
Main Magazine A	16-22	Main A
Main Magazine B	23-25	Main B
Plot/CIC	26	Secondary 1 or 2, AAMGs, Bridge
Boiler Room 1	31	Forward Secondary Director, AAMGs, Bridge
Boiler Room 1	32	Forward Main Director, AAMGs, Bridge
Boiler Room 2	33	Secondary 3 or 4
Boiler Room 2	34	Funnel
Boiler Room 3	35	Secondary 5 or 6, Searchlight 1 or 2
Boiler Room 3	36	Funnel, Searchlight 3 or 4
Boiler Room 4	41	Secondary 7 or 8
Boiler Room 4	42	Aircraft, Catapult 1 or 2
Engine Room 1	43-45	Aircraft, Catapult 1 or 2
Engine Room 2	46	Aircraft, Catapult 1 or 2
Engine Room 2	51-52	Hanger, AAMGs
Fuel Oil 2	53	Aft Primary Director, AAMGs
Main Magazine X	54	Aft Secondary Director, AAMGs
Main Magazine X	55-56	Main X
Propshaft 1 or 2, Fuel Oil 3	61	Main X
Propshaft 3 or 4, Fuel Oil 3	62	Void
Fuel Oil 3	63-64	Void
Steering	65	Steering
Void	66	Void

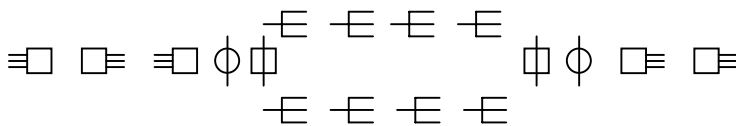
Internal Diagram

FO1 2FP	AG 1FP	AM 3FP	BM 3FP	PLT 2FP	BR1 B1 B2 7FP	BR2 B3 B4 7FP	BR3 B5 B6 7FP	BR4 B7 B8 7FP	ER1 E1 E2 10FP	ER2 E3 E4 10FP	FO2 2FP	YM 3FP	FO3 2FP	ST 1FP	V 0FP
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Brooklyn

<u>Navy Class</u>	United States Navy Heavy cruiser				<u>Date</u>	1942		
<u>Surface Armament</u>					<u>Ranges</u>	<u>Directors</u>		
Main Battery:	6 inch guns in 5 triple turrets				24 inches	Fore and aft		
Secondary Battery:	5 inch guns in 8 single mounts				14 inches	Fore and aft		
<u>Gun:</u>	5"	10"	15"	20"	24"	Power	Relia	
6 inch triple	A/14	8/12	3/10	2/8	1/5	6	B	
5 inch single	A/10	8/6	2/1			4	B	
<u>Speed</u>	4.25"	12 boilers	4 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±2	24": ±3	
<u>Flotation</u>	Total: 70	DIW: 35	Sinking: 48					

Armament Arrangement



Notes

- Heavy cruiser size, but light cruiser guns.
- Class included Brooklyn, Honolulu and Boise.

Hits

	Fuel Oil 1	11-15	Forward Void
	Main Magazine A	16-21	Main A
	Main Magazine B	22-24	Main B
	Main Magazine M	25-31	Main M
	Plot/CIC	32	Bridge, Forward Secondary Director , AAMGs
	Plot/CIC	33	Forward Primary Director, Secondary 1 or 2, Bridge, AAMGs
	Boiler Room 1	34	Search Radar
	Boiler Room 2	35	Funnel , Secondary 3 or 4
	Boiler Room 3	36	Searchlights 1 or 2
	Boiler Room 4	41	Secondary 5 or 6, Searchlights 3 or 4
	Boiler Room 4	42	Secondary 7 or 8, Funnel
	Engine Room 1	43-45	Void
	Engine Room 2	46	AAMGs, Aft Main Director
	Engine Room 2	51	AAMGs, Aft Secondary Director
	Main Magazine X	52-53	Main X
	Main Magazine Y	54-56	Main Y
	Fuel Oil 2, Propshafts 1 or 2	61	Catapult 1 or 2 , Hanger
	Fuel Oil 2, Propshafts 3 or 4	62	Catapult 1 or 2 , Hanger
	Steering	63-64	Catapult 1 or 2, Hanger
	Void	65-66	Hanger

