

Paddle frigates (450 nhp)

INFERNAL (launched 1843)
 GOMER class (launched 1841)
 SANE (launched 1847)
 CAFFARELLI (launched 1847)

INFERNAL paddle frigate

Displacement:	2034t
Dimensions:	203ft 5in wl, 209ft 6in deck x 35ft 5in mld, 36ft 1in ext x 16ft 1in mean, 16ft 11in max. Depth 14ft 9in
Same, meters:	<u>62.00, 63.85 x 10.80, 11.00 x 4.90, 5.15m. 4.50m</u>
Machinery:	450nhp (Indret). 4 cylinders, direct, 837ihp, 10.2kts. Coal 475t
Hull material:	Wood
Armament:	(Designed, 1840) GD 12-30p No.2; SD 2-22cm shell pivots, 4-16cm shell. (As completed, 1846) GD 2-30p No.1, 2-22cm No.1 shell; SD 2-30p No.1, 2-22cm No.1 shell.
Complement:	

<u>Name</u>	<u>Builder</u>	<u>Laid down</u>	<u>Launched</u>	<u>Compl.</u>	<u>Fate</u>
INFERNAL	Rochefort	13.1.40	1.5.43	1.9.45	Lost 1.10.61

Class. The origins of this ship go back to a ministerial order of 30.1.39 to design a paddle frigate similar to the British Gorgon. Engines of 320nhp were ordered in England in 6.39 and Hubert's plans for the ship were approved in 1.40. In 12.40 the navy realized that the engines were too small to give such a large ship the desired speed. A new, smaller hull was therefore begun under the name Cuvier for the original 320nhp engines and experimental 450nhp engines under construction at Indret (originally intended for Asmodée) were assigned to the original hull.

Inferral's engines, among the earliest that could be called direct-acting, were built on a system developed simultaneously at Indret and by the famous English engine builder Maudslay which connected four small cylinders directly to the paddle shaft instead of linking two large ones to it by means of a large, heavy side-lever. They did not develop as much power as expected and were not repeated. The ship was rated as a 400nhp corvette after completion of trials in 1846.

Inferral was designed in 1840 with a brig rig in imitation of HMS Gorgon. She was later assigned three masts, but in 1845 Joinville recommended reverting to the two-masted rig. In 6.55 her engines were ordered removed and she was sent to the Pacific as a sail transport. Decommissioned at Valparaiso 7.57, she replaced Andromède in 12.58 as a powder hulk there.

Disposal. Inferral blew up at Valparaiso in 1861 after catching fire.

GOMER class paddle frigates

Displacement:	2736t
Dimensions:	232ft 9in wl, 238ft 8in deck x 40ft 0in mld, 40ft 10in ext x 17ft 6in mean, 18ft 2in max.
Same, meters:	<u>70.95, 72.75 x 12.20, 12.45 x 5.34, 5.54m</u>
Machinery:	450nhp (Fawcett, Liverpool). Side-lever, 900ihp, trials 10.8kts (<u>Gomer</u>), 11.7kts (<u>Asmodée</u>)
Hull material:	Wood
Armament:	(Design 6.41) GD 18-30p No.2, 2-22cm shell; SD 10-16cm shell, 2-22cm shell. (Both 1841-2) GD 12-30p No.2; SD 4-22cm No.2 shell, 4-16cm shell. (<u>Asmodée</u> c1845) GD 10-30p No.2, 4-16cm shell; SD 4-22cm No.2 shell, 2-30p No.2. (<u>Asmodée</u> 1846-52) GD 4-22cm No.1 shell, 4-30p No.1; SD 2-22cm No.1 shell, 4-30p No.1. (<u>Gomer</u> 1848) 6-16cm shell, 8-30p No.2. (<u>Gomer</u> 1852) 8-16cm shell, 12-30p No.2. (<u>Asmodée</u> 1856) GD 6-30p No.1, 4-22cm No.1 shell; SD 4-22cm No.1 shell, 2-30p No.1
Complement:	267

<u>Name</u>	<u>Builder</u>	<u>Laid down</u>	<u>Launched</u>	<u>Commiss.</u>	<u>Fate</u>
GOMER	Rochefort	25.9.40	19.7.41	15.12.41	Stk. 30.3.68
ASMDEE	Rochefort	19.10.40	20.10.41	1.7.42	Stk. 18.12.65

Class. The hulls of these ships were ordered on 23.8.40 under a program to build 14 450nhp steamers for service on new French transatlantic packet lines. Plans by six naval engineers were approved in 9.40 and 1.41: Campaignac (Packets No. 1-2 at Cherbourg), Chedeville (No. 3-4 at Brest), Moissard (No. 5 at Brest), Boucher (No. 6-8 at Lorient), Hubert (No. 9-12 at Rochefort), and Joffre (No. 13-14 at Toulon). The French soon realized that these packet designs were far too heavy to compete economically with contemporary British packets like President and British Queen, and on 27.2.41 new plans were ordered for the packets and the four hulls whose construction was furthest along were reallocated to the navy as a head start on its steam frigate program. The first two of these, Gomer and Asmodée (packet hulls No. 9 and 10), had their engines and names reassigned from the even larger frigates ordered at the end of 1839 and, because they were built quickly, became France's prototype paddle frigates. Construction of the other two, Mogador and Sané (packets 11 and 1), proceeded more slowly.

