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HONEYWELL, LOCKHEED MARTIN AND NASA JOHNSON SPACE CENTER SELECT QUALTECH SYSTEMS FOR SPACE SHUTTLE REPLACEMENT VEHICLE HEALTH MANAGEMENT ROLE

Wethersfield, CONN. (July 1, 2007) The contractor selected by NASA to build the next generation of manned spacecraft has selected Qualtech Systems Inc. (QSI) to supply software to monitor the health of critical spacecraft systems during space missions.

The QSI software, that is also tasked with pinpointing the root cause of any failures during flights of the new multi-billion dollar spacecraft in real-time, will support the operation of the Orion Crew Exploration Vehicle (CEV), the actual crew capsule that will transport up to six crew members on re-supply missions to the International Space Station, lunar missions, deep space travel to Mars and beyond.

Both Lockheed Martin, selected by NASA as the prime contractor, and Honeywell, which will develop much of the CEV system management software along with NASA personnel, will be charged with embedding QSI's TEAMS-RT in Orion's on-board computers.

"Even NASA cannot make systems that never fail," said Dr. Somnath Deb, CTO of QSI. "But system failures need not lead to mission failures or safety risk. There is fault tolerance and redundancy built into every system. The effect of failures can be mitigated by executing correct contingency procedures, as long as root cause can be quickly and accurately determined – and that's what TEAMS-RT does in fraction of a second."

Honeywell engineers will use TEAMS to model the subsystems onboard the Orion and capture the system's structure. Those subsystems will report test results to TEAMS-RT, a fast and compact reasoner running on Orion's on-board computer. TEAMS-RT will provide the real-time system health monitoring function. The crew and ground personnel will get a steady stream of exact health status data on the vehicle. In the event of a systems failure, TEAMS-RT will generate an intelligent diagnostic solution. This process is commonly known as VHD (Vehicle Health Determination) application.

Until now, NASA has relied on ground personnel to interpret the mission-critical data that is beamed down from its spacecraft. The QSI software will now take on much of that role, especially during deep space flights to Mars when communications over millions of miles will be on a delayed basis.

As part of the selection process, Lockheed Martin and Honeywell, along with NASA's Johnson Space Center, conducted an extensive evaluation of commercial and home-grown solutions for use on the Orion Crew Exploration Vehicle (CEV) along with NASA personnel, and chose QSI's solution. QSI offers an economical, yet highly capable integrated commercial off-the shelf tool suite. It was the clear winner in each of the major criteria, including cost, performance, risk, safety and commercial off-the shelf availability. Consequently, the Lockheed Martin/Honeywell team base lined QSI's TEAMS solution in their Orion proposal.

NASA says Orion is expected to launch with a manned crew no later than 2014. A Moon landing is expected to occur in advance of the year 2020.

"A large part of our research and development has been funded by NASA and DoD SBIR programs, and we are happy to give something back by helping fill an important role in the successful continuation of America's manned spaceflight program," Deb added.

The TEAMS software is capable of supporting a variety of commercial sector applications in the industrial, transportation, semiconductor and medical device industries.

For more information visit http://www.teamqsi.com

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PAIN RELIEF

QSI provides software and services to overcome problems like these:

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