



Coastal Warfare in *World War II*

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Admiralty Trilogy Seminar

Introduction



Coastal Warfare in WWII

- ◆ What is Coastal Warfare?
- ◆ Littoral/Coastal Environment
- ◆ Background
- ◆ Mighty Midgets - "Small Craft"
- ◆ Roles and Missions
- ◆ Tactics Overview
- ◆ National Development
- ◆ Post-WWII
- ◆ Coastal Warfare and CaS
- ◆ Some Good Books



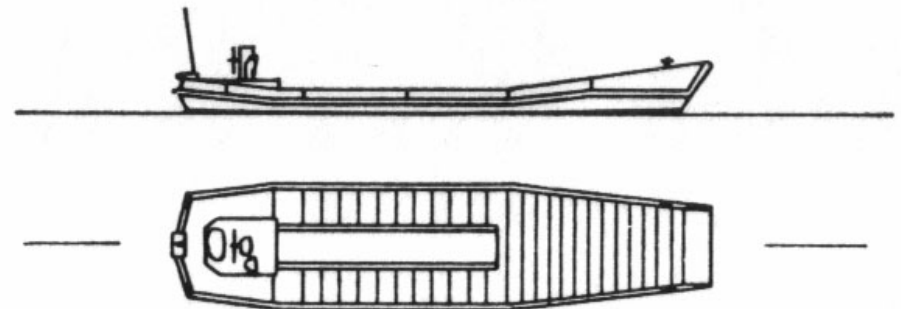
What is Coastal Warfare?



Coastal Warfare in WWII

- ◆ “Littoral” or Coastal waters
- ◆ Shallow water, often sheltered waters
 - Sometimes too shallow for larger naval vessels
- ◆ Not seagoing ships
 - Can’t operate in Sea State 4-5, even then it’s unpleasant
- ◆ More than just PTs and other high-speed craft
 - Motor launches for minesweeping, ASW, rescue (e.g. British MLs)
 - Small minesweepers (e.g. German R-boats)
 - Barges for transporting cargo (e.g. Japanese Daihatsus)
 - Landing craft
- ◆ Common factor is small size
 - Limited endurance
 - Light armament
 - Low damage capacity

14-metre Type

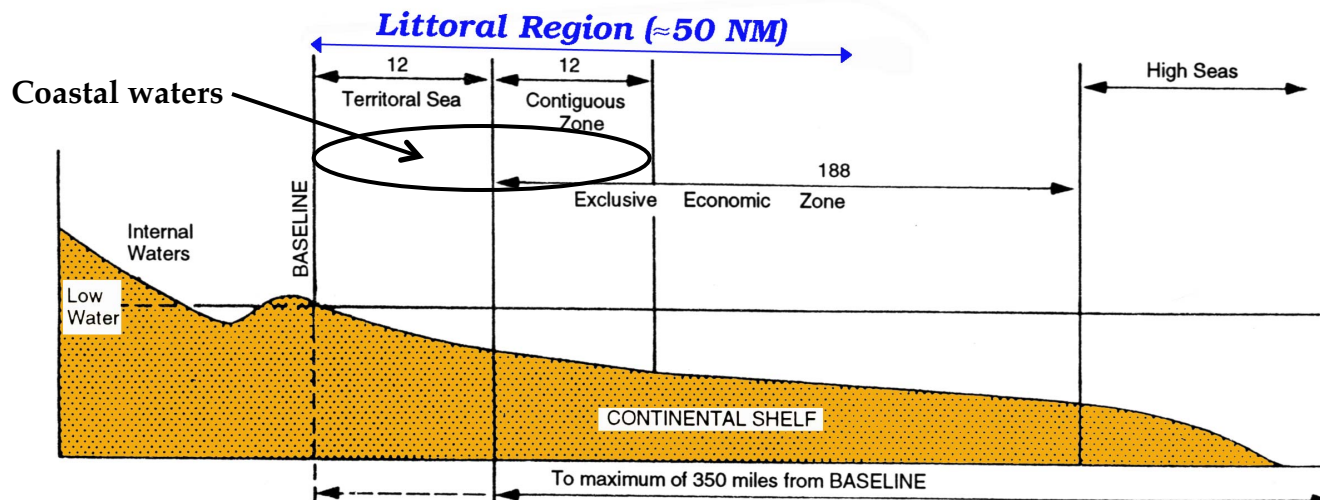




Littoral/Coastal Environment

Coastal Warfare in WWII

- ◆ Difficult environment due to the close proximity of land
- ◆ Detection Issue - Heavy clutter
- ◆ Classification Issue - Many false contacts
- ◆ Reduced operation space - Restricted maneuverability
- ◆ All combine to reduce a ship's reaction time





