

# SHIP POINT REBALANCE MOD

By **Entoch** - Version 0.9.0

# Instruction Manual

## Introduction

This modification to the Victory at Sea system is meant to rebalance the points values of the ships **for competitive play**, through the mathematical expression of each ship's combat capabilities. It is meant to complement the VaS rulebook Fleet Lists and is **not** in any way shape or form official or endorsed by Warlord Games. That said, I am hoping that this Ship Point Rebalance Mod (henceforth SPRM) will be accepted by the community for e.g. tournament play, given the mathematics-based approach adopted; and I am therefore releasing this PDF for use by any Victory at Sea gamer, under the following license:

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Please be advised that the SPRM is an **ongoing project** and has by no means achieved 'perfect balance'. The importance of individual ship traits, weapon characteristics and other ship stats is likely to change, as new tactics are discovered and implemented; and individual ship stats may change as Warlord Games rebalances their ships / corrects errata etc. This **will** affect the SPRM ship costs.

The SPRM is using the Warlord Games ship statistics as they are printed in version 1.0 of the main rulebook; I have only corrected stats where there are clear (to my mind) indications of typographical errors and **not** where there are doubts about historical accuracy. For this version, this includes:

#### 0.9.0 Stats changes

1. All Type 93 Japanese torpedoes have been given the 'Wakeless' trait.
2. Kent-class cruisers (RN) have been given a 3+ armor belt



#### 0.8.5 Stats changes

1. The AP values of the IJN Ise-class BBs: they are now +1 in both versions of the ship
2. The stats of the Kuma / Kitakami class cruiser: they are rationalized based on their historical loadouts and un-jumbled

These corrections may be reversed or added to, pending the release of Warlord Games' FAQ / Errata list.

The SPRM has yet to publish ship refits or Coastal Craft. I am working on it, but the refits in particular are a major undertaking. For the time being, I recommend that the Warlord Games refit point modifications are used with SPRM values; in most cases, they correspond to my projected refit points, especially with regards to AA improvements.

## Under the Hood

SPRM works by assuming that each ship contributes to the battle by adding its own HP to the allied HP 'pool' and using its weapons to subtract from the enemy HP 'pool'. The sum of these two contributions serves as the core of the new values, modified extensively by ship and weapon characteristics that influence ship survivability or weapon destructiveness. I would like to note that part of the system of how weapons scores are calculated (namely some trait modifiers) was inspired by similar work by user **Pyrrhus** on the  [Community] Victory at Sea  Discord server.

Yes – this means that the SPRM **can** be used to generate custom ship designs, and those ship designs **will** be point-balanced to the rest of the Fleet Lists.

## How to Use

For surface combat ships, SPRM does not change how fleet points work in any meaningful way – all it does is propose an alternative cost value.

For Carriers, the system changes significantly:

**The flight complement of the carrier is no longer part of the base carrier cost.** Instead, the player must buy the flight complement separately: any number and type of carrier-capable flights, up to the maximum number of flights that can be carried by the flattop in question.

You will note that, in the aircraft lists, two values are given: ‘Carrier-Based’ (if the flight can operate from a carrier) and ‘Land-Based’ (for all aircraft). If you are buying aircraft as part of a carrier’s flight group, please use the ‘Carrier-Based’ cost. Add all the values of the flights to the base cost of the carrier and round (up or down) to the nearest 5.

### Examples:

*IJN Chitose* has a base ship cost of 75 points and may carry up to 7 flights. The IJN player wishes to bring her to battle as a CAP carrier, with a heavy fighter complement, to defend their fleet.

They pay 75 points for the carrier and add 7 AGM2 “Zero” flights to her complement. The AGM2 costs 14 points when operating from a carrier, thus the player pays  $7 \times 14 = 98$  points, rounded to 100. The total cost for the fully equipped flattop therefore comes to 175 points.

Assuming they wished to bring a strike-focused package instead, they could select e.g. 4 Kates and 3 Vals. This would bring the complement cost to  $4 \times 12 = 48$  points for the Kates and  $3 \times 8 = 24$  points for the Vals, a total of 72 points rounded to 70. The total cost of the carrier with its flight group would be 145 points – cheaper, but with no air superiority units whatsoever.

You will note that this increases carrier costs **significantly** (especially if you bring fully-stocked flattops) but it does reflect the effectiveness of aircraft in a .

### 0.9.0: Carrier Rework

Following feedback in 0.8.5, carriers have been reworked in two ways:

1. **The calculation of the hull values of a carrier has changed.** The hull itself now only provides 80% of the points an equivalent surface ship would provide, as carriers might spend the entire game off-map and never engage the enemy with the actual hull. On the other hand, each carrier now pays an additional point penalty depending on the number of flights they can operate. This penalty increases with significantly diminishing returns as the number of planes carried by the flattop also increases.

This penalty or ‘carrier tax’ forms a large part of the hull cost of small carriers, but a much smaller part (percentage wise) of a large carrier’s hull. This means that small carriers are now significantly less cost-effective than they used to be in comparison to fleet carriers:

### Cost Effectiveness of Carriers as aircraft platforms (low red bar = good)

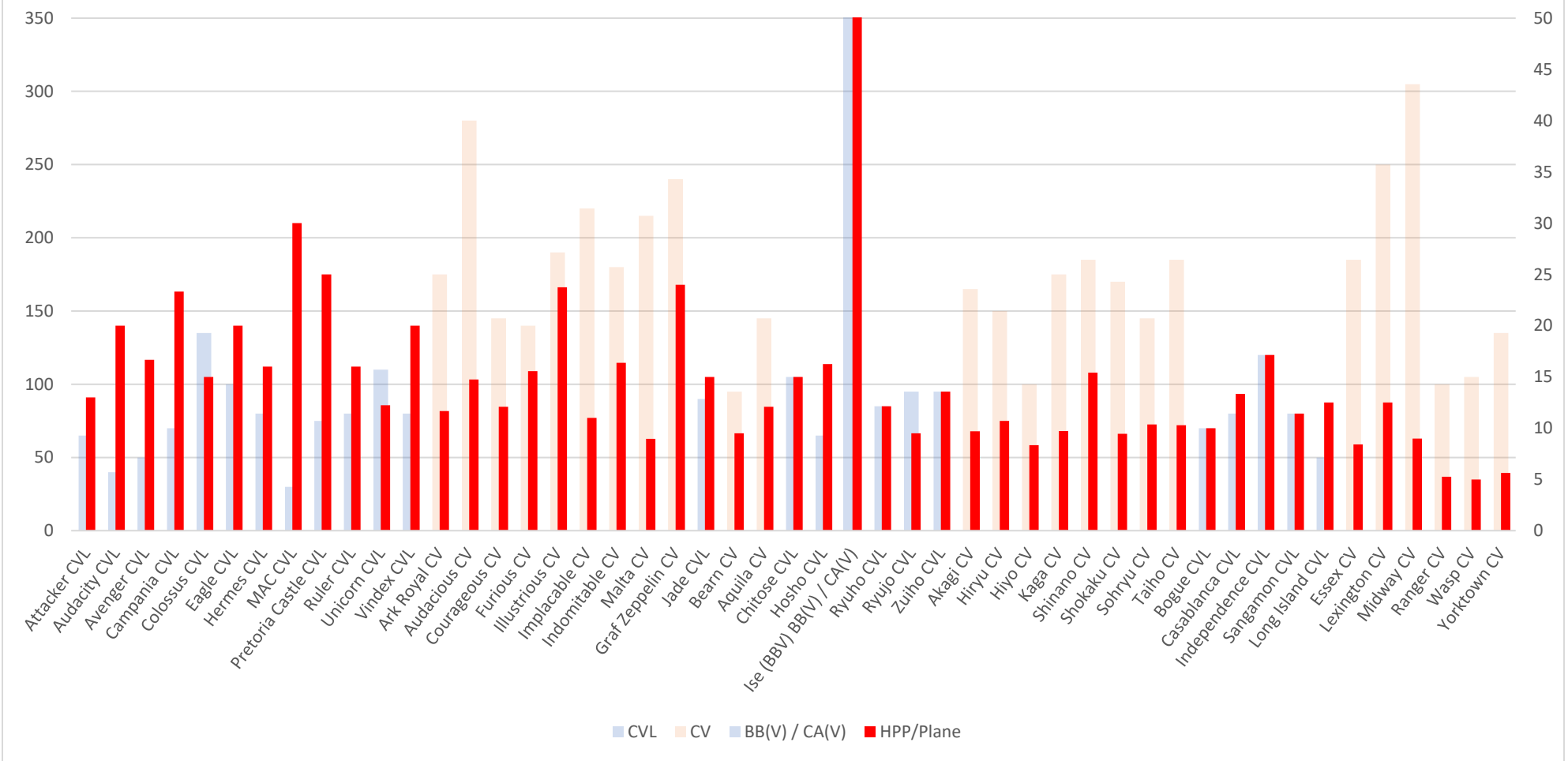


Figure 1: HPP Chart

[Figure 1] presents us with all carrier-capable ships in the game. The main axis on the left shows the point cost of their hull; the secondary axis on the right is the carriers' Hull Points per Plane score. This latter score is an indication of a carrier's cost-effectiveness as a plane-carrying platform – i.e. how many hull points this particular carrier is 'paying' to bring one flight to the battle. Low HPPp scores are **good**.<sup>1</sup>

You will note that large fleet carriers (beige) are considerably more cost effective (their average HPPp is lower) than the smaller CVLs (light blue). This is because multiple CVLs can launch several planes every turn, bringing their flight complement into the fight faster; in contrast, CVs bring more planes for their hull cost, but require either multiple turns or heavy investment in scouting to launch their entire complement.

**Note:** the relatively high HPPp cost of the Royal Navy fleet carriers is a result of their pre- / early-war small complements and directly reflects their real-world poor cost-effectiveness as plane haulers. **Once they are refitted to their enlarged hangar configuration, their HPPp drops significantly to 'normal' CV levels**, but they still remain relatively more expensive per-plane than their USN and IJN counterparts, ships that focused on plane capacity over e.g. armor.

