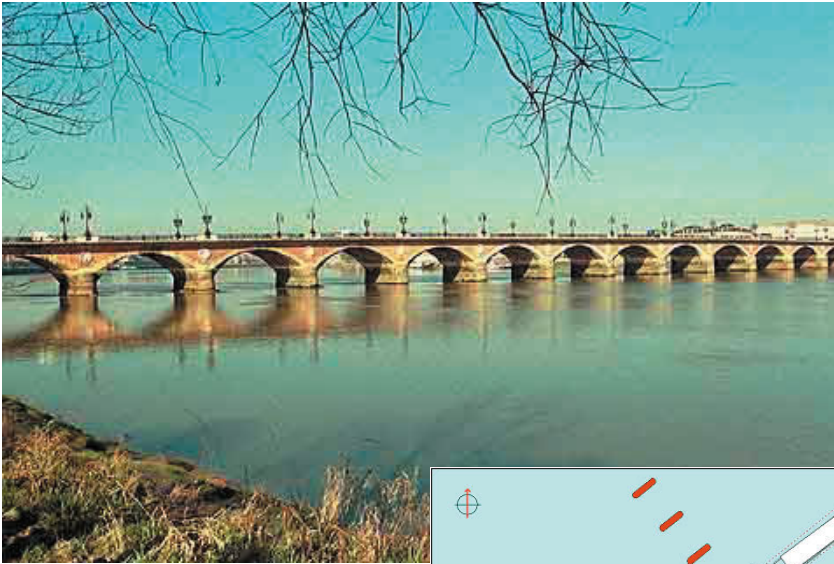


Navigation tests for the Pont de Pierre at Bordeaux



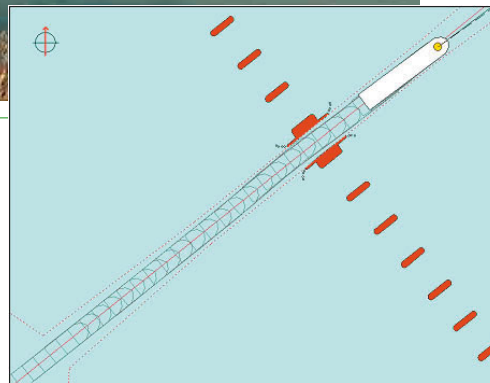
Country
France

Client
Airbus

Date
2001 and 2003

Sogreah's services
▶ Current and navigation studies

02/04 MFN



Project features

The project involved defining periods during which barges carrying sections of the A380 between Pauillac and Langon can negotiate the Pont de Pierre bridge in Bordeaux. The study also enabled extreme wind and current conditions for shipping and procedures for passing under the bridge to be determined.

Key figures

- ◆ Barge draught varying from 1.5 m to 2.6 m
- ◆ Height of central fuselage above waterline: 9 m
- ◆ Eventually, 8 trips a week (4 upriver and 4 downriver)

- ◆ More than 200 tests carried out by local professional pilots

Stakes

The Pont de Pierre bridge, built in 1825, is situated in a tidal section of the river Garonne in Bordeaux. The depth of water in the river (especially during dry-weather periods) and the available clearance (especially during floods) are limiting factors for vessels wishing to negotiate the bridge. In addition, the current pattern is constantly changing. On conclusion of the tests, shiphandling operations will be regulated by a statutory procedure defined by the Port of Bordeaux Authority.

Sogreah's role

Sogreah first carried out current studies in the area around the Pont de Pierre using the TELEMAR 2D calculation code. As the area is under tidal influence, various flow conditions and tidal coefficients were simulated. Tests were then run with the PORTSIM software to simulate barges sailing under arches 9 and 11 of the bridge. Navigation procedures and extreme conditions for shipping were deduced from these simulations.