Background

Coastal Warfare in WWII

- ◆ **WWI - These are distinct from the “Torpedo Boat”**
 - Seagoing vessel intended for fleet action
- ◆ **Who built coastal combatants?**
 - **Britain: Built a dozen Coastal Motor Boats (CMBs)**
 - 40 ft long, single rearward launched torpedo & a few MGs
 - Several dozen motor launches, 76ft long, 3 pdr, general-purpose duties
 - **Italy: Dozens of different classes of motor torpedo boats & motor boat**
 - Geography driven
 - 50-60ft long, mix of torpedoes, light weapons, and DCs
 - **France: Built a few motor boats armed with DCs**
 - **Austria-Hungary: Built a few late in the war, never amounted to much**
 - **Russia: Built several classes of motor launches**
 - **USA & Japan: Didn't build any**



Mighty Midgets - “Small Craft”

Coastal Warfare in WWII

◆ Two general types of small craft

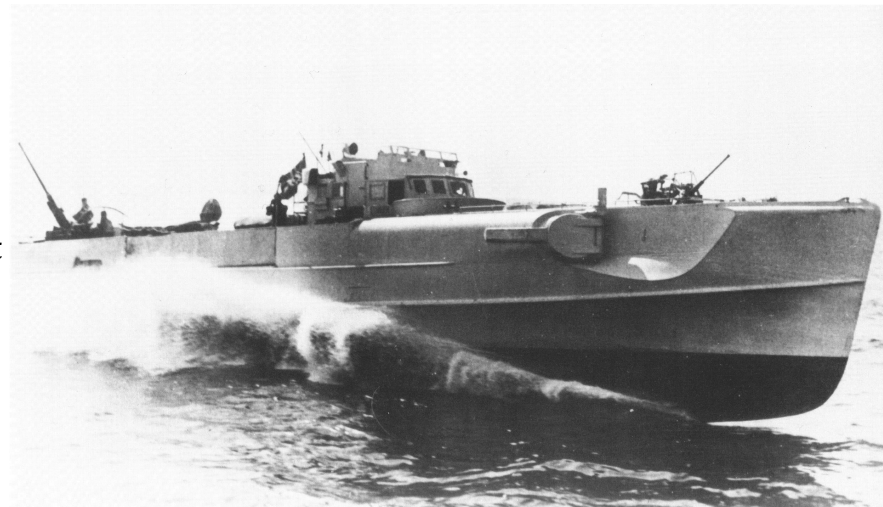
- Those driven by the need for speed
- Those that aren't

◆ High-speed craft

- Hard chine, wooden hulls
- Powerful engines
- Torpedo attack craft or gunboats adapted from PT designs

◆ Motor launches and the rest

- More conventional, rounded hulls
- Less powerful engines
 - Exception German Schnellboot or S-boat



