La Royale
The French Navy

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Cold Wars 2002

Admiralty Trilogy Seminar

Outline

♦ **Organization**

♦ **Order of Battle**

♦ **Capabilities of French ships and systems**

- • **Major Combatants**
- • **Aircraft Carriers**
- • **Minor Combatants**
- • **Submarines**

♦ **Warfare Disciplines - Strengths and Weaknesses**

♦ **Assessment vis-à-vis Germany & Italy**

Organization

◆ **Commander in Chief (Admiral of the Fleet) based in Maintenon (50 miles SW of Paris)**

- **Admiral of the Fleet Francois Darlan**

◆ **Naval Minister based in Paris on Rue Royale**

- **Honorable Cesar Campinchi**

◆ **Administrative Organization**

- **Administration (Personnel) *{1st Bureau}***
- **Intelligence *{2nd Bureau}***
- **Operations *{3rd Bureau}***
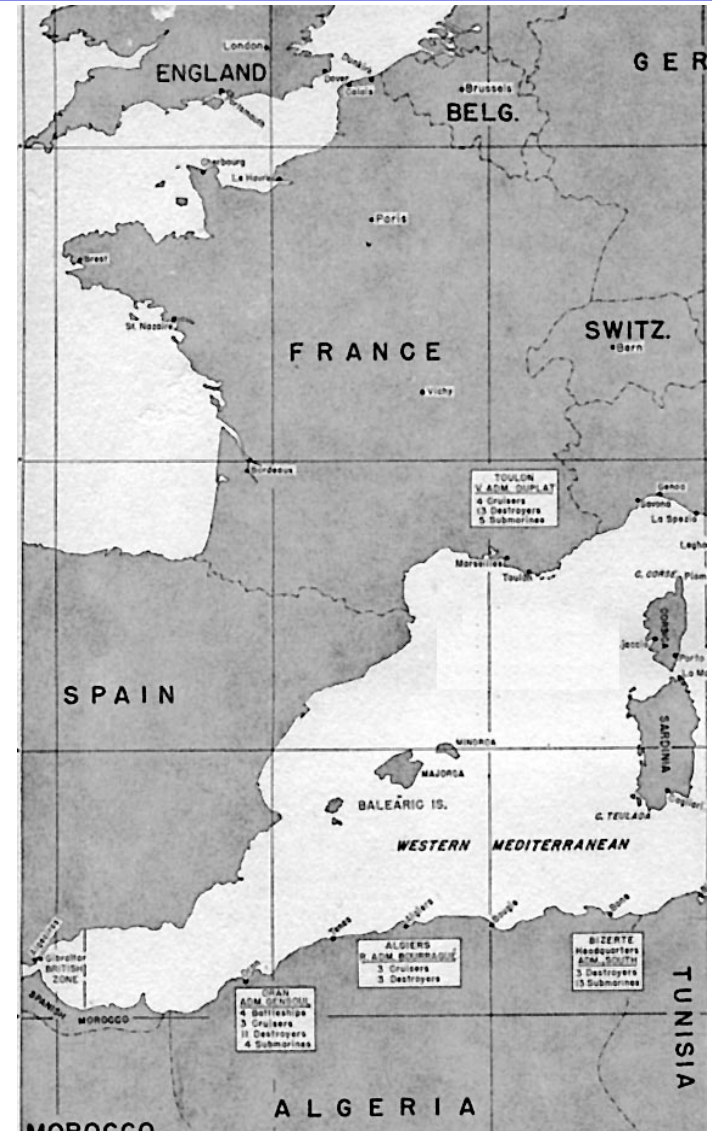- **Supply (Materiel) *{4th Bureau}***

Naval Districts

- **Admiral South**
  - **Toulon & Bizerte**
- **Admiral West**
  - **Brest**
- **Admiral North**
  - **Dunkirk**
- **Admiral Far East**
  - **Saigon**
- **Admiral Antilles**
  - **Martinique**
- **Admiral Africa**
  - **Casablanca**

