

Public Page

This project started on 1 December 2004. A project kick-off meeting (Task 1) was held in New York City on 7 December 2004.

The Teletest[®] long-range guided wave ultrasonic system, supplied by one of the project partners, Plant Integrity Ltd, is being used as the vehicle for development and validation of enhanced pipeline inspection techniques. During this period, December 1, 2004 through February 28, 2005, possible enhancements to the existing Teletest system were identified and defined. These were, in general, enhancements that could be implemented via software and/or hardware changes. An overall block diagram of enhancements was generated. The areas addressed were calibration, post processing of data, on-board computation of time-delays for focusing, and natural and controlled focusing. Additionally, questions regarding procedural items were considered such as the need for a better estimation of in-situ group velocity and in-situ measurement of tar coating effects. Answers to these questions will be forthcoming in succeeding quarters. Initial steps toward the modeling of the effects of tar have already been taken. We also introduce a “Quick Look Scan,” a scheme to enable a Teletest operator to quickly appropriate frequencies for performing an inspection.

Also during the first quarter, the users and NYSEARCH worked to refine their definition of industry needs, understand the state of the technology and how it will apply to their pipes both at the end of this project and in commercial use. Also, NYSEARCH established a new approach for controlled testing so that test conditions are wide-ranging but also suitable for this technology and other technologies (some comparable, some different) at various stages of development.

This report addresses project tasks:

Task # 1-A Procedure Optimization

- Start date: 1 December 2004
- Scheduled completion date: 30 April 2005
- Status: On-going

Task # 2-A Mathematical Modeling

- Start date: 1 December 2004
- Scheduled completion date: 31 August 2005
- Status: On-going

Task #1-D – NYSEARCH Oversight, Utility Input and Reporting

- Start date: 1 December 2004
- Scheduled completion date: 31 August 2005
- Status: On-going throughout project but captured in other tasks after first (9) mons