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The gang that created the Waypoint magazine and resurrected the computer version of the Harpoon naval & aerial warfare simulator in the early 2000s, strikes again!

Command: Modern Air / Naval Operations is the high-fidelity warfare simulator from **WarfareSims.com**. Combining massive scale (the entire earth is your theater) and incredible depth and breadth (conflicts from 1946 to 2020+) with unprecedented detail, realism and accuracy, a powerful Windows interface and challenging AI, Command has set the new standard for air-naval war games.

Praised by military professionals, hobbyists and the gaming press alike, Command swept the *Wargame Of The Year 2013* awards and shattered sales records in its category:

United States Naval Institute: *“Command will find a following not only among civilian gamers but might have value among military, government, and policy circles as a simulator of modern warfare. [...] [This] is a game with broad appeal for everyone from casual gamers to government users looking to model unclassified, informal simulations. It likely will be the main choice for hard modern warfare simulators for years to come.”*

Michael Peck, War Is Boring: *“This isn’t just a game. It’s a simulation that’s as close as many of us will ever get to real Pentagon simulation. C:MANO, as fans call it, is a real-time game that boasts an incredibly rich—and unclassified—database of the aircraft and ships of the Cold War and beyond. [...] I strongly suspect that this game won’t prove any less accurate than the government’s tippity-top-secret simulations.”*

Multiple awards.

Over 150 scenarios (as of June 2014).

Thousands of fanatical players.

Tens of thousands of planes, ships, submarines, land units, satellites, weapons, sensors, and other systems.

Command: Modern / Air Naval Operations is available only at Matrix Games.

For more information go to WarfareSims.com.



INTRODUCTION TO THE MARINE NATIONALE (FRENCH NAVY)

By François “Gunny”Guérin

The truly modern French navy was created in 1669 under Jean-Baptiste Colbert (1619-1683). Secretary of State for the Navy of King Louis the XIVth, he pledged for a fleet of 276 ships to be built. The French revolution of 1789 blew the final whistle to the French naval supremacy. Because of the lack of ships, men and training, Napoleon failed to invade Great Britain in 1806.

During the XIXth and the XXth centuries, the French Marine Nationale declined to the benefit of United Kingdom's Royal Navy and US Navy. Some interesting attempts were however made to remind the glorious past of the navy like the giant submarine Surcouf (it could sail 9500miles at 10.3knots), but its career was interrupted after a collision with a US ship during World War II. Decommission of cruiser Colbert in 1991 marks the end of major surface units (except carriers) in the Marine Nationale. Today it is mainly based on medium and small-sized units. Its future shape will follow the same idea.



The Super Etendard Modernisé (SEM) is the French strike fighter successor of the Etendard. Able to use laser-guided bombs, it will be replaced by Rafale M F03.

1. Missions for the French Marine Nationale

As every navy in the world, French Marine Nationale first mission is to prevent any aggression against the national territory, its vital sea lanes of communication (SLOC) and the respect of the international law of the sea regarding national waters (12 miles) and Exclusive Economical Zone (part of international waters a nation can exploit in priority-200miles from every coastline). Should national interests be threatened abroad, then Marine Nationale units are sent in the area. Given the fact that France also rules islands in the Pacific ocean and Indian ocean, forces are permanently stationed there as sovereignty forces. According to the latest estimations, France rules the second sea space after the United States of America (over 11,000,000km²)

As France has international commitments towards the European Union, NATO(even it is not part of the integrated structures of the organization, France can take part to NATO's operations such as the one in the Kosovo), and the United Nations, French Marine Nationale can join an international task force when requested. The best example that can be given of it is current Task Force 473 operating as maritime interdiction force against Al Qaeda's operatives in Indian Ocean. Today, a quarter of Marine Nationale's missions is made of anti-terrorism and anti-pollution missions (track of ships cleaning their oil tanks while at sea, an offense punished by a heavy fine and imprisonment for the captain).

2. Structure of the Marine Nationale

The Marine Nationale has a dual chain of command based on organization and operations:

A) Organization of the Marine Nationale

There are 4 major commands, each one centered on special missions:

Force d'Action Navale (Naval Action Force) regroups all surface ships (120) whose mission is to master air and sea elements and to deploy forces through amphibious means. Its personnel arise at 12,000.

