

Quarterly Report – Public Page

Date of Report: October 10, 2007

Contract Number: DTRS56-05-T-0002

Prepared for: US Department of Transportation, and Operations Technology Development Corporation

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

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For quarterly period ending: *August 31, 2007*

Progress to date:

The TIGRE project has completed the robot assembly phase, and has begun extensive endurance testing in indoor and outdoor testing facilities. The external pipe-loop is also being used with the horizontal 45-deg turn to simulate a launch and recovery situation. Interactions with the Sensor Provider continued in order to harden the platform and create a functional MFL for several upcoming field-trials. Platform endurance data collected during experimentation is being logged.

The Explorer-II platform endurance testing phase was completed in both indoor as well as outdoor settings. Dozens of launches and recoveries, as well as 90-/45-degree elbow turns were made, including Ts, and thousands of linear feet were traveled in both driving as well as scanning configurations. The robot system was tested in flanged-bolted pipe-sections and with the final welded launcher arrangements and its endurance data logged in preparation for the upcoming field-trials in live gas mains. Final integration and endurance testing with the SwRI-supplied RFEC sensor is expected to occur early in the next reporting period and lead to the release of the system for field-trial.