All Guns Blazing!

Newsletter of the Naval Wargames Society

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EDITORIAL

It's the anniversary of The Battle of Trafalgar again. If the Napoleonic era is one of your favourites, perhaps you have re-fought all or part of the Battle. Perhaps the anniversary may prompt you to try again or try for the first time. Either way, send a few words on how the re-match went for inclusion in AGB. Below, courtesy of Rob Morgan, is a "Nelson" Quiz. And you won't have to wait a month for the answers this time as the answers are towards the end of this AGB. No cheating though, see if you can answer any before checking the answers.

Cheers

Norman Bell

Thanks to Jeff and Todd for bringing the following article to my notice.

The plucky Perch, hardy frogman steed

by laststandonzombieisland

Here at LSOZI, we are going to take off every Wednesday for a look at the old steam/diesel navies of the 1859-1946 time period and will profile a different ship each week. These ships have a life, a tale all of their own, which sometimes takes them to the strangest places.

- Christopher Eger

Here we see the *Balao*-class submarine *USS Perch (SS-313)* as she appeared in the late 1960s off Pearl Harbor with her crew in summer whites. This hardy vessel made seven war patrols during WWII then remained one of the last operational smoke boats in the U.S. Navy, seeing hot service in both Korea and Vietnam.

The 128-ship *Balao* class were classic 311-foot, 2500-ton 'fleet boats' designed to roam the Pacific on patrols that could last some 75-days due to their 11,000-nm range. Capable of making over 20-knots in a surface attack, they carried a staggering 10 torpedo tubes for which they stocked two dozen steel fish, as well as a reasonably well-armed battery of deck and AAA guns to sink smaller vessels like sampans and defend themselves against aircraft. We have covered ships of this class in the past here at LSOZI but don't complain, they have lots of great stories.

Laid down 5 January 1943 at Electric Boat in Groton, she was commissioned 367 days later and departed for Key West for training. Needed for service in the Pacific, she arrived in Pearl Harbor at the beginning of April 1944. Just three weeks later she left on her first war patrol. For the next year she conducted a total of 7 patrols in enemy waters, often working as part of a small U.S. submarine wolf-pack, chasing down the

few Japanese merchant and warships that remained afloat. She lurked in the South China Sea, trading an attack on an oilier for a counter attack by a Japanese sub buster. Perch managed to send a few small trawlers and coasters to the bottom in surface gunfire actions while plucking Navy Corsair pilots and USAAF B-29 crews from the Pacific.

In a sign of things to come, she was used to land a 12-man Australian commando force of the famous Z Special Unit on a reconnaissance mission to Balikpapan Bay, Borneo, Indonesia (then in the Japanese-occupied Dutch East Indies). The ill-fated force under the renowned Aussie commando leader Major John Stott was lost through no fault of the *Perch*.

Ending the war off the coast of Imperial Japan, *Perch* was decommissioned and placed in reserve in 1947. However, unlike many of her class she was soon dusted off and in May 1948 she was converted to a Submarine, Transport (SSP-313, later ASSP-313, then APSS-313, then LPSS–313, all with basically the same meaning) then re-commissioned.

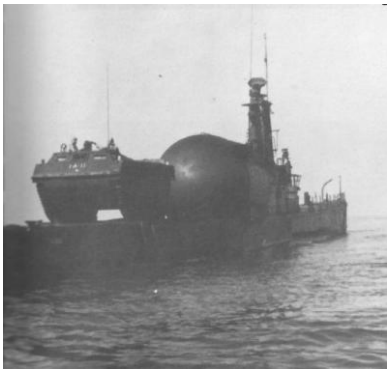
Aft view of the Perch (SS-313) off Mare Island after completion of her conversion to a troop transport. Note the large dry deck shelter for equipment and small boats. US Navy photo

Soon after the balloon went up on the Korean peninsula, Perch was used for landing British Commandos on raids behind North Korean lines. These were so successful not to mention hazardous, that Perch's CO was made the recipient of a Bronze Star, the only such sub commander to win one in action during the Korean conflict. The sub herself was added a fifth battle star to her record to go with the four she earned during WWII.

Broadside view of Perch (ASSP-313) off Mare Island on 6 May 1954. She was under going repairs at Mare Island from 8 December 1953 to 13 May 1954. US Navy photo # 21035-5-54, courtesy of Darryl L. Baker.

Except for a 20-month period when she was laid up (1960-61), *Perch* spent the next 15 years shuttling around the Pacific from the Aleutians to the Gulf of Siam landing groups of Navy UDT teams, Army Green Berets, and Allied troops up to company-sized on exercise beaches under all conditions. While equipment was stored in an external dry deck shelter bolted to the outside of the hull aft of the conning tower, the embarked commandos had to hot bunk with the crew. Since there were some 70 enlisted berths, this meant an additional 70 foot soldiers could be taken aboard, if uncomfortably.

Perch (ASSP-313), during exercises with reconnaissance troops from the 1st Marine Division off the coast of California. In addition to many internal changes, the Perch's conning tower structure had been extended and additional masts and shears added by January 1957, when this photo was taken.USN photo and text from The American Submarine by Norman Polmar, courtesy of Robert Hurst via Navsource



Yes, this IS a submarine with an Amtrak aboard. Perch (ASSP-313) preparing to launch an LVT amphibious tractor during a 1949 exercise. The vehicle could be carried in the cargo hangar and launched by flooding down the submarine. USN photo and text from The American Submarine by Norman Polmar, courtesy of Robert Hurst.

While many of her class had been upgraded or decommissioned, *Perch* remained largely in her WWII configuration, even retaining some of her deck guns in an era when most submarines in the fleet had removed theirs.

Then came Vietnam. From August 1965-October 1966 she landed UDT troops as well as South Vietnamese commandos up and down the coastline, performing classified "Deck House" beach reconnaissance missions and "Dagger Thrust" amphibious landings. You see these old smokers could come much closer to shore than many other warships, capable of floating in 17 feet of seawater when surfaced. This made them popular for these littoral missions conducted in the dark of night, especially in areas without much enemy ASW capability.

Perch was more or less a dedicated frogman ride from 1948-1967.

It was during this Indochina service that *Perch* became the last U.S. submarine to conduct a surface gunfire action.

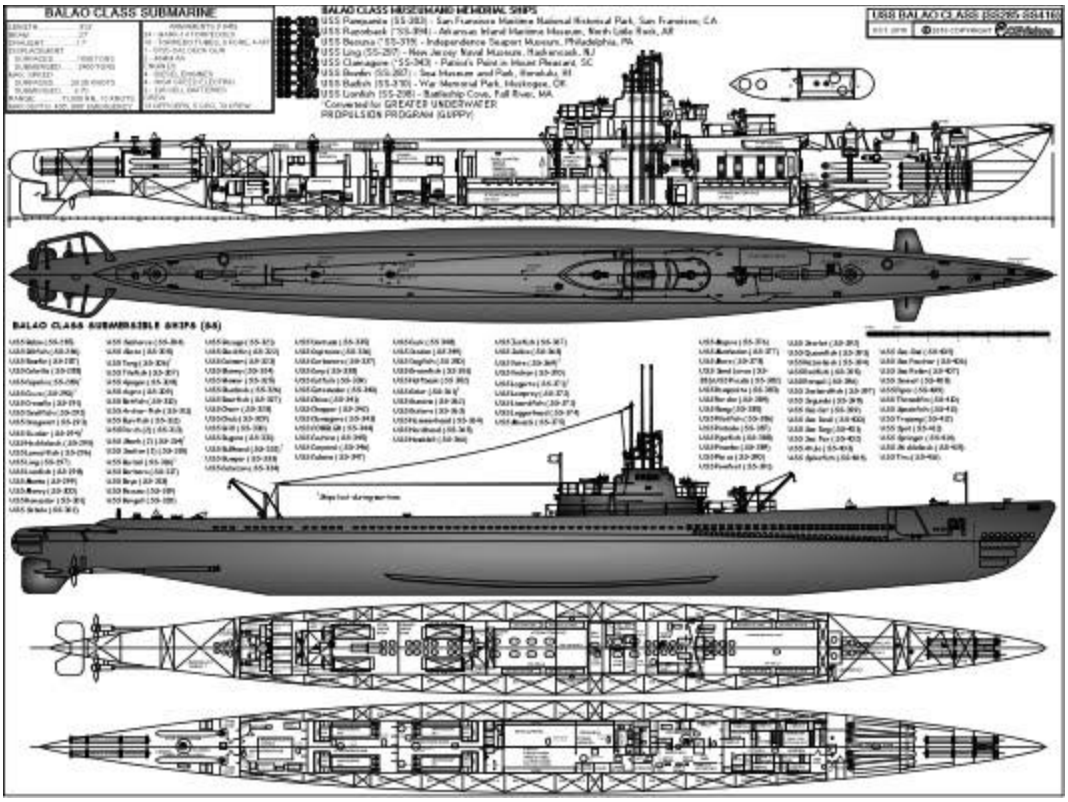
The last gun-armed US Submarine in commission was USS Perch APSS-313. She was armed with a wet mount 40MM cannon on a sponson forward of the bridge and a 40MM cannon on the cigarette deck. Her last battle stations gun-action took place on August 20, 21, 1966 near Qui Nhon Vietnam. Perch opened fire with both 40MM's and .50 Cal machine guns to assist extraction of a UDT team that was receiving Viet Cong fire from the beach. On the night of August 21, 1966 lying to on the surface 500 yards from shore she again opened fire with her deck guns and machine guns on enemy troops moving into position around a small ARVN force on the beach. Several secondary explosions of VC ordnance were observed. The ARVN force was extracted. USS Perch was relieved by USS Tunny APSS-282 the following month. Perch returned stateside for decommissioning. Tunny had several members of her crew trained for rigging topside to allow UDT teams to concentrate on the mission, and a portion of the crew trained as a "reaction force" to assist UDT extraction, or repel an enemy vessel. Tunny carried .50 Cal Machine Guns as did many smoke boats that operated in that area. Source--SEALS, UDT/SEAL Ops in Viet Nam, T.L. Bosiljevac, Ivy books New York, 1990.

