

WORKING TOGETHER TO FIND SOLUTIONS

Tyonek Global Services, LLC was awarded a contract to implement [Health Usage and Monitoring \(HUMS\) system](#) on the U.S. Air Force's fleet of Bell UH-1N Huey helicopters. Tyonek needed a flexible, rugged, and accurate data acquisition device that will be used to collect the information from the various sensors on the UH-1N.



THE IMMEDIATE CHALLENGES

- 1 Tyonek needed commercial-off-the-shelf (COTS) hardware to collect both standard and advanced data and signal information.
- 2 Standard information to be collected includes the status of aircraft safety equipment (signal lights, warnings, indicators, etc.), oil temperature, engine speed and acceleration.
- 3 More advanced signals to be collected includes engine torque, heading, pitch angle, roll angle, ground speed, latitude/longitude and date/time reference.
- 4 System needed to be rugged but also fit a [very specific area of the helicopter](#).

UEI'S PATHWAY TO SUCCESS FOR TYONEK & USAF

- UEI developed the [UEI-HUMS1](#) COTS system; a modified version of UEI's popular [DNR-MIL](#) data acquisition chassis.
- The UEI-HUMS1 solution simplifies life cycle management and increases reliability by providing a single Line Replacable Unit (LRU) replacing two separate LRUs of the previous design.
- The I/O provided in the UEI-HUMS1 includes dozens of Analog, Digital, Synchro/Resolver, Speed/Rotation and ARINC-429 interfaces which monitor critical aircraft systems including engine, transmission, flight control positions, fuel and hydraulic systems and more.

END RESULT

"UEI's data aggregation system enables us to deliver a system design for the USAF with superior data accuracy and processing power. The ability to customize the UEI component allows us to effectively match the signal and processing and size constraints to the program's requirements," said Andy Gignilliat, Senior Aviation Program Manager, Tyonek Services Group, Inc. "The UEI system offers these enhanced capabilities while reducing material costs and increasing the ease of integration."

[WIN] UEI-HUMS1 is now a COTS chassis and is part of our line of military solutions which includes our [10-year availability guarantee and 5-year warranty](#).

[WIN] UEI optimizes the size, weight and power at the best cost.

[WIN] UEI-HUMS1 is MIL certified as required by the USAF for deployment on the Bell UH-1N Huey helicopter.

ASK US HOW UEI CAN DO THE SAME FOR YOUR COMPANY!

