

Reference: EL12393

Holeman Scientific Corporation (HSC) is under contract with AMCOM to develop a Remote Readiness Asset Prognostic/Diagnostic System (RRAPDS) electronic package.

Contract: Omnibus 2000

Prime Contract: DAAH01-00-D-0012

HSC Sub-Contract: NRC-IDIQ-01-0013.

This system consists of a sensor for environmental measurements; an embedded computer for data conditioning; and a RF transceiver for data communications. HSC has developed a network design (patent pending) that will register and communicate data between large numbers of nodes (approximately 2500) in a short period of time. A typical Army application of the RRAPDS system would have up to 2500 units in a close area; thus, the testing requires a realistic understanding of the networks operation.

HSC is currently contracted under Task Order 050 to:

1. Bench-level test and characterize the present RRAPDS design,
2. Characterize the network setup between an interrogator and multiple RRAPDS units (up to thirty-two (32)), and
3. Characterize the network throughput in a realistic noise environment.

The characterization is to be performed over an industrial temperature range.

HSC has manufactured sixty (60) RRAPDS units. The following table shows the disposition for the sixty units.

Number of RRAPDS Units	Description
5 Units	HSC units for bench testing, product characterization, manufacturing studies, and in-house development.
6 Units	RRAPDS units used for bench test, RF characterization, and environmental test.
5 Units	RRAPDS units for spares.
32 Units	RRAPDS units for network setup testing and throughput test in a noise environment.
12 Units	RRAPDS units to be electrically characterized then reallocated to rework for 410 MHz operation under new Task Order. *

* HSC is currently awaiting a new Task Order to reallocate twelve (12) units to a new program for operation at 410 MHz. These twelve units will be tested under a license being requested under File 0246-EX-ST-2002.

These RRAPDS units are development units and no additional units of this current configuration are planned for manufacture.