Stations Manned and Ready 2nd Edition

Naval Battles in the Age of Steel

The Battle of Kolombangara or

The 2nd Battle of Kula Gulf
12th/13th July 1943

A and A Game Engineering

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Naval Battles in the Age of Steel

The Battle of Kolombangara or The Second Battle of Kula Gulf

12th/13th July 1943

A BATTLE SCENARIO FOR USE WITH

STATIONS MANNED AND READY

2ND EDITION

NAVAL WARGAMES RULES FOR THE PERIOD 1885 TO 1945
USING MODEL SHIPS AND AIRCRAFT

By Andrew Finch and Alan Butler Edition 1.1a

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INTRODUCTION

This volume is part of a series of booklets providing scenarios for Naval Battles from the Pre-Dreadnought era through to the end of the Second World War, the "Age of Steel" referred to in the title.

This introduction is common to all the booklets, therefore it may refer to items that are not present in all.

Scenario Description

Following a brief introduction, a "potted history" if you like, we suggest the type of battle to be fought, if this is appropriate. Mostly a game will be fought as a typical fleet encounter.

A table set-up is provided describing the scene.

Victory conditions

Unless the game is a meeting engagement the victory conditions are defined. Many games are Breakthrough actions where one side has to get his forces off the table. The method is described in the rule book.

Forces and Special Rules

The deployment requirements for each side, and any special rules applying to the forces are shown separately. Some formations may have a delayed entry.

In some cases we may also specify some additional rules.

The map

A small map is provided, which defines which side starts where. As a convention, North is always at the top of the page, and the table is laid out so that it is based on an 8 foot by 4 foot playing area. Any terrain that should be present is also denoted on the map. The home edge for each side is defined by thicker black lines. In many cases the home edge is adjusted so that it does not follow the standard as laid down in the rules. If a force has to exit from an edge, then this is represented by a wavy line.

Fleets

The ships involved in each action are listed. As far as possible, where research has revealed the information, we have also shown the tactical orders of battle with names of the commanders of formations (shown in brackets). The ships in each formation are usually listed in descending order of size, so capital ships are listed before cruisers and destroyers. The actual composition of each squadron is left to the players. The listing shows the ship type, then the names of the ships in the class that were involved in the action.

In some cases you can choose whether to deploy the entire force at the start, or keep some off table in order to make flanking manoeuvre. Off table forces are treated as being in reserve.

Ships in the same class are grouped together and they will also appear grouped in the ship data sheets.

Aircraft

Some scenarios may include aircraft. In these cases players should organise them according to the tactical doctrine as shown in the rules. This allows some flexibility in squadrons in cases where fewer than the normal number are indicated.

Some large scenarios list a large number of separate formations of the same aircraft. These usually represent the appearance of repeat strikes by the same aircraft over a prolonged period. For this reason these separate formations should not be combined.

Comments:

Class names:

These have been taken from the names as defined in the Conway's series of books on Warships from 1860 onwards. They may be at variance to those that appear elsewhere, such as in 'Jane's Fighting Ships' for example.

Ship data:

The ship data sheets appear in the same order as mentioned earlier, which means that larger ships appear first. They are then sorted by class, then by ship name in the class. This means that when perusing the ship names these will often not be in alphabetical order.

In some cases you will find that the ship name is blank on a sheet. Check at the bottom left of the sheet in such cases and you will find the names of the ships in the class (unless the list of names is prohibitively long). Enter the name of the ship you need.

In larger battles you will have to print multiple copies of the data sheets for destroyers and smaller ships, entering the names required, so you have one sheet per ship.

In the cases where one sheet is used to provide data for multiple ships, the class name for the ships concerned is shown in bold type. If the "name ship" of the class is not in the fleet, then this name is shown in parenthesis after the list of ships at the battle.

Optional Ships:

Some scenarios allow for optional vessels and squadrons. These are shown in italics in the fleet lists, and may be used if the players wish. Bear in mind that in some cases this may make the battle rather one-sided.

THE BATTLE OF KOLOMBANGARA OR THE SECOND BATTLE OF KULA GULF

12th/13th July 1943

The Japanese were running a another transport mission of the "Tokyo Express" down 'The Slot' towards the Kula Gulf. This was a strong force, escorting four destroyer transports. They were intercepted by a stronger American force. The battle was a tactical victory for the Japanese force.

Scenario Description

This is a night-time Convoy battle.

Victory Conditions

The Japanese destroyer transports must leave the table via the south -western corner in order to determine their level of victory.

American Forces

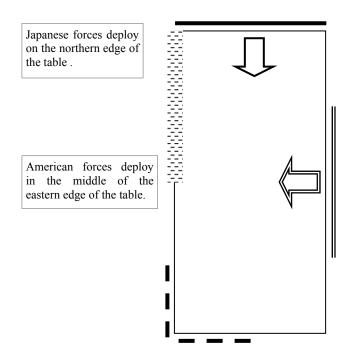
The American forces are deployed in the middle of the eastern edge of the table at the start of the game.

Japanese Forces

The Japanese forces deploy on the northern edge of the table at the start of the game.

Japanese Special Rules

The convoy rules for using warships to carry cargo are applied to the destroyer transports only in this game.



American Forces

Task Group 36.1 (Ainsworth)

- CL Honolulu
- CL St Louis
- CL Leander (RNZS)
- DD Nicholas, O'Bannon, Taylor, Jenkins, Radford (Fletcher)
- DD Ralph Talbot (**Bagley**)
- DD Buchanan, Woodworth (**Bristol**)
- DD Gwin (Benson/Gleaves)
- DD Maury (**Gridley**)

Japanese Forces

(Izaki)

- CL Jintsu
- DD Yukikaze, Hamakaze (Kagero)
- DD Kiyonami (Yugumo)
- DD Yugure (Hatusharu)

DD Transports

- DDT No.32 (ex-Mikazuki), No.27 (ex-Satsuki), No.28 (ex-Minazuki) (**Mutsuki**)
- DD Yunagi, Matsukaze (Kamikaze)

Alternative data sheets are provided for the Japanese ships giving them an optional Incendiary Shrapnel AA attack where appropriate.

HOW TO USE THE SHIP DATA SHEETS

You can print out the data sheets for the ships with little or no manual intervention required on your part. You will have to enter the crew quality on all ships, generated at the start of the game. In the case of destroyers and smaller vessels you will usually have to print multiple copies of sheets and add the ship names.

Some ships have minor changes to their close range defence weapons, noted on the sheets, which you can apply if you wish to do so. Note that these changes also have an effect on the points value of the ship, and revised values are shown in each case..

Ship Data – Normal Ships

The ship data on the sheets follows a standard pattern, and is explained in more detail in the Ship Data Glossary, available free of charge. This takes each part of the data sheet and briefly explains its use in the game. The fields are laid out as follows, starting at the top of the sheet. Not all fields appear on all the sheets.

Basic Data

The top section, above the armour boxes, shows on the left the ship name and under this its class. The ship name may be blank in the case of destroyers and smaller ships. In such cases there is a usually list of ships for which the sheet is valid at the bottom of the page.

An abbreviated ship type, a date range for which the sheet is valid, the cost in points of a ship with the indicated crew code, the base cost of the ship is shown (in parenthesis), and then the dataset number for the current sheet. A remark may also appear drawing your attention to changes to the ship's light anti aircraft or smaller calibre guns during the validity of the sheet. These changes are shown towards the bottom right of the sheet along with the adjusted points values.

On the right hand side is shown the nationality and a box showing the reconnaissance values, which are used during game set up.

At the top of some sheets there may be an additional italicised remark in the centre which identifies a variant of a ship, or otherwise shows some identifying remark.

Armour

The next row starts with the Armour on the ship in six main areas. An Armour Class of 0 means that the ship has negligible armour and is treated as unarmoured. This is explained in the rules themselves. Turrets and Casemates may be armoured or may show an entry of "n/a" which means that this ship does not have any weapons in the location.

You will see that in the case of Turrets and Casemates the armour value is shown in various sorts of brackets: [], () and {}. This is just intended as a handy reference to the weapons mounts shown lower down on the sheets.

To the right of the casemate entry there may be a special remark about armour on a specific part of the ship.

Target Size and Type

The last part, on the right, shows the ship's Size for when it is shot at, and the Target Type, which may restrict what can shoot at it.

Magazine Safety Factor

To the right of the Target Size is the Magazine Safety Factor (MSF), which has an effect if the ship suffers a main gun hit. Ships with no guns will not have an MSF.

Critical Hit Table and Types of Attack usable against this ship

In the next line there is an italicised section which tells you which Critical Hit table should be used, and which attack types can be used against the ship in question.

Saving Throw Modifier

On the right of this you will find reference to a Saving Throw Modifier. On larger ships this will show "n/a" to indicate that it does not apply. On many smaller and unarmoured vessels you will find a modifier, which is applied when testing the effectiveness of certain attacks on the ship in question.

Spotting Distance

Below the first black dividing line you will find the ship's Spotting Distance, which is how far the ship can see and engage a target. This may well be greater or less than the tactical visibility in your game.

Fire Control Value

Next is the Fire Control value, which is the resilience of the fire control systems on your ship. If reduced to zero, the ship must shoot using local control.

