## The revolution in warship design between 1797 and 1945, as told by America's historic ships





Or: What I did on my holidays

## I am not a historian.

## Valentine's Day Battle of Cape St Vincent (1797)



"Nelson's patent bridge for boarding enemy vessels."

## How did this happen?



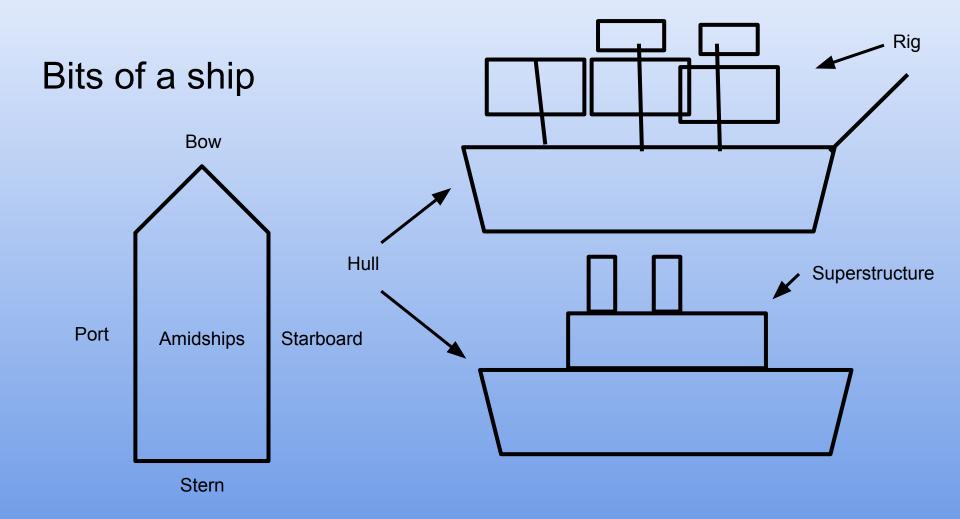




USS Constitution, 1797



USS New Jersey, 1943



## Battle of the Chesapeake (1781)

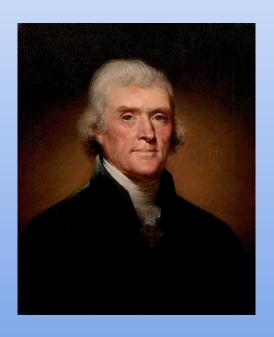


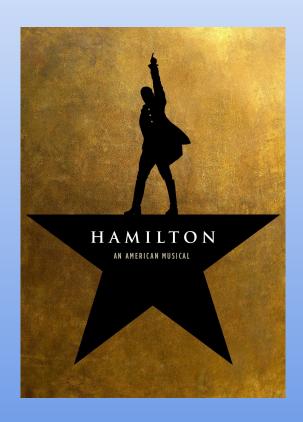
USS Constitution (1797), Boston





## Who needs a navy?





#### Warships are really expensive



USS *Constitution* (1897) = \$300000 ≈ \$ 10 million in 2020



USS Gerald R. Ford (2017) = \$ 13+ billion

### What kind of navy?



HMS *Surprise* (replica), frigate San Diego



HMS *Victory*, first-rate ship of the line Portsmouth

## What kind of navy?



USS Constitution, heavy frigate

## Heavy frigates





#### From sail to steam



USS Mississippi (1841)



Napoléon (1850)

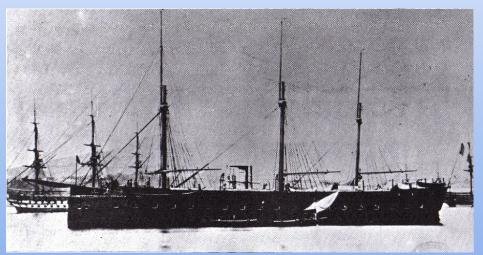
## USS Constellation (1854), Baltimore







#### **Ironclads**



Glorie (1859)

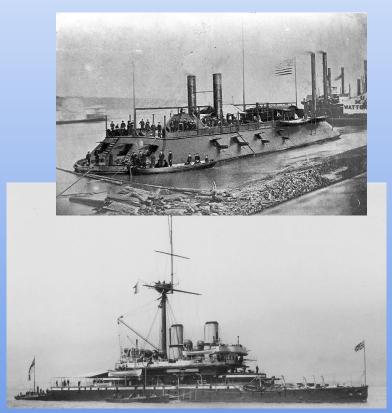


HMS Warrior (1860)

