



## **Knowledge Reservoir Teams with United Space Alliance for Pipeline Industry Control Room Procedures Solution.**

**HOUSTON, November 7, 2011** --- **Knowledge Reservoir**, a leading engineering and geosciences solutions company, today announced collaboration with United Space Alliance, LLC (USA) to provide Real-Time Operations Center (RTOC<sup>SM</sup>) personnel, expertise, training and planning support to the United States pipeline industry.

A need in the United States for pipeline operation companies to better monitor and control pipeline infrastructure has been identified by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA has approved a schedule change for implementation of the requirements proposed in 49 CFR Parts 192 and 195, to October 2011 and August 2012 respectively. This accelerated schedule calls for the nation's gas and petroleum products pipeline operating companies to integrate control room management and human factors procedures into their existing written manuals and processes for operations and maintenance, operator qualifications and emergency procedures. The mandatory regulations will affect all gas transmission and distribution pipelines, hazardous liquid pipelines, and LNG facilities.

Furthermore, several U.S. and Canadian trade groups recently announced a "comprehensive" joint study to improve pipeline safety. Six industry trade groups said the study will "explore safety models and procedures currently utilized by other industry sectors in an effort to deliver natural gas and pipeline-transported liquids more safely and reliably."

Operations management of NASA's Mission Control and of command and control facilities in both the commercial and military aerospace sectors, has long been cognizant of the role that effective management of human factors plays in the safety, reliability and integrity of their operations. PHMSA, the U.S. Congress, the National Transportation Safety Board (NTSB), and many pipeline stakeholders have more recently identified control room management and human factors as key

areas requiring improvement and enhancement to promote public safety, operational integrity of the pipeline transportation network and protection of the environment from the effects of pipeline failures.

In view of the aggressive regulatory deadline, Knowledge Reservoir, through its Real-Time Systems (RTS<sup>SM</sup>) division is tapping the pool of real-time systems operations and monitoring expertise at USA to help enable operators to fast track implementation and to meet the deadline set by PHMSA. Relevant skill sets brought to the partnership by USA include operator training/certification, quality and risk management, compliance assessment, safety assessment and failure mode analysis.

Dr. Ivor R. Ellul, CEO of Knowledge Reservoir, commented, “Knowledge Reservoir brings its oil and gas subject matter expertise together with USA’s operation control expertise in this partnership. We view our collaboration as a real opportunity to support the Pipeline industry in meeting the new regulations. Many of the issues noted in the PHMSA Control Room Management Directive reflect the same issues that have been worked in the U.S. Space Program over the past 50 years. We are offering highly focused project management and real time operations expertise developed and successfully implemented with NASA over the past several years.”

David Valentine, USA Director of Safety and Mission Assurance, noted that “USA brings decades of operations experience within the NASA human spaceflight arena to the pipeline industry with tailored approaches that will facilitate meeting the PHMSA regulations in a timely, thorough and efficient manner.”

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**Knowledge Reservoir** is a leading global consulting firm headquartered in Houston, Texas, and provides Engineering Consulting and Resourcing solutions to clients worldwide from offices in Texas, the United Kingdom, Oman, and Malaysia. The company’s RTS division provides engineering services and integrated systems for Real-Time Command and Control and events-based surveillance solutions. <http://www.knowledge-reservoir.com>

**United Space Alliance** is a world leader in space operations with extensive experience in all aspects of the field. Headquartered in Houston, USA has employees working in Texas, Florida and Alabama. USA is applying its broad range of capabilities to NASA’s International Space Station program as well as to customers in the commercial and international space industry sectors, other government agencies and to a broad range of industry and commercial endeavors. <http://unitedspacealliance.com/>

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