Gunnery Modifier

This is followed by the Gunnery Modifier, which reflects the level of technology for gunnery control when the ship was fitted out.

Crew Quality

Finally, in this row, is a space for you to enter the Crew Quality of your ship. You roll for this before the game.

Radar and Spotter Aircraft

Below this row, above the next dividing line, you may find information about Radar on the ship. From the left you may find radar for MAIN guns, radar for OTHER guns and radar for Dual Purpose AA guns. In the latter case they get a +1 to hit bonus. On the far right on all sheets is a field for any spotting aircraft the ship may carry. If there are no aircraft this field will be blank.

Weapons

The next section holds the weapons on a ship. This is divided into three groups: MAIN, OTHER and TORPEDOES. You will notice that above the data on the right is the to hit score at the 5 range bands for the weapons concerned. This may be helpful in play.

On the very left is the hit location number, which is used to determine where damage occurs when weapons are hit by Critical Damage Effects.

The number (of barrels/tubes) and calibre follow.

In some cases after the calibre there may be a special code showing AA and ASW weapons. Detailed explanations are given in the rules

Under the section on arcs these are each defined with the letter code for the arc (which matches the graphic depiction shown at the bottom on the section, gun arcs to the left and torpedo arcs to the right). There is a letter and number code showing the mount type and number of guns or tubes in the mount. If the mount is armoured it is shown in one of the brackets which also appear in the armour section higher up. The mount is followed by a circle, and/or a special symbol, for each mount.

On the right centre are the penetration values for guns and to hit modifiers for torpedoes in each Range Band. A "—" means that a gun or torpedo will not go that far, and a to hit modifier in parenthesis shows a torpedo that can be effective at a range longer than the ship can see.

This is followed by the weapon IP and CV, and a notation whether this weapon has radar support.

In the OTHER weapon section you will also find the Close, Medium and Long range Factors which are mainly used for AA fire. If the ship has Anti Submarine Weapons, Long, Medium or Short Range Factors then there is a remark at the top of the OTHER weapon section about how these are lost to incidental damage.

Weapon Arcs of Fire

The final information in this part of the form is the weapon arc row, where the arcs in use on this ship in question are outlined with a thick black line.

Aircraft Carriers

Immediately below the third dividing line, Aircraft Carriers have details of their Handling, RRR Limit, Flight Deck Catapults and Aircraft Capacity. On non carriers this area is left blank.

Structure and Flotation

Structure and Flotation are on the next line, along with their value/3, which is linked to the Morale system.

Fires and Damage Control

The next row has space to record Fire on board ship, and on the right are details of the number of Damage Control Teams.

Speed and Manoeuvre Rating

Finally there is the speed of the ship, its Manoeuvre Rating (MVR) and Steering # to record damage.

Other Equipment

At the bottom of the page there are sections for Other Equipment and Special Effects. Any changes to the light anti-aircraft or other smaller calibre guns appear here, as do other remarks concerning the ship.

Ships in the Class

On ships with one sheet for a class of ships (in the case of destroyers and smaller) there is a list of the ships in the class, for which this sheet can be used.

CV Cost of loss of weapons

The page footer on all sheets shows the CV costs for the loss of weapons.

Dataset Version and Date

On the bottom right of the sheet you will find a version number and date for the dataset in question.

Ship Data – Small Ships of Type "X"

The ship data for small ships is slightly different and the sheets are designed to be used as a record for one or more squadrons of such ships. Again, the detail of how to use the sheets is explained in more detail in the Ship Data Glossary.

Basic Data

The top section, above the armour boxes, shows on the left the ship name and under this its class. The ship name will usually be blank in the case of smaller ships. In such cases there is a usually list of ships for which the sheet is valid at the bottom of the page.

An abbreviated ship type, a date range for which the sheet is valid, the cost in points of a ship with the indicated crew code, the base cost of the ship is shown (in parenthesis), and then the dataset number for the current sheet. When you are using the ship in this case, you must multiply the ship cost by the number of ships being used.

A remark may also appear drawing your attention to changes to the ship's light anti aircraft or smaller calibre guns during the validity of the sheet, shown lower down the sheet along with the adjusted points values.

On the right hand side is shown the nationality and a box showing the reconnaissance values, which are used during game set up.

At the top of some sheets there may be an additional italicised remark in the centre which identifies a variant of a ship, or otherwise shows some identifying remark.

Critical Hit Table and Types of Attack usable against this ship

In the next line there is an italicised section which tells you that Critical Hit tables are NOT used; then it shows which attack types can be used against the craft in question.

Target Size and Type

Next, on the right, shows the ship's Size for when it is shot at, and the Target Type, which may restrict what can shoot at it.

Saving Throw Modifier

The Saving Throw Modifier is used during combat to see what effect a hit will have on the craft.

Below this there are three boxes.

Spotting Distance

The first shows the vessel's Spotting Distance, which is how far the it can see and engage a target. This may well be greater or less than the tactical visibility in your game.

Speed and Manoeuvre Rating

Next are the speed of the vessel and the Manoeuvre rating (MVR).

Crew Quality

To the right is a space for you to enter the Crew Quality of your ship. You roll for this before the game.

Special Effects and Remarks

Next there is an area where there may be some remarks concerning Special Effects that may apply, and other information about the craft concerned.

Weapons

Below the first thick line across the form you will find the section referring to the weapon outfit. The first information shows the Close Range and Medium Range factors on the vessel, followed by any information about changes to the ship's light anti aircraft or smaller calibre guns during the validity of the sheet, with the adjusted points values.

The only weapons shown in detail in the case of smaller ships will be Torpedoes. Again, these are each defined with the letter code for the arc (which matches the graphic depiction shown to the right of the section). There is a letter and number code showing the mount type and number of tubes in the mount. The mount is followed by a circle, and/or a special symbol, for each mount.

On the right centre are the to hit modifiers for torpedoes in each Range Band. A "-" means that the torpedo will not go that far, and a to hit modifier in parenthesis shows a torpedo that can be effective at a range longer than the ship can see.

Weapon Arcs of Fire

The arcs in use on this ship in question are outlined with a thick black line.

Formation Record

Below the second thick black divider line you will find a section that you can use to record any formations or squadrons of these ships you have in use in the game. The method should be fairly obvious. the first column is to record the ID if the squadron in use, then the stand #, each of which will be in the form of counters or single small models representing the squadron. Finally there is a space to record the number of craft in the squadron.

To the right the weapon fit is repeated for each stand you are using. here you will cross out the torpedoes that the stand has expended, and if you need to make any notes, there is space for that as well.

Bear in mind that small craft are either in action, or they have been eliminated, as they do not have individual hit points.

Ship in the Class

On small vessels record sheets there is nearly always a list of the ships in the class.

Summarised Method of determining Attack Dice

The page footer shows in abbreviated form how you make use of the number of vessels remaining, linked to the number of Factors or tubes being fired to determine how many attack dice you roll.

Saving Throws

Also, in abbreviated form, there is information about how the saving throw system works when small ships are attacked.

Dataset Version and Date

On the bottom right of the sheet you will find a version number and date for the dataset in question.

																					Japa
Ship name:	Jintsı	J														R	lecon va	lues D	ay:	2 Nigl	nt: 1
Sendai Class ARMOUR: Crit. table: N	Belt: <i>lormal;</i>		Deck:	CL 1943 to 1943 1 CT: 0 by: Guns, Torpedoes,	Turrets #1:	with Crew Code (n/a Turre off Weapons, Ro	ts #2: n/a	Case	e Cost: emates:	228) n/a	Dataset:	242			S	ize:	-1 T	arget Ty Sa		A MSF	
Spotting Dist	ance:	4 RB		Fire Control V	alue: 2		Gunnery Mod	lifier:	+ 0								Crew	Quality:			
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MAIN guns:	#:	Cal:		Arcs:				Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1 - 5	7	5.50		A:S1 O I:S1 O K:	S1 OOO R:S1	O Z:S1 O		Pen:	5	4	2	1	_	3	2	No					
	If a v	veapon 'Cr	it' lands	s in this section lose 1	CR factor for e	ach 2 CV or par	rt thereof.										CRF:	5		MRF: 0	- — — — – I
OTHER guns	: #:	Cal:		Arcs:				Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	3			
6 -10	2	5.00	AA	K:S2 O				Pen:	4	2	1	-	_	2	2	No	mount	t marked	'AA' or 'A		OTHER gun ost. When all iced to 0.
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Special Effect	•			(Optional) Smokestre	cii, lest at - Z							Remarks									

Sunk in 1943

None

Spotting Dista	-		ttacked	1 CT: 0 Turrets #1: n/a by: Guns, Torpedoes, Bombs, Standoff Wea		ikaze	± 0								- 1 T	Savir Quality:	ng Throw Modifie	er: n/a
Spotting Dist	anice.	- KD		The condon value.		—										ing Aircraft	t: 1	
Hit Location	#				W	EAPONS	5											
MAIN guns:	#:	Cal:		Arcs:		Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:				
1 - 5	7	5.50		A:S1 OØ I:S1 OØ K:S1 OØOØOØ R:S	1 OØ Z:S1 OØ	Pen:	5	4	2	1	_	3	2	No				
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	If a v	veapon 'Cı	rit' lands	s in this section lose 1 CR factor for each 2 C	CV or part thereof.										CRF:	5	MRF: 0	
OTHER guns:	#:	Cal:		Arcs:		Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	3		
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	1	5.00	IS	3 AA factors are provided by each mount arc. These can be used once only. Cross when used. Special AA rules apply if target	off 'Ø' boxes above												A' or 'AA+' that is lo ost the LRF is reduc	
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Gun mounts are lost starting with the mounts with least protection in the order of priority shown below, followed by the largest calibre, then by highest number of guns in the mount. (OTHER guns are eliminated at the CV cost shown.)

