

Background: In this engagement, Kriegsmarine destroyers were ordered to intercept and sink a British cruiser crippled by a U-boat attack. Before the Germans could locate the cruiser, they stumbled across a convoy returning from Murmansk.

## Forces:

Royal Navy	Division 1	Bulldog	("B" Class -- flag)
Commander Richmond		Amazon	("A" Class)
	Division 2	Beagle	("B" Class)
		Beverly	("Town" Class)
	Convoy	Atheltemplar	(Large Tanker)
		Ballot	(Medium Freighter)
		Briarwood	(Medium Freighter)
		Dan-y-bryn	(Medium Freighter)
		Dunboyne	(Small Freighter)
		El Estero	(Medium Freighter)
		Eldena	(Medium Freighter)
		Gallant Fox	(Medium Freighter)
		Mormacmar	(Medium Freighter)
		Stone Street	(Medium Freighter)
		Trehata	(Medium Freighter)
		Tsiolkovski	Small Freighter
		West Cheswald	(Medium Freighter)
Kriegsmarine	Division 1	Hermann Schoemann	(Type 34A -- flag)
Captain Schulze-		Z25	(Type 36A)
Hinrichs		Z24	(Type 36A)

## Set-up:

N<sup>^</sup> German Division 1 is steaming on a course of 270 in line ahead, 36 inches from the north edge and 24 inches from the east edge.

British Division 1 is steaming on a course of 090 in line ahead, 22 inches from the north edge and 40 inches from the east edge. British Division 2 is steaming on a course of 090 in line ahead, 30 inches from the north edge and 40 inches from the east edge. The Convoy is steaming on a course of 090 in three columns of (from the north) 4, 5, and 4 ships. Each column is separated by 2 inches. The northeastern-most ship is 24 inches from the north edge and 45 inches from the east edge.

## Victory Conditions:

- The German player receives 1 point for leaving any destroyer or escort with 0 speed, 1 point for sinking any merchant ship and 2 points for sinking any destroyer or escort.
- The British player gets 2 points per sunk destroyer and 1 point per destroyer left with 0 speed.

## Special Rules:

- The British destroyers have Type 286P and 285 radars.
- The Type 36A ships have not received their forward turrets. They have 4 single 5.9 inch mounts in A, M, X, and Y positions. Their guns are subject to a -2 accuracy modifier.
- The British "A" and "B" class ships are modified escorts. They no longer have their A and Y gun mounts or their B torpedo mounts. Treat these locations as AAMGs. These destroyers have 286 search radars and 285 fire control radars in lieu of a conventional director.
- The Town class escort is a modified Clemson class destroyer. It retains only a single 4 inch gun in A position, firing under local control, and a single bank of three torpedo tubes in the A midships position. Hits in other armament locations are treated as AAMG hits. The escort has 286 radar.
- At the start of the scenario, the German player must secretly designate one German destroyer that will not fire torpedoes during the scenario. (These were being held in reserve for the British cruiser.)
- Ice floes in the engagement area interfered with torpedo fire. Double all range modifications for torpedo attacks.
- The Convoy must plot its move one turn in advance. It may maneuver by ships' turns only. Convoy speed is 1.25 inches. All freighters in the convoy have engine amidships. The tanker has her engine aft.
- Visibility is 9 – Arctic day. The gunfire factor is -2.

Outcome: The opponents traded gunfire and torpedoes at long range. When the Germans broke off the action, they had damaged Amazon and sunk one freighter.