Thus, in a small game, a player might choose to limit themselves to land-based air. Alternatively, if they desire a heavier air wing, they might purchase a CVL, which will provide them with reduced cost-efficiency overall (since the price of the carrier will need to be paid in addition to that of the planes), but will allow additional planes to be brought in, in addition to its own flight group. In a larger game, a player might bring one or more fleet carriers (supported by a fleet of scouting ships and aircraft), or a flotilla of smaller CVLs, that will launch their planes quickly and without necessitating extensive scouting.

This leads us to the second change that has taken place:

2. **Carrier-based planes are now significantly cheaper than their land-based counterparts.** To be precise, carrier-based aircraft (CBA) are now worth 50% the price of their land-based aircraft (LBA) equivalents. This does not mean that a fully stocked carrier is always cheaper than buying the equivalent planes as LBA, as the carriers themselves also represent a significant investment. On the other hand, this system *greatly* rewards purchasing the most expensive and most capable aircraft for your flattops, as the point reduction for CBA quickly snowballs.

Thus, whereas CVLs will always be less cost-effective than LBA (since they can typically have their entire complement in the air by turn 4, while *also* enabling further LBA reinforcements) because of their small air group size, large CVs will be significantly more cost-effective, especially if equipped with late-war, top-of-the-line aircraft. A British CV filled with Barracuda DBs, or a USN Midway loaded up with Hellcats and Dauntlesses or Helldivers **can** be cheaper than directly purchasing the flights themselves, while *also* enabling further LBA reinforcements. Of course, such ships will also require a substantial investment in scouting to get their money's worth out of their flight group; do not deploy a CV without a capable supporting task force!

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<sup>1</sup> Note that HPPp *only* represents the carrier's cost-effectiveness *in carrying aircraft*. It does NOT under *any* circumstances indicate all aspects of the carrier's capability as a warship (i.e. how fast it is, how tough it is, how heavy its AA armament is etc), and should *not* be interpreted as the sum total of a carrier's combat capability. It simply one of many yardsticks you can use to decide what your ship selection will be.

### Comparison of Carrier Cost to that of their CAG if it had been purchased as LBA

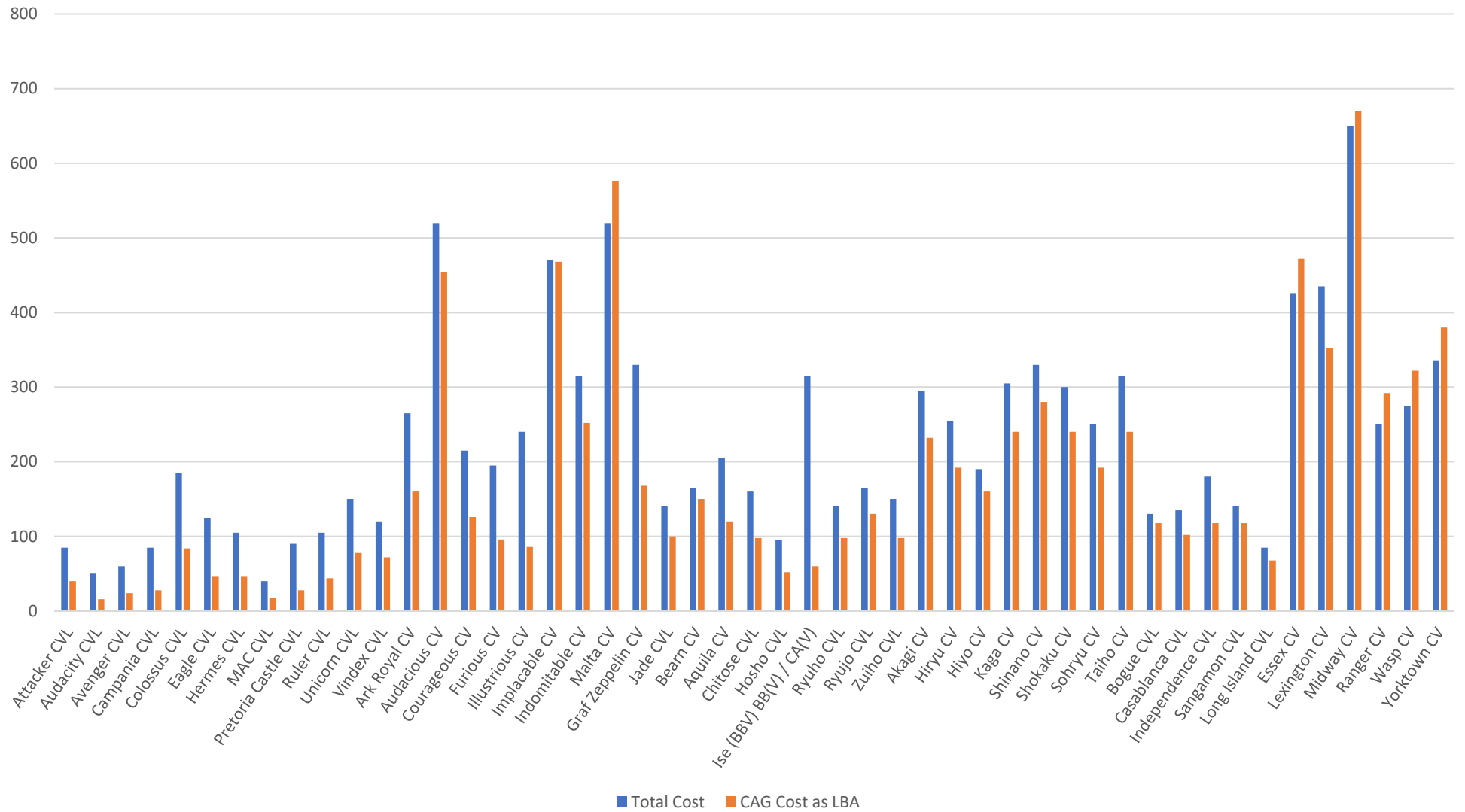


Figure 2: Comparison of the cost of Carriers to their equivalent CAG in LBA

[Figure 2] shows us this relation between total carrier cost and its CAG cost as LBA. If the orange bar is higher than the blue one, it is more cost effective to buy the carrier instead of purchasing the flights as individual LBA. Note that the point values are calculated based on the sample CAGs offered with the points lists, and different CAGs can be more or less cost-effective; **the more expensive planes you put on a flattop, the more cost-effective you make your flight group.**

Also, please note that the Royal Navy mid-war carriers are, once again, hampered in this chart because of a) their considerably more rugged construction involving armor decks and heavy Local AA that drives their hull cost up; b) their smaller hangars during the early war. Once these hangars are expanded with their latewar (1943/1944) refits, they become considerably more cost-effective. In addition, many of the provided CAGs bring cheap, outdated Swordfish; replace those with e.g. Barracuda torpedo or dive bombers in 1943 for a more cost-effective loadout.

### **Testing**

Some characteristics are easy to balance through hard math; for instance, a gun that inflicts 3 damage dice is worth 1.5 as much as an otherwise identical gun that inflicts 2 damage dice. Other characteristics are **not** as easy to balance. I am constantly fine-tuning the modifiers applied by weapon and ship traits and would love your feedback. The more you fine people play based on this system, and the more you let me know how the battles went, the better SPRM will become – so, please, provide as much feedback with your tabletop experiences as you can, and stand by for future SPRM releases.

# ROYAL NAVY

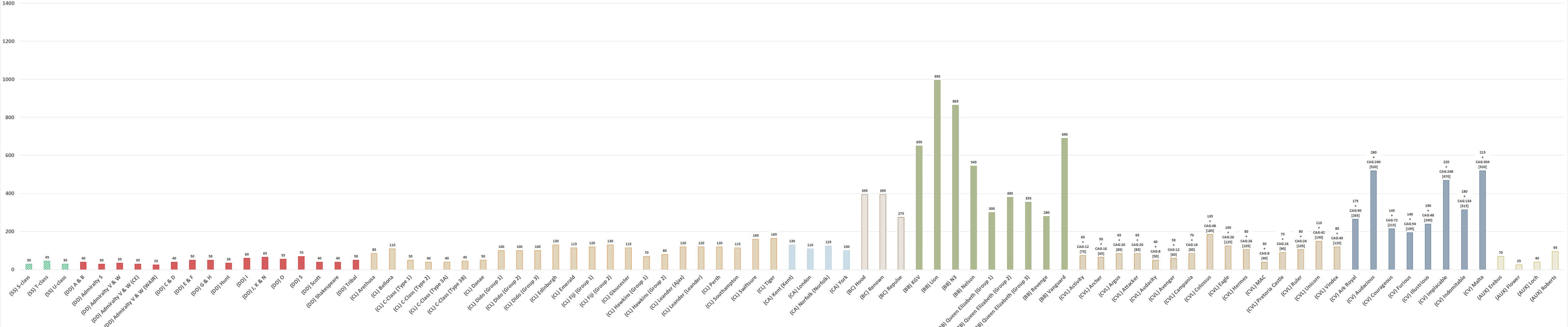
Name	Points Cost (Ship)	Points Cost (CAG)	TOTAL COST	Sample CAG
(SS) S-class	30	0	30	-
(SS) T-class	45	0	45	-
(SS) U-class	30	0	30	-
(DD) A & B	40	0	40	-
(DD) Admiralty S	30	0	30	-
(DD) Admiralty V & W	35	0	35	-
(DD) Admiralty V & W (CE)	30	0	30	-
(DD) Admiralty V & W (WAIR)	25	0	25	-
(DD) C & D	40	0	40	-
(DD) E & F	50	0	50	-
(DD) G & H	50	0	50	-
(DD) Hunt	35	0	35	-
(DD) I	60	0	60	-
(DD) J, K & N	65	0	65	-
(DD) O	55	0	55	-
(DD) S	70	0	70	-
(DD) Scott	40	0	40	-
(DD) Shakespeare	40	0	40	-
(DD) Tribal	50	0	50	-
(CL) Arethusa	85	0	85	-
(CL) Bellona	110	0	110	-
(CL) C-Class (Type 1)	50	0	50	-
(CL) C-Class (Type 2)	40	0	40	-
(CL) C-Class (Type 3A)	40	0	40	-
(CL) C-Class (Type 3B)	45	0	45	-
(CL) Danae	50	0	50	-
(CL) Dido (Group 1)	100	0	100	-
(CL) Dido (Group 2)	100	0	100	-
(CL) Dido (Group 3)	100	0	100	-
(CL) Edinburgh	130	0	130	-
(CL) Emerald	115	0	115	-
(CL) Fiji (Group 1)	120	0	120	-
(CL) Fiji (Group 2)	130	0	130	-
(CL) Gloucester	115	0	115	-
(CL) Hawkins (Group 1)	70	0	70	-
(CL) Hawkins (Group 2)	80	0	80	-
(CL) Leander (Ajax)	120	0	120	-
(CL) Leander (Leander)	120	0	120	-
(CL) Perth	120	0	120	-
(CL) Southampton	115	0	115	-
(CL) Swiftsure	160	0	160	-
(CL) Tiger	165	0	165	-
(CA) Kent (Kent)	130	0	130	-
(CA) London	110	0	110	-
(CA) Norfolk (Norfolk)	125	0	125	-
(CA) York	100	0	100	-
(BC) Hood	395	0	395	-
(BC) Renown	395	0	395	-
(BC) Repulse	275	0	275	-
(BB) KGV	650	0	650	-
(BB) Lion	995	0	995	-
(BB) N3	865	0	865	-
(BB) Nelson	545	0	545	-
(BB) Queen Elizabeth (Group 1)	300	0	300	-
(BB) Queen Elizabeth (Group 2)	380	0	380	-



