ASCE Deep Foundations Congress in Orlando, Florida, February 14 to 16, 2002

About 500 professionals met in Orlando for an ASCE sponsored three day update on the latest developments in deep foundation technology. There were 108 papers presented at six parallel sessions, producing more than 1,500 pages of proceedings. Approximately half of the papers dealt with design, the next largest group was on testing.

Participation by Pile Dynamics and GRL was significant: Garland Likins (PDI) led workshops on Low Strain and High Strain Testing and presented two papers, "Alternate Verification Methods for Augercast Piles" and, in cooperation with Dr. Ken Bell of Bechtel, "Proven Success for Driven Pile Foundations". Brent Robinson (GRL Central) presented "Dynamic Load Testing of Drilled Shafts at National Geotechnical Experimentation Sites", and Mohamad Hussein (GRL FL) presented "The Use of Superposition for Evaluating Pile Capacity". Dr. Frank Rausche (GRL Central) lectured on "Prudent, Practical and Efficient Use of NDT Software".

The cell phone to cell phone transmission capabilities of the remote PDA (PAL-R) were successfully demonstrated in conjunction with the Congress prediction contest. The contest consisted of predicting the static capacity on two previously driven pipe piles, one tested in compression and one in tension, and predicting blow counts on a third pile installed during the live field demonstration. Unexpected challenges were encountered: GRL performed the uplift test with its static test electronic measurement system. The test was interrupted when the tension bar yielded at 35 tons. The compressive test was performed by the University of South Florida and ended at 135 tons when the applied load exceeded the dead load reaction system. Thus, in both cases no ultimate load was verified.

The blow count part of the contest also presented difficulties since the relatively small APE 8-22 reached 1,200 blows per foot at a depth of 15 ft. After driving through this layer, the pile advanced to a final depth of 45 ft with final blow count of 55 blows per foot. The same APE 8-22 had driven the static test piles with maximum blow counts of 180 blows per foot in the upper dense layer. The test was instrumented, and data processed with the PAL-R. Amir Altuee of Urkkaada had predicted the highest blow count and won the contest. The rewards for the other two static prediction contests were given to universities.