Quarterly Report – Public Page

Date of Report: October 10, 2006

Contract Number: DTRS56-05-T-0002

Prepared for: US Department of Transportation, Pipeline Research Council International and Operations Technology Development Corporation

Project Title: "Design, construction and demonstration of a robotic platform for the inspection of unpiggable pipelines under live conditions"

Prepared by: *NYSEARCH/Northeast Gas Association*

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For quarterly period ending: *August 31, 2006*

Progress to date: The project is firmly in the design-fabrication, -prototyping, -assembly and software development and testing/debugging stage.

The system design detailing for all electronic PCBs has been completed, with PCB layouts and production-data remaining for a select few modules. Multi-module parts are continually being received and assembly is continuing at the subsystem levels.

Automatika is in the process of assembling subsystems for the steering- and drive-modules, as well as the prototype battery-modules. Final assembly of said test-modules will be possible once the missing gears and motors are received, with partial motor- and gearing-orders in house and final deliveries expected by early October 2006. Fit-checks and assembly procedures are continually being carried out on parts received.

The software for communication, video-rendering and on-board computer communications has been written and debugged and is undergoing stress-testing. The low-level control-code (8-bit) for steering and battery-modules is completed, with drive-module control awaiting final improvements to the prototype electronics. Upon assembly completion, all final low-level embedded code and higher-level code can be debugged for all driving and obstacle-handling purposes. Subassemblies are being made available for the software team to continue their partial testing and debugging efforts, as (substantially-delayed) parts arrive in house. Automatika is currently continuing the PCB prototyping, production, population and testing efforts, and has initiated the task of wire-harness documentation and rendering for production purposes.

Automatika continues to interact with the Sensor Provider, with the focus now on the control interface between platform and sensor, especially as they relate to power-bus tap-in design, communication-buss isolation-circuitry as well as messaging and protocols.