Coastal Warfare in World War II

Admiralty Trilogy Seminar
Presented by: Clash of Arms Games
Introduction

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• Background
• Mighty Midgets - “Small Craft”
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What is Coastal Warfare?

- “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
Littoral/Coastal Environment

- 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
Coastal Warfare in WWII

Background

- **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”

- 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

- 37mm aircraft cannon
- 20mm cannon
- 40mm cannon
- Twin 0.50 cal MG
- 4 x Mk13 torpedo
- 5in rocket launcher
- 37mm aircraft cannon
Roles & Missions

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

- 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 Sling

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

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

- PT boats, MTBs and S-boats often hunted in packs
- Diversion group set the target up for the kill
• 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 not withstanding
    ■ Adapted to breaking up coastal resupply of Japanese garrisons

• Soviet Union:
  – Used extensively in the Baltic and Black Seas
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
• 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

- 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

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