Direct Control by CinC

♦ **1st Squadron (Force de Raid)**
  - **Brest, France**

♦ **2nd Squadron**
  - **Oran, Algeria**

♦ **3rd Squadron**
  - **Toulon, France**

♦ **4th Squadron**
  - **Dakar, French West Africa**

The Fleet Order of Battle

- ◆ **1st Squadron**
  - • *Dunkerque, Strassbourg*
  - • *Emile Bertain, Georges Leygues, Gloire, Montcalm*
  - • **8 Contre-Torpilleurs**
- ◆ **2nd Squadron**
  - • *Lorraine, Bretagne, Provence*
- ◆ **3rd Squadron**
  - • **10,000 tons Cruisers**
  - • **4 Divisions of Contre-Torpilleurs**

The Fleet Order of Battle (cont)

- ◆ **4th Squadron**
  - • **7,000 ton Cruisers**
  - • *Marseillaise, Jean de Vienne, La Galissonniere*
- ◆ **PATMOC (Patrouilleurs de la Mediterranee Occidentale) {Western Mediterranean Patrol}**
  - • **4 Divisions of Torpilleurs d'Escadre/ Torpilleurs**
- ◆ **Toulon**
  - • **6 x 1st Class Submarines**
  - • **14 x 2nd Class Submarines**

- ◆ **Bizerte**
  - • **9 x 1st Class Submarines**
  - • **4 x 2nd Class Submarines**
  - • **4 x Submarine Minelayers**
- ◆ **Oran**
  - • **8 x 2nd Class Submarines**

- **Bone**
  - 1 Squadron Naval Air Reconnaissance
  - 1 Squadron Naval Air Bombers
  - 1 Squadron Naval Air Torpedo Bombers
- **Karouba**
  - 2 Squadron Naval Air Reconnaissance
  - 2 Squadron Naval Air Torpedo Bombers
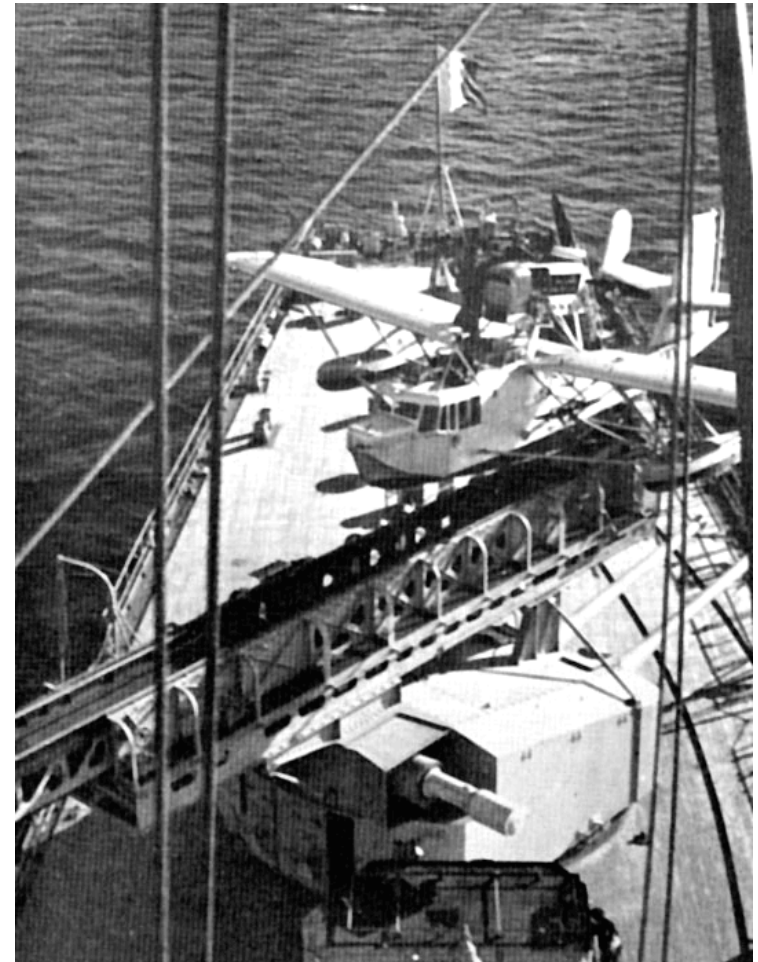- **Arzew**
  - 1 Squadron Naval Air Reconnaissance
- **Beruit**
  - 1 Squadron Naval Air Reconnaissance

