



Trenchless Technology Center Newsletter

March 1997

Pipe Replacement Research Under Way

At the time of writing, the field tests of ground movements and vibrations caused by pipe bursting with upsizing were under way at the TTC field test site.

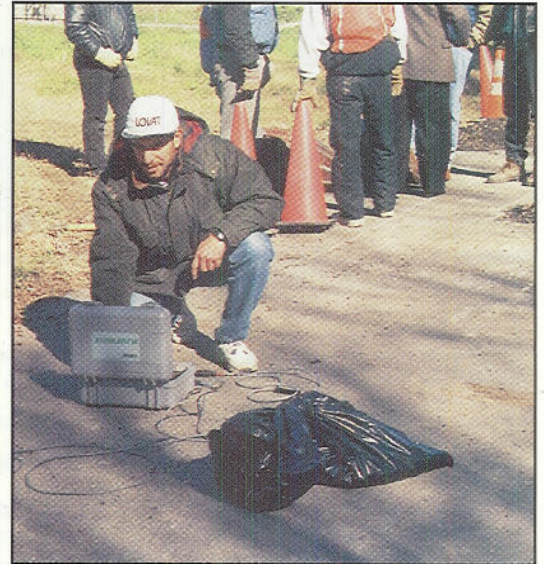
The measurements include several test sections with surface and below-ground displacement measurements; surface vibration measurements at various distances from the centerline of the burst; strain gaging of pipe sections close behind the bursting head to measure pipe stresses during the replacement process; and survey/pipe profiling measurements to determine the cross-sectional location of the new pipe relative to the burst pipe.

At a later date, the TTC field test bed sections will be excavated and the orientation of the old pipe fragments recorded for analysis with respect to the need for a protective outer pipe in

pressure pipe applications.

Bursts at the site will be conducted using equipment from TT Technologies, Inc., Miller Pipeline, Inc. and TRS Ltd. CSR Pipeline Systems provided the HDPE pipe for the bursting and all the above together with British Gas, Kinsel Industries, Mid-South Trenchless, Roy F. Weston and Earth Tool Corp. have provided additional financial and in-kind support for the project.

In addition to the TTC field test site monitoring, the project involves eight field visits to actual pipe replacement projects with a variety of locations and replacement techniques. The project is expected to conclude in June 1997.



Alan Atalah, a graduate student with the TTC, conducts vibration monitoring at a pipe bursting demonstration project organized at the time of the UCT Conference in Houston.

TTC Updates Microtunneling Database for

The TTC has updated its database for the U.S. microtunneling industry to include projects for 1996. The database has information on the type of machine used, the type of pipe used, job location, soil conditions, name of contractor and name of owner.

Collected from each of the major U.S. manufacturers of microtunneling machines, the data is compiled by the TTC and then is recirculated to the manufacturers for review and correction. After review, the TTC makes the database available for purchase.

Copies of a diskette (Access database format) and a database printout are available for \$50, plus \$3 for postage by calling or writing the TTC.

TTC Publications

A listing of TTC publications can be obtained by writing or calling the TTC or by visiting the TTC web site (see sidebar on the next page for web address). The following are the most frequently requested publications:

Bennett, R.D., Guice, L.K., Khan, S., Staheli, K., *Guidelines for Trenchless Technology: Cured-in Place Pipe (CIPP), Fold and Formed Pipe (FFP), Mini-Horizontal Directional Drilling (mini-HDD), Microtunneling*, Technical Report CPAR-GL-95-2, Construction Productivity Advancement Research (CPAR) Program, U.S. Army Corps of Engineers, July 1995. Cost per copy \$57, plus \$3 for postage.

Khan, S., Bennett, D., McCrary, S., Iseley, D.T., *Mini-Horizontal Directional Drilling: State-of-the-Art Review*, Trenchless Technology Center, June 30, 1994. Cost per copy \$28, plus \$3 for postage.

Guice, L.K., Straughan, W.T., Norris, C., "Long-Term Structural Behavior of Pipeline Rehabilitation Systems," Technical Report 302, Construction Productivity Advancement Research (CPAR) Program, U.S. Army Corps of Engineers, Aug. 15, 1994. Cost per copy \$37, plus \$3 for postage.



Members of the NASTT Student Chapter at Louisiana Tech University, Craig Messer and Kevin Autry, tend the TTC booth at the UCT conference.

Municipal Users' Forum Launched at UCT'97

The first organizational meeting for the TTC Municipal Users' Forum was held Jan. 15 during the UCT '97 conference in Houston.

The forum was strongly endorsed by those present because there are few opportunities for public works engineers to share their experiences and to learn from the successes and mistakes of other public works engineers.

Regional forum meetings are planned to keep travel costs and difficulties for public employees to a minimum and to allow a regional focus on application issues.

The first regional meeting is being planned for mid-year. Municipalities or other public works agencies can obtain information about the meeting or forum membership by calling the TTC.

New Industry Support for TTC

Following the launch of a campaign to broaden industry support for the TTC late last year, the TTC has received many promises of new or renewed involvement.

In connection with this, we are pleased to announce the addition of In-Liner USA, Inc., a manufacturer of CIPP

products for manhole-to-manhole rehabilitation and point repair of pipelines, as a new Industry Advisory Board member.

We expect to be reporting a number of new contributions in the next newsletter.

TTC Updates Its Homepage

The TTC has updated its web page to provide more information about trenchless technology and the programs and capabilities of the center.

The page will continue to be added to in the coming months and will in-

creasingly become a vehicle through which visitors can find out about current projects and research findings of the center. Look it up at: <http://www.latech.edu/tech/engr/ttc/>.

Industry Advisory Board

Akerman Manufacturing, Inc.
Brownsdale, Minn.

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Cleveland, Ohio

Soltau Microtunneling
Charleston, S.C.

Trenchless Technology, Inc.
Peninsula, Ohio

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