Internal Diagram

FO1 4FP	PM A 2FP	PM B 2FP	PM M 2FP	PL 2FP	BR1 B1 B2 7FP	BR2 B3 B4 7FP	BR3 B5 B6 7FP	BR4 B7 B8 7FP	ER1 E1 E2 11FP	ER2 E3 E4 11FP	PM X 2FP	PM Y 2FP	FO2 2FP	ST 1FP	V 1FP
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Sims

<u>Navy</u>	United States Navy				<u>Date</u>	1942		
<u>Class</u>	Destroyer				<u>Armor</u>	None		
<u>Surface Armament</u>					<u>Ranges</u>	<u>Directors</u>		
Main Battery:	5 inch guns in 4 single mounts				18 inches	Fore		
Torpedoes:	21 inch torpedoes in 2 quadruple mounts				6 inches at 5.50"	Port and starboard		
Maximum Value:	7 through 6/43, 9 after				10 inches at 3.25"			
<u>Gun:</u>	5"	10"	15"	18"	Power	Relia		
5 inch single	A/11	8/7	2/3	1/-1	4	A		
<u>Speed</u>	4.50	4 boilers	2 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±3	24": ±5	
<u>Flotation</u>	Total: 28	DIW: 14	Sinking: 18					

Armament Arrangement



Notes

- 12 ships in class.
- Originally had paired torpedo mounts aft and a fifth gun, but these were removed to reduce top-heaviness and permit the addition of AAMGs.

Hits

Fuel Oil 1	11-14	Forward Void
Forward Main Magazine	15	Main A
Forward Main Magazine	16-21	Main A
Forward Main Magazine	22	Main B
Fuel Oil 2	23-24	Main B
Fuel Oil 2	25	AAMGs (1-3), Bridge (4-6)
Fuel Oil 2	26	Main Director (1-3), Bridge (4-6)
Boiler Room 1	31	Bridge
Boiler Room 1	32	Search Radar
Boiler Room 1	33-34	Funnel
Boiler Room 2	35-36	Torpedo A
Engine Room 1	41	Torpedo A
Engine Room 1	42-43	Torpedo B
Engine Room 2	44	Torpedo B
Engine Room 2	45-46	AAMGs (1-3), Searchlight (4-6)
Aft Main Magazine	51	AAMGs (1-3), Searchlight (4-6)
Aft Main Magazine	52	Void
Aft Main Magazine	53-55	Main X
Fuel Oil 3	56	Main Y
Void (1-3), Propshaft 1 or 2 (4-6)	61-62	Main Y
Void (1-3), Propshaft 1 or 2 (4-6)	63-64	Void
Steering	65-66	Steering

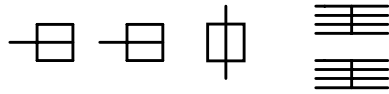
Internal Diagram

FO1 2FP	FM AB 2FP	FO2 3FP	BR1 B1 B2 6FP	BR2 B3 3FP	ER1 E1 E2 3FP	ER2 E3 E4 3FP	AM XY 2FP	FO3 1FP	V 2FP	ST 1FP
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Benham

<u>Navy</u>	United States Navy				<u>Date</u>	1942, as refit		
<u>Class</u>	Destroyer				<u>Armor</u>	None		
<u>Surface Armament</u>					<u>Ranges</u>	<u>Directors</u>		
Main Battery:	5 inch guns in 4 single mounts				18 inches		Fore	
Torpedoes:	21 inch torpedoes in 2 quadruple mounts				6 inches at 5.50"		Port and starboard	
Maximum Value:	7 through 6/43, 9 after				10 inches at 3.25"			
<u>Gun:</u>	5"	10"	15"	18"	Power	Relia		
5 inch single	A/11	8/7	2/3	1/-1	4	A		
<u>Speed</u>	4.50	4 boilers	2 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±3	24": ±5	
<u>Flotation</u>	Total: 28	DIW: 14	Sinking: 18					

Armament Arrangement



Notes

- 10 ships in class.
- Shown with the after 2 torpedo mounts removed in favor of added AAMGs. All except Benham and Ellet were modified in this way.