## “A” – “I” Classes

<u>Navy</u>	Royal Navy	<u>Date</u>	1940
<u>Class</u>	Destroyer	<u>Armor</u>	None

### Surface Armament

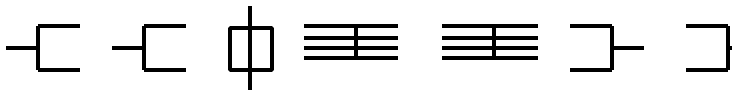
<u>Main Battery:</u>	4.7 inch guns in 4 single mounts	<u>Ranges</u>	18 inches	<u>Directors</u>	Fore
<u>Torpedoes:</u>	21 inch torpedoes in 2 quadruple mounts 2 special hits		13 inches at 4.25" 16 inches at 2.75"		Port and starboard

Speed      4.50                      3 boilers                      2 engines

Flotation    Total: 27                      DIW: 14                      Sinking: 18

Torpedo Hits    17.7"-18": ±1    20.5"-22.5": ±3    24": ±5

### Armament Arrangement



### Notes

- Classic British inter-war destroyer design.
- Is had quintuple mounts.
- Similar in game terms were 6 Hs built for Brazil but taken over by the Royal Navy. These lacked Y mount.
- Also similar were 2 Is built for Turkey (Inconstant and Ithuriel) but used by the RN. These had quadruple torpedo mounts.
- Most gave up a torpedo mount later in the war to ship a 3 inch anti-aircraft gun. This is treated as an AAMG for game purposes.

### 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
Fuel Oil 2	26	Bridge
Fuel Oil 2	31	Bridge
Boiler Room 1	32	Main Director
Boiler Room 1	33	Funnel
Boiler Room 2	34	Funnel
Boiler Room 2	35	AAMGs
Boiler Room 3	36	AAMGs
Boiler Room 3	41	Funnel
Engine Room	42-44	Torpedo A
Engine Room	45-51	Torpedo B [AAMGs]
Aft Main Magazine	52	Searchlight
Aft Main Magazine	53	AAMGs
Aft Main Magazine	54-55	Main X
Fuel Oil 3	56	Main X
Fuel Oil 3	61-62	Main Y
Propshaft 1 or 2	63-64	Void
Steering	65-66	Steering

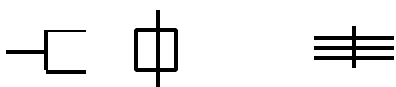
### Internal Diagram

FO1 1FP	FM A&B 1FP	FO2 3FP	BR1 B1  3FP	BR2 B2  4FP	BR3 B3  3FP	ER E1 E2 9FP	AM X&Y 1FP	FO3 1FP	ST 1FP
------------	------------------	------------	----------------------	----------------------	----------------------	-----------------------	------------------	------------	-----------

## Clemson/Wickes

<u>Navy</u>	Royal 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:	4 inch gun in 1 single mounts	14 inches	Fore
Torpedoes:	21 inch torpedoes in 1 triple mounts 2 special hits	6 inches at 5.50" 10 inches at 3.25"	Port and starboard
<u>Speed</u>	3.75	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": ±4    24": ±6

### Armament Arrangement



### Notes

- Built in the late teens and early 20s, but still serving in the US Asiatic Fleet in 1941.
- This version reflects modifications made by the Royal Navy to the ships of this class that it received.

### Hits

	Fuel Oil 1	11-13	Void
	Fuel Oil 1	15-21	Main A
	Fuel Oil 1	22	Void
Forward	Main Magazine	23-24	Bridge
	Fuel Oil 2	25	Main Director
	Boiler Room 1	26	Void
	Boiler Room 1	31	Funnel
	Boiler Room 1	32	Funnel
	Boiler Room 1	33	Funnel
	Boiler Room 2	34	AAMGs
	Boiler Room 2	35	AAMGs
	Boiler Room 2	36	Funnel
	Boiler Room 2	41	Torpedo A
	Engine Room 1	42-43	Torpedo A
	Engine Room 1	44	Searchlight
	Engine Room 2	45-51	AAMGs
	Fuel Oil 3	52-53	Void
Aft	Main Magazine	54-55	Void
	Aft Main Magazine	56	AAMGs
	Fuel Oil 4	61-62	AAMGs
Fuel Oil 4,	Propshaft 1 or 2	63	AAMGs
Fuel Oil 4,	Propshaft 1 or 2	64	Void
	Steering	65-66	Steering