• O (Open) 1CV • S (Shielded) 2CV • C (Unarmoured Casemate) 3CV • T (Unarmoured Turret) 4CV • {C} (Armoured Casemate)* 3CV • (T) (Armoured Turret)* 4CV (* If armour is penetrated in case of mount marked { } or ())

Torpedoes are lost starting with the mounts with the largest calibre (if there is a choice) followed by the mount with the greatest number of tubes. The cost in CV is equal to the number of tubes.

When Steering # reduced to 0 then the ship requires a Crew Test to turn

Changes to CRF or MRF:

None Remarks:

• IS option

Speed:

Other Equipment

Special Effects:

Sunk in 1943

Searchlights

35

(delete when lost):

MVR:

(Optional) Smokescreen; test at - 2

Steering #:

																							Japar
nip name:																	R	econ va	alues	Day:	1	Night:	1
,	Belt:	0 [Deck:	DD 1943 to 1943	Turret	s #1:		s #2: n /	/a Cas		: n/a		358 ze			S	Size:	- 2	Target		A‰ Throw Mo		+ 0 + 0
Spotting Distan	nce:	3 RB		Fire Control Va	alue: 1		(Gunnery M	odifier:	+ 1								Crew	/ Qual	lity:			
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MAIN guns:	#:	Cal:		Arcs:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:						
1 - 4	4	5.00	AA	A:T2 O Z:T2 O					Pen:	5	3	2	_	_	2	2	No						
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Structure (S):		3			S/3:	1	Flotation (F):	3					F/3:	1									
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Speed:		33			MVR:	5	Steering #:	5					When 9	Steering	# red	duce	d to 0 the	en the s	ship re	equires a	Crew Tes	st to tur	n
Other Equipme	<u>ent</u>	(delete wl	hen lost):									Changes	to CRF	or MRI	F:							
Searchligh	nts			Smokescreen: test at -	+ 0								None										

Ships in class: Hatsuharu, Hatsushimo, Wakaba, Yugure (+1943), Ariake (+1943)

still loaded.

• NOTE: Vessel is subject to special critical hit effects if a torpedo mount is lost which is

Special Effects:

Remarks:

• Carries Type 93 "Long Lance" torpedo

Ja	pa	n
L		

Ship name:									ption										R	econ va	lues Day	/: 1	l Night	: 1
Hatsuharu (Type 93 ARMOUR: E Crit. table: Nor	Belt:	, 0	Deck:	0	043 to 1943 CT: 0 . <i>Torpedoes</i>	Turr	ets #1:	0		s #2: n	/a Cas		: n/a					S	ize:	- 2 T	arget Type Savi		MSF:	+ 0
Spotting Distan	nce:	3 RB		F	ire Control	Value: :	1		G	Gunnery M	lodifier:	+ 1								Crew	Quality:			
																				Spott	ing Aircraf	t:		
Hit Location #	!									V	VEAPON	S												
MAIN guns:	#:	Cal:		Arcs:							Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1 - 4	4	5.00	AA	A:T2 C	Ø Z:T2 O	Ø					Pen:	5	3	2	_	_	2	2	No					
	2	5.00	IS	arc. Th	ectors are p lese can be lised. Specia	used on	ce only.	. Cross c	off 'Ø' box															
1	If a w	eapon 'Cr	it' lands	in this s	ection lose	1 ASW o	r CR fac	ctor for e	each 2 C\	or part t	hereof. L	ose fact	ors in o	rder: AS	W then (CRF				CRF:	3		MRF: 0	
OTHER guns:	#:	Cal:		Arcs:							Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	3			
5 - 6			ASW	Z: DC 9	Ω (10cm)															moun	t marked 'A	A' or 'AA-	n MAIN or O +' that is los _RF is reduce	t. When all
TORPEDOES:	#:	Cal:		Arcs:							Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:						
7 -10	6	24.00		[∞] O:	TR3 O®O	O®O					Mod:	+2	+2	+2	(+2)	(+2)	7	9						
ARCS: 7 8 1/2 6 5 4 8 Stern A:	78 1/2 6 3	B: 78 1/2	C: ***	D: 78 1	E: 8 1/2	F: 78	G: ½	H: 78	l: 7 6	GUNS K: 7/6/3	R: <2/3	S: 1/2	T: 7/6/5	U:	$\frac{\sqrt{2}}{\sqrt{3}}$ V: $\frac{7}{6\sqrt{5}}$	 	<u>/2</u> 5 4 ³	X: 🍾	Y: 6/	Z:	7 /2 8 ₅ 4 ³		FORPEDOE	S P: P
Structure (S): Fires:	-	3				 S/3: (All 0			ation (F): penalised	3 if ship is	on fire)				F/3:	1])amage	Control Te	ams:	1	
Speed:	-	33				— ` MVR	_	—	ring #:	5	,				When S	teering	# re	duced		_			w Test to t	urn
Other Equipme	ent -	(delete w	hen lost):						-					Changes	to CRF	or MR	F:						
Searchligh	nts		9	Smokescr	een; test a	t + 0									None									
Special Effects:	:			l is subj	ect to spe	cial criti	ical hit	effects	if a torp	edo mo	unt is lo	st whic	h is		Remarks	:								
		still load	ded.												• Carries • IS opti		3 "Lon	g Land	ce" torped	do				
Ships in class:	Hatsu	ıharu, Hat	sushimo	o, Wakab	a, Yugure ((+1943),	Ariake	(+1943))															

Gun mounts are lost starting with the mounts with least protection in the order of priority shown below, followed by the largest calibre, then by highest number of guns in the mount. (OTHER guns are eliminated at the CV cost shown.)

• O (Open) 1CV • S (Shielded) 2CV • C (Unarmoured Casemate) 3CV • T (Unarmoured Turret) 4CV (* If armour is penetrated in case of mount marked () or ())

Torpedoes are lost starting with the mount with the largest calibre (if there is a choice) followed by the mount with the greatest number of tubes. The cost in CV is equal to the number of tubes.

nip name:				DD 1943 to	10/13	Chir	. Cost w	ith Crew (Code C	: 46	1 (Rac	se Cost:	461)	Dataset:	247				R	econ va	lues [Day:	1 [Night:	1
ARMOUR:	Belt:		Deck:	0 CT:	0	Turret	s #1:	0	Turrets	#2: n	/a Cas	semates	: n/a					S	Size:	- 2 T		ype:	A‰ I row Mo	-	+ 0
Spotting Dista	ance:	3 RB		Fire Co	ntrol Valu	ie: 1			G	unnery M	lodifier:	+ 1									Quality ing Airc	_			
Hit Location	#									V	VEAPON	S													
MAIN guns:	#:	Cal:		Arcs:							Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:						
1 - 4	6	5.00	AA	A:T2 O Z:T	2 00						Pen:	5	3	2	_	_	2	2	No						
	If a w	eapon 'Cr	it' lands	in this section	lose 1 AS	SW or	CR facto	or for ea	ch 2 CV	or part t	hereof. L	ose fact	ors in o	rder: AS\	W then (CRF				CRF:	3		MRF:	0	
OTHER guns:	#:	Cal:		Arcs:							Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	3		_		
5			ASW	Z: DC Ω (100	cm)															mount	t marked	ctor for ead in the contract of the contract o	A+' that	is lost.	When all
TORPEDOES:	#:	Cal:		Arcs:							Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:							
6 -10	8	24.00		[∞] O:TR4 (ORO OR	O					Mod:	+2	+2	+2	(+2)	(+2)	7	9							
ARCS:						=======				GUNS								=====					TORPE	DOES	
7 8 1 2 Bow 6 5 4 3 Stern	$\lambda : \frac{7^8 \frac{1}{2}}{6} \frac{3}{3}$	B: 78 1/2	C: 📲 1	D: 78 1 E:	$F: \frac{7}{6}$	G:	1/2/3	H: 78	l: 7/6	K: 7/2/3	R: <2/3	S: 1/2	T: 7/8/5	U: ﴿	$\sqrt{\frac{2}{3}}$ $V:\frac{7}{6\sqrt{5}}$	₩:	5 4 ³	X: /5	Y: 5/5	Z: ½	2 5 4 ³	и:[= 1	N: 📄	0: 🕌	P:
Structure (S):		4				S/3:	1	Flotati	ion (F):	4					F/3:	1	1								
Fires:						(All Cr	ew Test	⊒ ts are pe	nalised	if ship is	on fire)				L		1		D	amage (Control	Teams:	1		
Speed:		35				MVR:	6	Steeri	ng #:	6					When S	Steering	# re	duce	d to 0 the	en the s	hip requ	uires a C	rew Tes	t to tur	'n
Other Equipm	<u>ent</u>	(delete w	hen lost):				_							Changes	to CRF	or MR	F:							
Searchlig	jhts		:	Smokescreen;	test at +	0									None										
Special Effect	s:			l is subject to	special	critic	al hit e	effects i	f a torp	edo mo	unt is lo	st whic	h is		Remarks	s:									
		still load	aed.												• Carries	Type 93	3 "Lon	ıg Lan	ce" torped	0					

