

Application Story

PROJECT NASA : WALLOPS ISLAND, VIRGINIA
Product Geotube® Marine Structures Technology
Application Sand Dune Cores

Location NASA Wallops Flight Facility
on Wallops Island, Virginia
Installation 2006

The Challenge:

Hurricanes and tropical storms caused damage and beach erosion to the area [photo 2]. This posed a threat to the adjacent launch pad at NASA's Wallops Flight Facility. With a rocket mission scheduled for early 2007, a plan was needed to quickly secure the surrounding area and prevent damage to the launch site's foothold.

The Solution:

Civil engineers turned to TenCate™ for an assessment. The team selected Geotube® marine containment technology to rebuild the shore and protect it from further damage. The repair plan required design, set-up, installation, and filling of 4,600 linear feet of Geotube® units -- all within a tight two-month time period [photos 3-4].

The beach was graded, scour aprons were placed under each unit, and the containers were secured with sand-filled anchor tubes. An almost mile-long line of Geotube® containers (34' circumference x 200' long) were filled with sand slurry using a header system with multiple feed lines [photo 5]. This involved pumping an average of 1,200 gallons per minute. The Geotube® containers were pumped to a height of 6 feet.

The Results:

The Wallops Island restoration was a major success and paved the way for the NASA rocket launch to proceed as

scheduled. Beach erosion has subsided and sand has continued to naturally build up on the ocean side of the Geotube® wall [photo 7]. So far, the Geotube® units have stood up to all of Mother Nature's challenges on the Atlantic coast.



Contact Information:

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