Forces Sous-Marines (Submarine Forces)

regroups all submarines and support ship (11). Their mission is to ensure France's independence through nuclear dissuasion (4 SSBNs) and approach denials, intelligence gathering and escort thanks to 6 SSNs. Its personnel arise at 4,000.

Aviation Navale (Naval Air Service) regroups 200 aircrafts and helicopters. Their missions cover a very wide scope from air interception with Rafale fighters, ground strike with Super-Etendards (including nuclear strike), sea monitoring (Atlantique II, Falcon 50, Guardian, Nord 262, Xingu), Anti-Submarine Warfare (patrol aircrafts plus helicopters Lynx) to Anti-Surface Warfare (AS 565 Panther) and forces' projection (Super Puma, Super Frelon and Alouette III troops carrier). It counts 6,000 persons.

Fusiliers-Commandos (Commandos Riflemen) are in charge of ground facilities' protection. Among their 1,700 men, 6 formations regrouping 500 men are specially trained for special operations and are thus part of Commandement des Opérations Spéciales (Special Operations Command):

- Commando "de Penfenteyo" specialized in beach reconnaissance
- Commando " de Montfort" specialized in ground support and long range destruction
- Commandos "Jaubert" and "Trepel" specialized in assault
- Commando "Hubert" specialized in sub-aquatic action (maybe the most famous of the 6)
- Groupe de Combat en Milieu Clos (Close Quarter Battle Group): Naval counter-terrorism (ship boarding...)

Each Commando bears the name of a fallen commando during World War II.



Courbet (F712) is the 3rd Lafayette-class frigates, one of which relies rather on survivability rather than on firepower. It has been designed to maintain a stealthy signature and use its AS-565 Panther (ASuW) in sea state 6.



Tourville(D610) is the 2nd of the F67 ASW frigates

Commandos are embarked on ships or can be brought to ships by helicopter. Most of their current missions are counter drug trafficking. They use every mean of insertion from the helicopter to the light submerged vehicle and scuba. Weapons are French (FA-MAS assault rifle), German (G-36), Italian (Beretta 9mm pistol) and American (Colt M-16).

As part of a professional army, Marine Nationale had to stop to rely on conscripts that arouse at 18,000. It has now 4,500 officers, 30,000 non-commissioned officers, 8,000 quartermasters and sailors and 1,800 volunteers. 10,000 civilians are supporting these forces. French sailors are about 30 years old, 4 out of 10 are onboard ships or submarines or are part of the naval air service. 320 out of 4500 females are embarked onboard 10 melt-crew ships (among which the carrier Charles de Gaulle). The geographic survey ship D'Entrecasteaux is the first which commander is a female. Females are opened to every profession in the navy but the ones onboard submarines which remain male's domain.



Duquesne (D603) belongs to a former air defense class of frigates and serves now as a training ship. It will be replaced by the first Horizon-class destroyer by 2008. Fitted with the last Masurca (MARitime SURface Contre avions – Naval SAM against aircrafts) in service in the Marine Nationale, Duquesne is used as an escort for amphibious ships.



Jean-Bart (D615) is the 2nd F70 type frigate specialized in air defense for carrier. It has the most advanced communication devices like the carrier Charles de Gaulle and thus is part of her escort like brethren Cassard (D614). Both usually carry an AS 565 Panther ASuW helicopter.

- Command) Antilles covers Antilles (Martinique)
- Comar (COMmandement MARitime –Maritime Command) Guyana covers French Guyana (Cayenne)

Forces are split between these zones with major units under either CECLANT or CECMED control. Alindien comes third in importance of the detachment there while the three remaining zones are regrouping small patrol crafts. The SSBN are regrouped in a independent structure called FOST (Force Océanique Stratégique- Strategic Ocean Force).

B) Operational chain of the Marine Nationale

The French navy is split in several commands covering the mainland territory and its overseas territories. The two major commands are CECLANT (Commandant En Chef at LANTique – Commander In Chief Atlantic) and CECMED (Commandant En Chef MEDiterranée – Commander In Chief Mediterranean). Each overseas territory is the center of a operational zone:

- Alindien covers the Indian ocean (Reunion island, Mayotte island) and Djibouti
- Alpaci covers the Pacific ocean (New Caledonia)
- Comar (COMmandement MARitime –Maritime Command)

3. Marine Nationale's naval equipment

A) Surface combatants

1) Frigates and avisos

All French major surface combatant ships, regardless of their overall aspect are designated as "frigates" (even if their hull number begins with "D"), and are divided in two missions, some of them being able to handle both:

Air-defense frigates: 1 FLM type frigate (D603 Duquesne) and 2 F70 type frigates.