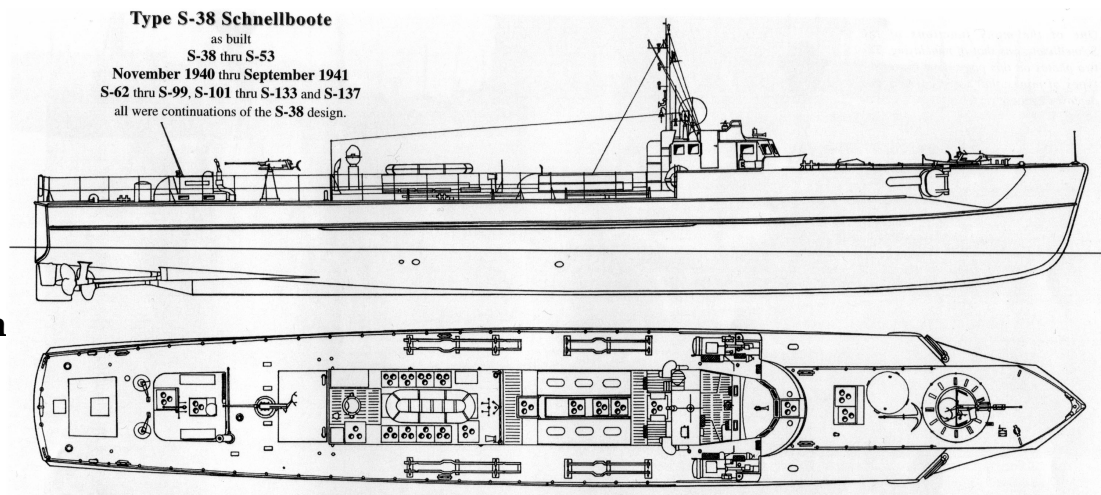
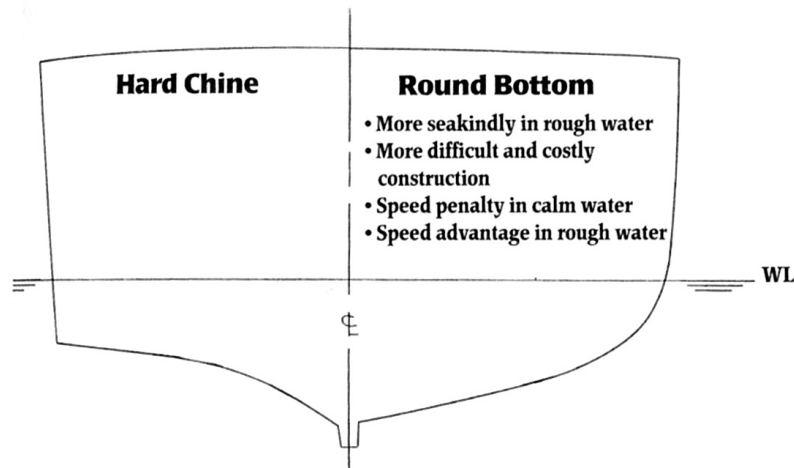