(BB) Queen Elizabeth (Group 3)	355	0	355	-
(BB) Revenge	280	0	280	-
(BB) Vanguard	690	0	690	-
(CVL) Activity	65	12	75	2 x (F) Skua II, 1 x (DB) Skua II
(CVL) Archer	50	16	65	2 x (F) Skua II, 2 x (DB) Skua II
(CVL) Argus	65	20	85	3 x (F) Skua II, 2 x (DB) Skua II
(CVL) Attacker	65	20	85	3 x (F) Skua II, 2 x (DB) Skua II
(CVL) Audacity	40	8	50	2 x (F) Skua II
(CVL) Avenger	50	12	60	3 x (F) Skua II
(CVL) Campania	70	16	85	1 x (F) Skua II, 2 x (TB) Swordfish
(CVL) Colossus	135	48	185	3 x (F) Skua II, 6 x (TB) Swordfish
(CVL) Eagle	100	26	125	2 x (F) Skua II, 3 x (TB) Swordfish
(CVL) Hermes	80	26	105	2 x (F) Skua II, 3 x (TB) Swordfish
(CVL) MAC	30	8	40	1 x (F) Sea Hurricane I/II
(CVL) Pretoria Castle	75	16	90	1 x (F) Skua II, 2 x (TB) Swordfish
(CVL) Ruler	80	24	105	3 x (F) Skua II, 2 x (TB) Swordfish
(CVL) Unicorn	110	42	150	3 x (F) Skua II, 3 x (TB) Swordfish, 3 x (DB) Skua II
(CVL) Vindex	80	40	120	2 x (F) Seafire IIC, 2 x (TB) Barracuda
(CV) Ark Royal	175	90	265	5 x (F) Fulmar I/II, 10 x (TB) Swordfish
(CV) Audacious	280	240	520	7 x (F) Seafire IIC, 6 x (TB) Barracuda, 6 x (DB) Fairey Barracuda
(CV) Courageous	145	72	215	3 x (F) Fulmar I/II, 9 x (TB) Swordfish
(CV) Furious	140	54	195	3 x (F) Fulmar I/II, 6 x (TB) Swordfish
(CV) Illustrious	190	48	240	3 x (F) Fulmar I/II, 5 x (TB) Swordfish
(CV) Implacable	220	248	470	7 x (F) Seafire IIC, 7 x (TB) Barracuda, 6 x (DB) Fairey Barracuda
(CV) Indomitable	180	134	315	4 x (F) Seafire IIC, 4 x (TB) Barracuda, 3 x (DB) Fairey Barracuda
(CV) Malta	215	304	520	8 x (F) Seafire IIC, 8 x (TB) Barracuda, 8 x (DB) Fairey Barracuda
(AUX) Erebus	70	0	70	-
(AUX) Flower	25	0	25	-
(AUX) Loch	40	0	40	-
(AUX) Roberts	95	0	95	-

# Royal Navy Ship Costs

SS DD CL CA BC BB CVL CV AUX

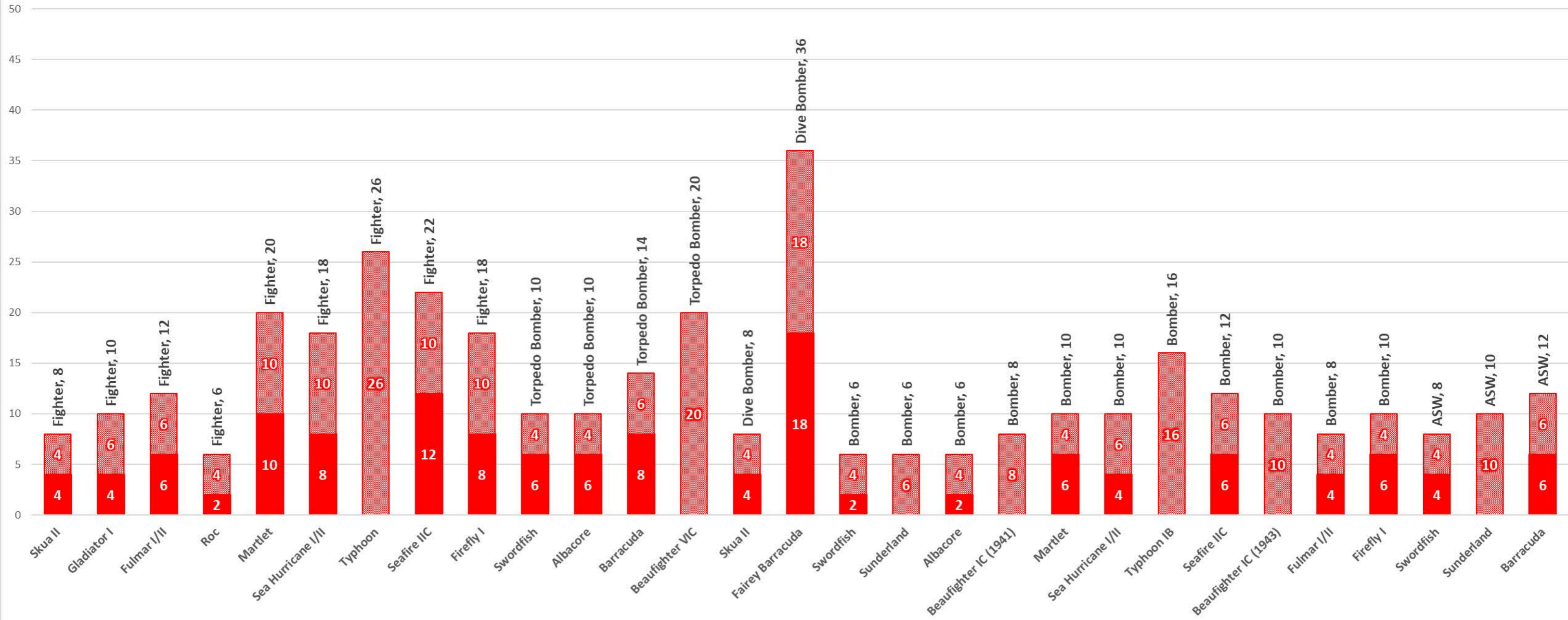


# ROYAL NAVY

Name	CBA	LBA
(F) Skua II	4	8
(F) Gladiator I	4	10
(F) Fulmar I/II	6	12
(F) Roc	2	6
(F) Martlet	10	20
(F) Sea Hurricane I/II	8	18
(F) Typhoon	-	26
(F) Seafire IIC	12	22
(F) Firefly I	8	18
(TB) Swordfish	6	10
(TB) Albacore	6	10
(TB) Barracuda	8	14
(TB) Beaufighter VIC	-	20
(DB) Skua II	4	8
(DB) Fairey Barracuda	18	36
(B) Swordfish	2	6
(B) Sunderland	-	6
(B) Albacore	2	6
(B) Beaufighter IC (1941)	-	8
(B) Martlet	6	10
(B) Sea Hurricane I/II	4	10
(B) Typhoon IB	-	16
(B) Seafire IIC	6	12
(B) Beaufighter IC (1943)	-	10
(B) Fulmar I/II	4	8
(B) Firefly I	6	10
(ASW) Swordfish	4	8
(ASW) Sunderland	-	10
(ASW) Barracuda	6	12