Hits

Fuel Oil 1	11-14	Forward Void
Fuel Oil 1	15	Main A
Forward Main Magazine	16-21	Main A
Forward Main Magazine	22-23	Main B
Fuel Oil 2	24	Main B
Fuel Oil 2	25	AAMGs, Bridge
Fuel Oil 2	26	Main Director, Bridge
Boiler Room 1	31	Bridge
Boiler Room 1	32	Void
Boiler Room 1	33	Search Radar
Boiler Room 1	34	Funnel
Boiler Room 2	35-36	Funnel
Boiler Room 2	41	AAMGs
Engine Room 1	42-44	Torpedo 1 or 2
Engine Room 2	45-51	AAMGs [Torpedo 3 or 4]
Aft Main Magazine	52	Searchlight
Aft Main Magazine	53	AAMGs
Aft Main Magazine	54-55	Main X
Fuel Oil 3	56	Main X
Void	61-62	Main Y
Void, Propshaft 1 or 2	63-64	Void
Steering	65-66	Steering

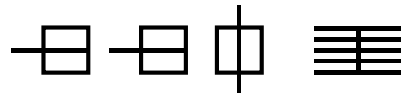
Internal Diagram

FO1 1FP	FM A&B 1FP	FO2 3FP	BR1 B1 B2 6FP	BR2 B3 3FP	ER1 E1 5FP	ER2 E2 5FP	AM X&Y 1FP	FO3 1FP	V 1FP	ST 1FP
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Bristol

<u>Navy</u>	United States Navy				<u>Date</u>	1942		
<u>Class</u>	Destroyer				<u>Armor</u>	None		
<u>Surface Armament</u>					<u>Ranges</u>	<u>Directors</u>		
Main Battery:	5 inch guns in 4 single mounts				18 inches	Fore		
Torpedoes:	21 inch torpedoes in 1 quintuple mount				6 inches at 5.50"	Port and starboard		
Maximum Value:	7 through 6/43, 9 after				10 inches at 3.25"			
<u>Gun:</u>	5"	10"	15"	18"	Power	Relia		
5 inch single	A/11	8/7	2/3	1/-1	4	A		
<u>Speed</u>	4.50	4 boilers	2 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±3	24": ±5	
<u>Flotation</u>	Total: 27	DIW: 14	Sinking: 18					

Armament Arrangement



Notes

- Many ships in this class.
- Bristols (DD453 and up) built with 4 guns and 10 tubes, but modified to 4 guns and 5 tubes before they saw war service.

Hits

Fuel Oil 1	11-13	Forward Void
Fuel Oil 1	14	Main A
Forward Main Magazine	15-16	Main A
Forward Main Magazine	21-22	Main B
Fuel Oil 2	23	Main B
Fuel Oil 2	24	AAMGs
Fuel Oil 2	25	Bridge
Fuel Oil 2	26	Main Director, Bridge
Boiler Room 1	31	Search Radar
Boiler Room 1	32-33	Funnel
Boiler Room 1	34	Torpedo A
Engine Room 1	35-36	Torpedo A
Boiler Room 2	41-42	Funnel, AAMGs
Boiler Room 2	43	Void
Boiler Room 2	44	Searchlight
Engine Room 2	45	Void
Engine Room 2	46-51	AAMGs
Aft Main Magazine	52	AAMGs
Aft Main Magazine	53-55	Main X
Fuel Oil 3, Propshaft 1 or 2	56-62	Main Y
Fuel Oil 3, Propshaft 1 or 2	63-64	Void
Steering	65-66	Steering

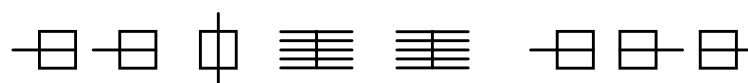
Internal Diagram

FO1 1FP	MM A&B 1FP	FO2 3FP	BR1 B1 B2 5FP	ER1 E1 4FP	BR2 B3 B4 5FP	ER2 E2 4FP	MM XY 1FP	FO3 2FP	ST 1FP
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Fletcher

<u>Navy</u>	United States Navy				<u>Date</u>	1942	
<u>Class</u>	Destroyer				<u>Armor</u>	None	
<u>Surface Armament</u>					<u>Ranges</u>	<u>Directors</u>	
Main Battery:	5 inch guns in 5 single mounts				18 inches	Fore	
Torpedoes:	21 inch torpedoes in 2 quintuple mount				6 inches at 5.50"	Port and starboard	
Maximum Value:	7 through 6/43, 9 after				10 inches at 3.25"		
<u>Gun:</u>	5"	10"	15"	18"	Power	Relia	
5 inch single	A/11	8/7	2/3	1/-1	4	A	
<u>Speed</u>	4.50	4 boilers	2 engines	<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±3	24": ±5
<u>Flotation</u>	Total: 30	DIW: 15	Sinking: 20				

Armament Arrangement



Notes

- Most numerous class of USN fleet destroyers, with 175 ships in the class.
- Most early units built with twin 40mm mounts on the after pilothouse and the fantail. Some of the earliest (viz Fletcher) had one 1.1 inch mount on the pilothouse instead.

