

ELISA M. NICHOLS
PRESIDENT, KENSINGTON CONSULTING LLC

EDUCATION

BA, English, University of Maryland, 1984
BS, Psychology, University of Maryland, 1984
MA, English Language and Literature, University of Maryland, 1989

CERTIFICATIONS/AFFILIATIONS

TSSP (Transit Safety & Security Professional) Certification from the Federal Transportation Administration's **Transportation Safety Institute (TSI)**

World Safety Organization Certified Safety & Security Director (WSO-CSSD-Rail)

Certified Instructor for **National Safety Council's** 6- and 8-hour Defensive Driving Courses, certified 1996.

Senior Associate Staff, **Transportation Safety Institute (TSI)**, Oklahoma City, OK: Currently certified to instruct for TSI, the educational division of the Federal Transit Administration, based at the campus of the FAA's Mike Mulroney Training Center in Oklahoma City, OK, TSI provides training programs in Safety and Security for FTA and FRA-governed domestic and international transit systems. Responsibilities include course/curriculum development and ongoing instruction in safety management systems and system safety courses for ground transportation including:

- ☐ Safety Management Systems for Transit
- ☐ SMS Awareness
- ☐ Safety Assurance
- ☐ Transit System Safety
- ☐ Rail System Safety
- ☐ Bus System Safety
- ☐ Effectively Managing Transit Emergencies
- ☐ Rail Incident Investigation
- ☐ Transit System Security
- ☐ Transit System Safety and Security Auditing

OSHA-certified (30 hours)

Certified Quality Auditor, **American Society for Quality**, certified 1999

Member, **Transportation Research Board's Committee on Critical Infrastructure Protection**

Past Member, **Metropolitan Washington Council of Government's Passenger Rail Safety Subcommittee**

Member, **APTA Bus & Rail Safety Committees, Committee on Public Safety**

Member, **TRB Committee on Emergency Evacuation**

Member, **TRB Subcommittee on Critical Infrastructure Protection**

Affiliate, **TRB Committee on Bus Maintenance**

PREVIOUS POSITIONS

SG Associates, Inc. & BMI-SG: 1998 – 2005, Principal, Owner and Vice President
American Public Transit Association: 1997-1998, System Safety Program Coordinator
Arc of Montgomery County, MD: 1996-1997, Transportation Administrator
Potomac and Rappahannock Transportation Commission: 1995-1996, OmniLink Bus System Dispatcher
University of Maryland Shuttle-UM Transit System: 1985-1995, various positions
University of Maryland Facilities Safety and Security 1981-1984, various positions

CURRENT EXPERIENCE

Ms. Nichols has a wide variety of transit experience, with emphasis on safety management, security, emergency management, operations and maintenance. She has provided technical assistance on safety issues and processes to the Federal Railroad Administration, the Federal Transit Administration and the Inspector General's office of the US Department of Transportation. She has conducted in-depth safety, security and management audits/technical system overviews for over 60 bus, paratransit, commuter rail, subway and light rail systems in North America, and provided technical assistance to many other transit systems on maintenance, operations, equipment specification, ADA compliance and safety and security issues, transit emergency preparedness plans and implementation, transit security plans and implementation, and operator safety programs. She has traveled extensively, and has reviewed transit systems in Singapore, Egypt, Japan and South Korea.

In 2005, upon the sale of the firm she co-directed, Ms. Nichols founded her own consulting firm to continue her work in safety, security, and emergency preparedness; and transit operations, planning and maintenance.

Under MAP-21 and subsequent legislation, the FTA has introduced its requisite Safety Management Systems (SMS) approach. Ms. Nichols has participated in SMS Gap Analyses for the New Orleans RTA (bus and rail); SEPTA (Philadelphia), MTA-MD (Baltimore), Houston Metro and WMATA (DC). She has also developed SMS Implementation Plans for NO RTA and WMATA, and is currently working with SEPTA and Houston Metro to develop theirs. She also provides SMS-specific training for clients most notably in Hazard Management and Risk, job-specific SMS training, Executive-level SMS familiarization, and Organizational Approaches to Investigation.