Japan

Ships in class: Kagero (+1943), Kuroshio (+1943), Oyashio (+1943), Hatsukaze (+1943), Yukikaze, Maikaze, Isokaze, Shiranui, Amatsukaze, Tokitsukaze (+1943), Urakaze, Hamakaze, Nowaki, Arashi (+1943), Hagikaze (+1943), Tanikaze

Ship name: Kagero Class	n		_	DD 1943 to 1943	_ '	IS option with Crew Code C	: 518	- `	e Cost:		Dataset:	3667			0.			lues [1 Night	
	Belt: <i>rmal;</i>		eck: _ <i>tacked i</i>	_0		0 Turrets	<u> </u>	_	emates: k <i>ets, A/</i>			ze			Size	e:	- 2	arget Ty Sa		A‰ MSF: row Modifie	-
Spotting Distar	-			Fire Control \		*	iunnery Modi	-										Quality ing Airc			
Hit Location #	#						WEA	PONS	5												
MAIN guns:	#:	Cal:		Arcs:				Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV: F	Radar:					
1 - 5	6	5.00	AA	A:T2 OØ Z:T2 OØ	ØOØ			Pen:	5	3	2	_	_	2	2	No					
	3	5.00	IS	2 AA factors are pr arc. These can be when used. Specia	used once only.	Cross off 'Ø' box															
<u> </u>	Ifaw	eapon 'Cri	t' lands	in this section lose 1	ASW or CR fac	tor for each 2 CV	or part there	eof. Lo	se facto	ors in o	rder: AS	W then 0	CRF				CRF:	3		MRF: 0	
OTHER guns:	#:	Cal:		Arcs:				Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV: F	Radar:	LRF:	3			
6 - 7			ASW	Z: DC Ω (10cm)													mount	t marked	l 'AA' or 'A	 ach MAIN or C A+' that is los e LRF is reduc	st. When all
TORPEDOES:	#:	Cal:		Arcs:				Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:						
8 -10	8	24.00		[∞] O:TR4 O®O	O®C			Mod:	+2	+2	+2	(+2)	(+2)	7	9						
ARCS:	=====			=======================================			GUNS		=-==-		: :::: :	=========		-====			======		.===.==	TORPEDO	.—. —. —. ES
7 8 1 2 Bow Stern A	$\frac{781/2}{6\sqrt{3}}$	B: 718 1/2	C: 🔱	D: 78 E: 8 2 F	: 18 G: 1/2 3	$H: \frac{\gamma^8}{6}$ $I: \frac{7}{6}$	K: 7/3 R:	$\frac{\sqrt{2}}{3}$	S: \(\frac{1/2}{4^3} \)	T: 7 6/5	U: Å	$V: \frac{7}{6}$	W:	$\sqrt{\frac{2}{5 4^3}}$	(: ∕\$}\	Y: 6/5	$Z:\frac{7}{6}$	2 3 3 N	Л: <mark>]=</mark> П	N:	P: P
												_ <i></i> _ 「		1							
Structure (S):		4			_ S/3: 1	Flotation (F):		e\				F/3:	1]		_		C	T	_	
Fires:		35			MVR: 6	Stooring #:	•	rire)				When	tooring	# rod	ucod +				Teams:	1	turn
Speed: Other Equipme	ent .	(delete wh	nen loct	١٠	_ PIVK: 0	Steering #:	6					Changes	_			.0 0 1116	ai uie Si	nip requ	mes a Cl	rew Test to	tufff
Searchligh		(delete Wi). Smokescreen; test at	+ 0							None	W CIN	OI PIINI							
Special Effects		• NOTE:		l is subject to spec		effects if a torn	edo mount	is los	t whic	h is		Remarks	:								

Ships in class: Kagero (+1943), Kuroshio (+1943), Oyashio (+1943), Hatsukaze (+1943), Yukikaze, Maikaze, Isokaze, Shiranui, Amatsukaze, Tokitsukaze (+1943), Urakaze, Hamakaze, Nowaki, Arashi (+1943), Hagikaze (+1943), Tanikaze

still loaded.

• Carries Type 93 "Long Lance" torpedo

IS option

																				Japan
Ship name:															R	econ va	lues D	ay:	1 Night:	1
Kamikaze Class ARMOUR: Be Crit. table: Norm		Deck:	DD 1943 to 1943	Turrets #1:	rith Crew Code C n/a Turrets s), Bombs, Stand	#2: n/a	Casem		n/a	_	3144 ee			S	iize:	- 2 7	arget Ty Sa		MSF:	+ 0
Spotting Distance	e: 3 RB		Fire Control V	alue: 1	G	unnery Modifie	r: +	0								Crew	Quality:			
	-			-												Spott	ing Aircr	aft:		
Hit Location #						WEAP	ONS													
MAIN guns: #	: Cal:		Arcs:			Н	t#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1 - 5 3	4.70	AA	A:S1 O K:S1 O Z:	S1 O		F	en:	4	3	1	_	_	1	2	No					
	a weapon 'C	Crit' land	s in this section lose 1	ASW or CR fact	or for each 2 CV	or part therec	f. Lose	e facto	rs in or	der: AS\	W then 0	CRF				CRF:	2		MRF: 0	
OTHER guns: #	: Cal:		Arcs:			Н	t#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	2			
6 - 7		ASW	Z: DC Ω (10cm)													moun	t marked	'AA' or 'AA	th MAIN or Ol A+' that is lost LRF is reduce	. When all
TORPEDOES: #	: Cal:		Arcs:			— — — — H	t#: I	— — I:14	II:17	III:19	IV:20	V:21	IP:	CV:						
8 -10 4	21.00)	0:TT2 OO			M	od:	+1	+1	+0	_	_	4	6						
ARCS:						GUNS	======	=======================================	.======			1	.==.=	====					TORPEDOES	
7 8 1/2 Bow A: 78 6/6 5 4 3 Stern	$B: \frac{7^{8} \frac{1}{2}}{3}$	C: 🖖	D: 78 1 E: 8 1/2 F:	$\frac{7^8}{6}$ G: $\frac{\frac{1}{2}}{3}$	$H: \frac{7^8}{65}$ $I: \frac{7}{6}$	K: 7/2 R:	⟨2 /3 S:	5: \frac{1/2}{4^3}	T: 7/6/5	U: ﴿	½ V: 7 65	W:	5 4 ³	X: /s	Y: 6/2	Z:-	7 <u>2</u> M	:: 🔚 N:	: n O:	P: P
- (a)					7						c F									
Structure (S):	3			_ S/3: 1	Flotation (F):		`				F/3:	1			_		o	-		
Fires:	27			- ` —	ts are penalised	•	=)				When C	'toorin-	# "	du aca		_	Control ⁻		1	LIKE .
Speed:	37 (delete)	uban las	+ \.	MVR: 5	Steering #:						When S Changes	_			i to u th	en thê s	nip requ	ires a cre	ew Test to t	ип
Other Equipment Searchlights	` `		ι): Smokescreen: test at	+ 0							None	W CKF	OI PIRT	•						

Remarks: None

Special Effects:

Ships in class: Asakaze, Asanagi, Harukaze, Hatakaze, Kamikaze, Matsukaze, Oite, Yunagi

