



aviationrenewables

# PROJECT REPORT

PORTABLE LED PAPI SYSTEM OPERATING FOR CANADIAN AIRCRAFT MANUFACTURER



**LOCATION** Canada

**DATE** 2020

**CLIENT** Viking Air

**EQUIPMENT** Portable LED PAPI System (APAPI)  
Portable Generator System

**APPLICATION** LED PAPI System for Glide Slope Testing

## SYNOPSIS

Aviation Renewables supplied and commissioned a 2-box LED PAPI-(APAPI) for use while flight testing steep approaches. Aviation Renewables supplied the product and expertise as part of the certification process for an aircraft's ability to operate into St. Barth's airport in the Caribbean.

## CHALLENGE

As part of the aircraft manufacturer's certification process, a two box LED PAPI was modified for the purpose of testing steep approaches to support a unique operation in the Caribbean. As Precision Approach Path Indicators are normally set

at 3°, most units are incapable of being set to the desired 9° in order to complete the testing. The manufacturer selected Aviation Renewables to lend expertise and to supply an appropriate LED APAPI for this project.



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## SOLUTION

Aviation Renewables was able to supply an LED PAPI unit with a custom designed mounting structure for temporary use during this testing. The 2-Box PAPI was designed to operate from 120VAC using a small portable generator. The unit was easily adjusted through the range of approach angles required during the testing, from 7 degrees to 9 degrees, and was accepted in combination with GPS and Radar Altimeter as certification support for the steep approaches.

Aviation Renewables attended on site to support the installation and commissioning of the unit. In addition, Aviation Renewables guided a local surveying team through the Survey Method of PAPI commissioning, which verified the instruments used for setting the PAPI Approach angles. The testing took place over a period of several weeks, as a variety of wind and weather conditions were needed in order to simulate real-world conditions. The LED PAPI was adjusted to various angles several times each day, and performed flawlessly through the tests. The result was a successful certification, a pleased aircraft manufacturer, and a happy end user in the Caribbean.