She has also assisted in development of Agency Safety Plans (49 CFR 673-compliant) for New Orleans Regional Transit Authority, Transdev, Inc. and is currently developing an ASP for WMATA (DC). She has also developed 49 CFR 270 preliminary plans for the Virginia Railway Express and SETA's (Philadelphia) commuter rail operations.

System Safety & Security Planning and Implementation projects include working with the Washington Metropolitan Area Transit Authority (WMATA). She has also provided similar services for the Virginia Railway Express (VRE-Washington DC-Northern Virginia Suburbs), the New Orleans Regional Transit Authority, Metropolitan Atlanta Rapid Transit Authority (MARTA), the Southern California Regional Rail Authority (SCRRA, Los Angeles, CA), the Regional Transit District in Denver, and MTA-Maryland's transit system (Baltimore, MD), which includes commuter rail (MARC), Metro subway, Central Light Rail, transit and commuter bus and paratransit systems.

She also plans and executes emergency and crisis response drills and tabletop exercises for her clients. She has planned, developed and implemented emergency preparedness exercises for transit systems nationwide, including VRE, New Orleans RTA, the rail systems in St. Louis, MO (MetroLink), New Orleans, LA (NORTA), and CATS (Charlotte, NC) and provided evaluation and review of emergency exercises for MTA-Maryland's transit system, WMATA (DC) and the Metropolitan Atlanta Rapid Transit Authority (MARTA). She has also provided review and development of emergency and crisis plans for a number of clients, including the Metropolitan Washington Council of Governments Regional Emergency Coordination Plan and the Regional Protective Action Plan for the Baltimore Metropolitan Council; municipal plans for Cleveland, OH and St. Louis, MO; and transit emergency and crisis plans for Long Island Rail Road, Chicago Transit Authority, Tri-Met (Portland, OR), WMATA (Washington, DC), MTA-MD (Balti-

more, MD), MARTA (Atlanta, GA), BART (Bay Area, San Francisco, CA), GO Transit Commuter Rail System (Toronto, CA), and RTA (New Orleans, LA) among many others.

In addition, Ms. Nichols has performed system reviews, performance assessments, procedural reviews, Standard Operating Procedure development, internal/system safety and security auditing, safety and security certification, emergency preparedness programs and documentation (including the Security and Emergency Preparedness Plan) and safety/security program development and implementation with the Metropolitan Atlanta Rapid Transit Authority (MARTA) in development and implementation of the Authority's Internal Safety Audit Program, Safety & Security certification of MARTA rail maintenance facilities and preparation of emergency plans and Standard and Emergency Operating Procedures for the agency; and triennial safety review and auditing for the Hartline (Tampa, FL) historic TECO streetcar line. Other services she has provided include System Safety programs and documentation for Herzog Transit Services Inc. (Tri-Rail Commuter Rail, Miami, FL); Quality Assurance for Arlington County, Virginia's para-transit transportation services (STAR service) and fare collection practices review for CATS (Charlotte, NC) and Cognisa Security of Atlanta, GA, for whom she prepared operational manuals, emergency preparedness plans and other documentation. She has assisted the GCRTA (Cleveland, OH) in developing Standard Operating Procedures for its maintenance department and FTA-compliant safety and security certification for the GCRTA's Euclid Corridor busway; and the Delaware River Port Authority for a full assessment of operations for efficiency, effectiveness and safety in 2015. She assisted in the assessment of rail incident frequency for Houston Metro in 2018. She has also provided a Regional Emergency Transportation Coordination Plan for the Atlanta Metropolitan area, as well as Security and Emergency Preparedness Plans for all of the Atlanta area's public transportation providers and developed the Federal Transit Administration's training courses (through the Transportation Safety Institute, Oklahoma City, OK) in internal safety and security auditing, and provided pilot classes in Washington, DC and Atlanta. She is currently working with TSI in developing, piloting and teaching courses in the requirements for the Safety Management Systems provisions of MAP-21 and its successor reauthorization bills.