Naval Air

- ◆ **Dive Bombers**
  - **Chance Vought 156 (40 aircraft)**
  - **Loire-Nieuport 411 (41 aircraft)**
- ◆ **Torpedo Bombers**
  - **Latecoere 298 (40 aircraft)**
- ◆ **Fighters**
  - **Potez 631 (26 aircraft)**
- ◆ **Reconnaissance**
  - **Loire-Nieuport 130 Flying Boat (65 aircraft)**
  - **Breguet-Bizerte Float Plane (31 aircraft)**

Composition of the Fleet

♦ **555,000 tons of Combatants**

2 Battle Cruisers	**32 Contre Torpilleurs**
3 Modernized Battleships	**26 Torpilleur d'Escadres**
2 Older Battleships	**12 Torpilleurs**
1 Aircraft Carrier	**1 Corsair Submarine**
1 Aircraft Tender	**37 First Class Submarines**
7 Heavy Cruisers	**32 Second Class Submarines**
12 Light Cruisers	**6 Submarine Minelayers**

♦ **350 Naval Aircraft**

♦ **126 Naval Auxiliaries**

The Fleet Under Construction

◆ **271,500,000 tons of Combatants**

- • **4 Modern Battleships**
- • **2 Fast Aircraft Carriers**
- • **3 Light Cruisers**
- • **4 Contre-Torpilleurs (Super-Destroyers)**
- • **12 Torpilleurs d'Escadre (Destroyers)**
- • **8 First Class Submarines**
- • **28 Second Class Submarines**
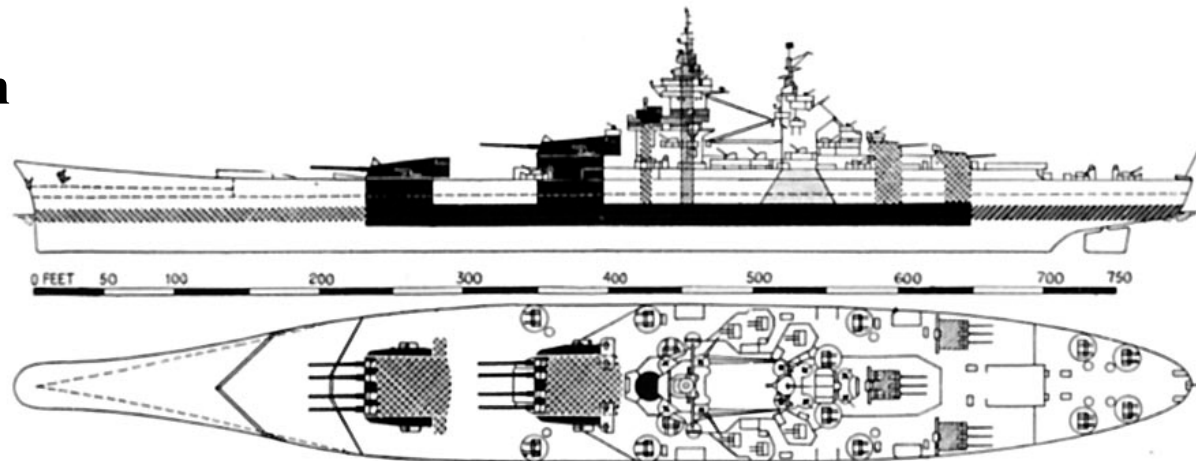- • **4 Submarine Minelayers**

