BPS MARINE™
ULTRASONIC ANTIFOULING TECHNOLOGY

VANQUISH 55 CASE STUDY

INTRODUCTION

Operating a high-performance Vanquish VQ55 in the aggressive bio-growth environment of Ft. Lauderdale requires more than just standard bottom paint. Over a nine-month deployment, BPS Marine implemented a precision-engineered ultrasonic antifouling system designed to protect the VQ55's specialized hull dynamics.

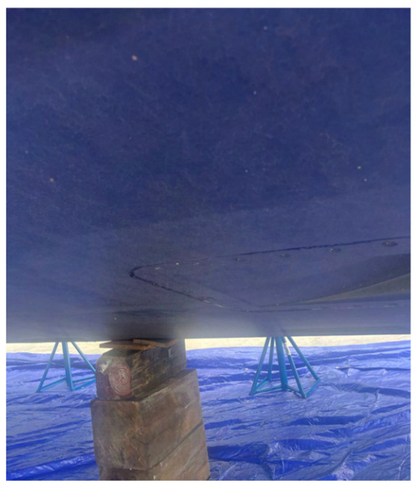
This case study analyzes how our technology maintained the vessel's top-end speed and fuel efficiency by eliminating micro-fouling at the source, effectively bypassing the performance degradation and costly haul-out schedules typical of South Florida waters.



REPORT LOG 1

The installation was completed on September 18, 2024, during a scheduled haul-out in Fort Lauderdale. This maintenance window allowed our technicians to seamlessly integrate a single BPS Marine PRO-8 system into the hull. To ensure precision ultrasonic protection for the VQ55's high-performance profile, eight transducers were strategically mapped and mounted internally, providing edge-to-edge coverage. The system's control module was then secured within a protected engineering compartment, ensuring streamlined integration with the vessel's central power supply while maintaining easy access for future inspections.

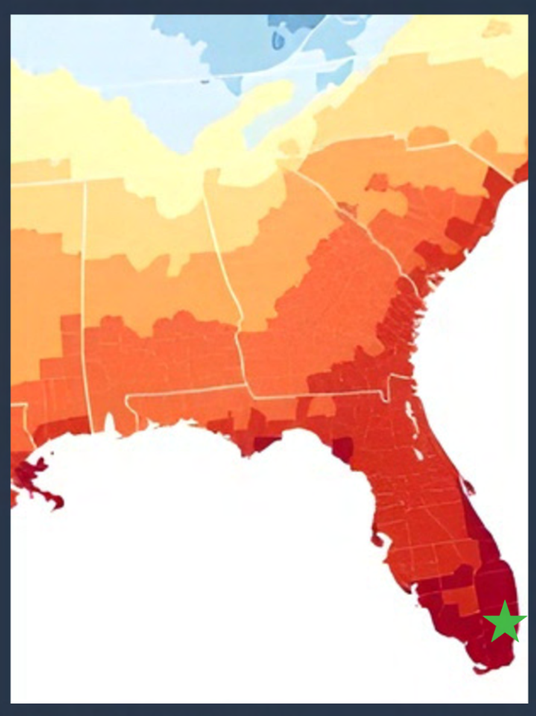






LOCATION: FT. LAUDERDALE

The study is being conducted in Ft. Lauderdale, Florida, a premier global yachting destination. Its tropical climate provides intense, year-round sunlight and consistently high water temperatures. This environment, combined with the nutrient-rich waters flowing through the Intracoastal Waterway and its proximity to the Gulf Stream, creates an exceptionally aggressive bio-fouling zone that poses a constant, year-round challenge for vessel maintenance.





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PROJECT SUMMARY

This report documents a 9-month field study of the BPS Marine ultrasonic antifouling system on a Vanquish VQ55. The study was conducted in Ft. Lauderdale, Florida, a premier location notorious for exceptionally aggressive marine fouling due to its warm, nutrient-dense tropical waters.

The BPS Marine systems were activated upon the vessel's launch, and the VQ55 remained in the water continuously for seven months with no additional hull cleaning or maintenance. This test period was designed to isolate the system's performance against severe, year-round bio-growth on a high-performance aluminum hull. Upon haul-out and inspection, the VQ55's hull was found to be spotless and completely free of all hard marine fouling, successfully validating the technology's effectiveness in protecting high-speed vessels in one of the world's most challenging marine environments.



REPORT LOG 2

By preventing the initial attachment of bio-slime and barnacle larvae, the system has successfully preserved the VQ55's signature performance specs—ensuring the vessel hits its 70-knot top speed with the same efficiency it did on day one. Recent inspections show the composite hull remains free of hard growth, confirming that the ultrasonic mapping provides 100% effective coverage.



TEST BOAT: VQ55

The vessel selected for this performance evaluation is the Vanquish VQ55, a 55-foot aluminum powerboat featuring a specialized stepped-hull geometry. This high-performance vessel serves as a representative example for the luxury chase boat market, where extreme speed and unique material properties allow for rigorous testing of the BPS system's signal conductivity and physical durability.