Other clients include the Baltimore Metropolitan Council, for whom she provided assistance in preparing the Regional Protective Action Plan; and the Virginia Railway Express commuter railroad, for whom she provides ongoing System Safety and Security Services and with whom she has worked with the FRA on the pilot Collision Hazard Analysis project. She developed the first course for the Transportation Safety Institute in Transit System Safety Auditing and provided significant revision for the TSI Bus System Safety Course. She also provided safety, training and emergency management consulting to the Egyptian National Railway system after a series of fatal accidents occurred in 2006, and also to Tri-Met (Portland, Oregon) after a fatal bus accident there in 2010. She has also developed several specialized training programs for transit systems, including Hazard Identification and Management for MARTA and two courses (Accident Investigation and Reporting & System Safety Training for Management) for the Jacksonville Transit Authority. She also provided an assessment of Amtrak's occupational safety and health programs at the Bear Shops in Wilmington, Delaware in 2015 and participated as part of a multi-disciplinary team an assessment of safety practices and FRA compliance at CalTrain in 2016.

She has also supported SAIC (now Leidos) in providing guidance to develop training programs in Cyber Security for the Department of Defense.

Ms. Nichols is currently serving the Washington Metropolitan Area Transit Authority, the New Orleans Regional Transit Authority, and Houston Metro in ongoing System Safety and Security program support, as well as safety management, security and emergency preparedness services for Transdev, Inc. Her firm continues to provide high-quality system safety and security planning, documentation, procedures and compliance with all Federal requirements for all clients. She is also part of a multi-disciplinary team providing Safety Management Systems and system safety support to the New York State Department of Transportation's State Safety Oversight Program Manager. NYSDOT oversees rail transportation systems in Buffalo (Niagara Frontier) and New York City's Metropolitan Transit Authority. She is also providing expertise to the TxDOT for State Safety Oversight.

She has also contributed research for the Transportation Research Board on NCHRP 20 (59) 32: A Transportation Guide for All-Hazards Evacuation; and NCHRP 20 (59) 33: Pre-Event Planning to Support Transportation Infrastructure Recovery Work Plan.

PREVIOUS EXPERIENCE

Consulting. Principal, Owner and Vice President at SG Associates, Inc., which merged with the consulting firm of BMI in 2003 to form BMI-SG, where Ms. Nichols retained her Principal, Owner and Vice President responsibilities. Provided consulting services in transportation safety, security, emergency preparedness, operations, maintenance and planning to transit systems and federal, state and local governmental agencies across the nation. Directed a staff of up to 35 and provided mentoring and professional development support to employees working on the firms' transit- and safety-oriented contracts.

System Safety. Responsible for coordination of APTA's safety management programs in heavy rail (subway), light rail, commuter railroad and bus for all North American transit system safety program members. Reviewed and revised system safety program plans for transit systems, coordinated system safety seminars, and provided training in system safety and related topics, including safety certification, hazard identification and analysis, and configuration management. Wrote, edited and revised system safety publications, including Manuals for the Development of System Safety Program Plans for all modes and all correspondence regarding the system safety management programs.

Developed and implemented system safety and security audits, including senior management practices; loss prevention and risk management; accident/incident investigation and prevention programs; OSHA compliance; collection of safety data and failure trend analysis; hazard analysis and resolution; safety awards and incentives programs; safety of maintenance, planning and operational practices system-wide; physical audits/inspections of transit properties, rail lines, bus and rail terminals and stations; bus-ways/HOV practices; fatigue awareness and other fit-for duty programs, including drug and alcohol program compliance and Employee Assistance Programs; contracts and contract operations; construction projects; system security plans and their implementation; safety meetings and other awareness programs and committees; alternative fuels vehicles and fueling and maintenance facilities; maintenance, operational and safety training; purchasing and warehousing operations, including safety-critical, safety-sensitive and hazardous materials purchasing and handling; safe driving programs; emergency plans and liaisons with outside emergency response agencies; emergency drills; internal audit process; and configuration management and document control SOP's and safety certification programs. Prepared audit reports outlining findings, recommendations and corrective action plans.