Examples of Major Combatants
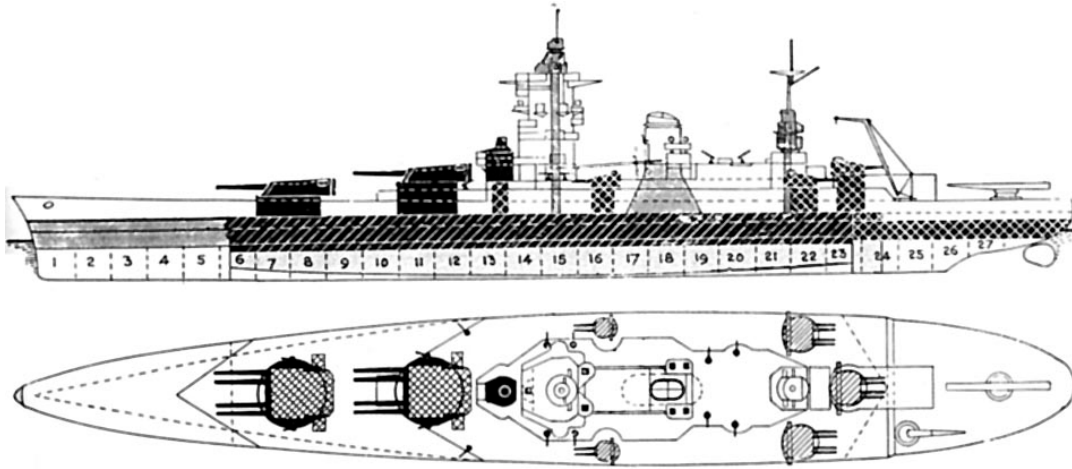
Dunkerque Class

- **Battleship**
- **IOC: 1937**
- **26,500 tons (std)**
- **Max Speed: 30 kts**
- **8 - 13in/50 guns**
- **16 - 5.1in/45 guns**
- ***Dunkerque, Strasbourg***

