



## **CASE STUDY**

# Upgraded Aids to Navigation Assist Petroleum Tankers Into Expanded Caribbean Port

*Island of Antigua, Caribbean*



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## Project Overview



### Application

Channel Marking and Port Entry Lighting Solutions at Island Port



### Product

SL-B1750 Buoy with IALA Region B Top Marks  
SL-B1500 Navigation Buoys with SL-70 Solar Marine Lanterns  
and GPS Synchronization  
SL-B1250 Buoys  
Port Entry Light (PEL) 5  
SL-PS 140W Solar Panels



### Location

Island of Antigua, Caribbean



### Date

2019



“Sealite streamlined the purchase process by allowing us to buy all our Aids to Navigation from one vendor. Their marking solution was the best fit for our customer.”

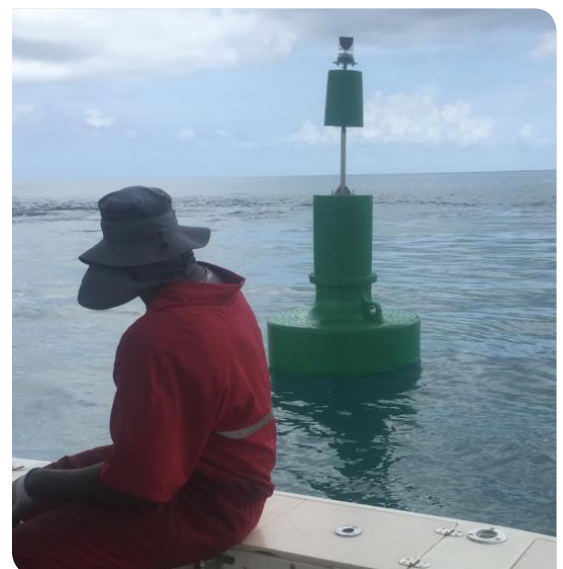
– Michael Touissant, Managing Director,  
RDS Contracting Concepts, Trinidad

### Background

Antigua is a small, ruggedly beautiful Caribbean island, located in the leeward islands of the West Indies. It is 108 square miles with a 54 mile coastline. The island has a deep connection to the sea and a reputation for a populace with vast commercial shipping expertise from its early trading history. Its beauty and reputation have helped build Antigua's reputation as a regional trade hub, especially of petroleum products. It is also a welcoming and growing cruise ship, yachting, and tourist destination due to its natural beauty.

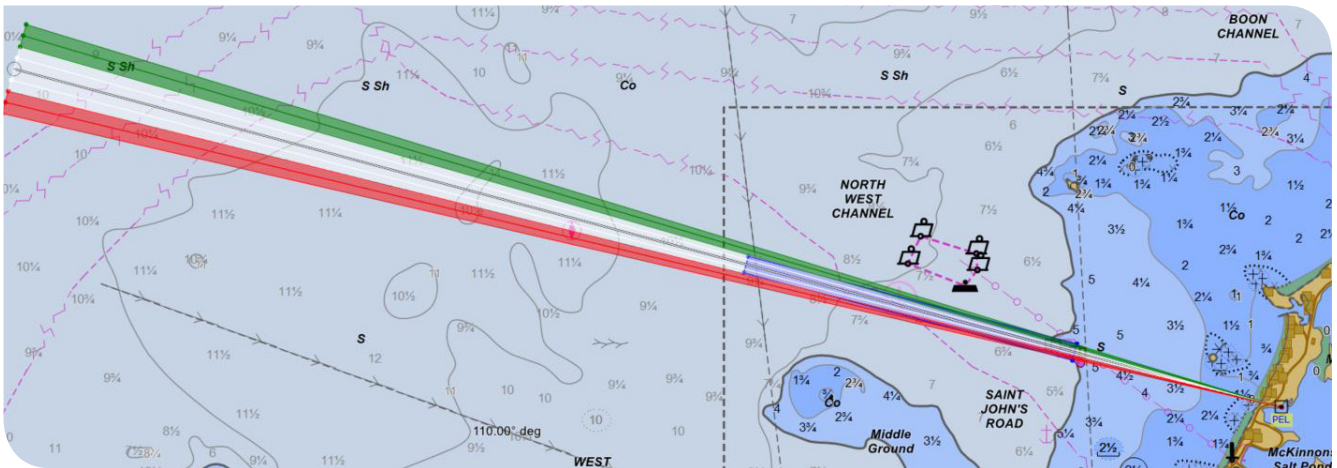
### Challenge

The island is renowned for some of the best natural harbors in the Caribbean and its lure of beauty and relaxation have helped grow regional trade and tourism. The Antigua Port Authority, who is responsible for port infrastructure and services, undertook major dredge projects on Antigua's west coast to expand navigation channels for the increased number and size of tankers carrying petroleum products. New navigation aids were required to help marine pilots better identify the new ship channels to safely guide vessels to the petroleum terminals.



Providing needed guidance into the petroleum terminal is Sealite's SL-B1250 Buoy shown with IALA region B top marks and SL-70 Lanterns with GPS Sync.





Shown above is a graphic representation of the sectored light configuration from Sealite's 5° LED Port Entry Light.

### Solution

Through Sealite's Caribbean distributor, RSD Contracting Concepts, Ltd., in Trinidad, a complete harbor marking solution was designed and installed to support marine pilots with expanded ship maneuvers. Antigua's new west coast ship channels received 14 new buoys: Sealite's SL-B1750 Ocean Buoys, Sealite's SL-B1500 and SL-B1250 Buoys.

Sealite's Solar LED Marine Lanterns were also a part of the new Aid to Navigation (AtoN) harbor marking solution installed by RSD Contracting. The SL-70 2-3NM lanterns included optional GPS Flash Synchronization which allows them to flash in unison for clearer identification of navigation channels and hazards.

Another part of the channel upgrades going into the petroleum products terminal included a solar powered 5° Sectored Port Entry Light (PEL-5). With a range of 5 nautical mile daytime visibility/10 nautical mile night visibility, Sealite's LED PEL-5 helped assist pilots with night berthing as well as safe unberthing. As the PEL-5 is completely solar powered, it does not rely on the island's electrical grid, thereby minimizing operational costs and maintenance.

Sealite's high precision sectored Port Entry Lights (PEL), provide measurable light changeover on harbor approach to help precisely identify channel boundaries. 32 different intensities and 256+ flash characteristics can be user selected to offset potentially confusing background light. Remote GSM monitoring and GPS synchronization are important options for challenging port approaches. A 10° sectored PEL is also available.

### Outcome

Sealite's AtoNs which were installed by RSD Contracting have helped safely increase petroleum imports, bolster the local economy, increase safety to vessels, crews and the environment, and increase local job opportunities for island residents.



Sealite's PEL-5 delivers a brilliant 5NM day/10NM night range, standing out against confusing background lighting to assist harbor pilots with night berthing and unberthing.



Sealite's SL-B1250 Buoy is available in several IALA compliant colors and configurations including cone (shown above) and can (left).



All Sealite products are manufactured to exacting standards under strict quality control procedures. Sealite's commitment to research and development, investing in modern equipment and advanced manufacturing procedures has made us an industry leader. By choosing Sealite you can rest assured you have chosen the very best.

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- ✓ Product Innovation
- ✓ Precision Construction
- ✓ Total Quality Management
- ✓ ISO9001:2015
- ✓ Rapid Turnaround

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