Her third war over, Perch was sent back home and used as a training and auxiliary vessel, rarely getting underway after 1968. On 1 December 1971 she was decommissioned and, at age 27, stricken. She was sold for scrap in 1973.

While *Perch* no longer exists, of her 121 other *Balao*-class sisters, one (*Tusk*) is still in some sort of service with the Taiwanese Navy while at least eight are preserved in the U.S.

Please visit one near you if you can.

USS Batfish (SS-310) at War Memorial Park in Muskogee, Oklahoma.
USS Becuna (SS-319) at Independence Seaport Museum in Philadelphia, Pennsylvania.
USS Bowfin (SS-287) at USS Bowfin Submarine Museum & Park in Honolulu, Hawaii
USS Clamagore (SS-343) at Patriot's Point in Mount Pleasant, South Carolina.
USS Ling (SS-297) at New Jersey Naval Museum in Hackensack, New Jersey.
USS Lionfish (SS-298) at Battleship Cove in Fall River, Massachusetts.
USS Pampanito (SS-383) at San Francisco Maritime National Historical Park.
USS Razorback (SS-394) at Arkansas Inland Maritime Museum in North Little Rock, Arkansas.



Specs:

(As built)
Displacement: 1,526 tons (1,550 t) surfaced
2,424 tons (2,463 t) submerged
Length: 311 ft 9 in (95.02 m)
Beam: 27 ft 3 in (8.31 m)
Draft: 16 ft 10 in (5.13 m) maximum
Propulsion:
4 × General Motors Model 16-278A V16 diesel engines driving electrical generators
2 × 126-cell Sargo batteries
4 × high-speed General Electric, electric motors with reduction gears
two propellers
5,400 shp (4.0 MW) surfaced
2,740 shp (2.0 MW) submerged
Speed: 20.25 knots (38 km/h) surfaced
8.75 knots (16 km/h) submerged
Range: 11,000 nautical miles (20,000 km) surfaced at 10 knots (19 km/h)
Endurance: 48 hours at 2 knots (3.7 km/h) submerged
75 days on patrol
Test depth: 400 ft (120 m)
Complement: 10 officers, 70–71 enlisted. After 1948, 75 commandos for short periods.
Armament: 10 × 21-inch (533 mm) torpedo tubes
(six forward, four aft) 24 torpedoes
1 × 5-inch (127 mm) / 25 calibre deck gun, Oerlikon 20 mm cannon (Removed 1948)
Bofors 40 mm

If you liked this column, please consider joining the International Naval Research Organization (INRO), Publishers of Warship International

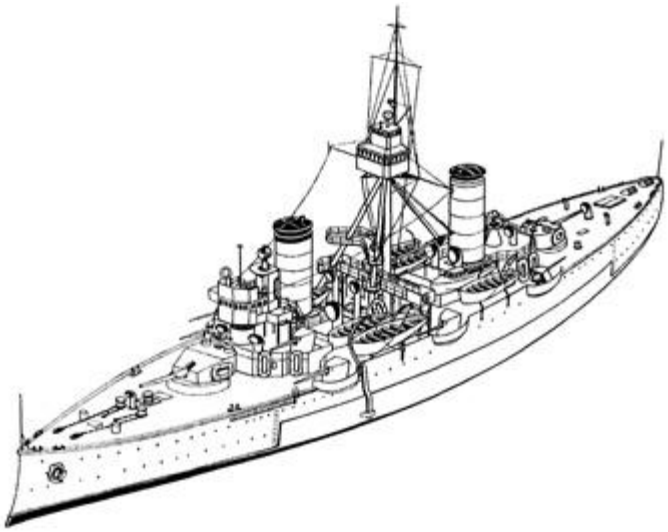
They are possibly one of the best sources of naval study, images, and fellowship you can find http://www.warship.org/

The International Naval Research Organization is a non-profit corporation dedicated to the encouragement of the study of naval vessels and their histories, principally in the era of iron and steel warships (about 1860 to date). Its purpose is to provide information and a means of contact for those interested in warships.

Nearing their 50th Anniversary, Warship International, the written tome of the INRO has published hundreds of articles, most of which are unique in their sweep and subject.

Here we see the *Giuseppe Garibaldi*-class armoured cruiser Armada de la República Argentina (ARA) *General Giuseppe Garibaldi* of the Argentine Navy as she appeared around the turn of the century in her gleaming white and buff scheme. She was a ship representative of her time, and her class outlived most of their contemporaries.

Ordered from Gio. Ansaldo & C shipbuilders, Genoa, Italy, in 1894 the *General Giuseppe Garibaldi* was designed by Italian naval architect Edoardo Masdea to provide a ship, smaller than a 1st-rate battleship, yet larger and stronger than any cruiser that could oppose



One large 10-inch gun fore and another aft gave these ships some punch.

The concept predated battle cruisers by a decade or two and had its apex at the Battle of Tsushima, where so-called 'armoured cruisers' gave a poor showing of themselves. The final nail in the coffin of the armoured cruiser design was the Battle of the Falklands in 1914 in which a German force of armoured and light cruisers under Admiral Graf Maximilian von Spee was annihilated by a group of larger and faster RN battle cruisers of Vice-Admiral Doveton Sturdee.

She was designed for power projection on a budget and the Argentine Navy, facing a quiet arms race between Brazil and Chile on each side, needed modern ships.

They therefore scooped up not only the *Garibaldi* (commissioned in 1895) but also the follow-on sister-ships *General Belgrano* and *General San Martín* (built by Orlando of Livorno in 1896) and Genoa-made *Pueyrredón* (1898) to make a quartet of powerful cruisers. These ships, coupled with the *Rivadavia*-class battleships ordered later in the U.S., helped make the Argentine navy for a period of about two decades the eighth most powerful in the world (after the big five European powers, Japan, and the United States), and the largest in Latin America.

Specs:

Displacement: 7,069 long tons (7,182 t)
Length: 344 ft 2 in (104.9 m)
Beam: 50 ft 8 in (15.4 m)
Draught: 23 ft 4 in (7.1 m)
Installed power: 13,000 ihp (9,700 kW)
Propulsion: 2 shafts, vertical triple-expansion steam engines
8 cylindrical Bellville boilers (replaced 1920s)
Speed: 20 knots (37 km/h; 23 mph) as designed. Later 15-knots after 1925.
Range: 7000 nm at 12 knots on 1,000 tons coal. Later 4200 nm at 9 kts after 1925 refits.
Complement: 520 as designed (typical Argentine service, 25 officers, 300 crew or 28 officers; 60-95 cadets; 275 crew)

Armament: *(As commissioned, greatly reduced after 1925)*
2x1 - Armstrong 10-inch (254 mm) guns
10x1 - 152mm Armstrong rapid fire (120mm in Garibaldi)

10x1 - 57mm 6-pounder Nordenfeldt guns
8x1 37mm Hotchkiss guns
2x1 8mm Maxim water cooled machine guns
4x1 - 18-inch (457 mm) torpedo tubes with Whitehead fish (Five tubes in ARA Pueyrredon)
+ 2x1 - 3-inch (75 mm) guns landing guns (*cañones de desembarcode*)

Armour: (All Harvey-type armor)
Belt: 3.1–5.9 in (79–150 mm)
Barbettes: 5.9 in (150 mm)
Gun turrets: 5.9 in (150 mm)
Conning tower: 5.9 in (150 mm)

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'MARY ROSE.'