Richelieu Class

- **Battleship**
- **IOC: Under Construction**
- **35,000 tons (std)**
- **Max Speed: 33 kts**
- **8 - 15in/45 guns**
- **9 - 6in/55 guns**
- ***Richelieu, Jean Bart, Clemenceau, Gascoigne***
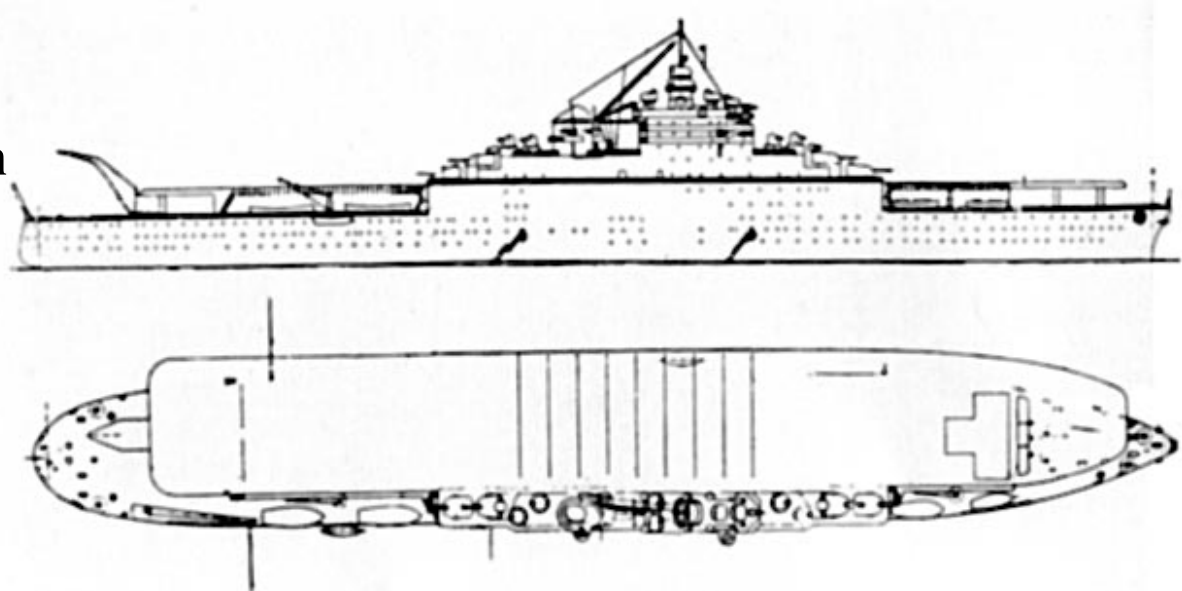
Examples of Aircraft Carriers
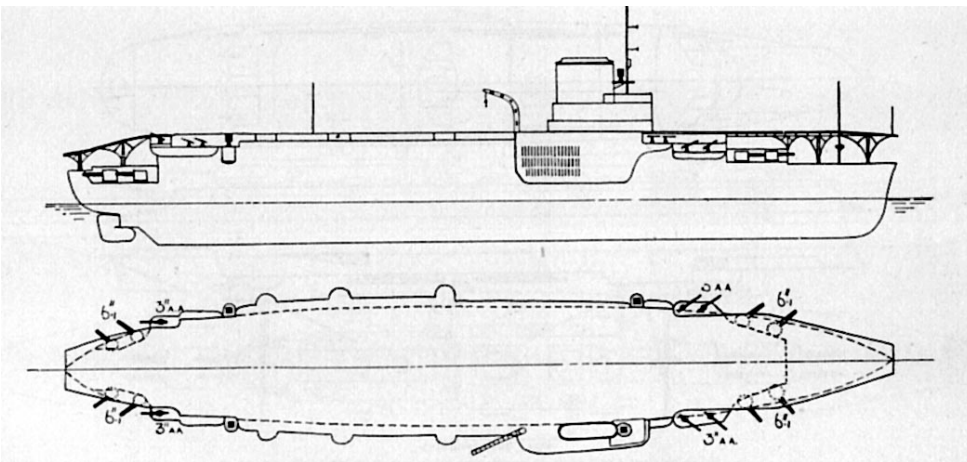
Bearn Class
- IOC: 1927
- 22,146 tons (std)
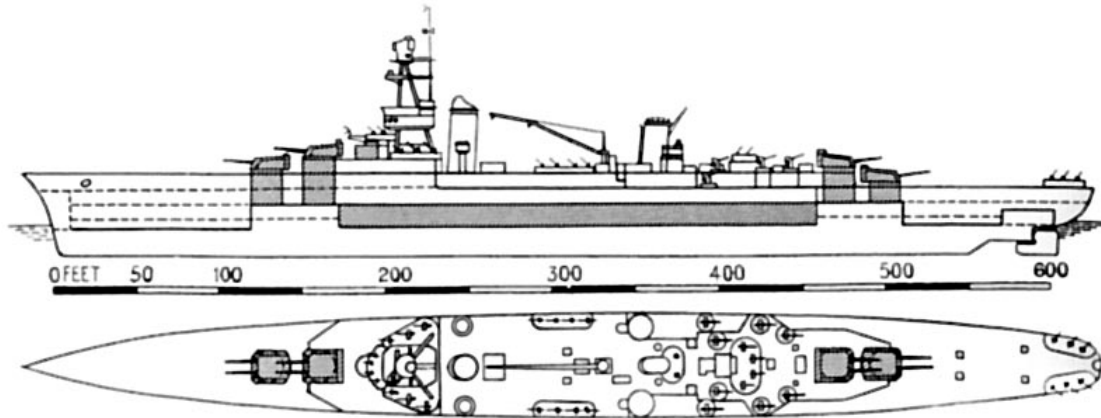- Max Speed: 22 kts
- 40 aircraft
- 8 - 6.1in/50
- Single unit