The armament of Asmodée reflected the navy's early experience with the new large paddle frigates. The original design for the converted packets called for the same armament of 32 guns that was assigned to Vauban, which imitated the armament of third-class sail frigates. When the ship was commissioned in 1842 this armament had already been reduced somewhat, but she had a heavy square rig and the combination was still too heavy for her. When recommissioned in 1845, she still had essentially the same armament but her rig was lightened. In 1845 a commission under the Prince de Joinville studied the question of the missions and armament of naval steamers, and concluded that, since paddle steamers were vulnerable on the broadside, they should be configured for end-on fighting and armed with a smaller number of the heaviest guns available. They were also given armored bulkheads forward and aft of the machinery. Descartes and Infernal were the prototypes for this concept, and Asmodée was rearmed along their lines in 1846. The beam of both ships outside their paddle boxes was 65ft 1in and their sail area was 2107 sq.yd. on three masts.

Disposals. Both ships were BU immediately after being struck

SANE paddle frigate

Displacement:	2650t
Dimensions:	232ft 11in wl, 236ft 3in deck x 40ft 8in mld, 41ft 6in ext x 17ft 9in mean, 18ft 2in max. Depth 16ft 1in
Same, meters:	<u>71.00, 72.02 x 12.40, 12.65 x 5.40, 5.54m. 4.90m</u>
Machinery:	450nhp (Indret). Side-lever, tubular boilers, 10.17kts. Coal 576t
Hull material:	Wood
Armament:	(1849) GD 4-30p No.1, 4-22cm shell; SD 4-30p No.1, 2-22cm shell. (1854) GD forward: 2-30p No.2, 4-22cm No.2 shell; GD aft: 4-30p No.2, 4-22cm No.2 shell; SD forward: 2-30p No.1, 1-50p, 1-27cm shell; SD aft: 2-30p No.1, 1-22cm No.1 shell. (1858) GD 6-30p No.2, 6-22cm No.2 shell; SD 2-30p No.1, 2-22cm No.2 shell
Complement:	

<u>Name</u>	<u>Builder</u>	<u>Laid down</u>	<u>Launched</u>	<u>Commiss.</u>	<u>Fate</u>
SANE	Cherbourg	21.10.40	15.2.47	25.6.48	Lost 23.9.59

Class. This ship, formerly hull number 1 in the first group of packets begun in 1840, was built slowly. She received an engine initially ordered from Indret for the packet program and subsequently reassigned. Her beam outside her paddle boxes was 65ft 1in.

Disposal. Sané was wrecked on the Chaussée du Sein.

CAFFARELLI paddle frigate

Displacement:	2000t (after modification)
Dimensions:	210ft 0in wl, 218ft 10in deck x 35ft 1in mld, 38ft 9in ext (after increase) x 16ft 4in mean
Same, meters:	<u>64.00, 66.70 x 10.70, 11.80 x 4.98m</u>
Machinery:	450nhp (Indret). Side-lever, tubular boilers, 11.3kts. Coal 325t
Hull material:	Wood
Armament:	(1850) GD 4-22cm shell, 2-30p No.1; SD 2-30p No.1. (By 1856) GD 2-22cm shell, 6-30p; SD 2-22cm shell, 2-30p.
Complement:	267

<u>Name</u>	<u>Builder</u>	<u>Laid down</u>	<u>Launched</u>	<u>Commiss.</u>	<u>Fate</u>
CAFFARELLI	Brest	17.4.45	29.5.47	16.1.48	Stk. 7.3.67

Class. On 28.11.44 the navy decided to put one of the engines built at Indret for the packet program (the one originally allocated to Mogador) into a hull significantly lighter than the Gomer group. This was possible because of the recent development of tubular boilers, which were smaller than their predecessors. In contrast with the larger ships, the new one was to carry only eight guns and have a light rig of two masts. Chedeville's plans were approved and the ship was ordered on 10.4.45. Originally called Platon, she was renamed 11.11.46. A miscalculation was made during the design process and her beam had to be augmented 80cm by additional planking (adding 110 tons to her displacement). She was briefly rated as a 400nhp corvette around 1848-49.

Disposal. Caffarelli became a hulk and was BU 1882.