Royal Navy  
Aircraft Costs

Carrier-Based Land-Based



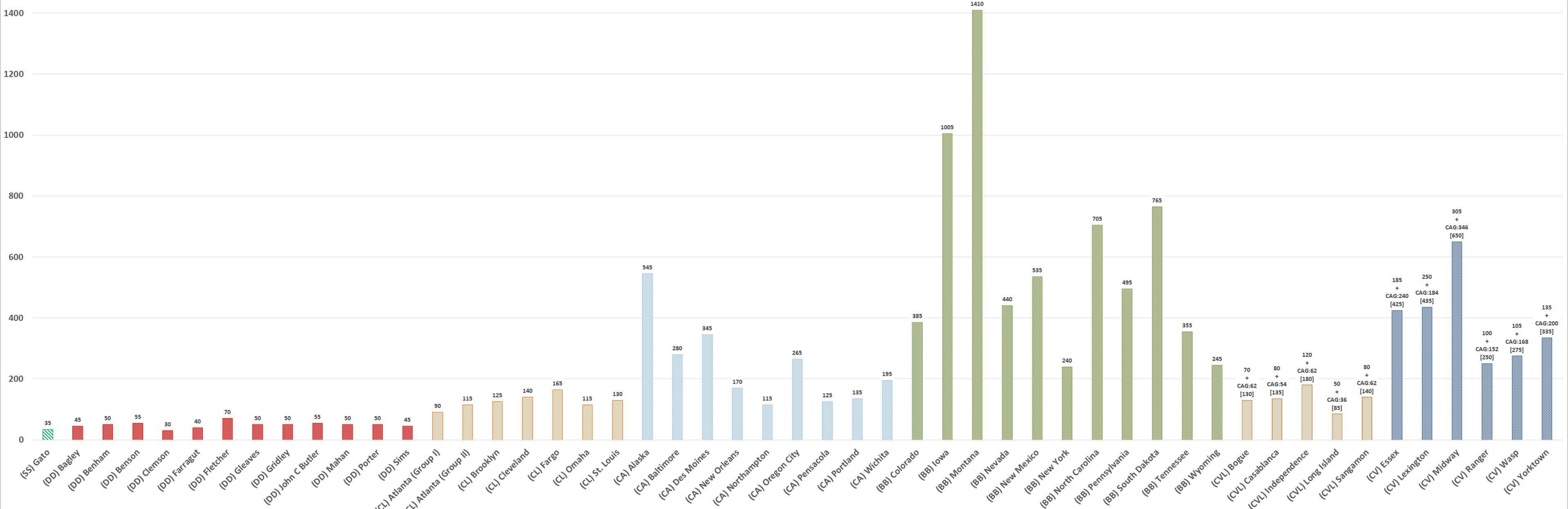
# UNITED STATES NAVY

Name	Points Cost (Ship)	Points Cost (CAG)	TOTAL COST	Sample CAG
(SS) Gato	35	0	35	-
(DD) Bagley	45	0	45	-
(DD) Benham	50	0	50	-
(DD) Benson	55	0	55	-
(DD) Clemson	30	0	30	-
(DD) Farragut	40	0	40	-
(DD) Fletcher	70	0	70	-
(DD) Gleaves	50	0	50	-
(DD) Gridley	50	0	50	-
(DD) John C Butler	55	0	55	-
(DD) Mahan	50	0	50	-
(DD) Porter	50	0	50	-
(DD) Sims	45	0	45	-
(CL) Atlanta (Group I)	90	0	90	-
(CL) Atlanta (Group II)	115	0	115	-
(CL) Brooklyn	125	0	125	-
(CL) Cleveland	140	0	140	-
(CL) Fargo	165	0	165	-
(CL) Omaha	115	0	115	-
(CL) St. Louis	130	0	130	-
(CA) Alaska	545	0	545	-
(CA) Baltimore	280	0	280	-
(CA) Des Moines	345	0	345	-
(CA) New Orleans	170	0	170	-
(CA) Northampton	115	0	115	-
(CA) Oregon City	265	0	265	-
(CA) Pensacola	125	0	125	-
(CA) Portland	135	0	135	-
(CA) Wichita	195	0	195	-
(BB) Colorado	385	0	385	-
(BB) Iowa	1005	0	1005	-
(BB) Montana	1410	0	1410	-
(BB) Nevada	440	0	440	-
(BB) New Mexico	535	0	535	-
(BB) New York	240	0	240	-
(BB) North Carolina	705	0	705	-
(BB) Pennsylvania	495	0	495	-
(BB) South Dakota	765	0	765	-
(BB) Tennessee	355	0	355	-
(BB) Wyoming	245	0	245	-
(CVL) Bogue	70	62	130	4 x (F) Wildcat (1940), 3 x (DB) Dauntless
(CVL) Casablanca	80	54	135	3 x (F) Wildcat (1940), 3 x (DB) Dauntless
(CVL) Independence	120	62	180	4 x (F) Wildcat (1940), 3 x (DB) Dauntless
(CVL) Long Island	50	36	85	2 x (F) Wildcat (1940), 2 x (DB) Dauntless
(CVL) Sangamon	80	62	140	4 x (F) Wildcat (1940), 3 x (DB) Dauntless
(CV) Essex	185	240	425	9 x (F) Corsair IV, 4 x (TB) Avenger, 9 x (DB) Helldiver
(CV) Lexington	250	184	435	8 x (F) Wildcat (1941), 4 x (TB) Devastator, 8 x (DB) Dauntless

(CV) Midway	<b>305</b>	346	<b>650</b>	12 x (F) Corsair IV, 11 x (TB) Avenger, 11 x (DB) Helldiver
(CV) Ranger	<b>100</b>	152	<b>250</b>	7 x (F) Wildcat (1940), 6 x (TB) Devastator, 6 x (DB) Dauntless
(CV) Wasp	<b>105</b>	168	<b>275</b>	7 x (F) Wildcat (1940), 7 x (TB) Devastator, 7 x (DB) Dauntless
(CV) Yorktown	<b>135</b>	200	<b>335</b>	8 x (F) Wildcat (1940), 6 x (TB) Devastator, 10 x (DB) Dauntless

# United States Navy Ship Costs

SS DD CL CA BC BB CVL CV AUX



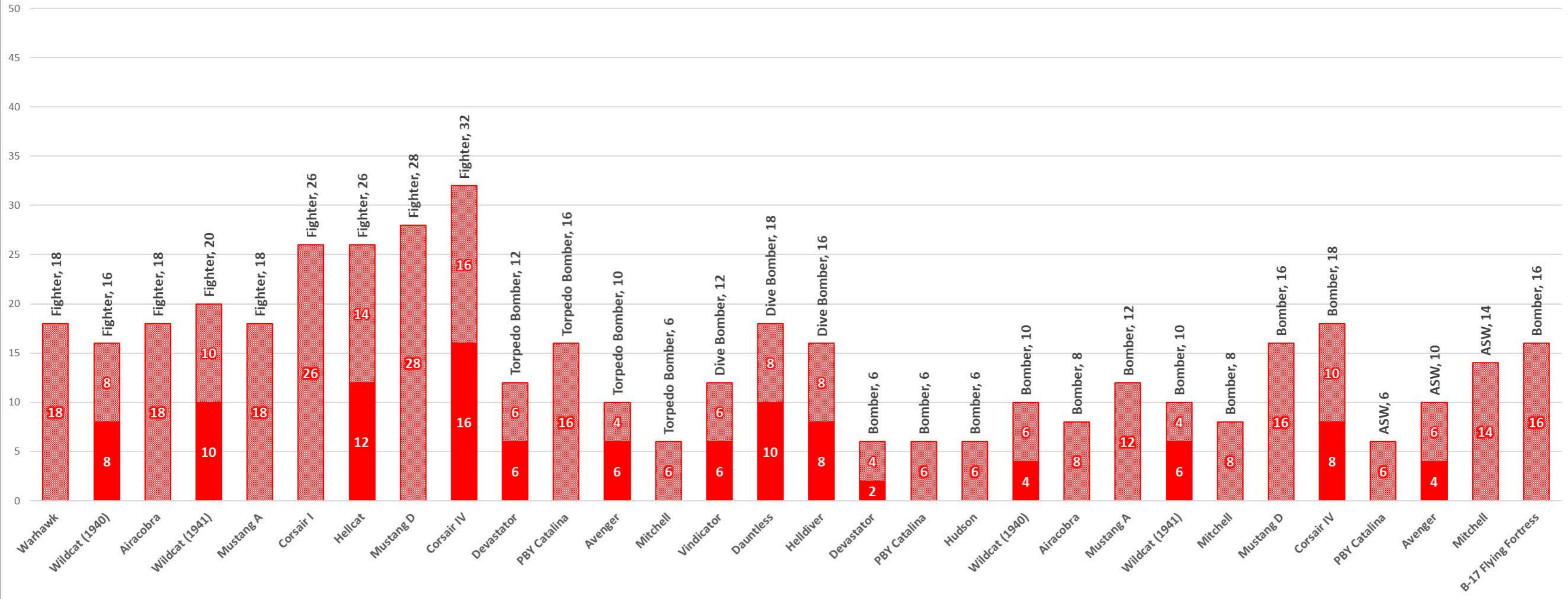
# UNITED STATES NAVY

Name	CBA	LBA
(F) Warhawk	-	18
(F) Wildcat (1940)	8	16
(F) Airacobra	-	18
(F) Wildcat (1941)	10	20
(F) Mustang A	-	18
(F) Corsair I	-	26
(F) Hellcat	12	26
(F) Mustang D	-	28
(F) Corsair IV	16	32
(TB) Devastator	6	12
(TB) PBY Catalina	-	16
(TB) Avenger	6	10
(TB) Mitchell	-	6
(DB) Vindicator	6	12
(DB) Dauntless	10	18
(DB) Helldiver	8	16
(B) Devastator	2	6
(B) PBY Catalina	-	6
(B) Hudson	-	6
(B) Wildcat (1940)	4	10
(B) Airacobra	-	8
(B) Mustang A	-	12
(B) Wildcat (1941)	6	10
(B) Mitchell	-	8
(B) Mustang D	-	16
(B) Corsair IV	8	18
(ASW) PBY Catalina	-	6
(ASW) Avenger	4	10
(ASW) Mitchell	-	14
(B) B-17 Flying Fortress	-	16