A Kit Review by Rob Morgan.

I've been anticipating the production of a large scale, and probably very expensive, model of Henry VIII's magnificent, doomed warship for a long time, in 1/144th or 1/100th it would be a superb model to build and fight. The Airfix 1/400th is however , another example of a lost opportunity, in 1/300th or 1/600th it could have been be used in wargames with models from one or two other ship ranges, and the ERM galley came to mind initially. As did the Airfix 'Santa Maria.' However, that slight difficulty aside, this is a lovely model warship. I do tend to think of her as a late Medieval ship, she was after all built in 1511AD, around the same time as her potential enemy, the Scots 'Great Michael', though meeting her end firmly in the Renaissance (why do they call that 'Early Modern' now?) a mere thirty four years later.

The kit...well, selling at around £7.50, it's a return to the long lamented, vanished 'Classic Ships' range of the sixties. She comes as twenty nine parts, in lovely light grey plastic, full hulled, and with a three part stand. The hull of course needs to be dealt with to make a table top model. The ship, when completed is 162mm long, and about 110mm to the top of the mainmast. The sail suite is immaculately produced, the whole model is completely flash-free, and sails are moulded in thin plastic. The four masts are nicely scaled, and the fighting tops are accurate.

The hull is a hefty size in 1/400th, two detailed sides, a stern piece with separate rudder, but the decks are very unusual. First there's gun deck with eighteen large cannon moulded to it, this is cemented inside the hull, with the gun muzzles protruding through the gun ports, giving the impression of


AIRFIX
1:400 MARY ROSE
the Mary Rose
Mary Rose A05314

a powerful armament. Above this fits the upper deck piece, and I've never seen a model part like it in fifty years of model ship building. Simply put, the 120mm long deck 'cover' is entirely composed of a net covering, diamond meshed, with only the forecastle open. This fits nicely, but I am wondering what colour the nets should be? There are four smaller parts to cover the rear face of the forecastle, and the front face of the after deck, again with heavy guns protruding. When assembled, the hull, because of the design of deck and 'nets' is very sturdy, so cutting the hull to a waterline along the bottom strake with a saw is fairly straightforward. Deal with the hull before adding the masts and sail suite naturally. The masts each fit through the net, and into 8mm deep recesses, this means that you can make the masts removable. There's a very long bowsprit too, though the sail on this is produced furled, you could add a paper sail 25mm wide and 10mm deep to cement on it.

That's the 'Mary Rose' model, and it looks a powerful unit on the table top. Painting and decoration's not all that complex, sprayed overall matt dark earth as a base. The kit's provided with old fashioned decals for the coloured strakes, but these would be fiddly to say the least, but this was a very prettily turned out man o' war, and needs to be decorated. A big let-down is the flag and banner, just one of each, provided to dress this massive ship. Take a look at any of the many books on 'Mary Rose', or at the ships of the Anthony Roll', Ernle Bradford's *'The Story of the Mary Rose'* is my preference. In them you'll see that Tudor warships were provided with half a dozen streaming banners, and a score of flags. You will need to address this before sailing out against the French.

Well, that's the model, but of course she's pretty isolated, and I can't think of a scenario you could easily use her in, in 1/400th scale. I would recommend reading the splendid *'Great Harry's Navy'* by Geffrey Moorhouse, which gives a few ideas. You can't easily convert 'Mary Rose' into say *'Henry Grace a Dieu'* the other big Tudor ship, she was 1,000 tons to the model's 700, but...Moorhouse provides a colour plate of the *'Great Michael'*, she too was 1,000 tons, but in 1/600th the model can be made into the Scot without too much difficulty. A lot's in the painting of course and there's a slightly raised aftercastle, but I think it's worth the attempt. The Scots leviathan was sold off to France in 1514 as *'La Grande Nef d'Ecosse'* . Other conversion ideas include snipping the ends off the cannon on the main deck moulding, and covering the gunports along the hull side, but I think the sails are too attractive to mess about with.

A few examinations of existing models in my collection suggests that the Peter Pig Pirate range *Fluyte* might at a push sit alongside 'Mary Rose',

and the same range has an oared, manned ship's boat suitable in 1/450th.
Little else around, unless someone's encountered an East European 1/400th range I don't know about. The early Tudor navy's such a lovely group of ship's what's needed now is, I think, a manufacturer to come up with a galley, and a smaller warship to accompany the majestic Mary on her sorties.
Despite the slight drawbacks, this is a really lovely model warship.

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Photo captions…

1. The Box Art…. Very neat and attractive.
2. The sturdy hull sides.
3. The odder components, the gun deck and the net cover.
4. The instructions are clear, the construction easy.

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A Nelson Quiz!

By Rob Morgan.

The 'Sea Quiz' page in *'The Navy'* continued well into the 1950's and of course on occasion there were duplicate questions, and not a few errors (or answers hotly contested by readers!) cropped up during that time.
Sometimes a series of quiz questions on a particular Admiral, or campaign or class of warship appeared in a run of issues. This was the case with Horatio Nelson, who seemed to have a key role in the 'Sea Quizzes' of 1954 and 1955.
It's possible to put together a Nelson Quiz with ease….but of course I'll avoid the basic question, which did actually appear, and I'm not kidding….
'Rearrange the following letters to make the name of a famous British Admiral,…..1. Snolne.

Ho hum!!!
Assuming you all got that one, let's move on to the serious stuff.

1. At which encounter did Nelson (allegedly) say…. *"Westminster Abbey- Or glorious victory!"*
2. What was Nelson's exact rank at Trafalgar?

3. From what (approximate) range was the bullet fired which killed Nelson?
4. 'Do you know what is shown on board the Commander in Chief? Number 39!' In which battle did Nelson say this?
5. Which of these did Nelson actually say……?
    a. 'Leave me alone, I've always fought in a cocked hat and always will.'
    b. 'Only numbers can annihilate.'
    c. 'My family are actually strangers to me. What a life of privation is ours.'
6. How many kinds of Admiral were there in Nelson's time?
7. Which was older, Nelson or HMS Victory?
8. Why is there no commemorative plaque on Nelson's birthplace?
9. On the books of which ship was Nelson rated Midshipman in January 1771?
10. When Nelson wrote a request to the Danes to surrender at Copenhagen, how did he style himself?
11. 'What is Nelson signalling about? We all know what we have to do.' Who said that and when?
12. Who was Nelson's heroic uncle?

That's it, some easy ones, but I suspect that the writer of many of these questions was a true 'Nelson Buff'!

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A teaser for AGB readers: does anyone recognise this Spanish Warship off Motril? There's a number - 332 or 322 on the bow.

'FORTRESS 3…."U-Boat Bases and Bunkers 1941-45". Text Gordon Williamson: Illustrated by Ian Palmer. Osprey.

These days, I'm very selective about the Osprey titles I buy, but as I picked this one up for a mere £2.99 in a sale in the Ian Allen shop, it seemed good value. Not, I'll warrant you a typical title to find reviewed in the columns of *"All Guns Blazing"*, but one with some interesting details and information. Apart from the Berlin Flak Towers, these must be by far the most imposing, impressive military structures built by Nazi Germany. They are the formidable defensive edifices of

the Atlantic Wall. In fact, St. Nazaire, La Pallice (La Rochelle) and Lorient survived as isolated and utterly useless garrisons until the end of the War. The text doesn't only deal with the five bases on French soil, of course, but also the early bases in Germany at Helgoland, Kiel and Bremen, as well as the two far less well remembered bases built in Norway at Trondheim and Bergen.

As this is a Fortress title, the design and development, construction, bunker types and protected lock systems are discussed in the opening section. Then there's a 'tour of a U-Boat base', Brest in fact, before the defensive strength, the reinforced roof systems, the flak defences (this was interesting!) and particularly the protection of entering and leaving submarines from low flying aircraft (remember the final scenes of *Das Boot!*); which would make a fair, short game using 1/1200th aircraft and model ships.