Joffre Class
- IOC: Under Construction
- 18,000 tons (std)
- Max Speed: 33 kts
- 40 aircraft
- 8 - 5.1in/45
- *Joffre, Painlevé*

Examples of Minor Combatants

Suffren Class
- **Heavy Cruiser**
- **IOC: 1930**
- **9,938 tons (std)**
- **Max Speed: 33 kts**
- **8 - 8in/50 guns**
- *Suffren, Colbert, Foch, Dupleix*
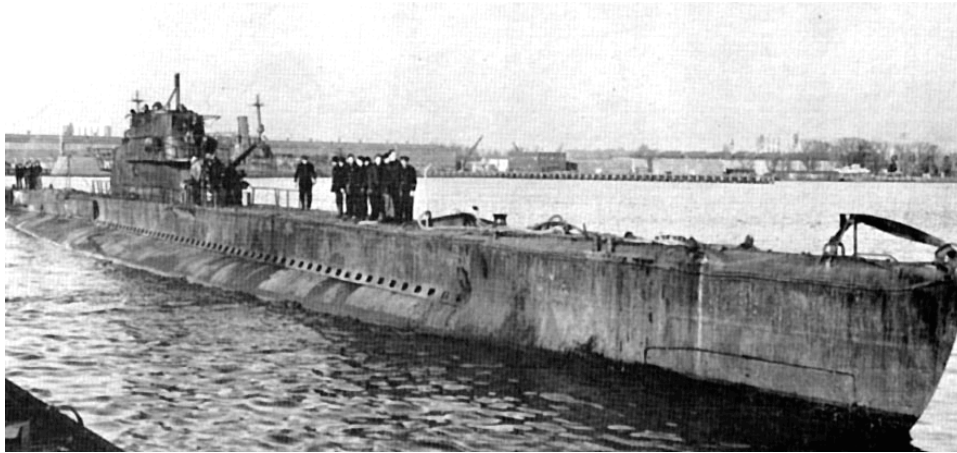
Mogador Class
- **Super Destroyer**
- **IOC: 1938**
- **2,884 tons (std)**
- **Max Speed: 39 kts**
- **8 - 5.5in/50 guns**
- **10 - 21.7in torpedo tubes**
- *Mogador, Volta*
- *Kleber, Desaix, Marcheau, Hoche* **under construction**

Examples of Submarines

Redoutable Class
- **1st class submarine**
- **IOC: 1924**
- **1,441 tons (subm)**
- **Max Speed: 19 kts/10 kts**
- **10 - 21.7in torpedo tubes**
- **1 - 3.9in/45 guns**
- **29 ships in the class**

Schneider-Laubuef Type
- **2nd class submarine**
- **IOC: 1932**
- **807 tons (subm)**
- **Max Speed: 14 kts/9 kts**
- **6 - 21.7in torpedo tubes**
- **2 - 17.3in trainable TT**
- **1 - 3.0in/35 guns**
- **5 ships in the class**

Surface Warfare

- ◆ **Excellent guns**
  - • **Major caliber guns among the best**
  - • **Only Italian 15in/50 has greater range**
- ◆ **Fire Control**
  - • **Good optical range finders (26 ft)**
  - • **No gun fire control radar (GFC)**
  - • **Director firing & computed gun laying**
- ◆ **Torpedoes**
  - • **Good reliable weapons**
  - • **Similar to Mk VIII in performance**
  - • **French DDs have large # of tubes**

Overall Assessment:
Very Good to Excellent - A French Navy strength. With the exception of GFC radar, equal to, or better, than most European navies.

