



BOURBON OCEANTEAM 101

OCEANTEAM BOURBON 101

CASE STUDY

CMCE LIGHTNING SUPPRESSION SYSTEM

CASE STUDY

Offshore Support Vessel Protected with CMCE Lightning Suppression

Oceanteam BOURBON 101

The **Oceanteam BOURBON 101** is an offshore support vessel designed for demanding marine construction, installation, and IRM operations. Built in 2007 and historically operated under the Norwegian flag, the vessel measures approximately **118.6 meters (389 ft) long** with a **27-meter (88.6 ft) beam** and includes roughly **2,000 m² (21,528 ft²) of open deck space**. Its offshore capabilities, large exposed structure, cranes, communications equipment, and crew accommodations make reliable lightning risk mitigation especially important.

The Challenge

Offshore vessels routinely operate in exposed environments where thunderstorms and severe weather can develop with limited shelter from surrounding terrain or structures.

The BOURBON 101 frequently encounters thunderstorms during offshore operations. The original project documentation specifically notes that the vessel's physical characteristics make it highly exposed to lightning conditions and that an effective system was needed to help protect the **vessel structure, onboard equipment, and crew**.

For an offshore support vessel, a direct lightning event can present concerns for critical areas such as:

- Navigation and communication systems
- Electrical and electronic equipment
- Cranes and elevated structures
- Deck equipment
- Vessel infrastructure
- Crew safety
- Continued offshore operations

Because the vessel performs important construction, installation, and offshore support work, reducing lightning exposure is an important component of operational reliability.



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The Risk

The BOURBON 101 has substantial above-deck infrastructure and operates in open-water environments where the vessel may become one of the most prominent elevated structures in the surrounding area.

According to the original case documentation, the project team specifically chose not to rely on conventional Franklin-point lightning terminals because they did not want to increase the potential for lightning excitation and attachment. Instead, the project called for a lightning-prevention and suppression approach.

This distinction was particularly important for a vessel supporting offshore operations where the consequences of a lightning event could extend beyond localized physical damage to include disruption of equipment, operations, and personnel activities.

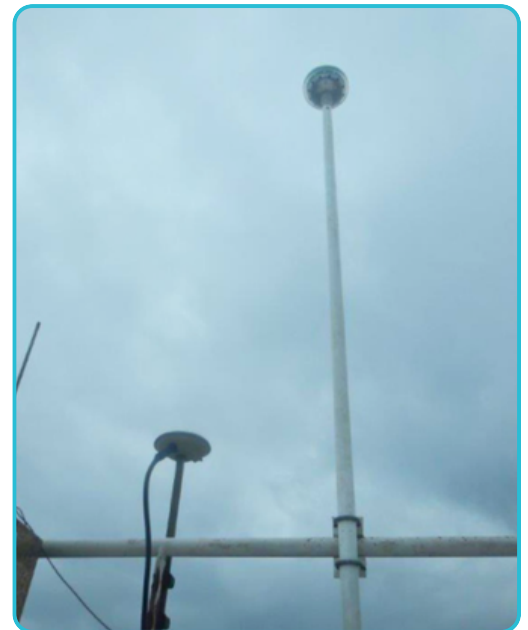
The Solution: CMCE Lightning Suppression

The BOURBON 101 implemented the technology now presented by Encore Land and Sea as **CMCE Lightning Suppression**.

The system has been in use on the vessel **since October 2016**, with the objective of supporting protection for the vessel's structure, onboard equipment, and crew while operating in challenging offshore storm environments.

Rather than using a conventional approach designed primarily to provide an attachment point for lightning, CMCE is presented in the project documentation as a system intended to **reduce the conditions associated with lightning attachment within the protected area**.

The installation photographs show the suppression devices mounted at elevated locations on the vessel, providing coverage from prominent points above the ship's superstructure.



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The Result

The BOURBON 101 project demonstrates how lightning suppression technology can be applied in a demanding marine and offshore environment where vessels are routinely exposed to severe weather.

By incorporating CMCE technology, the vessel adopted a proactive lightning risk-management strategy designed around reducing the conditions that contribute to direct lightning attachment, rather than relying solely on conventional strike-interception terminals.

The project also illustrates the versatility of CMCE Lightning Suppression beyond land-based industrial facilities. Offshore vessels contain many of the same types of critical infrastructure found at industrial sites—including electrical systems, communications equipment, controls, elevated structures, and sensitive electronics—but must protect them while constantly operating in changing environmental conditions.

For marine operators where equipment reliability, vessel availability, and crew protection are essential, the BOURBON 101 provides a practical example of applying lightning suppression technology in an offshore environment.

Key Project Facts

Project: Oceanteam BOURBON 101

Facility Type: Offshore support vessel

Built: 2007

Historical Flag: Norway

Length: Approximately 118.6 meters (389 ft)

Beam: Approximately 27 meters (88.6 ft)

Gross Tonnage: 8,575 t

Net Tonnage: 2,573 t

Deadweight: 7,000 t

Open Deck Space: Approximately 2,000 m² (21,528 ft²)

Primary Operations: Offshore construction, installation, and IRM support

Lightning Protection Approach: CMCE Lightning Suppression

Technology in Service Since: October 2016

Primary Objective: Eliminate the probability of direct lightning strikes while supporting plant reliability, uptime, and business continuity.

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Project Summary

The **Oceanteam BOURBON 101** is an offshore support vessel operating in environments where thunderstorms and lightning exposure are an ongoing operational concern. To address that risk, the vessel has used **CMCE Lightning Suppression technology since October 2016**.

Rather than adding conventional Franklin-point strike terminals, the project adopted a lightning suppression approach intended to reduce the conditions associated with lightning attachment. The system supports protection of the vessel's **structure, critical onboard equipment, and crew**, demonstrating how CMCE technology can be applied to complex marine assets operating in severe offshore weather.