There's a decent section on the Flotillas and Command structure in Europe, and I'd like to have read more about the Mediterranean bases and the four U-Boat Bases in the Far East, which might provide the basis for a more unusual map campaign. The text continues by looking at the bases in action, especially the bombing of the U-Boat complexes and the raids on them. The *HMS Campbeltown* attack on St. Nazaire in March 1942 is dealt with in another Osprey title, but here we find the immense raids on Brest and Hamburg, in the final great raid on the latter no fewer than 17 'Tallboy' bombs and 2 'Grand Slam' bombs of 10 tons were dropped. While the capture of Brest ended with the destruction of the entire city and port in a lengthy bitter battle on the ground and in the air, it resulted in over 10,000 American casualties. This was probably one of the major reasons why the remaining bases, other than Bordeaux which was evacuated by the *Kriegsmarine* in the Summer of 1944 were besieged and not fought over.

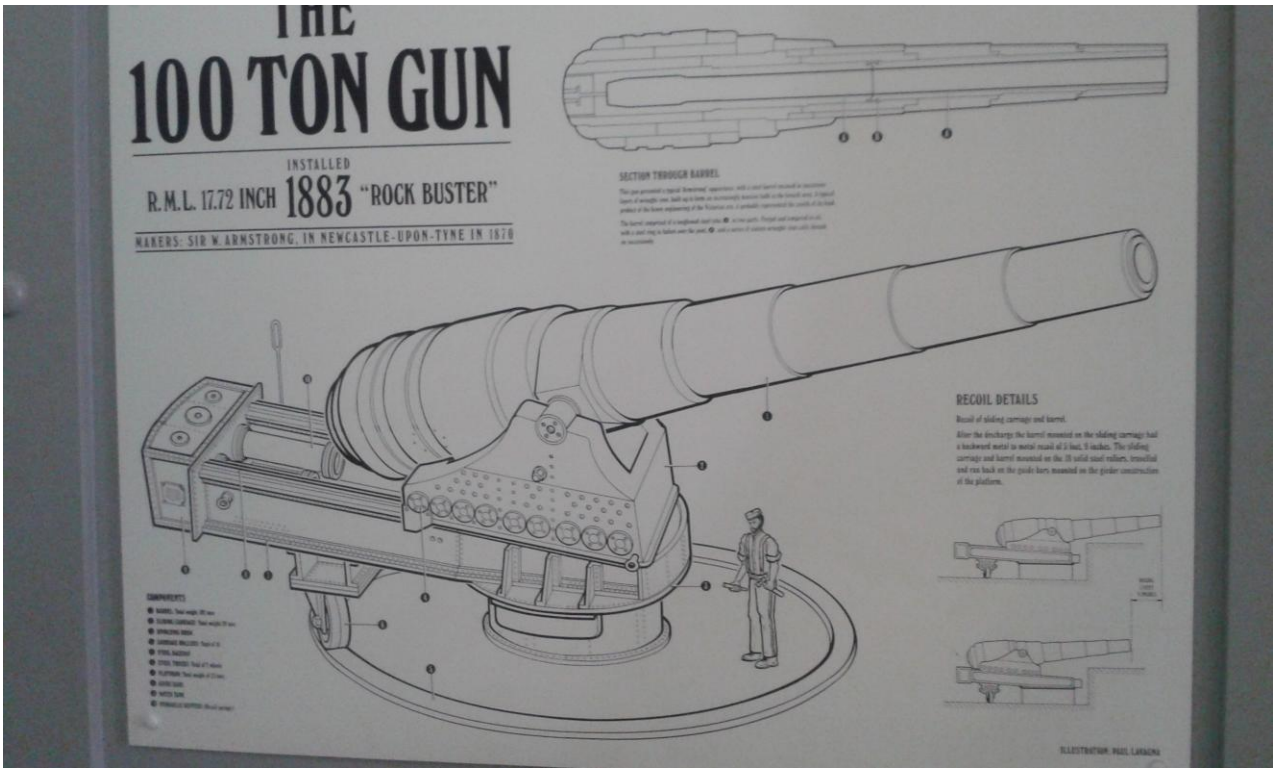
I found Williamson's account of the bases at war and their fate at the war's end extremely interesting. The French bases and the Norwegian were and in some cases remain in naval service to this day! Some Cold War potential there, clearly. The writer provides a sound ending to his text describing the bases as they are now, and probably will remain for many years to come. The description of how the German bunkers were removed is an ambitious guide for the ordnance expert.

The text is well backed up with a substantial number of good photographs, and the plates of Ian Palmer provide ample detail for a model maker, there's a Glossary, and, for an Osprey, an excellent list of titles and sources for further reading and research.

This is an excellent Fortress title, although some members will suggest that the lack of ‘warship’ information makes it less than suitable as a naval wargamers text, it makes fascinating background reading for anyone with a passing interest in submarine warfare or the Battle of the Atlantic. The potential for map games, if not for table top encounters (I wondered if anyone made U-Boat pens in 1/3000th or 1/4800th? Quite possible to create in model form I think, given the survival of the original information and structures).
Ten out of Ten!

Rob Morgan.
September 2014.

If you are going to have one, have a big one.



Hundred Ton Guns-afloat and ashore.

By Rob Morgan.

The note on the immense Italian Ironclads *Italia* and *Lepanto* reminded me of the substantial threat which these two heavily armed warships and their predecessors *Duilio* and *Dandolo* posed in the Mediterranean during the 1880's. Also of an important, yet humble, feature of naval wargaming which is sometimes overlooked in the dashing of great rows of grey battleships, that of coastal defence.

The 100ton 17in guns, 17.7in Armstrong ML's in the case of the *Dandolo's* could throw a 2,000lb shell every fifteen minutes and were certainly the largest and most powerful warships around the inland sea. Their defensive armour was substantial too, of course, and the British always 'sensitive' to developments which could turn over the apple cart sent a military commission to decide what to do in the face of the Italian threat. It was decided to emplace two 100 ton Armstrong guns at Malta and two at Gibraltar , and two of them survive, Malta has one of it's emplacements Fort Rinella restored and with the gun emplaced.

The fort was completed in 1886, around the same time as the *Italia's,* but the 100ton guns were never fired in anger, but only twice a year for practice, the last time being in 1906. The Malta National Heritage Trust (*Fondazzjoni Wirt Artna*) handout available at the site indicates that the coast defence Armstrong ML's could fire a shell capable of penetrating 16" of armour at four miles, at a rate of one every six minutes. The fort's gun was worked by mechanical means, using a steam engine powering an hydraulic system.

The structure of Fort Rinella must have taken into account the troop carrying ability of the two big Italian 'super-cruisers', as the fort not only had bomb proofs and armoured magazines, but also caponniers and counterscarps as well as musketry parapets. These four at Malta and Gibraltar were the only 100ton guns ever completed and used in British service, which begs the question why was this immense gun not chosen for use either afloat or in other coastal locations?

An amazing gun. I wonder what happened to the eight Italian Armstrongs?

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The Ships and the War Game.

I'm reminded that of course the *Duilio* and *Dandolo* 100ton gunned ships feature as the lead article in Paul Hague's excellent *'Sea Battles in Miniature'* which thirty years on remains one of naval wargaming's best titles. As for models? Well, the drawing of Fort Rinella makes for an easy scratchbuild (Many, many thanks to *Fondazzjoni Wirt Artna* for access- this note incidentally is adapted from an original piece I wrote in the Ordnance Society Newsletter back in 2011) in any scale, but for a 'simple' coast defence game, presumably the 1/3000th Italian warships of the Navwar range, they make all four, would be best used. I know there are 1/1200th's about in the expensive German and continental ranges, but 'Old Glory' make a 1/600th *'Italia'* and Mick Yarrow makes a metal kit of the *'Lepanto'* in about 1/450th and neither of these will break the bank. Very attractive warships of course, and Paul Hague provides the full colour scheme, and Admiral's flags too!

Fort Rinella is at St.Rocco Road, Kalkara in Malta, it's open to visitors, and can be found at

www.wirtartna.org

Rob Morgan.

N.B. The blue did not scan satisfactorily, its www.wirtartna.org Also the greyscale picture of the Fort would not scan.

Several Navies have long traditions of humanitarian acts around the World. It's not all peace keeping duties in trouble spots.