Ship name:																					F	Recon va	alues	Day:	1	Night:	1
Yugumo Class ARMOUR: Crit. table: No	Belt: ormal;		Deck:	0	043 to 1943 CT: 0 . <i>Torpedoe</i>	Tui	rrets 7	#1:		urrets		1/a Cas	semat	: 471) es: n <i>A/s Gui</i>	/a		1818 e			9	Size:	- 2	Targe	et Type: Saving		MSF: Modifier:	+ 0
Spotting Dista	ance:	3 RB		F	ire Control	Value:	1			Gı	unnery I	Modifier:	+ 1									Crew	v Qua	ility:			
	,																					Spot	ting A	Aircraft:			
Hit Location	#										,	WEAPON	S														
MAIN guns:	#:	Cal:		Arcs:								Hit#:	I:6	II:	9 I	II:12	IV:15	V:18	IP:	CV:	: Radar:	:					
1 - 4	6	5.00	AA	A:T2 C	Z:T2 OC)						Pen:	5	3		2	_	_	2	2	No						
	If a v	veapon 'Cr	it' lands	in this se	ection lose	1 ASW	or CR	facto	r for each	1 2 CV	or part	thereof. L	ose fa	ctors ir	orde	r: ASV	W then (CRF		-		CRF:	3		MF	RF: 0	
OTHER guns:	#:	Cal:		Arcs:								Hit#:	I:6	II:	9 I	II:12	IV:15	V:18	IP:	CV:	: Radar:	: LRF:	4			-	
5			ASW	Z: DC 9	Ω (10cm)																	mour	nt mar	ked 'AA' o	or 'AA+' t	AIN or OTH hat is lost. V is reduced	When all
TORPEDOES:	#:	Cal:		Arcs:								Hit#:	I:1	II:	L7 I	II:19	IV:20	V:21	IP:	CV:	- — — - :						
6 -10	8	24.00		[∞] O:	TR4 O®O	ORO						Mod:	+2	+2	2	+2	(+2)	(+2)	7	9							
ARCS:	======			=-==-	=======================================	.===.=		.==.=		=======	GUNS	 ;	======	=====			=-==-						=====		TOF	RPEDOES	
7 8 1 2 Bow 6 5 4 3 Stern	$A: \frac{78}{6} \frac{1/2}{3}$	B: 78 1/2	C: ***	D: 78 1	E: 8 1/2 3	F: 78	G:	¹ / ₂ ⊦	l: 78 l:	7 6	K: 7/2	- R: <\frac{2}{3}	S:	½ T: 1 /3	5	U: 🥳	$\frac{\sqrt{2}}{\sqrt{3}}$ V: $\frac{7}{6\sqrt{5}}$	W:	/ _{5 4} 3	X: /	∱ Y: <u>,</u>	Z:	7 /2 6/5 4 ³	M: =	N:	O: ₩	P:
Structure (S):		4					3: [1	Flotation	n (F):	4						F/3:	1									
Fires:						(All	Crew	Tests	are pena	alised i	f ship is	on fire)					<u>.</u>		1			Damage	Cont	rol Team	ıs: 1		
Speed:	,	35				MV	R:	6	Steering	g #:	6						When 9	Steering	j # re	duce	d to 0 th	nen the s	ship r	equires a	Crew 7	Test to tur	n
Other Equipm	<u>nent</u>	(delete wh	hen lost):			-		₫								Changes	to CRF	or MR	F:							
Searchlig	ghts		9	Smokescr	reen; test a	at + 0											None										
Special Effect	s:			l is subj	ect to spe	ecial cri	itical	hit ef	fects if a	a torp	edo mo	ount is lo	st wh	ich is			Remarks	s:									
		still load	ded.														• Carries	Type 9	3 "Lon	g Lan	ce" torpe	do					

Japan

Ships in class: Yugumo (+1943), Akigumo, Kazekumo, Makikumo (+1943), Makinami (+1943), Naganami, Tamanami, Suzunami (+1943), Onami (+1943), Fujinami, Kishinami, Hayanami, Kiyonami (+1943), Okinami, Hamanami, Asashimo

																			Japan
Ship name:					IS option									Re	econ va	lues D	ay:	1 Night	: 1
Yugumo Class			ı	DD 1943 to 1943 Ship Cost with	Crew Code C : 538	(Base	e Cost:	538)	Dataset:	3661									
ARMOUR: Crit. table: No	Belt: ormal;		eck: [tacked i	0 CT: 0 Turrets #1: by: Guns, Torpedoes, MRF (s/t applies),	0 Turrets #2: n/a Bombs, Standoff Weapo			: n/a 's Guns,	_	re			Size	: [- 2 ⊤	arget Ty Sa		MSF: row Modifie	+ 0 + 0
Spotting Dista	nce:	3 RB		Fire Control Value: 1	Gunnery Mod	difier:	+ 1								Crew	Quality:	!		
															Spott	ing Aircr	aft:		
Hit Location	#				WE	APONS	5												
MAIN guns:	#:	Cal:		Arcs:		Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV: Ra	adar:					
1 - 4	6	5.00	AA	A:T2 OØ Z:T2 OØOØ		Pen:	5	3	2	_	_	2	2	No					
	3	5.00	IS	2 AA factors are provided by each morarc. These can be used once only. Crowhen used. Special AA rules apply if to	ss off 'Ø' boxes above														
	If a w	/eapon 'Cri	t' lands	in this section lose 1 ASW or CR factor	for each 2 CV or part the	ereof. Lo	se fact	ors in o	der: AS	V then C	RF				CRF:	3		MRF: 0	
OTHER guns:	#:	Cal:		Arcs:		Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV: Ra	adar:	LRF:	4			
5			ASW	Z: DC Ω (10cm)											mount	marked	'AA' or 'A	- ch MAIN or C A+' that is los LRF is reduc	st. When all
TORPEDOES:	#:	Cal:		Arcs:		Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:						<u> </u>
6 -10	8	24.00		[∞] O:TR4 O®O O®O		Mod:	+2	+2	+2	(+2)	(+2)	7	9						
ARCS:		=======================================	=======		GUNS	=====	======		.==.==.=	=======		.===			=======		======	TORPEDOE	.
7 8 1 2 Bow Stern	$\lambda : \frac{78}{6} \frac{1/2}{3}$	B: 78 1/2	C: 🖖	D: 1 E: 1 F: 1 G: 1 H:	$\begin{array}{c c} Y_{5}^{8} & & : \frac{7}{6} \\ \hline y_{5}^{1} & & : \frac{7}{6} \\ \end{array}$	R: <2/3	S: \(\frac{1/2}{4^3} \)	T: 7/6/5	U: ﴿	$\frac{\sqrt{2}}{3}$ $V:\frac{7}{6/5}$	W:	\(\frac{2}{5\angle 3}\)	X: ∕₅∱₄	Y: 6/5	$Z:\frac{7}{6}$	2 5 4 3	l: 🔚 N	l: 🔐 O: [‹	P: P
	,									-									
Structure (S):	_	4			Flotation (F): 4					F/3:	1								
Fires:	-				are penalised if ship is on	i fire)										Control ⁻		1	
Speed:		35			Steering #: 6									0 the	en the s	hip requ	iires a Cr	ew Test to	turn
Other Equipm		(delete wh		,						Changes	to CRF	or MKF:							
Searchlig Special Effects		• NOTE:		Smokescreen; test at + 0 I is subject to special critical hit effe	acts if a tornedo moun	t is los	t whic	h ic		None Remarks									

Ships in class: Yugumo (+1943), Akigumo, Kazekumo, Makikumo (+1943), Makinami (+1943), Naganami, Tamanami, Suzunami (+1943), Onami (+1943), Fujinami, Kishinami, Hayanami, Kiyonami (+1943), Okinami, Hamanami, Asashimo

• NOTE: Vessel is subject to special critical hit effects if a torpedo mount is lost which is

Special Effects:

still loaded.

• Carries Type 93 "Long Lance" torpedo

IS option

nip name:																R	econ va	alues D	ay:	0 Ni	ght: 0	į
	Belt: ormal;	0 Deck:	DDT 1943 to 1943	Turret	s #1:	th Crew Code C n/a Turret <i>S), Bombs, Stal</i>	s #2: n /	/a Case		n/a	_	3182 ze			Si	ize:	- 2	Target Ty Sa		A‰ Manrow Mod		
Spotting Dista	nce:	3 RB	Fire Control V	alue: 1			Gunnery M	odifier:	+ 0								Crew	V Quality:				
																	Spot	ting Aircr	aft:			
Hit Location a	#						W	/EAPONS	5													
MAIN guns:	#:	Cal:	Arcs:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP: (CV:	Radar:						
1 - 3	2	4.70	A:S1 O Z:S1 O					Pen:	4	3	1	_	_	1	2	No						
	Ifav	weapon 'Crit' land	ds in this section lose 1	ASW or	CR facto	or for each 2 C	V or part th	hereof. Lo	se fact	ors in o	rder: AS	W then C	RF				CRF:	3		MRF:	0	. — —
OTHER guns:	#:	Cal:	Arcs:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP: (CV:	Radar:	LRF:	0				
4 - 5		ASV	V Z: DC Ω (10cm)																	_		
TORPEDOES:	#:	Cal:	Arcs:					Hit#:	I:14	II:17	III:19	IV:20	V:21	IP: (CV:							. — —
6 -10	6	24.00	0:TT3 OO					Mod:	+1	+1	+1	(+0)	_	6	7							
ARCS:	===		.==.==.==.==.=				GUNS				.==.=			======				 -	 -	TORPE	OES	
7 8 1 2 Bow A	$\lambda: \frac{7}{6} \times \frac{1}{2}$	B: 78 1/2 C: 81	D: \(\frac{\dagger{8}}{9} \) E: \(\frac{8}{3} \) F:	. 78 G:	1/2 3	$-1:\frac{7^8}{6}$ $1:\frac{7}{6}$	K: 7/6 /3	R: <2/3	S: 1/2/3	T: 7/6/5	U: f	$\sqrt{\frac{2}{3}}$ $V:\frac{7}{6}$	W: ,	(2 5 4 ³)	(: ∕₅∫	Y: 6/5	Z:-	7 /2 6/5 4 ³]=	N: 🔒 (D: ₩ P): [
Structure (S):		2		_ S/3:	1	Flotation (F)	: 2					F/3:	1									
Fires:				(All Cre	ew Test	s are penalised	d if ship is o	on fire)				_				D	amage	Control T	eams:	1		
Speed:		37		MVR:	5	Steering #:	5					When S	teering	# redu	uced	to 0 the	en the s	ship requi	res a C	rew Test	to turn	
Other Equipm	<u>ent</u>	(delete when lo	st):			-						Changes	to CRF	or MRF:								
Searchlig	lhts		Smokescreen; test at	+ 0								None										
Special Effects	s:											Remarks	:									

None

Japan

Gun mounts are lost starting with the mounts with least protection in the order of priority shown below, followed by the largest calibre, then by highest number of guns in the mount. (OTHER guns are eliminated at the CV cost shown.)