Hits

Fuel Oil 1	11-14	Void
Forward Main Magazine	15-21	Main A
Fuel Oil 2	22-24	Main B
Fuel Oil 3	25	Bridge, AAMGs
Fuel Oil 3	26	Bridge, Main Director
Boiler Room 1	31	Search Radar
Boiler Room 1	32-33	Funnel
Engine Room 1	34-36	Torpedo A
Boiler Room 2	41	Searchlight 1 or 2, Funnel
Boiler Room 2	42-43	Torpedo B
Boiler Room 2	44	AAMGs, Torpedo B
Engine Room 2	45	AAMGs, Main M
Engine Room 2	46	Main M
Engine Room 2	51	Main M
Aft Main Magazine	52	AAMGs
Aft Main Magazine	53-55	Main X
Fuel Oil 4	56-62	Main Y
Void, Propshaft 1 or 2	63-64	Void
Steering	65-66	Steering [,AAMGs]

Internal Diagram

FO1 1FP	PM A&B 1FP	FO2 FO 2FP	FO3 FO 2FP	BR1 B1 B2 5FP	ER1 E1 4FP	BR2 B3 B4 5FP	ER2 E2 4FP	PM MX 1FP	FO4 3FP	V 1FP	ST 1FP
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Livermore

<u>Navy Class</u>	United States Navy Destroyer				<u>Date</u>	1942	<u>Armor</u>	None
<u>Surface Armament</u>				<u>Ranges</u>			<u>Directors</u>	
Main Battery:	5 inch guns in 4 single mounts				18 inches		Fore	
Torpedoes:	21 inch torpedoes in 2 quintuple mounts				6 inches at 5.50"		Port and starboard	
Maximum Value:	7 through 6/43, 9 after				10 inches at 3.25"			
<u>Gun:</u>	5"	10"	15"	18"	Power	Relia		
5 inch single	A/11	8/7	2/3	1/-1	4	A		
<u>Speed</u>	4.50	4 boilers	2 engines	<u>Flotation</u>	Total: 27	DIW: 14	Sinking: 18	
				<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±3	24": ±5	

Armament Arrangement



Notes

- 15 ships in class, including Livermore, Gwin, Meredith, Grayson, Monssen and Nicholson (DD 429-430, 432-444).
- Class built with had 5 guns and 10 tubes, but sacrificed one gun mount for increased AAMG armament.

Hits

Fuel Oil 1	11-13	Forward Void
Fuel Oil 1	14	Main A
Forward Main Magazine	15-16	Main A
Forward Main Magazine	21-22	Main B
Fuel Oil 2	23	Main B
Fuel Oil 2	24	AAMGs
Fuel Oil 2	25	Bridge
Fuel Oil 2	26	Main Director (1-3), Bridge (4-6)
Boiler Room 1	31	Search Radar
Boiler Room 1	32-33	Funnel
Boiler Room 1	34	Torpedo A
Engine Room 1	35-36	Torpedo A
Boiler Room 2	41-42	Funnel (1-3), AAMGs (4-6)
Boiler Room 2	43	Torpedo B
Boiler Room 2	44	Torpedo B
Engine Room 2	45	Torpedo B (1-3), Searchlight (4-6)
Engine Room 2	46-51	AAMGs
Aft Main Magazine	52	AAMGs
Aft Main Magazine	53-55	Main X
Fuel Oil 3 (1-3), Propshaft 1 or 2 (4-6)	56-62	Main Y
Fuel Oil 3 (1-3), Propshaft 1 or 2 (4-6)	63-64	Void
Steering	65-66	Steering

Internal Diagram

FO1 1FP	MM A&B 1FP	FO2 3FP	BR1 B1 B2 5FP	ER1 E1 4FP	BR2 B3 B4 5FP	ER2 E2 4FP	MM XY 1FP	FO3 2FP	ST 1FP
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