PTs, MTBs, MGBs, S-boats

Coastal Warfare in WWII

◆ Basic Ship Design

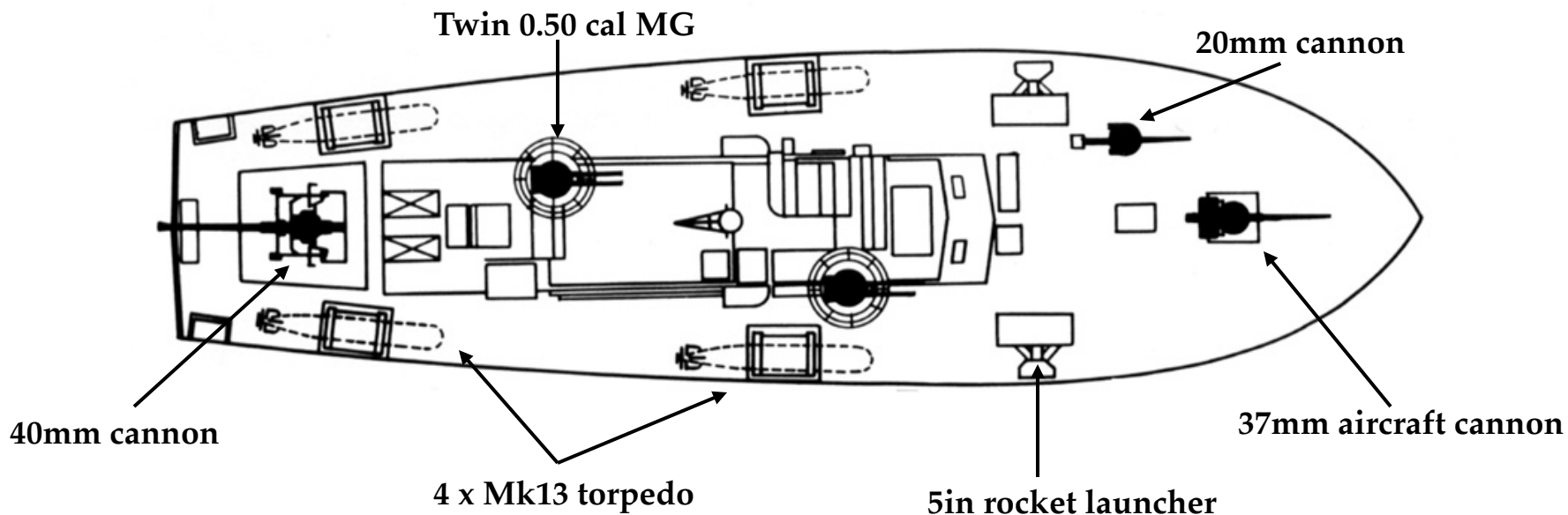
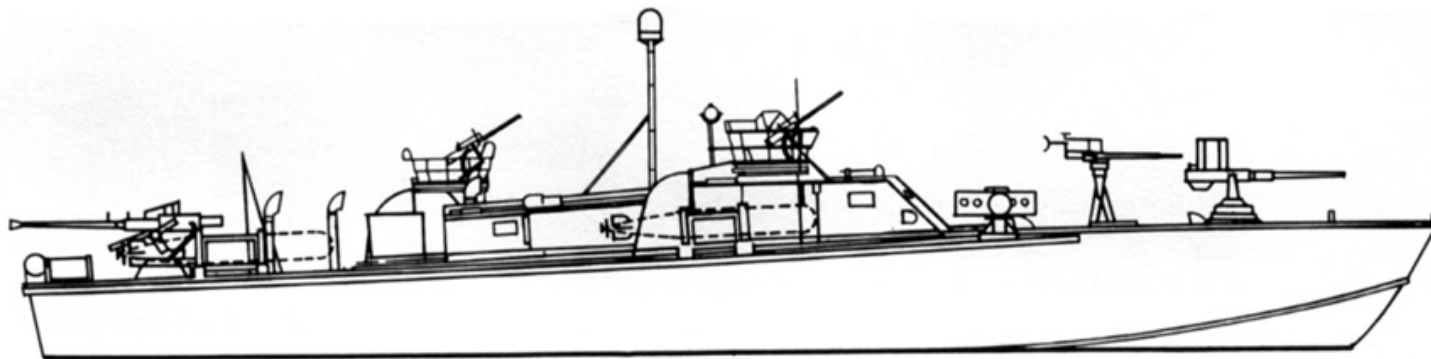
- High-speed hull form
 - Hard chine, planning hull
 - Rounded hull, Lürssen effect
- Powerful propulsion plant
 - Usually diesel, some petrol, few steam
 - Limited range, particularly at high-speed
- Sensors
 - Mk 1 Mod 0 Eyeball
 - Radar
- Weapons
 - Torpedoes
 - Machine Guns
 - Light-to-Medium cannon
 - Depth charges
 - Rockets
 - Kitchen sink



PT Boat Weapons



Coastal Warfare in WWII



Roles & Missions



Coastal Warfare in WWII

- ◆ Search & Rescue
- ◆ Scouting and reconnaissance
- ◆ Commando or Coast Watcher insertion/extraction
- ◆ Interdiction of coastal sea lines of communication (SLOCs)
- ◆ Coastal SLOC protection



Tactics Overview



Coastal Warfare in WWII

- ◆ **Stalks the prey and then pounces when the time is right**
- ◆ **Stealth is the lifeblood of the coastal combatant**
 - **Low-speed approach: minimize noise and wake**
 - **Stay close to shore: maximize the cluttered environment**
 - **Use of camouflage and mufflers to remain undetected**
- ◆ **Close target as much as possible**
 - **Maximize torpedo attack probability of a hit**
- ◆ **Launch torpedoes, shoot guns**
- ◆ **Run away at flank speed**
- ◆ **Use smoke to screen**