• O (Open) 1CV • S (Shielded) 2CV • C (Unarmoured Casemate) 3CV • T (Unarmoured Turret) 4CV (* If armour is penetrated in case of mount marked { } or ())

Torpedoes are lost starting with the mount with the largest calibre (if there is a choice) followed by the mount with the greatest number of tubes. The cost in CV is equal to the number of tubes.

Ships in class: No.25 ex-Uzuki, No.27 ex-Satsuki, No.28 ex-Minazuki, No.29 ex-Fumizuki, No.30 ex-Nagatsuki (+1943), No.32 ex-Mikazuki (+1943), No.33 ex-Mochizuki (+1943), No.34 ex-Yuzuki

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Ship name: H	onol	lulu																R	econ va	lues Da	y: 3	3 Nigh	t: 1
Brooklyn (1st group) ARMOUR: E Crit. table: Nor	Belt:	6 [Deck:	3	3 to 1943 CT: 6 <i>Torpedoes,</i>	Turrets #		Turrets	s #2: n/ a	a Cas	e Cost: emates	965) : n/a	Dataset:	2734			S	Size:	+ 0 T	arget Typ Sav		MSF W Modifie	
Spotting Distar	nce:	4 RB		Fir	e Control Va	alue: 3		(Gunnery Mo	difier:	+ 1								Crew	Quality:			
RADAR:	-	Radar fo	r MAIN (Guns		Radar	for OTHE	R Guns			DPAA R	adar: +	1 to hit						Spott	ing Aircra	ft: 2		
Hit Location #									W	EAPONS	5												
MAIN guns:	#:	Cal:		Arcs:						Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1 - 5	15	6.00		A:[T3] (OO K:[T3]	O Z:[T3] O	0			Pen:	6	4	3	2	_	4	3	Yes					
	If a w	eapon 'Cr	rit' lands	in this se	ction lose 1	CR factor for	each 2 C	V or part	thereof.										CRF:	8		MRF: 0	
OTHER guns:	#:	Cal:		Arcs:						Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	7		Aircraft sa	ive at -2
6 -10	8	5.00	AA+	I:01 O	000 R:01	0000				Pen:	4	2	1	_	_	3	2	Yes	moun		A' or 'AA	+' that is lo	OTHER gun st. When all ced to 0.
TORPEDOES:																							
						1.5551.5551.5551.5			·				· 									.===.==	.
ARCS: 7 8 1 2 Bow A: 6 5 4 3 Stern	78 1/2 6 3	B: 78 1/2	C: *\frac{1}{\sqrt{1}}	D: 78 1	E: \(\frac{8\frac{1}{2}}{3}\) F:	78 G: 4	$\frac{2}{3}$ H: $\frac{7}{6}$	l: 7	GUNS $K: \frac{7}{6} \stackrel{2}{\checkmark_3}$	R: <2/3	S: 1/2	T: 7/6/5	U: f	$\frac{\sqrt{2}}{\sqrt{3}}$ V: $\frac{7}{6\sqrt{6}}$	W:	5 43	X: _{/5}	∱ <u>}</u> Y: √	Z: 2	M:		FORPEDO	'
Structure (S):	J	23				_ S/3:	8 Flot	ation (F):						F/3:	4	1							
Fires:	-					, -,		` '	if ship is o	n firo\				1/3.	_	ļ		D	amage (Control Te	amei	2	
Speed:	-	33				- · —		ering #:	9	11 1110)				When 9	Steering	# re	duce		_	hip require			turn
Other Equipme	nt.	(delete w	han loct\			_ ITVIX.	J Stee	ziiig π.							to CRF			u to o tin	cii uic s	riip requir	es a cie	w rest to	tuiii
Searchligh		(delete Wi	•		Smokescree	en; test at - 2	2							None	o co cita	01 1110	•						
Special Effects:			(optional)	SHORESCIEC	in test at	_							Remarks	s:								
Special Effects	•													None									

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mit	20	Sta	TOC
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hip name:	St Lo	uis																	R	econ va	lues Da	ay:	3 Nig	ht: 1
rooklyn (2nd grou ARMOUR: Crit. table: No	Belt:	6	Deck:	3 C		Turrets	#1:		Turrets) Cas	e Cost: emates	999) : n/a	Dataset:	3810			S	Size:	+ 0 T	arget Typ Sav		A MS	
Spotting Dista	nce:	4 RB		Fire	Control Valu	ie: 3			G	unnery Mo	odifier:	+ 1								Crew	Quality:			
RADAR:	,	Radar fo	r MAIN	Guns		Rada	ar for C	OTHER (Guns			DPAA R	adar: +	1 to hit						Spott	ing Aircra	ıft: 2		
Hit Location	#									W	EAPONS	5												
MAIN guns:	#:	Cal:		Arcs:							Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1 - 5	15	6.00		A:[T3] O) K:[T3] O	Z:[T3]	00				Pen:	6	4	3	2	_	4	3	Yes					
	If a v	veapon 'Cr	rit' lands	in this sect	ion lose 1 Cl	R factor	for eac	ch 2 CV	or part	thereof.										CRF:	8		MRF: ()
OTHER guns:	#:	Cal:		Arcs:							Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	7		Aircraft s	save at -2
6 -10	8	5.00	AA+	I:(T2) OC) R:(T2) ()()					Pen:	4	3	2	_	_	4	2	Yes	moun		AA' or 'AA	+' that is l	OTHER gun ost. When all uced to 0.
TORPEDOES:																								
ARCS: $ \begin{array}{c c} 78 & 12 & \text{Bow} \\ \hline 65 & 43 & \text{Stern} \end{array} $	A: 78 1/2 6 3	B: 7 ⁸ / ₂	C: 811	D: 78 1 E	8 1/2 F: 78	G:	¹ ⁄ ₃ ⊢	1: 78 6/5	l: 7/6	GUNS $K: \frac{7}{6} \underbrace{\binom{2}{3}}_{3}$	R: <2/3	S: 1/2	T: 7/6/5	U: ﴿	$\frac{\sqrt{2}}{\sqrt{3}}$ V: $\frac{7}{6\sqrt{5}}$	W:	5 43	X: /s	Y: <u>6/</u>	Z: (M:	n:	TORPEDO:	
Structure (S):		24				S/3:	8		ion (F):						F/3:	4								
Fires:						` –				if ship is o	n fire)									•	Control To			
Speed:		33				MVR:	9	Steeri	ng #:	9						_			d to 0 th	en the s	hip requir	res a Cre	ew Test to	turn
Other Equipm		(delete w	•	•											Changes	to CRF	or MRI	F:						
Searchlig			(Optional) S	mokescreen	; test at	- 2								None									
Special Effects	5:														Remarks	S:								
															None									

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nip name:																R	econ va	lues Da	y:	1 Night:	1
agley Class ARMOUR: Belt Crit. table: Norma		Deck:	DD 1943 to 1943	Turret	s #1:	th Crew Code (Turre), Bombs, Sta	ets #2: n/	a Case	emates:	n/a		2748 ze			Si	ize:	- 2 T	arget Typ	e: A	Search Radar % MSF: w Modifier:	+ 1
Spotting Distance	3 RB		Fire Control V	alue: 1			Gunnery Mo	odifier:	+ 1								Crew	Quality:			
RADAR:	Radar f	or MAIN	Guns					I	DPAA R	adar: +	1 to hit						Spott	ing Aircra	ft:		
Hit Location #							w	EAPONS	5												
MAIN guns: #:	Cal:		Arcs:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1 - 3 4	5.00	AA+	A:S1 OO Z:01 OO)				Pen:	4	3	2	_	_	3	2	Yes					
If a	weapon 'C	Crit' lands	s in this section lose 1	ASW or	CR facto	or for each 2 (CV or part th	ereof. Lo	se fact	ors in o	rder: AS\	N then C	RF				CRF:	3		MRF: 0	
OTHER guns: #:	Cal:		Arcs:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	5		Aircraft save at	: -2
4 - 5		ASW	Z: DC Ω Ω (10cm)														mount	: marked 'A	AA' or 'AA	h MAIN or OTHER +' that is lost. WI LRF is reduced to	hen all
TORPEDOES: #:	Cal:		Arcs:					Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:					- — — — — -	
6 -10 16	21.00)	N:TT4 OO P:TT4	OC				Mod:	+0	-1	-2	_	_	7	9						
ARCS:					======	T	GUNS	======	======		-==-==	=======	-==-=-	====	=====					TORPEDOES	======
7 8 1 2 Bow A: 78 8	$B: \frac{7^{\frac{1}{2}}}{3}$	C: 🖖	D: 78 1 E: 81/2 F	7 ⁸ 5 G	$\frac{\frac{1}{2}}{3}$	H: 78 I: 7	$K: \frac{7}{6} \underbrace{\sqrt{\frac{2}{3}}}_{3}$	R: <2/3	S: \(\frac{1/2}{4^3} \)	T: 7/6/5	U: ﴿	$V: \frac{7}{6/5}$	W: ,	5 4 3	X: 🍂	Y: 6/5	Z: 7	M:	∏ N:	O: 🔐	P: 😭
6 (6)				- 6/0		1						T									
Structure (S):	4			S/3:	1	Flotation (F		G)				F/3:	1			_		Ct			
Fires:				_ `	sw rest	s are penalise		n fire)				Whan C	ha a ulua	# 40	مار ، مم ما		_	Control Te			
Speed:	39			MVR:		Steering #:							_			to u the	en the s	nip require	es a Cre	ew Test to turn	
Other Equipment	(delete v		,	•								Changes	to CRF ()F MKI	F:						
Searchlights			Smokescreen; test at	+ 0								None									
Special Effects:												Remarks									
Shins in class: Bad	ılev. Helm.	. Muaford	d, Ralph Talbot, Henle	v (+1943	3), Patte	rson						None									

