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# Mistral Class – Amphibious Assault, Command and Force Projection Ship, France





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**Key Data** 

Crew 160

Up to a maximum of 900 Accommodation

199m Length Beam 32m Draft 6.2m Full load 21,300t

**Displacement** 

Speed 19kt

Full specifications

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The Mistral and Tonnerre BPC (bâtiment de projection et de commandement) ships, are the French Navv's new 21,300t amphibious assault, command and power projection ships. The ships have been built by DCN in partnership with Thales and Chantiers de l'Atlantique. Each ship has the payload capacity and versatility to carry up to 16 heavy helicopters and one-third of a mechanised regiment, plus two LCAC hovercraft or up to four landing craft.

In April 2007, DCN became DCNS. This followed an agreement in which Thales became a 25% shareholder in the new company and DCN acquired the naval business of Thales France (excluding naval equipment).



performance communications suite which makes the ship suitable for deployment as a command vessel. The ships also have the capacity to accommodate a combined (multinational) joint (i.e. multi-service) task force (CJTF).



Tonnerre (L 9014) was delivered in February 2007.



Expand Image The second command and force projection ship for the French Navy, Tonnerre (L 9014).

"Mistral was delivered to the French Navy in February 2006." The contract for the two vessels was placed in January 2001. Keel for the FS Mistral (L9013) was laid in July 2003 and it was launched from the Brest dockyard in October 2004. Mistral was commissioned into the French Navy in February 2006. Tonnerre (L 9014) was laid down in August 2003 and launched in July 2005. It was commissioned in February 2007.

In July 2006, Mistral was deployed of the coast of Lebanon in support of the French Navy Operation Baliste, evacuating French nationals during the conflict involving Israel and the Lebanon.

The Mistral and Tonnerre replace the L9021 Ouragan and L9022 Orage which were built at Brest Naval Dockyard and entered service in 1965 and 1968.



Expand Image The Mistral (L9013) command and force projection ship.

#### Construction

The hulls were built in three main sections. DCN constructed the hull centre and aft sections at St Nazaire, Brest. Alstom Marine-Chantiers de l'Atlantique in Saint Nazaire constructed the forward section of the hull which was transferred to the DCN shipyard at Brest for assembly. DCN subcontracted Stocznia Remontowa in Gdansk to carry out construction and fitting for the centre and aft sections.

#### Command and control

The Mistral Class is fitted with the DCN Senit 8 derivative combat data system and will be fitted with the French Navy's SIC 21 command system for joint operations, which is being developed by Thales.

A high-performance communications suite includes the Thales Syracuse III satellite communications system.

#### **Aircraft**

The ship has the capacity to carry up to 16 medium or heavy helicopters below deck, for example the NH90, SA 330 Puma, AS 532 U2 Cougar or AS 665 Tigre helicopters. The flight deck has six landing spots and a 1,800m² hangar. The 5,000m² flight deck can accommodate up to six helicopter movements simultaneously.

# Amphibious assault capability

The Mistral will carry either four CTM, landing craft utility (LCU) or two air-cushion landing craft (LCACs).

The French Navy has plans to purchase new high-speed landing craft, engins de débarquement amphibie (EDA) which could be carried on the Mistral.

The ship has a crew of 160 with 20 officers. A mission voyage involving the transport of troops and equipment would typically take two to three weeks. Mistral and Tonnerre carry sufficient stores for the crew and 450 troops for 45 days between replenishments. The maximum speed is 19kt and the range at 14kt is 11,000nm.

"The Mistral and Tonnerre are to replace the L 9021 Ouragan and L 9022 Orage."



Expand Image
Mistral was handed over to
the French Navy in
February 2006.



Expand Image
Each ship can carry up to 16
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craft.



Expand Image
Mistral is the French Navy's
first all-electric warship and
is fitted with two Alstom
7MW electric azimuth pods.

The 69-bed, 750m<sup>2</sup> hospital is equipped with two operating theatres. If

additional hospital or medevac space is required, the hangar can also be converted into a modular field hospital.

# Weapons

The Mistral is armed with two MBDA France Simbad launchers for the Mistral air defence missile. Mistral has infrared guidance and a range up to 6km.

The ship also has two Breda Mauser 30mm naval guns and four 12.7mm machine guns.

#### Countermeasures

The ship's electronic support measures include the Thales ARBR 21 radar warning receiver.

#### **Sensors**

The vessel's surveillance radar is the MMR-3D NG G-band multi-role radar from Thales Naval France. The MRR-3D has a lightweight phased array antenna and operates as both a surveillance radar and a self-defence system sensor, with automatic mode switching.

"The Mistral is the French Navy's first allelectric warship." In surface surveillance mode, the MRR-3D NG can detect low and medium-level targets at ranges of up to 140km and in long-range 3D air surveillance mode targets up to 180km; in the self-defence mode, it can detect and track any threat within a radius of 60km.

Navigation radar is the Sperry Marine Bridgemaster, operating at I-band.

# **Propulsion**

The Mistral is the French Navy's first all-electric warship and is fitted with two Alstom 7MW electric azimuth pods. The power-generation system consists of three 16V32 and one 18V200 Wartsila diesel generators providing 20.8MW power.

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evacuation missions.



Expand Image
Mistral and Tonnerre carry
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Expand Image
Mistral has the capacity to
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Expand Image
The vessels have ample
capacity for use as hospital
Respondentementalization a trading division
evacuation missions.

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