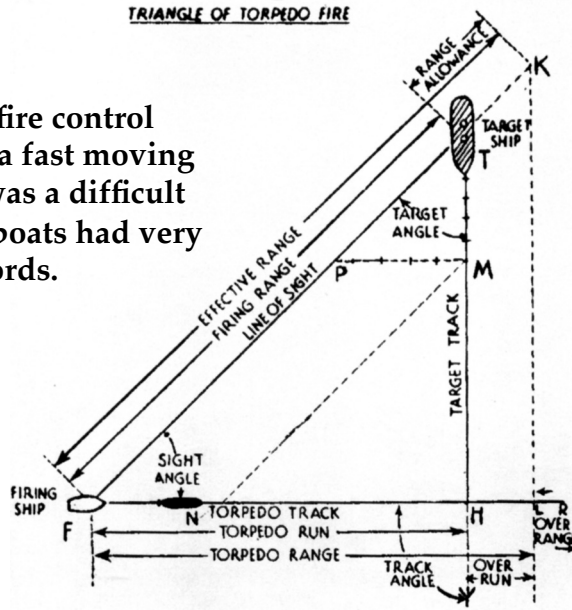




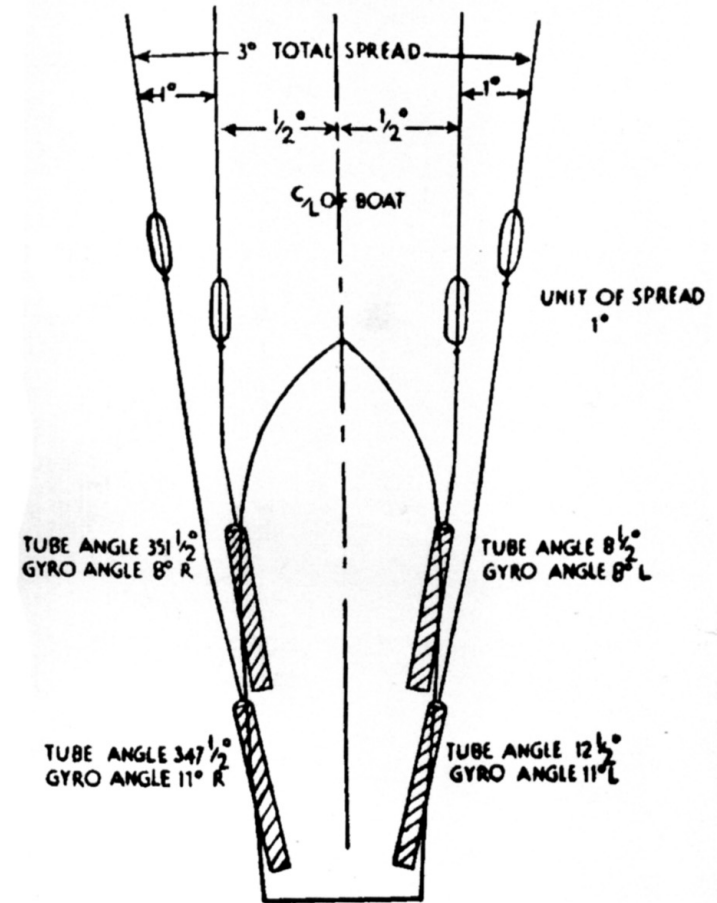
Torpedoes - David's Slings

Coastal Warfare in WWII

Solving the fire control problem on a fast moving small boat was a difficult task. Small boats had very poor hit records.



SKETCH SHOWING TUBE ANGLES, GYRO ANGLES, UNIT OF SPREAD, AND TOTAL SPREAD.



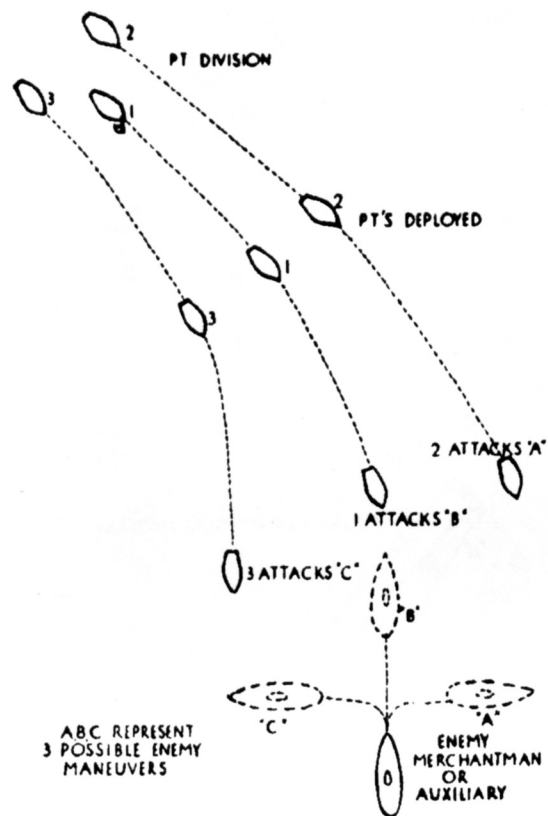
On U.S. PT boats, lighter Mk13 airborne torpedoes replaced heavier ship-based weapons and their tubes.