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nson/Gleaves Class ARMOUR: Belt Crit. table: Norma		Deck:	0 CT:			0 Tu			_			_	e			S	ize:	- 2 T	arget Typ	e: A	Search Radar Mo MSF: + ow Modifier: +
Spotting Distance:	3 RB		Fire Co	ntrol Value:	1		Gur	nery Mod	ifier:	+ 1								Crew	Quality:		
RADAR:	Radar fo	or MAIN	Guns						Г	DPAA R	adar: +	1 to hit						Spott	ing Aircra	ft:	
Hit Location #								WE	APONS												
MAIN guns: #:	Cal:		Arcs:						Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:				
1 - 4 4	5.00	AA+	A:T1 OO Z:	:S1 OO					Pen:	4	3	2	_	_	4	2	Yes				
If a	weapon 'C	rit' lands	in this section	lose 1 ASW	or CR fac	or for each	2 CV o	r part ther	reof. Lo	se facto	ors in or	der: AS\	V then C	RF				CRF:	3		MRF: 0
OTHER guns: #:	Cal:		Arcs:						Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	5		Aircraft save at -2
5 - 6		ASW	Z: DC Ω Ω Ω	! (10cm)														moun	t marked 'A	AA' or 'AA	th MAIN or OTHER (A+' that is lost. Whe
TORPEDOES: #:	Cal:		Arcs:						Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:					
7 -10 10	21.00		O:TT5 OO						Mod:	+0	-1	-2	_	_	7	9					
ARCS:		.===.==	=======================================	=======================================	=-==-			GUNS	T		:==:=:	.===.==	=-==-	.====-	=====	====	=======	=-==-		=-==-	TORPEDOES
$ \begin{array}{c cccc} 7 & 1 & 2 & \text{Bow} \\ \hline 6 & 5 & 4 & \text{Stern} \end{array} $	$B: \frac{r^{8} \frac{1}{2}}{3}$	C: 🖖	D: 78 1 E: \(\frac{7}{6} \)	8 1/2 F: 78 6	G: \(\frac{1/2}{3}	H: 78 I:	<u>7</u> ∕ ₅ I	$A: \frac{7}{6} \stackrel{2}{\checkmark 3} R$: <2/3	S: \(\frac{1/2}{4^3} \)	T: 75/5	U: ﴿	$\sqrt{\frac{2}{3}}$ $V:\frac{7}{6\sqrt{5}}$	W: ,	5 4 3	X: 🍂	Y: 6/5	Z: 2	M:	j N	O: F
Structure (S):	4				3: 1	Flotation	- ı (F):	4					F/3: 「	1							
Fires:				, (All	Crew Tes	 ts are pena			fire)				, F				D	amage	Control Te	eams:	1
Speed:	35			` MV	R: 5	Steering	#:	5	,				When S	teering	# red	duced		_			ew Test to turn
Other Equipment	(delete w	hen lost	:):		<u> </u>		_						Changes	to CRF o	or MRI	F:					
Searchlights			Smokescreen;	test at + 0									None								
Special Effects:													Remarks	:							
													None								

Gun mounts are lost starting with the mounts with least protection in the order of priority shown below, followed by the largest calibre, then by highest number of guns in the mount. (OTHER guns are eliminated at the CV cost shown.)

• O (Open) 1CV • S (Shielded) 2CV • C (Unarmoured Casemate) 3CV • T (Unarmoured Turret) 4CV • {C} (Armoured Turret)* 4CV (* If armour is penetrated in case of mount marked { } or ())

Torpedoes are lost starting with the mount with the largest calibre (if there is a choice) followed by the mount with the greatest number of tubes. The cost in CV is equal to the number of tubes.

Wilkes, Nicholson, Swanson

United S	States
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spouling Distance	3 RB		Fire Control Va	lue: 1		(Gunnery Mo	difier:	+ 1								Crew	Quality:	
RADAR:	Radar fo	MAIN Guns	_						DPAA R	adar: +	1 to hit						Spotti	ng Aircraft:	:
Hit Location #							WE	EAPONS	S										
MAIN guns: #:	Cal:	Arcs	:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:			
1 - 4 4	5.00	AA+ A:T	1 00 Z:T1 00					Pen:	4	3	2	_	_	4	2	Yes			
If a	weapon 'Cr	t' lands in th	is section lose 1 A	ASW or	CR fact	or for each 2 C	or part the	ereof. Lo	ose facto	ors in or	der: ASV	V then CR	F				CRF:	4	MRF: 0
OTHER guns: #:	Cal:	Arcs	:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	5	Aircraft save at -2
5 - 7		ASW Z: I	DC Ω Ω Ω (10cm)														mount	marked 'AA'	for each MAIN or OTHER gur ' or 'AA+' that is lost. When a ost the LRF is reduced to 0.
TORPEDOES: #:	Cal:	Arcs						Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:			. — — —	
8 -10 5	21.00	0:7	TT5 ()					Mod:	+0	-1	-2	_	_	7	9				
ARCS:			.==.==.==.	.===.			GUNS				.=========	T				=======			TORPEDOES
8 1 2 Bow A: 78 5 Stern	B: 78 1/2	C: 8 1 D: 7 6	B1 E: 8 1/2 F: 7	G	: \(\frac{1}{2}\)	$H: \frac{\gamma^8}{6}$ $I: \frac{7}{6}$	K: 7/3	R: <2/3	S: \(\frac{1/2}{4^3} \)	T: 7/6/5	U: 🙀	$\frac{\sqrt{2}}{3}$ V: $\frac{7}{6\sqrt{5}}$	W: /s	√2 3 ³	X: ∕₅∱₄	Y: 6/5	$Z:\frac{7}{6}$	M: M:	N:
					_	7	4					F/3:	1						
Structure (S):	4			S/3:	1	Flotation (F):										D	amage (Control Too	_
• ,	4				ew Test	Trotation (F): ts are penalised		n fire)									urriage (Jona de la	ms: 1
Fires:	35				ew Test			n fire)				When Ste	eering a	# red	luced		_		ms: 1 s a Crew Test to turn
Fires: Speed:		nen lost):		(All Cr		is are penalised	if ship is or	n fire)				When Ste	_				_		
Structure (S): Fires: Speed: <u>Other Equipment</u> Searchlights	35	,	escreen; test at +	(All Cr		is are penalised	if ship is or	n fire)					_				_		

Ships in class: Bristol (+1943), Ellyson, Hambleton, Rodman, Emmons, Macomb, Woodworth, Forrest, Fitch, Corry, Hobson, Aaron Ward (+1943), Buchanan, Lansdowne, Lardner, McCalla, Mervine, Quick, Farenholt, Bailey, Carmick, Doyle, Endicott, McCook, Frankford, Bancroft, Boyle, Champlin, Meade, Murphy, Parker, Caldwell, Coghlan, Frazier, Gansevoort, Gillespie, Hobby, Kalk, Kendrick, Laub, Mackenzie, McLanahan, Nields, Ordronaux, Davison, Edwards, Glennon, Jeffers, Maddox (+1943), Nelson, Baldwin, Harding, Satterlee, Thompson, Welles, Cowie, Knight, Doran, Earle, Butler, Gherardi, Herndon, Shubrick, Beatty (+1943), Tillmann, Stevenson, Stockton, Thorn, Turner