## Battle of Hampton Roads (1862)



#### Turrets + Steam + Iron = ???







## USS Olympia (1892), Philadelphia





## Battle of Manila Bay (1898)



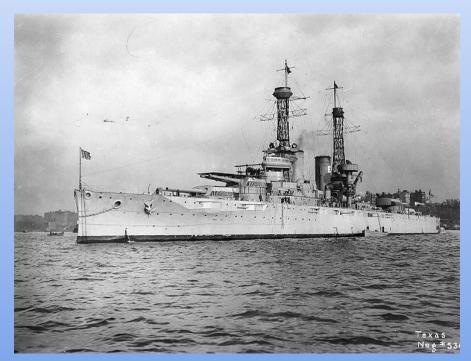
## Wright Flyer (1903)



## HMS Dreadnought (1906)



#### Battleships and Battlecruisers





USS *Texas* (1912)

HMS Queen Mary (1913-1916, abruptly.)

## USS Texas (1912), Houston



## USS Texas (1912), Houston

Aug. 31, 2019 - The Battleship Texas is closed for a lengthy repair project. No reopening date has been set. Check here for updates.

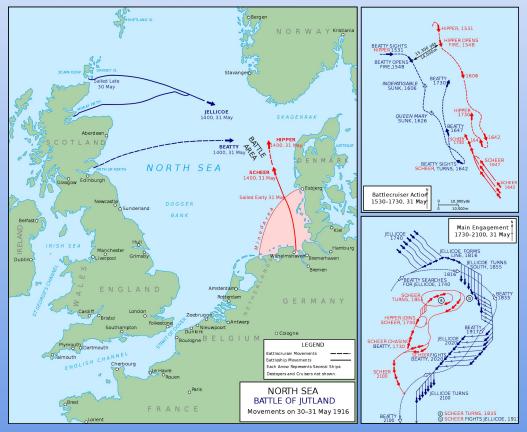


## USS Texas (1912), Houston

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## Battle of Jutland (1916)



#### Second World War - the end of the battleship?



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Battle of Taranto (1940)

Attack on Pearl Harbour (1941)

Sinking of *Prince of Wales* and *Repulse* (1941)

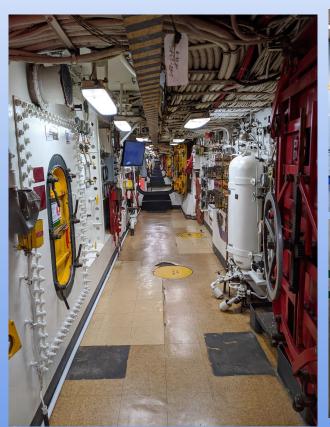
# USS *Iowa* (1942), Los Angeles USS *Missouri* (1944), Honolulu





#### Inside *Missouri*

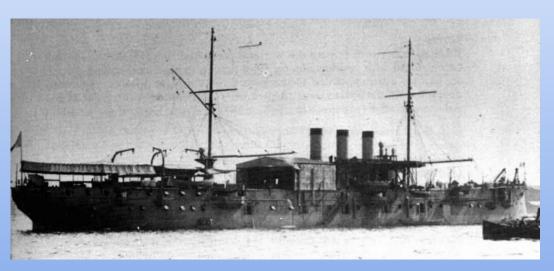




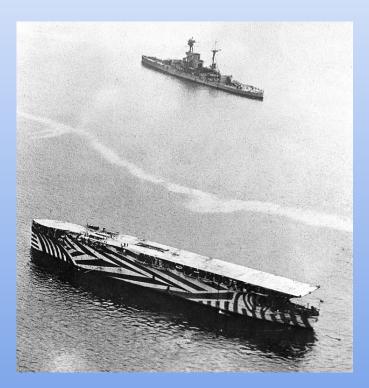




#### **Aircraft Carriers**



Foudre (1912)



HMS *Argus* (1917)

USS Midway (1945), San Diego







#### Conclusions

- Historic ships are fun, and there are a lot of them to look around.
- I skipped submarines.
- Nobody knows what the next effective warships are like.
- Maybe let's not find out?