JEONGGWAN, Republic of Korea. Sailors assigned to U.S. 7th Fleet work with Republic of Korea service members to clear debris at a park devastated by recent flooding. A team of more than 30 U.S. 7th Fleet

Sailors, embarked aboard the flagship USS Blue Ridge (LCC 19), volunteered to help with flood relief efforts. (U.S. Navy photo by Mass Communication Specialist 1st Class Joshua Karsten/Released)

ARABIAN GULF. Sailors direct an F/A-18E Super Hornet attached to the Tomcatters of Strike Fighter Squadron (VFA) 31 on the flight deck of the aircraft carrier USS George H.W. Bush (CVN 77). George H.W. Bush is supporting maritime security operations and theatre security cooperation efforts in the U.S. 5th Fleet area of responsibility. (U.S. Navy photo by Mass Communication Specialist 3rd Class Joshua Card/Released)

Nelson Quiz Answers……

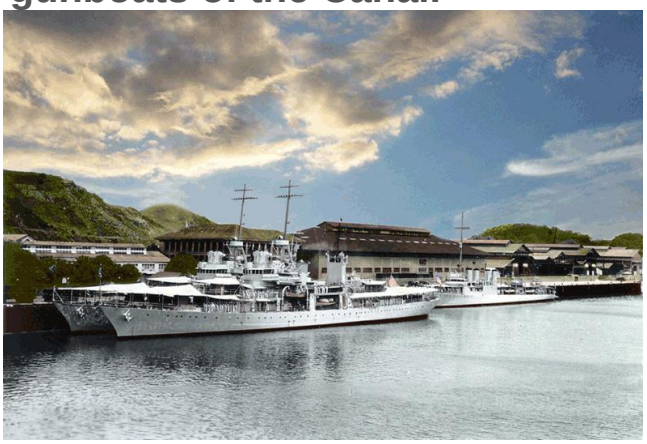
By Rob Morgan.

One or two of these I thought were rather difficult, but others seem drawn from the odder corners of 'Nelsonia'….

1. When boarding the *San Josef* at the Battle of Cape St. Vincent, 1797.
2. Viscount Nelson, Vice-Admiral of the White.
3. Fifteen yards…(or so the quiz said).
4. Copenhagen, Number 39 = 'leave off action.'
5. (b) is the answer.
6. Nine in all, Admirals of the White and Blue; Vice and Rear Admirals of the Red, White and Blue, eight in all plus the Admiral of the Fleet, technically he was Admiral of the Red.
7. Nelson, born in 1758, the ship dates to 1759.
8. The building was torn down while he was still alive.
9. HMS Raisonnable.
10. Nelson and Bronte. Vice Admiral.
11. Collingwood at Trafalgar, when Nelson flew his 'famous' signal.
12. Captain Maurice Suckling formerly of HMS Dreadnought.

Thanks to Jeff Crane for this article.

The slow gunboats of the Canal.



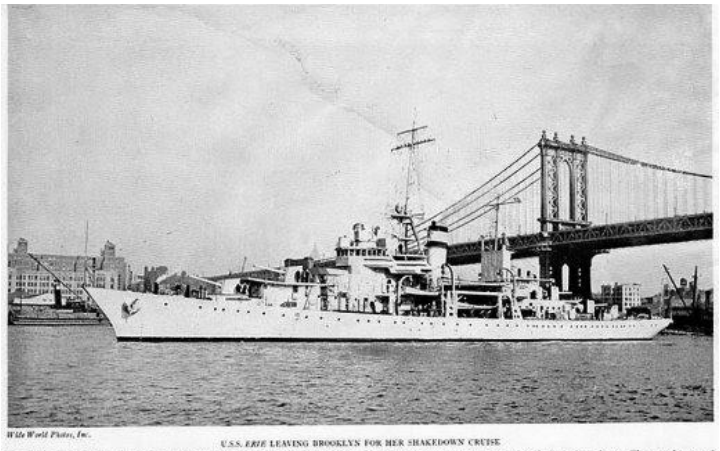
USS ERIE moored to her sister ship USS CHARLESTON at Balboa, CZ. (Colorized photo courtesy of Clive Fennessy,http://www.usserie.org/) Click to bigup.

Here we see the two *Erie*-class gunboats *USS Erie (PG-50)* and *USS Charleston (PG-51)* at Balboa in the Panama Canal Zone in a photo courtesy of the Erie Memorial association.

These two ships were built in accordance with the specifications of the Washington and London Naval treaties on 'slow gunboats.' While carriers, battleships, cruisers and submarines all had a number of very strict limits as to the maximum number of vessels of each type that could be produced by signatory powers, there was no limit how many small patrol-type combatants (such as gunboats, coast guard cutters, sloops, armed yachts etc.) each navy contained on their list so long as the ships were generally built for what we would term littoral, convoy escort, and sovereignty type operations, not general fleet use.

To limit these ships to that spectrum of the naval diet, as described by Article 8 of the 1930 London Treaty:

Subject to any special agreements, which may submit them to limitation, the following vessels are exempt from limitation: Naval surface combatant vessels exceeding 600 tons (610 metric tons), but not exceeding 2,000 tons (2,032 metric tons) standard displacement, provided they have none of the following characteristics:
(1) Mount a gun above 6.1 inch (155 mm) calibre;
(2) Mount more than four guns above 3 inch (76 mm) calibre;
(3) Are designed or fitted to launch torpedoes;
(4) Are designed for a speed greater than twenty knots.
So there you had it, a ship, at 2000-tons or smaller, with no more than four large guns no bigger than 155mm, no torpedo tubes, and go no faster than 20-knots. This rough specification gave the U.S. Navy an outline for a pair of ships that they could use to patrol the Panama Canal Zone, freeing more flexible destroyers and cruisers for other missions. Naval architects Howard C. Fletcher and Mandell Rosenblatt crafted the design of these ships, which were budgeted at about $4-million apiece (in 1933 dollars, which is about $71 million today—a bargain when you consider an LCS, which is about the same size, is over $300 million).



Wide World Photos, Inc.

U.S.S. *ERIE* LEAVING BROOKLYN FOR HER SHAKEDOWN CRUISE

The *Erie* and *Charleston* are, in effect, small but formidable cruisers, capable of performing convoy, patrol, scouting, and independent duty. The complement of this new type is 185, including 12 officers and a marine detachment. The *Erie* is scheduled to become the flagship of the Special Service Squadron sometime this winter.

Erie, patrol gunboat #50, was laid down 17 DEC 1934 at New York Naval Yard while *Charleston*, #51 was laid down about the same time, appropriately at the Charleston Navy Yard. It should be remembered that most other PGs of the day were China patrol boats that were much smaller, and much less heavily armed.

These new patrol gunboats, with their economical Parsons geared turbines coupled to a pair of Babcock and Wilcox boilers were rather beamy, with a 327-foot long hull and 41 foot beam giving them a length to beam ratio of 1:8. With everything lit they could just touch 20-knots, but running on one boiler they could churn up the seas at 12 knots for a pretty impressive 12,000nm, meaning they could go a long time between port calls if needed.

A quartet of 6-inch/47 cal low-elevation guns in single mounts (150mm bores-- just under the limit!) gave the boats enough punch to capture random enemy merchantmen and run off smuggler, pirates, and small warships. These MK 17 guns were a single-mount improvement over the guns carried in triple mounted turrets on U.S. light cruisers of the *Brooklyn*, *Cleveland*, classes et al. Only mounted on the two *Erie*-class ships, they were neat in the respect that they used 3.5hp motors for both powered elevation and training, which wasn't very common for the time. They could fire the same 105-pound 'Common Shell' used by the rest of the 6-inch guns of the fleet out to 19,000-yards, at a rate of up to 8 rounds per gun. However, firing these big guns on a short boat led to some issues. According to reader Ed Foster, whose father served on *Erie*, they had to fill ballast tanks before firing a broadside.

I believe him.

Four quad 1.1-inch AAA mounts, largely felt to be the worst AAA mount ever fielded by the U.S. Navy, gave the ships a modicum of protection against random air attack. Novel for the time, these 327-foot ships had accommodations for up to 44 Marines to put ashore (back then Marine detachments were just for cruisers, battleships, and come carriers). They could also carry an OS2U Kingfisher floatplane. Overall this ship type was designed as something of a force projection platform in low-threat areas. A mini, if somewhat slow, cruiser if you will.

Aerial starboard bow view of Erie underway in May 1940. National Archives photo 80-G-466205. Click to bigup

Their plant was an experiment of sorts, and helped advance naval engineering designs that followed them. According to the Naval:

Although their propulsion powering requirements were far lower than those of a destroyer, Charleston, and Erie's machinery plants incorporated numerous advancements in marine engineering that had been first introduced aboard the Farragut Class destroyers, which were designed in 1932 and entered service in 1934 and 1935. These advancements included the use of superheated steam at higher pressures, air encased boilers, semi enclosed feed water systems, an AC electrical distribution system, an emergency diesel generator, and a number of other improvements. The ship had a single rudder operated by an electro-hydraulic steering engine. Prior to 1930, steam steering gears had been standard aboard naval vessels.
Although Charleston was not a destroyer, a number of these design features carried over to the design of surface combatant ships that were built up through and during World War II. If these boats look familiar, you should realize that the U.S. Coast Guard's '*Secretary*' class of high endurance cutters (originally classified as gunboats), were based on the design of these two Navy ships. We profiled one of these, *Spencer*, here earlier this year. Instead of the 6"/47 MK17s, the Coast Guard went with 5"/51's and saved money in other areas, building their cutters out at about 30 percent less cost than the *Eries*.

