

# Brazil-France submarine programme

Brazil has launched the third of four attack submarines built with French technology in a \$10 billion deal that aims to deliver the country's first nuclear-powered submarine in the next decade

**Tonelero:** Third Scorpène-class diesel-powered submarine, built by Brazilian Navy to design of French shipbuilder **Naval Group**, launched in Itaguai shipyard

Length: 70.6m  
Displacement: 1,870 tonnes  
Max. speed: 21 knots (39km/h)  
Diving depth: 400m  
Endurance: Up to 70 days

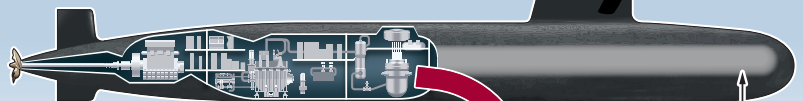
 **Riachuelo**  
*Commissioned 2022*

 **Humaitá** 2024

 **Tonelero** 2024

 **Angostura** 2025

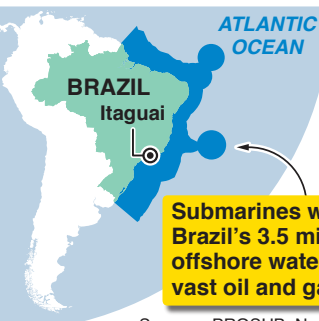
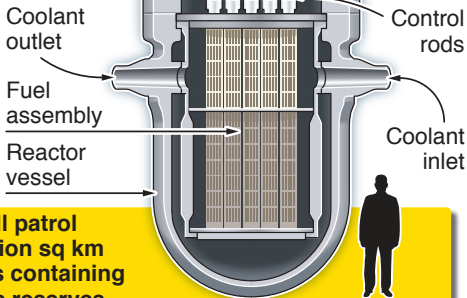
 **Álvaro Alberto**  
2032-34



Length: 100m  
Hull diameter: 9.8m  
Displacement: 6,000 tonnes  
Speed: 25 knots (46km/h)  
Diving depth: 350m  
Crew: 100

**Pressurised water reactor**  
48MW  
*Developed in Brazil*

**Armament:**  
6 × 533mm  
torpedo tubes



Submarines will patrol Brazil's 3.5 million sq km offshore waters containing vast oil and gas reserves