### Internal Diagram

FO1 1FP	FM A,1,2 1FP	FO2 3FP	BR1 B1 B2 4FP	BR2 B3 B4 4FP	ER1 E1 4FP	ER2 E2 4FP	FO3 1FP	AM X 1FP	FO4 1FP	ST 1FP
------------	--------------------	------------	------------------------	------------------------	------------------	------------------	------------	----------------	------------	-----------

## Merchantman (engine amidships)

<u>Navy Class</u>	Merchantman Engine amidships	<u>Date</u>	1942	<u>Armor</u>	None	
<u>Speed</u>	1.00"-2.00"	1 engine	<u>Torpedo Hits</u>	17.7"-18":	20.5"-22.5":	24":
			<u>Small</u>	±3	±6	±9
			<u>Medium</u>	±2	±4	±6
			<u>Large</u>	±1	±3	±5
<u>Flotation</u>	Total:	DIW:	Sinking:			
<u>Small Freighter</u>	29	10/5	15/8			
<u>Medium Freighter</u>	38	13/7	19/10			
<u>Large Freighter</u>	43	15/8	22/11			
<u>Small Tanker</u>	29	15/10	20/14			
<u>Medium Tanker</u>	38	19/12	25/16			
<u>Large Tanker</u>	43	22/14	28/18			

### Notes

- Models merchantment with boilers and engine situated amidships rather than aft. Many freighters were built in this configuration.
- Small merchantmen equate to a displacement of 1000 to 3000 displaced tons (about 1500 to 4000 gross registered tons), medium merchantmen to 3000-7000 displaced tons (about 4000 to 9000 grt) and large merchantmen to 7000-15000 displaced tons (about 9000-20000 grt).
- Flotation values for DIW and sinking reflect poorer watertight integrity of freighter compartmentization and the heavy loads they carried. The number before the slash applies to unloaded ships, the number after the slash to loaded ships.

### Hits

Small		Medium		Large		Small		Medium		Large	
Bow	Bow	Bow	Bow	Bow	Bow	Bow	Bow	Bow	Bow	Bow	Bow
Hold 1	Hold 1	Hold 1	Hold 1	11-13	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1
Hold 1	Hold 1	Hold 1	Hold 1	14-15	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1
Hold 1	Hold 1	Hold 1	Hold 1	16-21	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1
Hold 1	Hold 1	Hold 1	Hold 1	22-23	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1
Hold 1	Hold 2	Hold 2	Hold 2	24-25	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1
Hold 1	Hold 2	Hold 2	Hold 2	26	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
Hold 1	Hold 2	Hold 2	Hold 2	31-32	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge
Hold 1	Hold 2	Hold 2	Hold 2	33-34	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1	Hold 1
Engine	Engine	Engine	Engine	35-42	Engine	Engine	Engine	Engine	Engine	Engine	Engine
Hold 2	Hold 3	Hold 3	Hold 3	43-44	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Hold 2	Hold 3	Hold 3	Hold 3	45-46	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Hold 2	Hold 3	Hold 3	Hold 3	51	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Hold 2	Hold 3	Hold 3	Hold 3	52-53	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Hold 2	Hold 4	Hold 4	Hold 4	54-55	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Hold 2	Hold 4	Hold 4	Hold 4	56-61	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Hold 2	Hold 4	Hold 4	Hold 4	62-63	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Hold 2	Hold 4	Hold 4	Hold 4	64	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2	Hold 2
Steering	Steering	Steering	Steering	65-66	Steering	Steering	Steering	Steering	Steering	Steering	Steering

### Internal Diagram -- Small

BOW 1FP	H1 FP 12FP	ER E1 3FP	H2 FP 12FP	ST 1FP
------------	------------------	-----------------	------------------	-----------