USCGC Duane (WHEC33, formerly WPG-33) returning from Vietnam 1968. She is a half-sister to the Erie and Charleston.

This produced the simultaneous phenomena of the Navy ships of the class being among the slowest and most poorly armed in the fleet, while the Coast Guard ships, which were even more lightly armed, were the fastest and best equipped in that service's armada! Different strokes for different folks.

Erie rolled down the ways and was commissioned 1 July 1936 while sister *Charleston* followed just a week later. These ships proved popular with the U.S. Navy of the Great Depression era

due to their small crew size, just 180 officers, men and marines (fewer on a peacetime cruise), and a long, economical cruise speed. This allowed the ships, even though they were designed originally as the Panama Canal's guard force, to deploy far and wide for several years, waving the flag on the cheap. Remember, we have "Hope and Change," the sailors of the 1930s had the "New Deal", but for both, money had to be saved.

Erie in Atlantic Ocean off New York Navy Yard. October 19, 1936

Erie went to Spanish waters in 1936 to be an armed observer of American interests in the Spanish Civil War, and then served as a midshipman trainer at Annapolis the next year. *Charleston*, meanwhile, did a Med cruise with stops that included Yugoslavia and Algiers and then spent a period poking around the coast of Canada's Pacific shoreline and the Alaskan Territory.

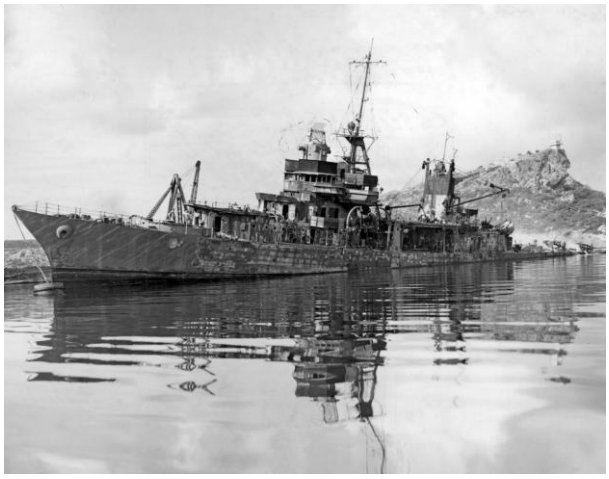
Of course, they did still spend time in the Canal, as witnessed in the image at the top of this post. Ideally, one would be based at Balboa, on the Pacific end, while the other would be at Cristóbal, on the Atlantic. However, this did not go down as planned.

When World War II came to the Americas, *Charleston* was still in Alaskan waters and proceeded to spent most of her wartime service there. She avoided Japanese torpedoes and bombs, and bombarded shore positions in the Aleutians during the recapture of those islands from the Imperial Army-- making her one of the only U.S. Navy ships in history to fire weapons into U.S. territory in wartime since the Civil War. Even when the Japanese were kicked out in 1943, *Charleston* spent the next two years on quiet anti-submarine patrol in Alaskan waters, after the addition of depth charge roll-off racks, while the rest of the fleet moved on. While assigned to the Aleutians the ship completed 130 escort missions involving a total of 253 convoyed ships. She performed a needed, if unsung war, being decorated with but a single battle star.

Erie, however, had a much different wartime experience. When the balloon went up on Dec. 7, 1941, *Erie* was in the Canal Zone where she was designed to be. Based at the Pacific end, she shuttled around in a mad dash for several weeks picking up interned Japanese citizens and directing questionable ships to authorities. Then, with Nazi U-boats haunting the U.S. East Coast and Gulf of Mexico, *Erie* was called up to the majors and sent through the Canal and into the Caribbean.

German U-boats haunted the Dutch West Indies in 1942. The image above shows a torpedo that ran up on Eagle Beach in Aruba 16 Feb 1942. Fired from U-156*, it missed the Texaco tanker* Arkansas*, berthed at Eagle Pier (although a second hit the ship). Shown being inspected by an unidentified Dutch Marine (*Korps Mariniers*) officer and U.S. Army Capt. Robert Bruskin, the steel fish was very much still a live war-shot round. It later killed four Dutch Marines who tried to disassemble it for study. Photo from LIFE March 2, 1942*

One of the small regional convoy routes established at the time was the Trinidad to Guantanamo Bay (Cuba) run. These "TAG" convoys shuttled across the Caribbean at low speed due to the nature of the small coasters and tankers that often made them up, which made them the perfect target for U-boats. On 12 Nov 1942, not even a year into her war, *Erie* was escorting TAG Convoy #20 when U-163 came across the little gunboat just out of Curacao. Being the most valuable ship in the convoy, KrvKpt. Kurt-Eduard Engelmann fired three torpedoes at her. In a testament to her sturdy design, she suffered just 18 casualties and was able to beach rather than sink.



*Erie, stricken, port side three-quarter view. Fort Nassau is at top right of photo. Note dramatic list of port quarter. Photo*http://www.usserie.org/

However, a resulting fire left *Erie* at a near total loss. Towed to Willemstad harbor in the Dutch West Indies (now Curacao), she capsized three weeks later and settled to the harbor. Struck from the Naval List 28 July 1943, she was salvaged in 1952 and her hulk sunk in deeper water. Today her memory is kept alive for posterity online by a most excellent association from which we used much information for this piece. (Note: *Erie*'s death was avenged. *U-163* was sunk 13 March 1943 just four months after *Erie*'s attack. The boat was sent to Davy Jones in the North Atlantic north-west of Cape Finisterre by depth charges from the Canadian corvette *HMCS Prescott* with all hands, to include Engelmann, lost).

Erie's sister *Charleston*, after World War II, was largely unneeded. The Navy had hundreds of new ships and no naval limitations treaty requirements to adhere to anymore, which made the lone survivor of a two-ship class that carried a unique main gun and propulsion plant very much surplus.

Even the Coast Guard, who still operated six half-sisters (one, *Hamilton*, was torpedoed and sunk 10 miles off Iceland 29 January 1942), didn't need the aging and in need of refit *Charleston* for their fleet since they had picked up 13 brand new *Wasco*-class cutters as a result of wartime spending that they were having a hard time finding crews for. The *Owascos*, and *Secretary* class cutters, augmented by a few WWII-built fleet tugs and seaplane tenders transferred from the Navy, carried the Coast Guard through the 1960s and 70s when two new-built classes took their place.

This led *Charleston* to be disarmed (except for a single aft 6-incher), her wartime camo removed, and transferred to the Massachusetts 25 March 1948, where she served as a training ship for a decade. Accordingly, this led to other modifications:

A number of changes had to be made in order to make the ship suitable for duty as a school ship. All of the ship's wartime armament had been removed with the exception of one of the after 6" mounts. The removal of all of this topside weight resulted in an increased metacentric height, which, if anything, made the ship too stable. Naval architects refer to this as being "stiff." During the first few days of the annual training cruises, the ship often encountered a seaway off Cape Hatteras and it would start violently rolling. The majority of the cadets and some of the instructors would become seasick. This condition would last until calmer waters were reached in the Caribbean. When it was originally commissioned, Charleston was fitted with portholes along the side. These had been sealed up in its wartime configuration but they had been reinstalled to provide at least some degree of ventilation as the ship had no air conditioning system. Invariably some would be found to be leaking under the conditions described above resulting in water with a very unpleasant odour sloshing around in the berthing compartments. According to CAPT. George W. Stewart, USN Ret., a 1956 MMA alumni who sailed on *USTS Charleston* as a start to his thirty-year (SW) Navy career, she was a good ship to learn on.