Anti-Submarine Warfare

♦ **No operational ASDIC**

- • **H-6 system a failure**
- • **Negotiating for purchase of Type 128 ASDIC**
- • **Reasonable passive systems for submarines**
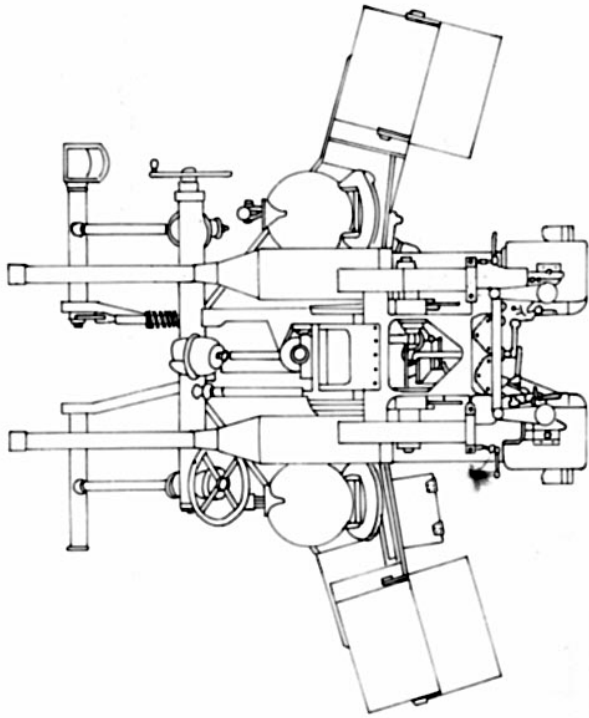
♦ **ASW Weapons**

- • **Large depth charges, 33% larger than Mk VII**
- • **Few DC projectors (M1928 Thornycroft)**
- • **Still employing towed ASW paravanes**

Overall Assessment:
Poor - Lack of a reliable ASDIC leaves the French Navy very vulnerable to submarine attacks. Probably the French Navy's weakest naval discipline.

Anti-Air Warfare

♦ **No operational radar**
- **Early stages of research & development**
- **Visual detection significantly reduces warning time**

♦ **AA Guns**
- **Most AA guns have a lower performance than RN weapons**
- **Low rates of fire - particularly the 37mm**
- **Most light AA are 13.2mm machine guns**

♦ **No at sea fighter cover**
- ***Bearn* only carries bomber aircraft**
- ***Joffre* class will carry 15 fighters**

Overall Assessment:
Fair to Poor - Lack of radar and inefficient AA guns make this warfare discipline a significant weakness for the French Navy.

Warfare Summary Points

♦ **Weak Areas:**

- **Anti-Submarine Warfare/No operational ASDIC**
- **Anti-Air Warfare/No operational radar/Poor AA guns**
- **No fast carrier in service, *Bearn* too slow, and no fighters**

♦ **Strong Areas:**

- **Fast and modern Fleet, few ships over 13 years**
- **Surface Warfare, Excellent guns and torpedoes**
- **Force de Raid, Unique 30+ knot strike force**
- **Strong Mine and Anti-Mine Warfare capabilities**

♦ **Overall Assessment:**

- **Largely an effective coastal defense navy**
- **Limited open ocean strike capability**

Assessment vis-à-vis Germany & Italy

◆ **France vs Germany:**
  - **Significant quantitative advantage**
  - **Slight qualitative advantage in guns, but Germany will have GFC radar in service soon**
  - **Vulnerable to U-boat and air attacks**

◆ <u>**Assessment:**</u> **France would likely win a major naval engagement, provided Germany did not have land-based air support**

◆ **France vs Italy:**
  - **Virtually equal fleets**
  - **Italy has a very small advantage in major caliber guns**
  - **Neither side has radar**
  - **Both are vulnerable to submarine and air attacks**

◆ <u>**Assessment:**</u> **A major naval engagement would likely result in stalemate, barring land-based air support or tactical surprise**