### Internal Diagram -- Medium

BOW 1FP	H1 8FP	H2 8FP	ER E1 4FP	H3 8FP	H4 8FP	ST 1FP
------------	-----------	-----------	-----------------	-----------	-----------	-----------

### Internal Diagram -- Large

BOW 1FP	H1 6FP	H2 6FP	H3 6FP	ER E1 5FP	H4 6FP	H5 6FP	H6 6FP	ST 1FP
------------	-----------	-----------	-----------	-----------------	-----------	-----------	-----------	-----------

## Merchantman (engine aft)

<u>Navy Class</u>	Merchantman Engine aft	<u>Date</u>	1942
		<u>Armor</u>	None
<u>Speed</u>	1.00"-2.00"	2 boilers	1 engine
			<u>Torpedo Hits</u>
			17.7"-18": ±3
			20.5"-22.5": ±6
			24": ±9
			±2
			±4
			±1
			±3
<u>Flotation</u>	Total:	DIW:	Sinking:
<u>Small</u>	29	15	20
<u>Medium</u>	38	19	25
<u>Large</u>	43	22	28

### Notes

- Models merchantment with boilers and engine situated aft rather than amidships.
- Small merchantmen equate to a displacement of 1000 to 3000 tons, medium merchantmen to 3000-7000 tons and large merchantmen to 7000-15000 tons.

### Hits

	Small	Medium	Large		Small	Medium	Large
	Bow	Bow	Bow	11-13	Bow	Bow	Bow
	Hold 1	Hold 1	Hold 1	14-15	Hold 1	Hold 1	Hold 1
	Hold 1	Hold 1	Hold 1	16-21	Hold 1	Hold 1	Hold 1
	Hold 1	Hold 1	Hold 2	22-23	Hold 1	Hold 2	Hold 2
	Hold 1	Hold 2	Hold 2	24-25	Hold 1	Hold 2	Hold 2
	Hold 1	Hold 2	Hold 2	26	Bridge	Bridge	Bridge
	Hold 1	Hold 2	Hold 3	31-32	Bridge	Bridge	Bridge
	Hold 1	Hold 2	Hold 3	33-34	Hold 1	Hold 2	Hold 3
	Hold 2	Hold 3	Hold 4	35-36	Hold 2	Hold 3	Hold 4
	Hold 2	Hold 3	Hold 4	41-42	Hold 2	Hold 3	Hold 4
	Hold 2	Hold 3	Hold 4	43	Hold 2	Hold 3	Hold 4
	Hold 2	Hold 3	Hold 5	44-45	Hold 2	Hold 3	Hold 5
	Hold 2	Hold 4	Hold 5	46-51	Hold 2	Hold 4	Hold 5
	Hold 2	Hold 4	Hold 6	52-53	Hold 2	Hold 4	Hold 6
	Hold 2	Hold 4	Hold 6	54-55	Hold 2	Hold 4	Hold 6
	Hold 2	Hold 4	Hold 6	56	Hold 2	Hold 4	Hold 6
	Engine	Engine	Engine	61-64	Engine	Engine	Engine
	Steering	Steering	Steering	65-66	Steering	Steering	Steering

### Internal Diagram -- Small

BOW 1FP	H1 FP 12FP	H2 FP 12FP	ER B1,E1 3FP	ST 1FP
------------	------------------	------------------	--------------------	-----------

### Internal Diagram -- Medium

BOW 1FP	H1 8FP	H2 8FP	H3 8FP	H4 8FP	ER B1,E1 4FP	ST 1FP
------------	-----------	-----------	-----------	-----------	--------------------	-----------

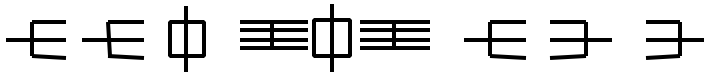
### Internal Diagram -- Large

BOW 1FP	H1 6FP	H2 6FP	H3 6FP	H4 6FP	H5 6FP	H6 6FP	ER B1,E1 5FP	ST 1FP
------------	-----------	-----------	-----------	-----------	-----------	-----------	--------------------	-----------