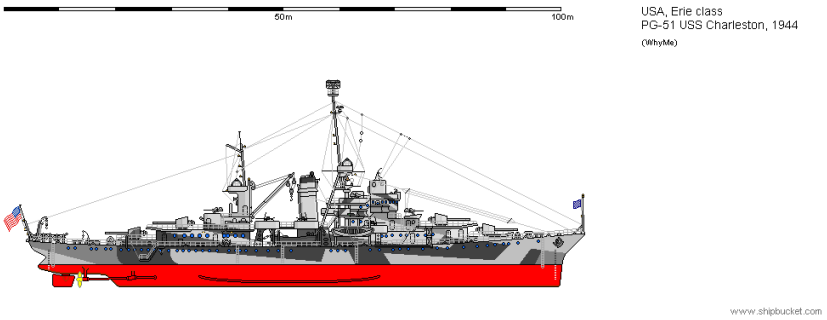
"Despite its limitations, *Charleston* was an excellent ship to learn the basics of marine engineering aboard during the 1950s. The lack of automation was actually an advantage because there were plenty of underway watch stations with things for the midshipmen to do. The experience gained aboard *Charleston* would prove to be extremely valuable to me aboard both naval and commercial steam powered ships during a seagoing career," wrote Stewart.

By 1958, however, she had become too expensive to operate and was turned back over to Uncle. Disposed of by MARAD in 1959 just past her twentieth birthday. Rumour is that she was sold to an Italian developer for use as a floating casino, but I cannot find anything on her past 1960 (so if you know what happened to *PG-51*, share please!).

Although *Erie* and *Charleston* are no longer with us, and five of their Coast Guard sisters have likewise vanished, two of that class are preserved as floating museums.

Erie's Kingfisher, knocked off the ship by *U-163*'s torpedoes in 1942, is a popular dive site off Curacao today as is her final resting place offshore for deepwater 'bounce' dives.

The *USCGC Taney* is currently a museum ship at the Baltimore Maritime Museum, in Baltimore, Maryland and the *USCGC Ingham* is part of the Key West Maritime Museum in Key West, Florida. Please visit them if you have a chance and when you go, give a moment's respect to the noble *Erie* and *Charleston* as well.

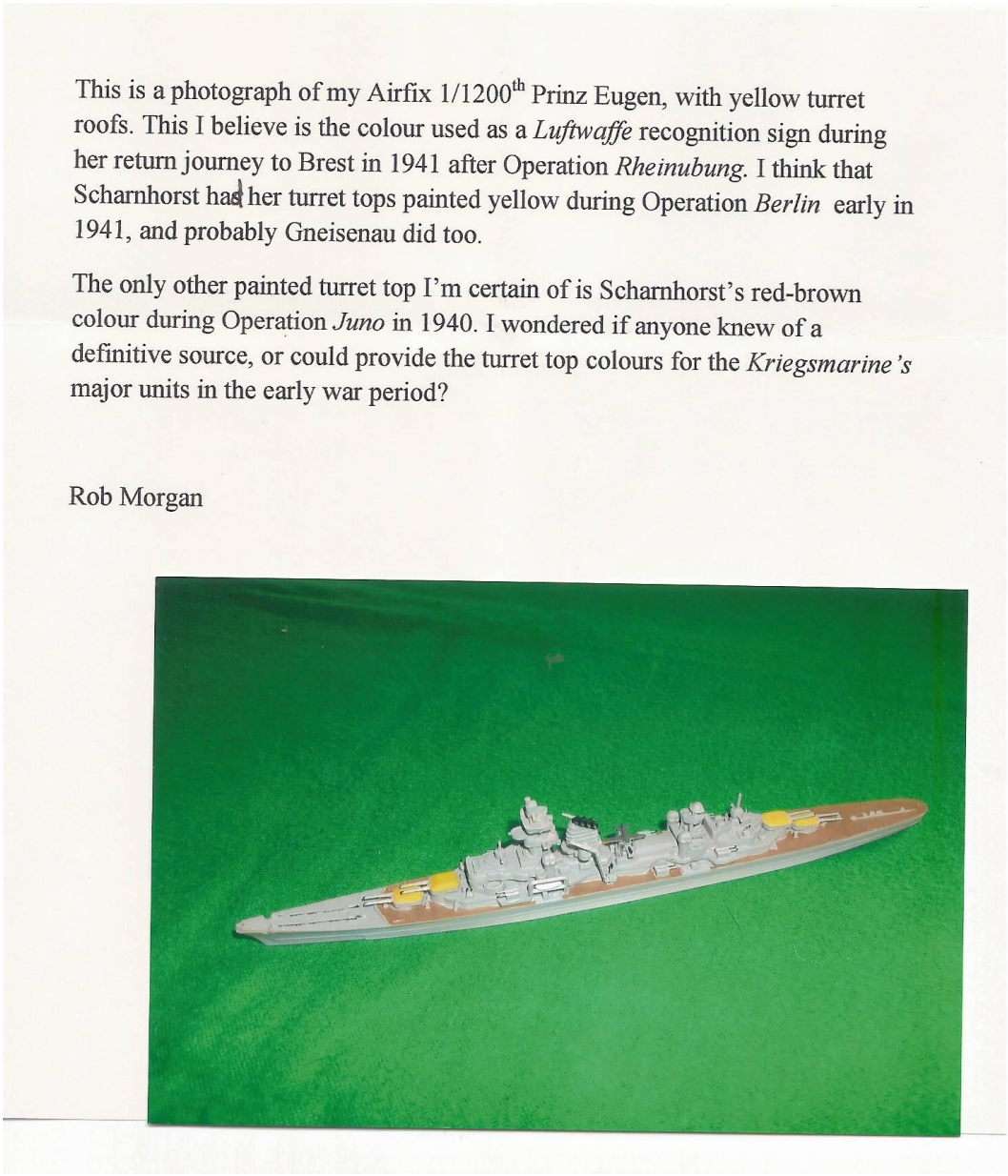


Specs:

Length overall: 328 feet, 6 inches
Length on water line: 308 feet (at standard displacement)
Extreme beam at/below water line: 41 feet, 3 inches (at standard displacement)
Mean draft: 11 feet, 4 inches (at standard displacement)
Maximum draft in service: 14 feet, 6 inches
Design displacement: 2,000 tons
Displacement in service: 2,830 tons
Maximum speed: 20 knots
Range: 8,000 nautical miles at 12 knots
Engines: 2, Parsons geared turbine
Boilers: 2, Babcock and Wilcox
Generator sets: 3 (2 turbo, 1 diesel), all A.C.
Armament:
6-in., 47 calibre, Mark 17 guns: 4, with Mark 35 battery director
1.1 in., quadruple anti-aircraft guns: 4
20 mm, single anti-aircraft guns: 4
Depth charge roll-off racks: 2, Mark 6 (each holding 15 depth charges)
Smoke pipes: 1
Masts: 2
Armor: 3½ inch side belts (over vital spaces)
Armor: 1 inch on six-inch gun shields
Armor: 1¼ inch on main deck
Armor: 4 inches on conning tower
Radar: 1, Mark 3 (mounted atop battery director)
Sonar: 1, ASDIC
Scout plane: 1, OS2U "Kingfisher"
Captain's cabin: 1
Admiral's cabin: 1
Guest cabin with 2 staterooms: 1
Officers' wardrooms: 15
Chief Petty Officers' quarters: 18
Enlisted men's berths (inc. 44 Marines): 213
Boats:
36-ft motor launch (70 men): 1
35-ft motor boat (27 men): 1
30-ft motor launches (40 men each): 2
26-ft motor whale boats (24 men each): 2
Balsa life floats (25 men each): 2

10-ft punt: 1

If you liked this column, please consider joining the International Naval Research Organization (INRO), Publishers of Warship International



This is a photograph of my Airfix 1/1200th Prinz Eugen, with yellow turret roofs. This I believe is the colour used as a *Luftwaffe* recognition sign during her return journey to Brest in 1941 after Operation *Rheinubung*. I think that Scharnhorst had her turret tops painted yellow during Operation *Berlin* early in 1941, and probably Gneisenau did too.

The only other painted turret top I'm certain of is Scharnhorst's red-brown colour during Operation *Juno* in 1940. I wondered if anyone knew of a definitive source, or could provide the turret top colours for the *Kriegsmarine's* major units in the early war period?

Rob Morgan

Thanks to Jeff and Todd for this following article.

