

Massa Model E-386 Ultrasonic Fuel Level Measurement System

PROBLEM:

To improve forward fuel management, the volume of deployed Collapsible Fuel Bags must be accurately measured

SOLUTION:

Massa Products Corporation developed an Ultrasonic Liquid Level Detection System to accurately measure in-situ the fuel level in forward deployed collapsible Fuel Bags

DESCRIPTION:

- The proof of concept Massa Model E-386 Ultrasonic Liquid Level Sensor System attaches to the top of the Collapsible Fuel Bag
- The system accurately measures the fuel level in the bag using ultrasonic pulses similar to SONAR
- Updated fuel level measurements can be electronically transmitted to a computer or other display
- The E-386 System could also report fuel levels of deployed Collapsible Fuel Bags via a Satellite Communications Link

Rugged E-386
Is Mounted To
Top of Fuel Tank

Fuel



Short Sound Pulse
Reflects from Bottom
and Returns to E-386

Schematic Representation of How the E-386 System Measures the Fuel Level by Transmitting Ultrasonic Pulses and Measuring the Time of the Return Echo



Photograph Showing a Proof of Concept Massa Model E-386 System Being Successfully Tested