United States  
Aircraft Costs

Carrier-Based Land-Based



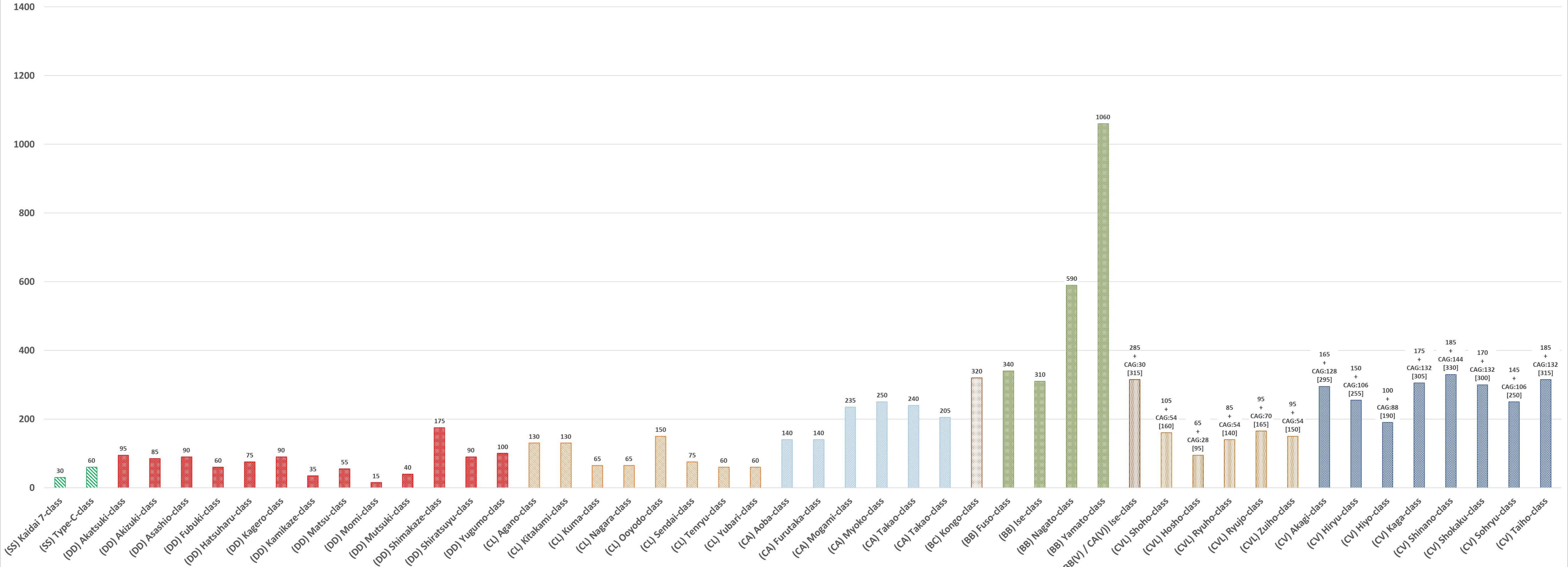
# IMPERIAL JAPANESE NAVY

Name	Points Cost (Ship)	Points Cost (CAG)	TOTAL COST	Sample CAG
(SS) Kaidai 7-class	30	0	30	-
(SS) Type-C-class	60	0	60	-
(DD) Akatsuki-class	95	0	95	-
(DD) Akizuki-class	85	0	85	-
(DD) Asashio-class	90	0	90	-
(DD) Fubuki-class	60	0	60	-
(DD) Hatsuharu-class	75	0	75	-
(DD) Kagero-class	90	0	90	-
(DD) Kamikaze-class	35	0	35	-
(DD) Matsu-class	55	0	55	-
(DD) Momi-class	15	0	15	-
(DD) Mutsuki-class	40	0	40	-
(DD) Shimakaze-class	175	0	175	-
(DD) Shiratsuyu-class	90	0	90	-
(DD) Yugumo-class	100	0	100	-
(CL) Agano-class	130	0	130	-
(CL) Kitakami-class	130	0	130	-
(CL) Kuma-class	65	0	65	-
(CL) Nagara-class	65	0	65	-
(CL) Ooyodo-class	150	0	150	-
(CL) Sendai-class	75	0	75	-
(CL) Tenryu-class	60	0	60	-
(CL) Yubari-class	60	0	60	-
(CA) Aoba-class	140	0	140	-
(CA) Furutaka-class	140	0	140	-
(CA) Mogami-class	235	0	235	-
(CA) Myoko-class	250	0	250	-
(CA) Takao-class	240	0	240	-
(CA) Takao-class	205	0	205	-
(BC) Kongo-class	320	0	320	-
(BB) Fuso-class	340	0	340	-
(BB) Ise-class	310	0	310	-
(BB) Nagato-class	590	0	590	-
(BB) Yamato-class	1060	0	1060	-
(BB(V) / CA(V)) Ise-class	285	30	315	5 x (DB) E16A1 "Paul"
(CVL) Shoho-class	105	54	160	3 x (F) A6M2 "Zero" , 2 x (TB) B5N1 "Kate" , 2 x (DB) D3A1 "Val"
(CVL) Hosho-class	65	28	95	2 x (F) A5M "Claude" , 2 x (TB) B6N "Jill"
(CVL) Ryuho-class	85	54	140	3 x (F) A6M2 "Zero" , 2 x (TB) B5N1 "Kate" , 2 x (DB) D3A1 "Val"
(CVL) Ryujo-class	95	70	165	5 x (F) A6M2 "Zero" , 5 x (DB) D3A1 "Val"
(CVL) Zuiho-class	95	54	150	3 x (F) A6M2 "Zero" , 2 x (TB) B5N1 "Kate" , 2 x (DB) D3A1 "Val"
(CV) Akagi-class	165	128	295	6 x (F) A6M2 "Zero" , 6 x (TB) B5N1 "Kate" , 5 x (DB) D3A1 "Val"
(CV) Hiryu-class	150	106	255	5 x (F) A6M2 "Zero" , 5 x (TB) B5N1 "Kate" , 4 x (DB) D3A1 "Val"

(CV) Hiyo-class	<b>100</b>	88	<b>190</b>	4 x (F) A6M2 "Zero" , 4 x (TB) B5N1 "Kate" , 4 x (DB) D3A1 "Val"
(CV) Kaga-class	<b>175</b>	132	<b>305</b>	6 x (F) A6M2 "Zero" , 6 x (TB) B5N1 "Kate" , 6 x (DB) D3A1 "Val"
(CV) Shinano-class	<b>185</b>	144	<b>330</b>	4 x (F) A6M5 "Zero" , 4 x (TB) B6N "Jill" , 4 x (DB) D4Y "Judy"
(CV) Shokaku-class	<b>170</b>	132	<b>300</b>	6 x (F) A6M2 "Zero" , 6 x (TB) B5N1 "Kate" , 6 x (DB) D3A1 "Val"
(CV) Sohryu-class	<b>145</b>	106	<b>250</b>	5 x (F) A6M2 "Zero" , 5 x (TB) B5N1 "Kate" , 4 x (DB) D3A1 "Val"
(CV) Taiho-class	<b>185</b>	132	<b>315</b>	6 x (F) A6M2 "Zero" , 6 x (TB) B5N1 "Kate" , 6 x (DB) D3A1 "Val"

# Imperial Japanese Navy Ship Costs

■ SS ■ DD ■ CL ■ CA ■ BC ■ BB ■ CVL ■ CV ■ AUX ■ BB(V) / CA(V)

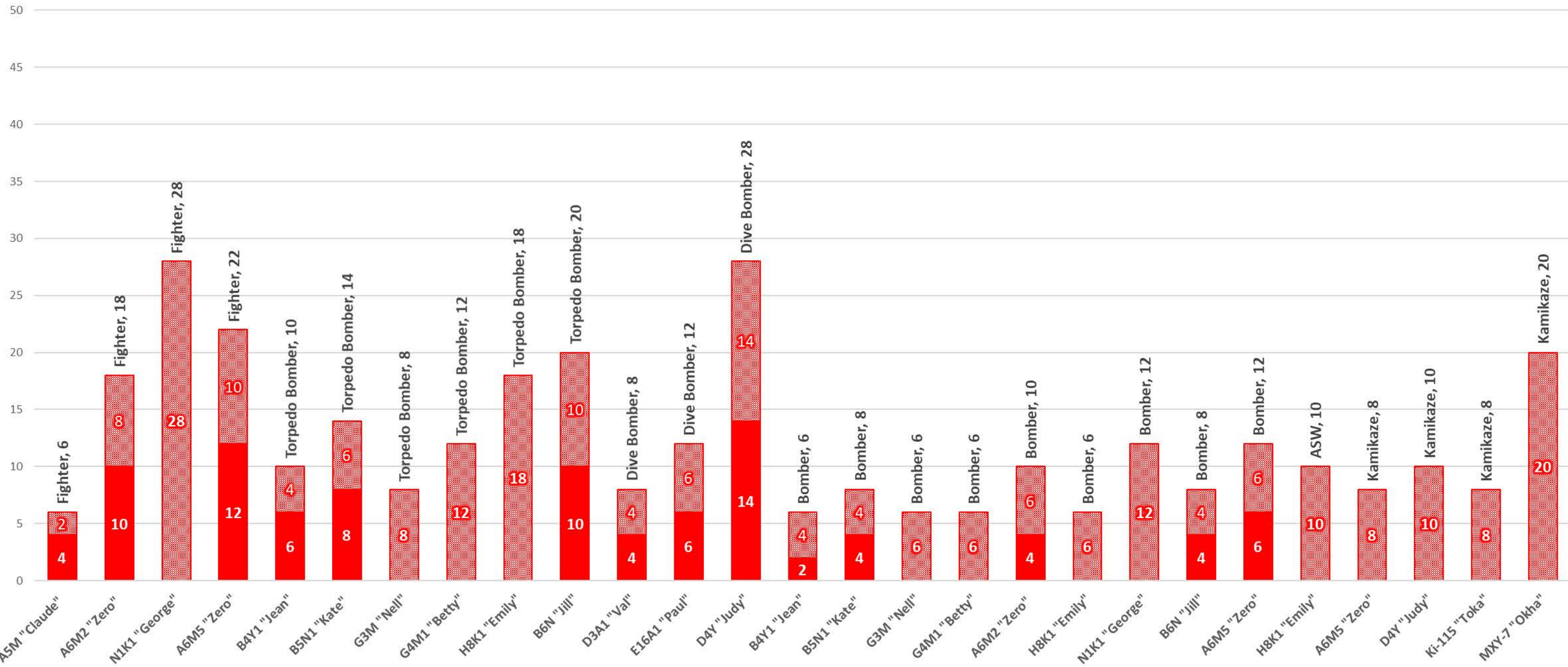


# IMP. JAPANESE NAVY

Name	CBA	LBA
(F) A5M "Claude"	4	6
(F) A6M2 "Zero"	10	18
(F) N1K1 "George"	-	28
(F) A6M5 "Zero"	12	22
(TB) B4Y1 "Jean"	6	10
(TB) B5N1 "Kate"	8	14
(TB) G3M "Nell"	-	8
(TB) G4M1 "Betty"	-	12
(TB) H8K1 "Emily"	-	18
(TB) B6N "Jill"	10	20
(DB) D3A1 "Val"	4	8
(DB) E16A1 "Paul"	6	12
(DB) D4Y "Judy"	14	28
(B) B4Y1 "Jean"	2	6
(B) B5N1 "Kate"	4	8
(B) G3M "Nell"	-	6
(B) G4M1 "Betty"	-	6
(B) A6M2 "Zero"	4	10
(B) H8K1 "Emily"	-	6
(B) N1K1 "George"	-	12
(B) B6N "Jill"	4	8
(B) A6M5 "Zero"	6	12
(ASW) H8K1 "Emily"	-	10
(K) A6M5 "Zero"	-	8
(K) D4Y "Judy"	-	10
(K) Ki-115 "Toka"	-	8
(K) MXY-7 "Okha"	-	20