Served as Staff Advisor to APTA committees, including the Bus Safety Committee, the Operator Personal Safety Committee and the Access Committee. Conducted APTA's Bus Safety Awards program. Prepared and delivered presentations on System Safety at Conferences and Seminars.

Prepared testimony for National Transportation Safety Board hearings. Prepared response and commentary on behalf of APTA members regarding FTA/FRA Notices of Proposed Rulemaking. Assisted transit systems with implementation of compliance programs for regulatory actions. Provided a clearinghouse and referrals to members for the industry's best safety practices and regulatory compliance for all modes.

Transportation Administration. General Manager of Arc MC's Transportation System for the Vocational Division, about 320 passenger trips daily for developmentally delayed adults on small buses and vans. Responsible for planning and implementing all routes, budgeting, purchasing, evaluating special needs of passengers, accommodating those needs and ensuring all ADA compliance; also responsible for hiring, training and evaluating all transportation department personnel and ensuring system-wide safety and emergency preparedness through operational training of all licensed vocational staff and liaison with quality assurance officer.

Directed maintenance and safety programs for all Vocational and Transportation vehicles; directed refinement and continued supervision of preventive maintenance programs on both fleets, including small buses, passenger vans and heavy-duty utility trucks; ensured safety of all vehicles and ensured all required safety equipment was purchased, installed and functional; ensured safety and efficiency of on-site vehicle maintenance facility; evaluated condition of vehicles and determined need for outside work to be contracted; provided liaison with outside vendors for contracted work. Tracked and improved vehicle maintenance program and system safety/training programs wherever necessary. Developed specs for, purchased and evaluated new vehicles and equipment; assisted in writing applications for FTA Section 16 (now FTA 5310) MTA-Maryland grant vehicles.

Established emergency policy for transportation department, including vehicle failure, natural disaster evacuation plans, on-board medical emergencies and behavioral crises. Responsible for departmental spending and payroll. Handled customer concerns and compliments and coordinated all special events, including two off-site program holiday celebration events per year.

Provided liaison with Maryland Motor Vehicle Administration for all vehicle requirements and legal issues. Responded to accidents, handled coordination with families, group homes and vocational program for accidents and other incidents (as reportable to the Developmental Disabilities Administration) within the transportation system; conducted internal investigations and prepared written reports and communications and coordinated follow-up for accidents and incidents. Acted as Chairperson of Accident Review Board; as such, scheduled and conducted Accident Review Board for any agency vehicular accidents, investigated and determined preventability of accidents, evaluated liability and risk management issues and acted as liaison with insurance carrier to develop safety and accident-reduction programs for all agency staff. Established training and re-training programs as needed for safety and prevention of accidents for all Transportation, Residential and Vocational staff. Assisted in coordinating alternate transportation for eligible passengers/employees of vocational program or passengers for whom it was desirable.

Dispatcher, OmniLink Services. Responsible for daily coordination, scheduling and operations of fixed-route system with ADA compliant route-deviation and day-to-day operation of busy control center and customer service office, including supervision of route-deviation scheduling and emergency management of the control center.

Developed manifests for routes, assisted in training and evaluating drivers on routes and passenger assistance in liaison with contractor's supervisory staff, trained customer service representatives, assisted in planning routes, bus stops and printed materials for all local bus services, coordinated special events, performed on-time studies, handled emergencies on the system, performed route observations and other field work including customer satisfaction surveys and interviews; compiled, tabulated, evaluated and reported data for route-deviation services, assisted in maintenance evaluation inspections, responded to accidents, and handled customers' complaints and compliments in writing, person and by phone. Developed proficiency in use of Windows, NT and Unix systems for real-time GPS Intelligent Transportation System using AVL and mobile data terminals.

Assistant to Fleet Maintenance Manager. Responsible for assisting Shuttle-UM's Fleet Maintenance Manager in all aspects of running day-to-day and long-range maintenance functions, including parts purchasing and stocking, vendor liaison, developing and recording specs for new equipment and vehicle purchases, equipment testing, facilities and equipment maintenance, new facility construction, supervision and training of maintenance assistants and maintenance support staff, maintaining vehicle operational and maintenance records, tracking maintenance and evaluating safety and efficacy of maintenance programs, budgeting, correspondence, record keeping and planning, coordination of and participation in special events. Coordinated and implemented safety certification program for acceptance of equipment. Coordinated and implemented configuration management program. Instituted electronic data storage and retrieval for parts inventory.