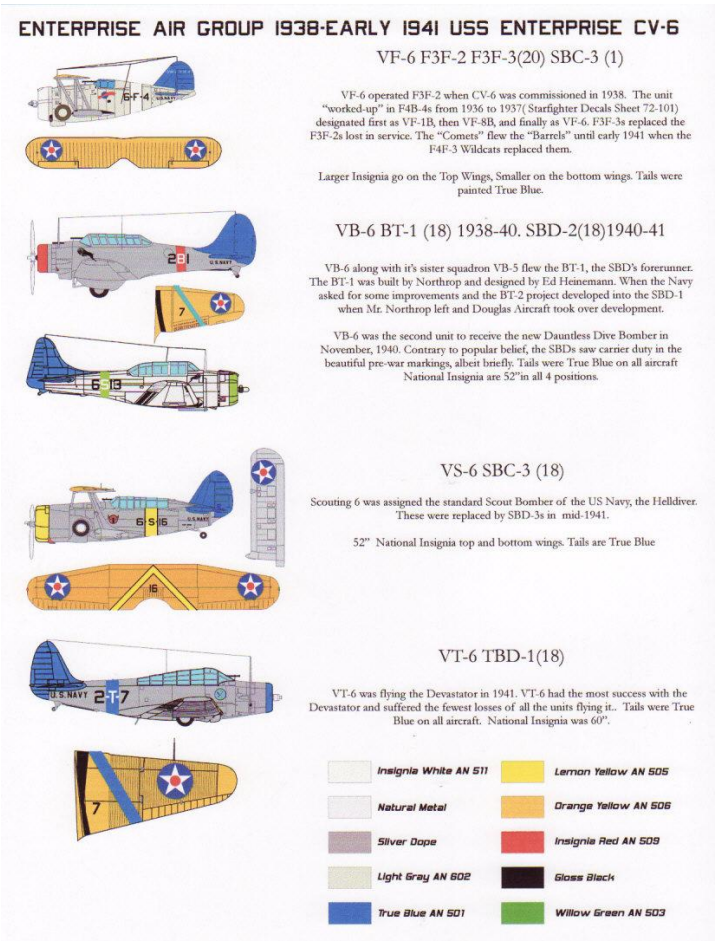
Back before World War II broke off for the U.S. Navy, carrier airgroups were very logically laid out and, very colorful. Before 1941, the Navy had just eight carriers.

*The original *Langley* (CV-1), converted from a collier and relegated to seaplane tender duties in 1937.
*The *Lexington* and *Saratoga* (CV-2 and CV-3), converted from cancelled battle cruiser hulls after WWI.
**Ranger* (CV-4), the country's first purpose-built carrier

*The three new 25,000-ton fleet carriers, *Yorktown*, *Enterprise*, and *Hornet* (CV-5, CV-6, CV-8) respectively
*And the budget 19,000-ton *USS Wasp* (CV-7).

To keep the squadrons of aircraft assigned to these carriers organized, they were established into carrier air groups whose squadrons were typically named after the flattop's hull number. For instance, the *Enterprise* Air Group, (later Carrier Air Wing 6, only decommissioned on 1 April 1993) included "Fighter Six" VF-6 (a fighter squadron made up of F3F-2 & 3 aircraft), "Bomber Six" VB-6 (a squadron made up of BT-1 dive bombers), "Scouting Six" VS-6 (a scout plane group equipped with SBC-3 Helldivers), "Torpedo Six" VT-6 (armed with TBD-1 Devastator torpedo bombers), as well as an Air Group Commander (flying a SBC-4), and some utility aircraft.

These air-groups had distinctive markings for their craft, which not only made it easy to tell which group and squadron it was in, but also the formation, and individual USN Bureau number (serial number) for the plane.



The image above is from LIFE magazine (Hattip D Shelly), 1938. It is of a SBC-3 Helldiver scout bomber getting ready for takeoff from the deck of the aircraft carrier *USS Enterprise* (CV-6) during manoeuvres off the coast of Hawaii in September 1940. It is from Scouting Squadron Six (VS-6).

This plane, bureau number 0542, was soon pulled from front line service (as were the rest of the cumbersome Helldivers). This airframe was kept around until 1944 as a trainer.

The blue tail indicates this aircraft is from the *USS Enterprise*. The red chevron on the top of the wing and the bottom of the cowling are the colors of the first section, made up of three aircraft, out of six sections in a squadron. The cowling being painted only on the bottom indicates this is aircraft number three, which would fly on the left-wing of the section leader when in a "V' formation. Its number, which you cannot see, would be "6-S-3" for Sixth Carrier Group, Scouting Squadron, aircraft #3

Also, the rear observer looks exceptionally non-plussed.

Incidentally, the Curtiss SBC-3 Helldiver, built in 1935, was obsolete as soon as it left the factory. While it would have been useful over the skies of France in WWI, any fighter of its day could have cleaned its clock. In fact, it was the last bi-plane built for the US Navy and Marine Corps. Slow (230 kts) and not very manoeuvrable, the plane had a short 150-200 nm radius of action as a scout plane and was pitifully armed with just two 30.06 calibre M1919 light machine guns (one forward and one rearward). It could, however, carry a half ton of dumb bombs.

Here we see a Northrop BT-1 dive bomber of Enterprise's 'Bombing Six' squadron, BuNo 0681. This one, according to the plane, from the "6-B-10" you can see it's the Sixth Carrier Group, Bomber, 10th aircraft.

These BT-1's were even worse than the Helldivers. Although colorful and at least a mono-plane, they had exceptionally bad low-speed manoeuvrability, which made them about the worst choice for a carrier aircraft in the world. The Navy accepted just 56 of these troubled planes. They were soon replaced by the much more effective Dauntless SBD in 1940.

Here we see a beautiful formation of Douglas TBD-1 Devastators of "Torpedo Six" from *USS Enterprise* off Hawaii for battle fleet exercises. The TBD-1 was a new plane, entering service in 1937. While just 130 were built, they made up the backbone of the U.S. Navy's torpedo bomber program in the first part of WWII. The thing is, as one aviation writer termed it, they were Not-so-Devastating. Barely able to keep above 130 kts when armed with a usually non-functioning Mark 13 torpedo, these planes had an effective radius of action of just 200 miles. Some 41 Devastators are famous for their suicidal attack on the Japanese fleet during the Battle of Midway in 1942, which caused no damage to the Emperor's forces. Not a single TBD-1 survives to this day although the locations of five wrecked ones are known.

Here we have a (more than 50% replicated) Grumman F3F Flying Barrel, N20FG (1938 built Grumman F3F-2 Model BuNo 1033) that is owned by Chino Warbirds of Carlsbad, California, in a photo by Richard Seaman taken at the 2008 Planes of Fame Airshow. The plane is marked in the same paint scheme as the *Enterprise* group's "Fighting Six" VF-6 squadron. Just 137 of these chubby fighters were produced, and soon were replaced by the F4F Wildcat. These chunks had a single .30 calibre machine gun and a single .50 calibre gun, and, while manoeuvrable, could only make 260 kts at best possible speed.

It would have been suicidal going up against a Zero in one of these. Gratefully, they spent WWII in training and utility duties.

Royal Navy warship supports operations against ISIL in the Middle East

06/10/2014

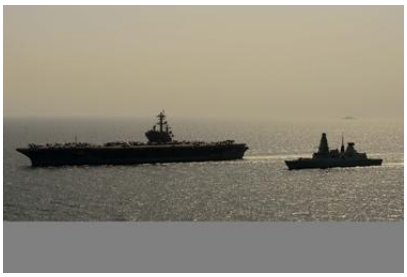
HMS Defender has arrived on station to provide vital support to a US Navy carrier task group in the Gulf.

HMS Defender supporting the USS George H W Bush
[Picture: Crown copyright]

HMS Defender, one of the most advanced warships ever built for the Royal Navy, is operating as a fully integrated part of the carrier strike group. Using her air defence radar and Sea Viper missile system, the ship provides an 'umbrella' of air defence to the Nimitz class aircraft carrier and her escort ships while they patrol the Gulf and launch airstrikes against the terrorist group ISIL.

HMS Defender is now operating with the US Navy's Arleigh-Burke class destroyers USS Truxton and USS Roosevelt and the Ticonderoga class destroyer USS Phillipine Sea to provide support for the aircraft carrier.

Engaged in round-the-clock operations, HMS Defender's task is to build an accurate air surveillance picture over the whole of the Gulf in order to guard the US aircraft carrier against possible air attack while she launches airstrikes against ISIL targets.



HMS Defender supporting the USS George H W Bush
[Picture: Crown copyright]

The United Kingdom has already committed Royal Air Force fighter bombers to carry out reconnaissance missions and airstrikes in Iraq and the deployment of one of the Royal Navy's most advanced warships demonstrates further resolve in combating the threat of ISIL.

SIGNAL PAD!

Coming in November: Zvezda's Soviet Armoured Boat, Send A Gunboat, A Spanish Submarine and the War against the Yankees, a Stuka pilot's view of HMS BELFAST, more articles seen by Jeff Crane plus lots more.

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