Imperial Japanese Navy  
Aircraft Costs

Carrier-Based Land-Based

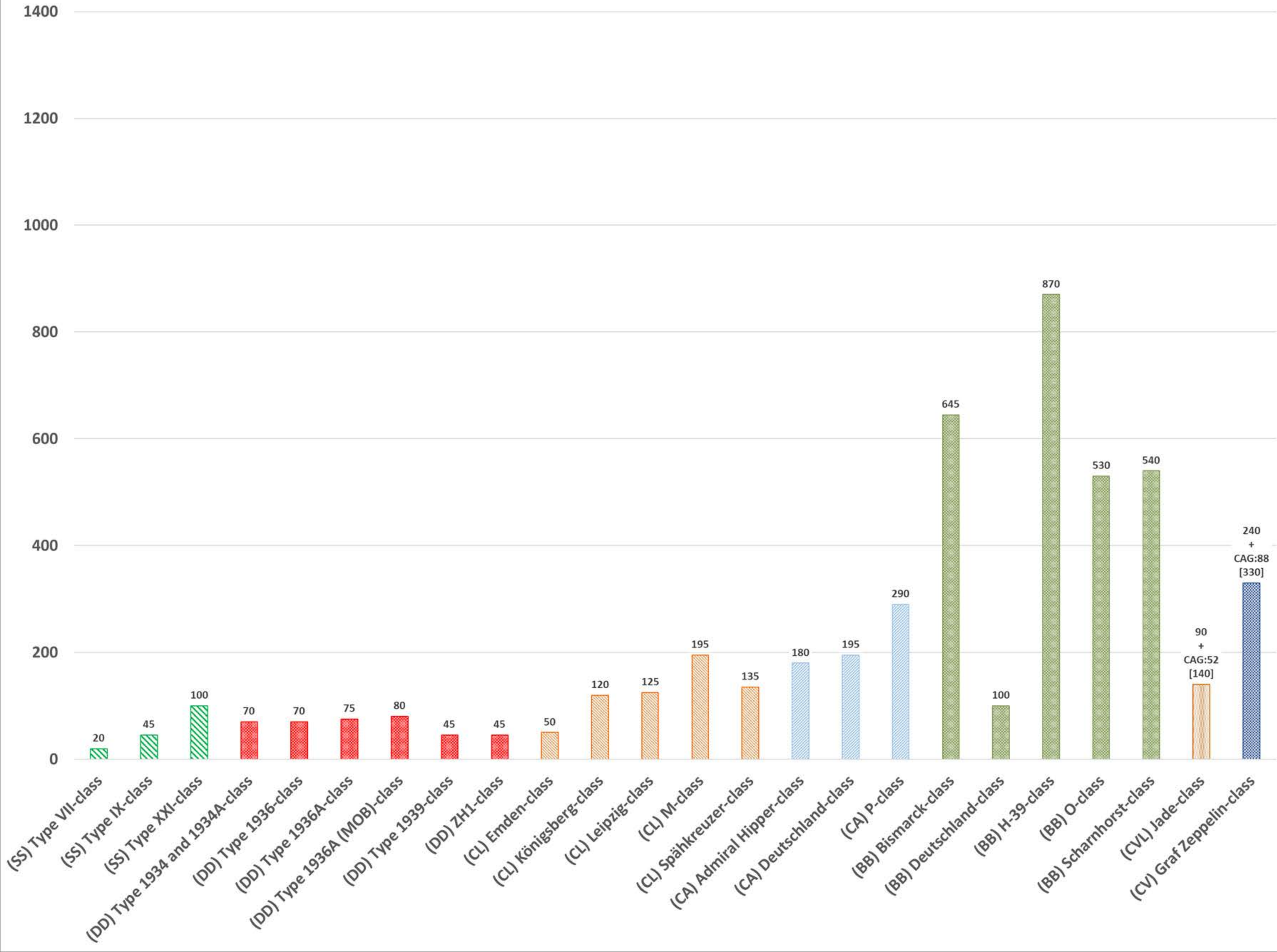


# KRIEGSMARINE

Name	Points Cost (Ship)	Points Cost (CAG)	TOTAL COST	Sample CAG
(SS) Type VII-class	20	0	20	-
(SS) Type IX-class	45	0	45	-
(SS) Type XXI-class	100	0	100	-
(DD) Type 1934 and 1934A-class	70	0	70	-
(DD) Type 1936-class	70	0	70	-
(DD) Type 1936A-class	75	0	75	-
(DD) Type 1936A (MOB)-class	80	0	80	-
(DD) Type 1939-class	45	0	45	-
(DD) ZH1-class	45	0	45	-
(CL) Emden-class	50	0	50	-
(CL) Königsberg-class	120	0	120	-
(CL) Leipzig-class	125	0	125	-
(CL) M-class	195	0	195	-
(CL) Spähkreuzer-class	135	0	135	-
(CA) Admiral Hipper-class	180	0	180	-
(CA) Deutschland-class	195	0	195	-
(CA) P-class	290	0	290	-
(BB) Bismarck-class	645	0	645	-
(BB) Deutschland-class	100	0	100	-
(BB) H-39-class	870	0	870	-
(BB) O-class	530	0	530	-
(BB) Scharnhorst-class	540	0	540	-
(CVL) Jade-class	90	52	140	2 x (F) Bf 109D, 2 x (TB) Fi 167A, 2 x (DB) Ju 87B
(CV) Graf Zeppelin-class	240	88	330	4 x (F) Bf 109D, 3 x (TB) Fi 167A, 3 x (DB) Ju 87B

# Kriegsmarine Ship Costs

■ SS ■ DD ■ CL ■ CA ■ BC ■ BB ■ CVL ■ CV ■ AUX



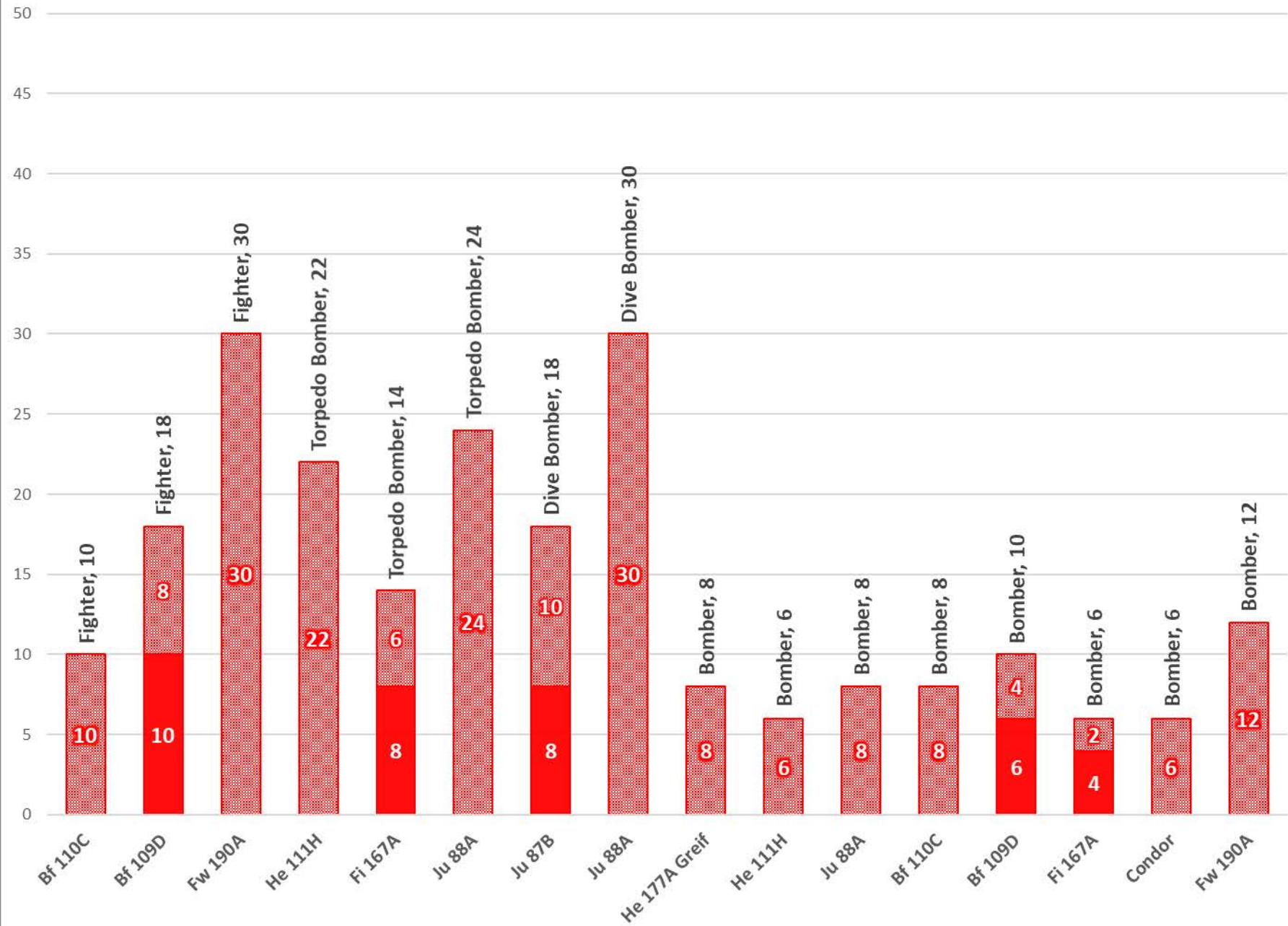


# KRIEGSMARINE

Name	CBA	LBA
(F) Bf 110C	-	10
(F) Bf 109D	10	18
(F) Fw 190A	-	30
(TB) He 111H	-	22
(TB) Fi 167A	8	14
(TB) Ju 88A	-	24
(DB) Ju 87B	8	18
(DB) Ju 88A	-	30
(B) He 177A Greif	-	8
(B) He 111H	-	6
(B) Ju 88A	-	8
(B) Bf 110C	-	8
(B) Bf 109D	6	10
(B) Fi 167A	4	6
(B) Condor	-	6
(B) Fw 190A	-	12

