JACK S. CHISLETT, P. E.
Director Operations Analysis

TUV RHEINLAND MOBILITY
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EDUCATION

B. S. in Civil Engineering, Georgia Institute of Technology, Atlanta, GA	1982
B. S. in Applied Physics, Georgia Institute of Technology, Atlanta, GA	1976

SUPPLEMENTARY EDUCATION

• TOES Workshop, AAR Chicago, IL	1991
• Braking Workshop, University of Illinois	1992
• Introduction to the C Language, Georgia Tech	1998
• Intermediate C Language, Georgia Tech	1998

LICENSE

Professional Engineer No. 16609, Georgia

WORK EXPERIENCE

TUV RHEINLAND MOBILITY / RAIL SCIENCES INC., Atlanta, GA
Director Operations Analysis 1990-Present

Responsible for the use and application of Track/Train Dynamics Simulation Models such as the AAR's Train operations Simulator (TOS), Train Operations and Energy Simulator (TOES), Vertical and Horizontal Curve Negotiation Program (VHCNP) and the Quasi-static Lateral Train Stability Model (QLTS). These models are used to study the cause and prevention of derailments and the TOS and TOES models are also useful in stopping distance calculations for signal spacing studies and crossing accident cases. Also use and apply the Train Transit Predictor Model (TTP) for fuel consumption, running time and tonnage rating studies. Author of several in-house Computer Programs including:

- SDC: Stopping Distance Calculator. Full featured stopping distance model for use in Positive Train Control and signal spacing operations.
- TOS//QLTS//TOES/Vampire Parsers: Programs take simulation output and extract the data needed for analysis. Also statistical models that analyze the extracted data.

- TOS Animator: Program takes output from TOS and graphically displays forces, speed, throttle changes, brake pressures other train characteristics for easier dynamic analysis.
- Derailment Severity Model: Wrote the animation routines for this model that is used to predict derailment severity from the train geometry, weight and speed.
- Operations Capacity Model: Wrote a capacity model used in the analysis of a coal mining operation. The model used statistical sampling of actual historical data included loading, unloading and over-the-road runtimes.
- Time - Speed - Distance Models: Wrote several programs to show the different time – speed - distance relationships involved in crossing accidents.

RALPH WHITEHEAD & ASSOCIATES, Atlanta, GA 1980-1990
Design Engineer

Responsible for preparing design computations, drafting of design details and reviewing the design of railway and highway structures. Also responsible for field engineering observations of construction and construction stakeout. Principle field engineer for several Norfolk Southern track realignments resulting from various MARTA projects impacting the railway right of way. These have included double track mainline detours and realignments and several spur track changes. Worked as survey party chief and instrument man both laying out track and checking existing alignments. Significant design and/or field responsibilities for the following projects:

● Norfolk Southern Railway Bridge over Harris Blvd., Charlotte, NC
● Norfolk Southern Railway Detour Trestles, Kannapolis, NC
● Norfolk Southern Railway Bridge over I-40, Garner, NC
● York St. over Norfolk Southern Railway, Gastonia, NC
● CSXT over Trenholm Rd., Columbia, SC
● CSXT over O'Neil Ct., Columbia
● Tyvola Rd. Bridge over Sugar Creek, Charlotte, NC
● Norfolk Southern Railway over Oates Creek, Augusta, GA
● Norfolk Southern Railway over 1-75, Atlanta, GA
● 1-285 Underpass for Central of Georgia RR, Atlanta, GA
● Norfolk Southern Railway over GA 400, Atlanta, GA

Developed several productivity enhancing computer programs used in railroad track layout and design. Co-authored a program for sheet wall shoring calculations especially helpful for checking shoring designs submitted by contractors for railroad review.

UNITED STATES PEACE CORPS, Suva, Fiji 1976-1979

Taught high school level mathematics, physics and English.

PUBLICATIONS

Co-Author of LineTamer©, a computer program used by seven major railroads for the study and realignment of existing track geometry through stringline measurements.