Evening Operations Supervisor. Directed, planned, scheduled and coordinated Shuttle-UM's evening security operations, including 6 fixed routes and one demand-response route.

Hired and trained new drivers; assisted in orientation of new drivers and performed road supervision duties. Directly supervised, counseled and disciplined 25 drivers. Participated in evaluation process for drivers and dispatchers. Responded, investigated and followed up on accidents. Attended management meetings and participated in planning and coordination functions for other transit operations within the system. Participated in on-call pool for daily operations and emergencies.

Maintenance Assistant. Inspected, maintained and repaired paratransit and transit buses, and equipment and facilities under the direction of Shuttle-UM's Fleet Maintenance Manager.

Dispatcher, Shuttle-UM. Shift supervisor when on duty; coordinated routes, handled emergencies, accidents and reroutes, scheduled demand-response riders, paid shifts, handled communications, coordinated maintenance requests and all other duties as necessary to ensure that routes were completed.

Driver. Operated paratransit and 27', 30' and 40' transit buses on Shuttle-UM's fixed and demand-response routes.

Safety and Security Department Administration, University of Maryland. Assisted Safety and Security Program Manager in day-to-day administration of Safety and Security programs for Residential halls and Facilities. Coordinated safety- and security-critical repairs and replacements with Facilities Maintenance, developed schedules for safety and security teams, monitored vehicle usage and maintenance for Program fleet, and provided configuration management and document control support for the Program. Developed and administered Security awareness programs for residents.

Safety and Security Supervisor. Directed safety and security teams in the field, operated vehicles, and investigated and reported on safety and security incidents.

Safety and Security Personnel. Under the direction of team Supervisor, provided foot patrol services, residence safety and security inspection of buildings, and responded to safety and security emergencies on campus residential facilities. Performed firewatches, assisted in evacuations and provided support to emergency responders at incidents. Coordinated efforts with campus police and fire departments. Closed residences at breaks and holidays and performed lockouts and lock changes as necessary.

SELECTED PRESENTATIONS, PAPERS, PUBLICATIONS AND PARTICIPATION

1999 APTA Bus Conference, Cleveland, OH, "Internal System Safety Auditing"

1999 – 2005 Guest Lecturer, Reliability Engineering Graduate Program, University of Maryland at College Park, MD, various topics, including Human Factors in Transportation Safety, Accident Prevention and Crime Prevention Through Environmental Design.

2001 APTA Training Seminar for Federal Railroad Administration, Washington, DC, "System Safety and Security Auditing"

2002 Community Transportation Association of America Annual Meeting, Wenatchee, WA, "Transit Safety and Security"

2003 Metropolitan Washington Council of Governments Heavy Rail Passenger Safety Subcommittee, various topics, including Emergency Response in New York and Cleveland during the Northeast Blackout of 2003

2003-2004, Panel Member, TCRP Project E-05, *A Guidebook for Sharing Transit Bus Maintenance Practices*

2005 Annual Meeting of the Transportation Research Board, Presenter, "Bus System Security"

2005-2009, Guest Lecturer, Northern Virginia Community College Homeland Security Program

2008 Annual Meeting of the Transportation Research Board, Presenter, "NIMS Training for Transit"

2009, contributor to TCRP Synthesis 80: Transit Security Update, with Nakanishi Research and Consulting

2011, TCRP Report 150, Communication with Vulnerable Populations: A Transportation and Emergency Management Toolkit

2013, Encyclopedia of Crisis Management, SAGE Publications, topic: Auditing

2013, research contributor to NHCRP Report 753, A Pre-Event Recovery Planning Guide for Transportation (Howard Street Tunnel)

2013, NCHRP report 740: A Transportation Guide for All-Hazards Evacuation.