Anti-Submarine Warfare

frigates: 2 F67 type frigates and 6 F70 type frigates.

Both classes have missions ranging from ASW, escort for surface groups (units based at Toulon -4) or nuclear ballistic submarines (unit based at Brest -5). Both class are sufficiently equipped to act in air-threatened zone. The only difference between them that has been cancelled now was their programming law (1967 and 1970 hence the names. The Tourville was recently used to recover the black boxes of an Egyptian airliner that has crashed in the Red Sea's waters. All can accommodate 1 or 2 Lynx ASW helicopters.

Polyvalent frigates:

6 Lafayette stealth frigates

Monitoring frigates:

5 Germinal type frigates

Aviso (Spanish =advice) is the French name given to ships of the corvette size and intended to do ASW patrols in coastal waters or to practice the "gunboat policy" against developing countries. Lightly armed, these are also used as scout for major naval task forces. The first of the series were all sold to the Turkish navy from 1996 to 2001.

Alongside these high seas mission-capable ships, France also operates 10 P400 type patrol crafts, mainly for sovereignty missions known as "Action de l'Etat en Mer"(State's action at sea: assistance to persons and ships, action against piracy or deliberate pollution...)



Jean de Vienne (D643) is the fourth of the F70 class ASW frigates



Floréal (F730) is the first of the monitoring frigates, currently stationed in the Indian Ocean. Their light armament reflect their mission of fishing zones monitoring



L'Audacieuse(P682) is the first of P400-class ships



Commandant L'Herminier (F791), 11th of the French A69 corvettes

2) Aircraft carriers

Since 1999, France can deploy an airwing reaching 40 aircrafts onboard its new nuclear-powered carrier R91 Charles de Gaulle. After ironing out the teething problems (deck length, propellers...) it is now mission proven since 2001 and operations against Taleban and Al Qaeda's fighters.



Charles de Gaulle (R91) is the first French nuclear-powered aircraft carrier. It carries an airwing approaching 40 units and it's now combat proven.

France also still rely on R97 Jeanne d'Arc helicopter carrier who serves now as school ship for French sailors.

B) Amphibious ships

France has 2 types of amphibious ships: 2 of the Foudre class and 2 Ouragan class. Both classes are considered as Transport de Chalands de Débarquement (equivalent to the LSD classes). There are also 4 lighter amphibious ships of the Batral (Batiment de TRANsport Léger-Light weight transporter) class and an unique Engin de Débarquement d'Infanterie et de Chars (Infantry and Armor Landing Ship).



© Marine Nationale

Foudre(L9011) is the first of the "F class" landing ship. Both ships can carry a whole battalion (467 men+ 150 vehicles)



© Marine Nationale

The Ouragan(L9021) belongs to the "O type" of amphibious ships. Both ships carry a whole battalion as well (343 men+150 vehicles)

C) Replenishment ships

France has 5 replenishment ships belonging to the Meuse class. 3 of them are considered as Bâtiment de Commandement et de Ravitaillement (Command and Replenishment Ships). All are able to replenish 3 ships at the same time (one each side and at ship's bow).



Meuse (A 607), is the first unit of a replenishment ships class.

D) Submarines

France owns 6 type Rubis SSN(S601), 2 being to the Améthyste (S605 and S606) standard and the others being upgraded to this standard but the Rubis.



The Perle (S 606) is the last SSN of the Rubis class, the second upgraded to Améthyste standard

As part of its dissuasion France operates 4 SSBN NG(New Generation) of the Le Triomphant class. Each one carries 16 strategic missiles M-45 (6 MIRV heads of 150ktons each), two being permanently at sea.



Le Triomphant (S 616) was the first of the new generation of French SSBNs

4. The French Navy's future programs and perspectives

The French Navy's shape is about to change in the near future. Some of the materiel is growing older and needs a replacement.

The first step was taken in 1999 with the withdrawal of the obsolete F-8 Crusader and the commissioning of the first Rafales. Five and then seven of them were sent to the Indian Ocean onboard the French carrier Charles de Gaulle to take part to the hunt for Al Qaeda's operatives. Being only to F1 standard (interception only), their task was to monitor the airspace over the theater of operations. Being currently 10, their number will be increased to 60 by 2015. New Rafales and already built ones will be upgraded to F3 standard by 2008. From this date, they should take over every mission from air interception to nuclear strike and reconnaissance.