Kriegsmarine  
Aircraft Costs

Carrier-Based Land-Based

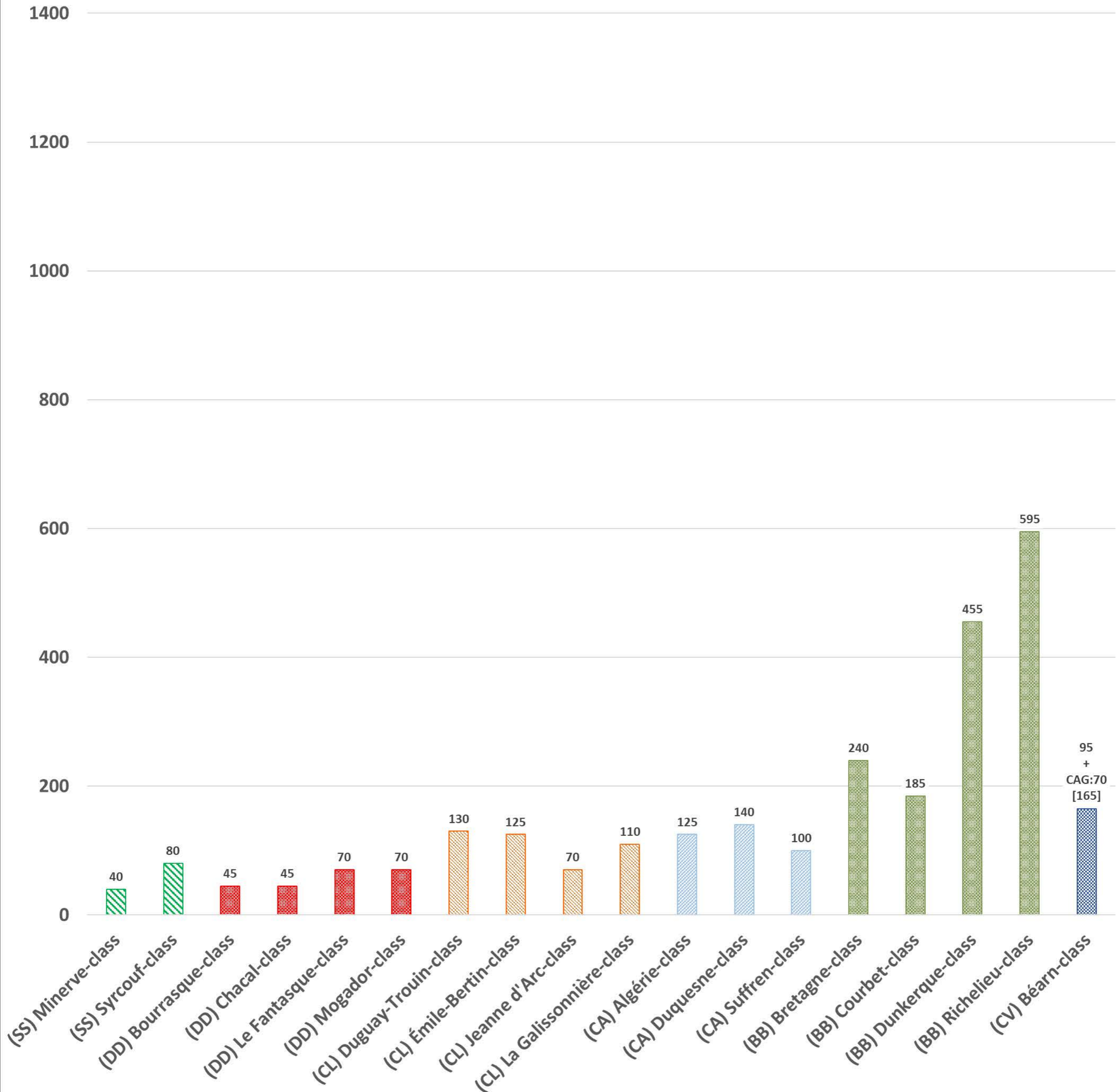


# MARINE NATIONALE

Name	Points Cost (Ship)	Points Cost (CAG)	TOTAL COST	Sample CAG
(SS) Minerve-class	40	0	40	-
(SS) Syrcouf-class	80	0	80	-
(DD) Bourrasque-class	45	0	45	-
(DD) Chacal-class	45	0	45	-
(DD) Le Fantasque-class	70	0	70	-
(DD) Mogador-class	70	0	70	-
(CL) Duguay-Trouin-class	130	0	130	-
(CL) Émile-Bertin-class	125	0	125	-
(CL) Jeanne d'Arc-class	70	0	70	-
(CL) La Galissonnière-class	110	0	110	-
(CA) Algérie-class	125	0	125	-
(CA) Duquesne-class	140	0	140	-
(CA) Suffren-class	100	0	100	-
(BB) Bretagne-class	240	0	240	-
(BB) Courbet-class	185	0	185	-
(BB) Dunkerque-class	455	0	455	-
(BB) Richelieu-class	595	0	595	-
(CV) Béarn-class	95	70	165	5 x (TB) PL7 II, 5 x (DB) LN 411

# Marine Nationale Ship Costs

■ SS ■ DD ■ CL ■ CA ■ BC ■ BB ■ CVL ■ CV ■ AUX

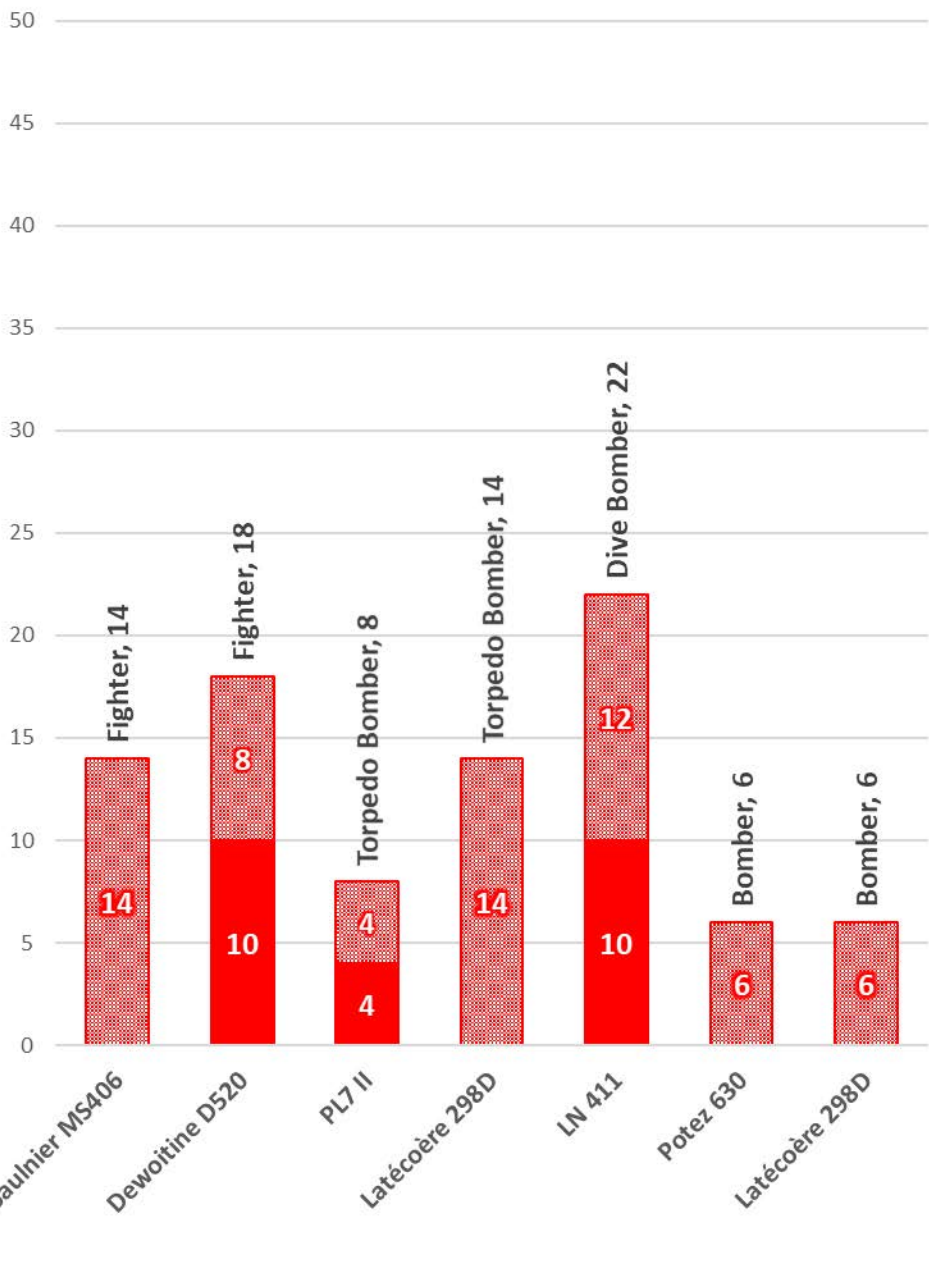


# MARINE NATIONALE

Name	CBA	LBA
(F) Morane-Saulnier MS406	-	14
(F) Dewoitine D520	10	18
(TB) PL7 II	4	8
(TB) Latécoère 298D	-	14
(DB) LN 411	10	22
(B) Potez 630	-	6
(B) Latécoère 298D	-	6