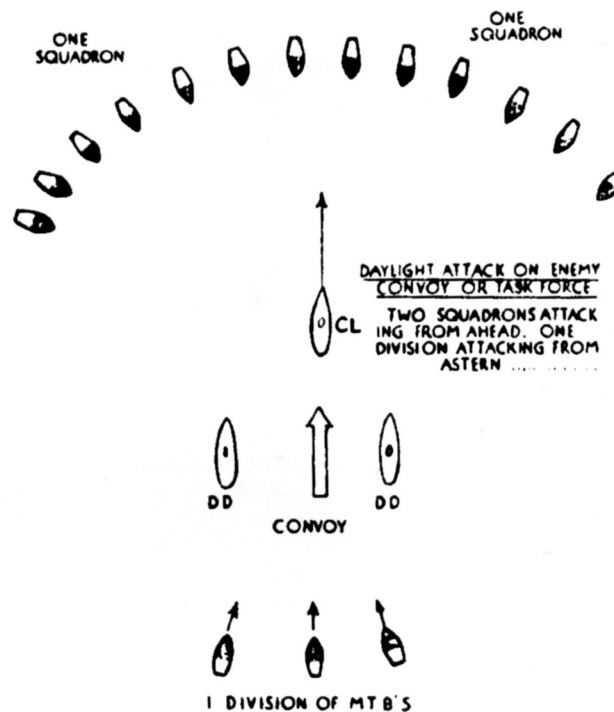
Mad Dogs - Pack Animals

Coastal Warfare in WWII

- ◆ PT boats, MTBs and S-boats often hunted in packs
- ◆ Diversion group set the target up for the kill



ATTACKING A SINGLE MERCHANTMAN OR AUXILIARY





WWII National Development

Coastal Warfare in WWII

◆ Britain:

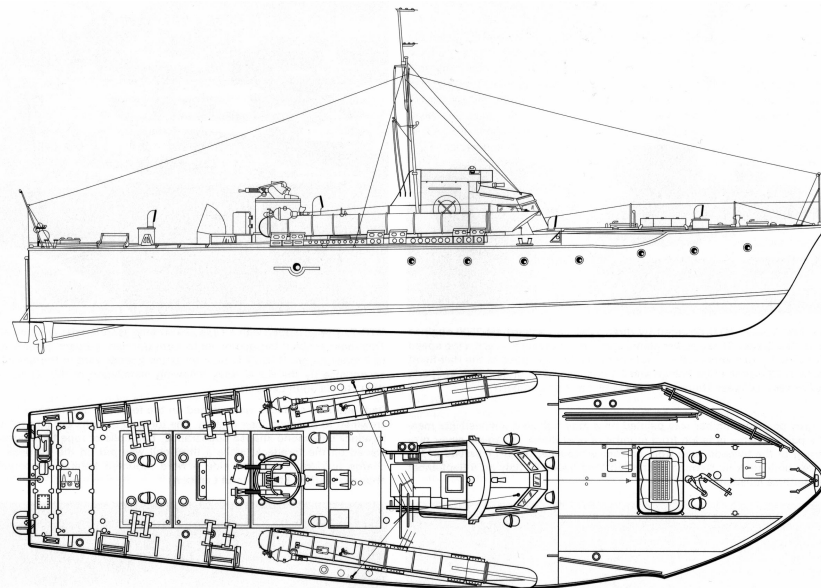
- First to have large numbers of MTBs and MGBs
 - Used extensively in channel convoy raids

◆ USA:

- PT boats quickly evolved into gunboats
 - Relatively few large targets, Pala Passage notwithstanding
 - Adapted to breaking up coastal resupply of Japanese garrisons

◆ Soviet Union:

- Used extensively in the Baltic and Black Seas



WWII National Development



Coastal Warfare in WWII

◆ Germany:

- S-boats were bigger, tougher and much more sophisticated design
 - Powerful gun armament
 - Some armor

◆ Japan:

- Surprisingly, never adopted PT concept
- Used thousands of barges to supply and transport troops