# Type 34

<u>Navy</u>	Deutsches Kriegsmarine	<u>Date</u>	1940
<u>Class</u>	Destroyer		
<u>Surface Armament</u>		<u>Ranges</u>	<u>Directors</u>
Main Battery:	5 inch guns in 5 single mounts	18 inches	Fore and aft
Torpedoes:	21 inch torpedoes in 2 quadruple mounts	8 inches at 5.00" 13 inches at 3.75"	Port and starboard
<u>Speed</u>	4.75"	6 boilers	2 engines
<u>Flotation</u>	Total: 33	DIW: 17	Sinking: 22
		<u>Torpedo Hits</u>	17.7"-18": ±1    20.5"-22.5": ±3    24": ±5

## Armament Arrangement



## Notes

- Class included Z-1 through Z-8.
- Z-9 through Z-13 were Type 34A, similar in game terms.
- Z-14 through Z-21 were Type 36, also similar in game turns.
- Fuel tanks like cruisers, outboard of machinery spaces.

## Hits

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

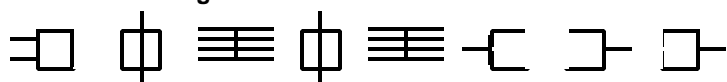
## Internal Diagram

V1	FM	BR1	BR2	TR	BR3	ER1	V2	ER2	AM	V3	ST
2FP	A	B1,B2	B3,B4	1FP	B5,B6	E1	1FP	E2	MX	3FP	2FP
	3FP	3FP	3FP		3FP	4FP		4FP	4FP		

# Type 36A

<u>Navy</u>	Deutsches Kriegsmarine	<u>Date</u>	1942
<u>Class</u>	Destroyer		
<u>Surface Armament</u>		<u>Ranges</u>	<u>Directors</u>
Main Battery:	5.9 inch guns in 1 twin and 3 single turrets	24 inches	Forward and aft
Torpedoes:	21 inch torpedoes in 2 quadruple mounts	8 inches at 5.00" 13 inches at 3.75"	Port and starboard
<u>Speed</u>	4.75"	6 boilers	2 engines
<u>Flotation</u>	Total: 31	DIW: 16	Sinking: 20
		<u>Torpedo Hits</u>	17.7"-18": ±1      20.5"-22.5": ±3      24": ±5

## Armament Arrangement



## Hits

	Void 1	11-14	Void
Forward Main Magazine		15-22	Main A
Forward Main Magazine		23-24	AAMGs
Boiler Room 1		25	Bridge, Torpedo Directors
Boiler Room 1		26	Bridge, Forward Director
Boiler Room 2		31	Funnel
Boiler Room 2		32	Funnel
Turbogenerator Room		33	Torpedo A
Boiler Room 3		34-35	Torpedo A
Boiler Room 3		36	Funnel
Engine Room 1		41	Searchlight, AAMGs
Engine Room 1		42-43	Torpedo B, Torpedo Director
Fuel Oil		44	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
Void 2		56-62	Main Y
Void 2, Propshaft 1 or 2		63-64	Void
Steering		65-66	Steering

## Notes

- Class included Z-23 through Z-39.
- First eight completed with 4 single gun mounts. Most received a forward turret in lieu of the forward single mount in 1942.
- At first glance, "super-destroyers"; but the class suffered from poor sea-keeping abilities, unreliable powerplant, and a main battery too large for the hulls
- -2 to main battery accuracy; -3 (rather than -2) optional modifier in heavy seas.
- Fuel tanks like cruisers, outboard of machinery spaces.

## Internal Diagram

V1	FM	BR1	BR2	TR	BR3	ER1	FO	ER2	AM	V2	ST
1FP	A	B1,B2	B3,B4	1FP	B5,B6	E1	1FP	E2	MXY	2FP	2FP
	3FP	3FP	3FP		3FP	4FP		4FP	4FP		