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Ship name:													Re	econ va	lues Day:	1	Night: 1
Fletcher Class ARMOUR: Belt: Crit. table: Normal;		DD 1943 to 1943 :: 0 CT: 0 ed by: Guns, Torpedoes,	Turrets #1:	0 Turrets #	2: n/a Case		620) : n/a		2762	See belo	w for	_	jes to CRI ize:		arget Type:	Α	mSF: +1 Modifier: n/a
Spotting Distance:	3 RB	Fire Control Va	alue: 1	Gur	nnery Modifier:	+ 1								Crew	Quality:		
RADAR:	Radar for MA	AIN Guns			1	DPAA R	adar: +:	1 to hit						Spott	ing Aircraft:		
Hit Location #					WEAPONS	3											
MAIN guns: #:	Cal:	Arcs:			Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:				
1 - 4 5	5.00 AA	A+ A:T1 OO K:T1 O	Z:T1 OO		Pen:	4	3	2	_	_	4	2	Yes				
	weapon 'Crit' la	nds in this section lose 1	ASW or CR factor	for each 2 CV o	r part thereof. Lo	se fact	ors in or	der: AS\	W then C	RF				CRF:	4	MI	RF: 0
OTHER guns: #:	Cal:	Arcs:			Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	6	A	ircraft save at -2
5 - 6	AS	SW Z: DC Ω Ω Ω (10cm)											mount	t marked 'AA'	or 'AA+' t	IAIN or OTHER gun that is lost. When all is reduced to 0.
TORPEDOES: #:	Cal:	Arcs:			Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:					
7 -10 10	21.00	0:TT5 OO			Mod:	+0	-1	-2	_	_	7	9					
ARCS: 7 8 1/2 Bow 6 3 \$\frac{7}{5} 4^3 Stern A: $\frac{7^8}{6}$ 3	B: 1/2 C: \(\frac{1}{2}\)	D: ** E: *** F:	7 ⁸ G: ^{1/2} / ₃ H:	7 ⁸ 1: ⁷ / ₆	GUNS $K: \frac{7}{6} \stackrel{\textstyle 2}{\checkmark 3} R: \stackrel{\textstyle 2}{\checkmark 3}$	S: \(\frac{1/2}{4^3}	T: 7/6/5	U: ﴿	√2 V: 7 √3 V: 6/5	· W: ,	5 A 3	X: ∕₅ĵ.	Y: 6/5	Z: 7/6	M: M	<u></u>	RPEDOES O: P: P:
Structure (S): Fires:	6		S/3: 2 (All Crew Tests	Flotation (F): are penalised if					F/3:	2				amage (Control Tear	ms: 2	2
Speed:	38		MVR: 6	Steering #:	6				When S	teering	# red	luced	to 0 the	en the s	hip requires	a Crew	Test to turn
Other Equipment	(delete when	lost):		-					Changes	to CRF c	r MRF	:					
Searchlights Special Effects:	Note that	Smokescreen; test at the armoured hull me		p cannot be e	ngaged by MRF	·.			• CRF ind •• (Revis Remarks	ed ship o				[Base co	ost = 623])		
China in alaas V		:l							None								
Ships in class: VeryWartime losses:	large number	III Class															

Gun mounts are lost starting with the mounts with least protection in the order of priority shown below, followed by the largest calibre, then by highest number of guns in the mount. (OTHER guns are eliminated at the CV cost shown.)

• O (Open) 1CV • S (Shielded) 2CV • C (Unarmoured Casemate) 3CV • T (Unarmoured Turret) 4CV (* If armour is penetrated in case of mount marked { } or ())

Torpedoes are lost starting with the mount with the largest calibre (if there is a choice) followed by the mount with the greatest number of tubes. The cost in CV is equal to the number of tubes.

(+1943): Chevalier, Strong, De Haven, Brownson

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nip name:																				R	econ va	lues	Day:	1 Nigh	nt: 1
idley Class ARMOUR: Bel <i>Crit. table: Norma</i>			k:	DD 1943 to 1 O CT: [Dy: Guns, Torpe	0	Turret	s #1:	0	ew Code (Turre ombs, Sta	ts #2:		Case	emates	n/a					S	iize:	- 2 T	arget -	Туре:	s Search R A‰ MSF nrow Modifie	: +1
Spotting Distance	: 3 R	В		Fire Co	ntrol Valu	e: 1				Gunne	ry Mod	ifier:	+ 1								Crew	Qualit	y:		
RADAR:	Rad	ar for M	AIN (Guns								I	DPAA R	adar: +	1 to hit						Spott	ing Air	craft:		
Hit Location #											WE	APONS	5												
MAIN guns: #:	: C	al:		Arcs:								Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1-3 4	5.	00 A	\ A+	A:T1 OO Z::	S1 00							Pen:	4	3	2	_	_	3	2	Yes					
If a	a weapo	n 'Crit' l	ands	in this section	lose 1 AS	W or	CR fact	tor for	each 2 (CV or pa	art the	reof. Lo	se fact	ors in o	rder: AS	W then (CRF				CRF:	3		MRF: 0	
OTHER guns: #:	: C	al:		Arcs:								Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	5		Aircraft s	ave at -2
4 - 5	ASW Z: DC Ω Ω (10cm)																	LRF loses 1 factor for each MAIN or OTHER gui mount marked 'AA' or 'AA+' that is lost. When a such mounts are lost the LRF is reduced to 0.			ost. When all				
TORPEDOES: #:	- — — :	al:		Arcs:				-				Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:					<u> </u>	
6 -10 16	5 2:	1.00		N:TT4 OO F	P:TT4 OC)						Mod:	+0	-1	-2	_	_	7	9						
ARCS:			=====			=.==.:					JNS				:===:=			.===-=	====					TORPEDO	ES
7 8 1 2 Bow A: 78 5 Stern	$\frac{\frac{1}{2}}{3}$ B:	8 <mark>1/2</mark> C:	8 ↓¹∕	D: 78 1 E: 8	$F:\frac{7}{6}$	G	: 2/2/3	H: 78 65	l: 7	K: 7	<mark>∕2</mark> R	: 42/3	S: 1/2	T: 7/6/5	U:	$\sqrt{\frac{2}{3}}$ $V:\frac{7}{6\sqrt{5}}$	W: ,	5 4 ³	X: 🖍	Y: 6/4	Z: {	$\frac{\sqrt{2}}{\sqrt{5}}$	М: 🟣	N: O:	P: P
Charles (C)	_					C/2.	1	7	tation (F)							г/э. Г	1								
Structure (S): Fires:	4					S/3:			penalise		n is on	firo)				F/3:	-			Ь	amago i	Contro	l Teams:		
Speed:	39					MVR:	5 Ew 163		ering #:	-	p is oii	iiie)				When S	teering	# ro	ducec		_			rew Test to	turn
Other Equipment		te wher	lost'	١٠		I IVIX.		316	cilly #.							Changes	_				en uie S	inp rec	quii es a C	LEW LEST TO	tuili
Searchlights	(ucic	te wrier		,. Smokescreen; t	oct at ± 1	1										None	to citi t	01 1111							
Special Effects:				morescreen, t	.cs. at T	,										Remarks	:								
opeciai Erices.																None	•								
Ships in class: Gri	idley, Cr	aven, M	IcCall	, Maury																					

_	eat			•
r-r	225	ĸĸ	173	
G 11	=aL	DI.	ILO	

Ship name:	Leand	der (RNZ	ZS)														Re	econ va	lues Day:	1	Night	: 1
Leander Class ARMOUR: Crit. table: N	Belt:	4 [Can be at	Deck:	1943 to 1943 3 CT: 0 by: Guns, Torpedoes, 1	Turrets #	#1: [h Crew Code B [1] Turrets Weapons, Ro	s #2: n/ a	Case	e Cost: emates	665) : n/a	Dataset:	1971			S	Size:	-1 T	arget Type:	Α	earch Ra MSF: v Modifier	+ 0
Spotting Dist	ance:	4 RB		Fire Control Va	lue: 2		(Gunnery Mo	difier:	+ 1								Crew	Quality:			
RADAR:		Radar fo	r MAIN	Guns	Rada	r for C	THER Guns											Spott	ing Aircraft:			
Hit Location	#							WE	APONS	5												
MAIN guns:	#:	Cal:		Arcs:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:					
1 - 4	8	6.00		A:[T2] OO Z:[T2] (OC				Pen:	6	4	3	1	_	3	2	Yes					
	If a w	veapon 'Cr	it' lands	in this section lose 1	CR factor f	or eac	h 2 CV or part	thereof.										CRF:	3	N	MRF: 0	
OTHER guns	: #:	Cal:		Arcs:					Hit#:	I:6	II:9	III:12	IV:15	V:18	IP:	CV:	Radar:	LRF:	5		Aircraft sav	ve at -2
5 - 7	8	4.00	AA+	I:S2 OO R:S2 OO					Pen:	4	2	1	0	_	2	1	Yes	mount	ses 1 factor f t marked 'AA' mounts are lo	or 'AA+	' that is los	t. When all
TORPEDOES:	#:	Cal:		Arcs:					Hit#:	I:14	II:17	III:19	IV:20	V:21	IP:	CV:						
8 -10	8	21.00		N:TT4 O P:TT4 O					Mod:	+1	+1	+1	_	_	7	9						
ARCS: 7 8 1/2 Bow 6 3 Stern	A: $\frac{7^8 \frac{1}{2}}{6}$ 3	B: 78 1/2	C: ***	D: ** E: ** F:-			: 7 : 7	GUNS K: 7 / 2 8 / 3	R: <2/3	S: \(\frac{1}{\sqrt{2}}	T: 7 6 5	U: ﴿	$\frac{\sqrt{2}}{\sqrt{3}}$ $V:\frac{7}{6\sqrt{5}}$	W: ,	5 4 3	X: /s	Y: _{6/8}	Z: 7	M: M		ORPEDOE O:	S P:
Structure (S)	: .	15			S/3:	5	Flotation (F):						F/3:	3							_	
Fires:					· –		are penalised	•	n fire)									_	Control Tea	_	3	
Speed:		33			MVR:	8	Steering #:	8						,			d to 0 the	en the s	hip requires	a Crew	lest to t	urn
Other Equipn		(delete w		•		_							Changes	to CRF (or MRF	-:						
Searchlig	_		((Optional) Smokescree	n; test at -	- 2							None									
Special Effect	ts:												Remarks	:								
													None									