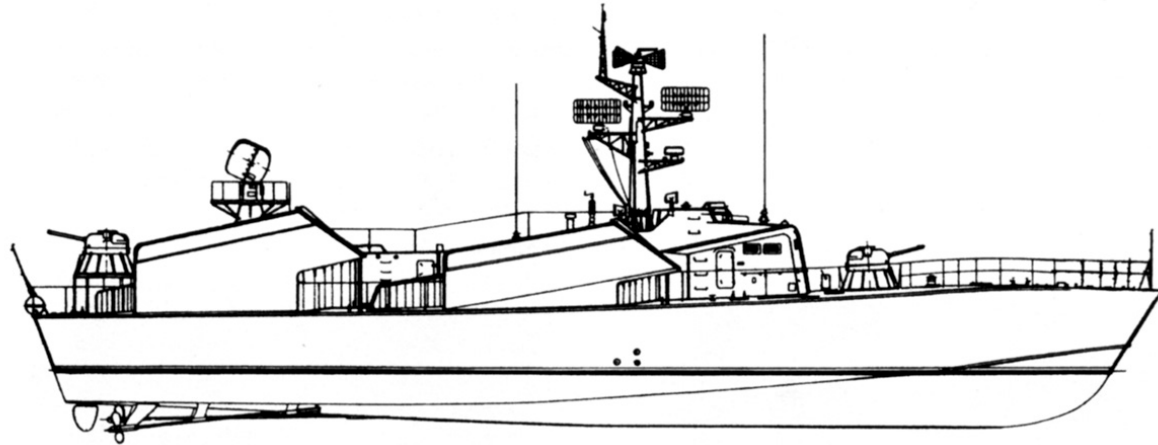
◆ Italy:

- Had the largest MTB fleet of any major navy
- MAS boats = Special Attack Motorboats
 - Most were small (<40 tons), fast, torpedo-carrying craft
 - Resembled British MTBs
- Large class of ASW motor launches
- Small explosive boats (MAT and MTM)
 - Approximately 300 kg explosive charge
 - *HMS York* sunk at Suda Bay, 25 March 1941

Post World War II



Coastal Warfare in WWII



- ◆ **1960: Cruise missiles replace torpedoes**
 - Project 183R [KOMAR]
 - Project 205 [OSA I]
- ◆ **Soviets still retain torpedo boats**
 - Project 206 [SHERSHEN]
- ◆ **Speed not as much of an issue**
 - Can't out run a missile
- ◆ **Small size is for low cost as much as concealment**
- ◆ **Littoral/coastal environment remains part of concealment**

Coastal Warfare and CaS



Coastal Warfare in WWII

◆ Rule changes for *Mighty Midgets*

- **New size class definitions**
 - Size class E: 86 - 350 tons
 - Size class F: 21 - 85 tons
 - Size class G: ≤ 20 tons
- **Damage**
 - Decimal damage system and hull points
 - New Critical Hit columns
 - Personnel casualties
- **Role Playing Rules**
 - Crew Experience - Novice, Green, Competent, Crack, Elite
 - Morale - Shattered, Poor, Fair, Good, Excellent, "I'm Invincible!"
 - Player assumes the role of squadron commander
 - Battle planning and execution by boats under your command



Some Good Books



Coastal Warfare in WWII

PT Boats at War: World War II to Vietnam, by Norman Polmar & Samuel Loring Morison

Dog Boats at War: Royal Navy D Class MTBs and MGBs 1939-45, by Leonard C. Reynolds

Mediterranean MTBs at War: Short MTB Flotilla Operations 1939-45, by L.C. Reynolds & H.F. Cooper

Devil Boats: The PT War against Japan, by William Breuer

Flag 4: The Battle of coastal Forces in the Mediterranean 1939-45, by Dudley Pope

Hot, Straight and True: An Anecdotal View of PT Boats in WWII, by Russ Hamacheck

E-Boat Alert: Defending the Normandy Invasion Fleet, by James Foster Tent

Coastal Forces at War: Royal Navy 'Little Ships' in World War II, by David Jefferson

At Close Quarters: PT Boats in the United States Navy, by CAPT Robert J. Buckley, Jr.

Hunters in the Shallows: A History of the PT Boat, by Curtis L. Nelson

American PT Boats in World War II, by Victor Chun

United States PT-Boats of World War II, by Frank D. Johnson

S-Boote: German E-boats in action 1939-1945, by Jean-Philippe Dallies-Labourdette

Night Action: MTB Flotilla at War, Captain Peter Dickens, RN

The Battle of the Narrow Seas, Lt. Cdr Peter Scott, RNVR

The Mosquito Fleet, by Bern Keating

PT 105, by Dick Keresey