# Marine Nationale Aircraft Costs

■ Carrier-Based   ■ Land-Based

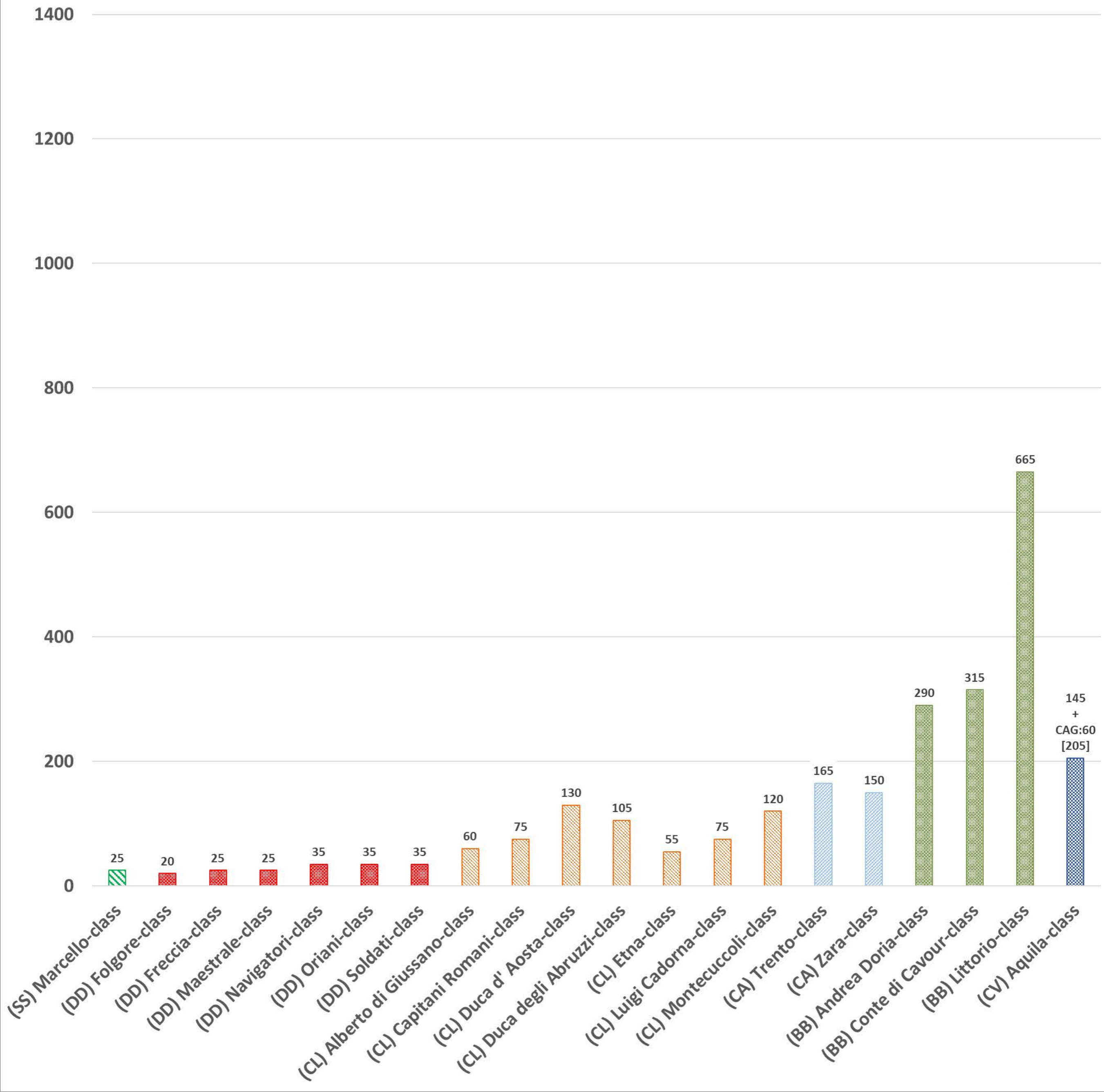


# REGIA MARINA

Name	Points Cost (Ship)	Points Cost (CAG)	TOTAL COST	Sample CAG
(SS) Marcello-class	25	0	25	-
(DD) Folgore-class	20	0	20	-
(DD) Freccia-class	25	0	25	-
(DD) Maestrале-class	25	0	25	-
(DD) Navigatori-class	35	0	35	-
(DD) Oriani-class	35	0	35	-
(DD) Soldati-class	35	0	35	-
(CL) Alberto di Giussano-class	60	0	60	-
(CL) Capitani Romani-class	75	0	75	-
(CL) Duca d' Aosta-class	130	0	130	-
(CL) Duca degli Abruzzi-class	105	0	105	-
(CL) Etna-class	55	0	55	-
(CL) Luigi Cadorna-class	75	0	75	-
(CL) Montecuccoli-class	120	0	120	-
(CA) Trento-class	165	0	165	-
(CA) Zara-class	150	0	150	-
(BB) Andrea Doria-class	290	0	290	-
(BB) Conte di Cavour-class	315	0	315	-
(BB) Littorio-class	665	0	665	-
(CV) Aquila-class	145	60	205	6 x (F) Re2001 Falco II, 6 x (B)

# Regia Marina Ship Costs

SS DD CL CA BC BB CVL CV AUX



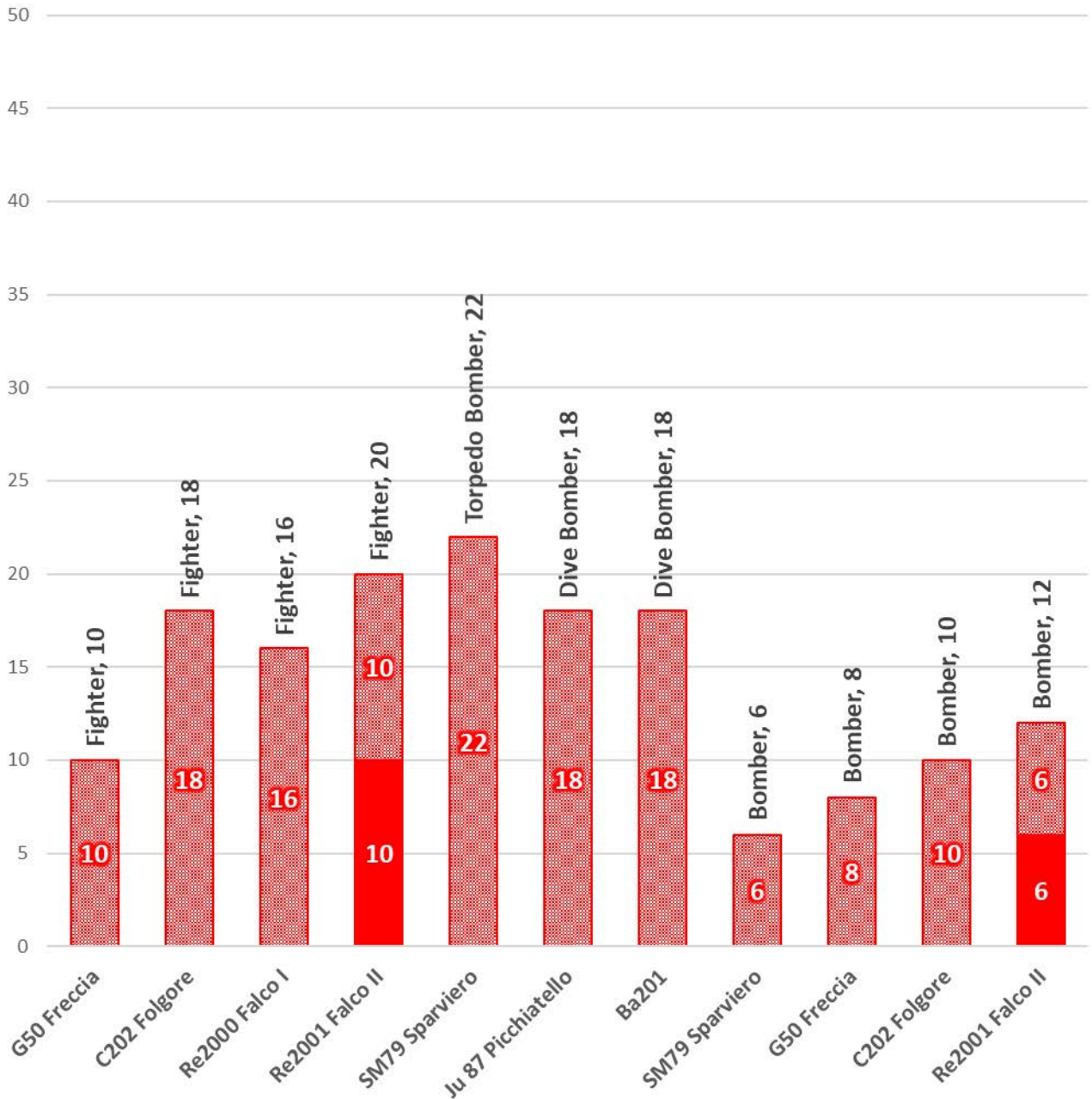


# REGIA MARINA

Name	CBA	LBA
(F) G50 Freccia	-	10
(F) C202 Folgore	-	18
(F) Re2000 Falco I	-	16
(F) Re2001 Falco II	10	20
(TB) SM79 Sparviero	-	22
(DB) Ju 87 Picchiatello	-	18
(DB) Ba201	-	18
(B) SM79 Sparviero	-	6
(B) G50 Freccia	-	8
(B) C202 Folgore	-	10
(B) Re2001 Falco II	6	12

# Regia Marina Aircraft Costs

■ Carrier-Based   ■ Land-Based



# Civilian Ship Costs

AUX