The European program NH-90 (Germany, Italy, Netherlands and France) for multirole helicopters is to replace the aging Lynx, Panther and Super-Frelon helicopters as ASW or transport platforms.

Regarding ships, a major rationalization of platforms will be made with the reduction from seven currently to three by 2015. The stress will be put on European cooperation, with Italy for Horizon (new air defense frigate which first units are scheduled for 2006 and 2008 to replace aging air defense destroyers) and Multi-Missions Frigates classes.

2 versions are planned: ASW (from 2008) and naval support (from 2012), as a replacement for both A69s and F69/ F70 ASW frigates.



The Rafale is France most advanced aircraft. Marine Nationale will receive 60 of them

Another partner could be Great Britain for the building of a second carrier, as requested by French President Jacques



The NH-90 multi-role helicopter will replace the Lynx, Panther and Super Frelon

Chirac during the Ministers' council of February the 11th, 2004. By 2012-2015, a conventional-propelled carrier should back the Charles de Gaulle which availability is roughly of 60%. The British-French joint program will allow the reduction of costs. European countries are also collaborating to develop a light weight torpedo, the MU-90 and a Very Low Frequency Active Sonar.

French surface and subsurface forces will be soon equipped with the naval version of the Storm Shadow/SCALP missile (Multi-Missions Frigates and SSNs), which will greatly improve their firepower.

Amphibious operations will be greatly increased thanks to the introduction of a new class of amphibious ships, the "Mistral". Known as "Bâtiment de Projection et de Commandement" (Amphibious and Command ship), two of them will replace the older Ouragan-class ships from 2005. The decision to bring the number of ships in this class from two to four was linked to the project of building a new carrier. The recent developments showed that French authorities were in favor of the carrier instead of the amphibious, but the replacement of Foudre-class by Mistral-class will surely be an option studied by the Marine Nationale.



The new Mistral class of amphibious ships project

Submarine forces will receive their two last Triomphant-class SSBNs (Le Vigilant and Le Terrible) as a replacement for the two last Le Redoutable-class which will be decommissioned in 2004 and 2008. SSNs will be either upgraded to the Améthyste standard or discarded (as the S 601 Rubis) in 2012 to be replaced by the new Barracuda-class.

The Military program law 2003-2008 is the first step to fulfill the "Model 2015", which will be the boldest enhancement for Marine Nationale. According to this model, French naval forces should look like this:

Surface ships and submarine forces

	2002	2015
SSBNs	4	4
SSNs	6	6
Carriers	1	2
Heli-carriers	1	0
Major amphibious	4	4
Anti-Air frigates	3	4 ₁
Polyvalent frigates	5	5
Frigates and avisos	19	17 ₂
Monitoring frigates	6	6
Anti-mines ships	14	16
Support ships	7	6
Sovereignty forces ships ₃	16	16
Total	82	82

₁: New Horizon class ships

₂: New Multi-Missions Frigates

₃: Patrol ships and light amphibious

Aircraft and helicopters

	2002	2015
Embarked aviation		
Super-Etendard	52	0
Rafales 1	9	60
Hawkeye	2	3
Total embarked aviation	63	63
Maritime patrol aviation	28	22
Atlantique 2	28	22
Helicopters		
Super-Frelon	7	0
Lynx	32	0
NH-90 2	0	27
Panther	15	24
Total helicopters	54	51
Total	142	136

₁: 25 with a single crew member and 35 with two crew members

₂: 13 fitted for support missions and 14 for multi-missions

Sources:

Bleu Marine projects for today's Navy (quick exploration of Marine Nationale) ed Perrin Marine Nationale

Quid 2003 (an online version of Quid 2000 can be looked at <http://www.quid.fr>)

Annuaire militaire et Stratégique 2003 (French military yearbook 2003), downloader versions can be found at <http://www.frstrategie.org>

Hors-série Navires et Histoire tome 1 & 2 (special issue French navy ships)

Pictures are from Marine Nationale's website: <http://www.defense.gouv.fr/marine> but the Mistral project is a picture from DCN (Direction des Constructions Navales –master in the construction of French warships): <http://www.dcn.fr> , the NH-90 picture being from "Naval Technologies" website: <http://www.naval-technologies.com>

French Navy's ships, weapons and aircrafts' pictures can also be found at <http://www.netmarine.net>

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