

**THE INSTITUTE OF ELECTRICAL AND ELECTRONICS
ENGINEERS
AND
THE AMERICAN SOCIETY OF MECHANICAL
ENGINEERS**

Invite you to our monthly luncheon meeting.

- SPEAKER:** Ms. Rachelle Jezbera
- TOPIC:** TransportMAX
- PLACE:** NASSIF Building (SW Plaza Level Entrance)
400 7th Street SW (Room 3200)
Washington, DC 20590
- DATE/TIME:** TUESDAY, January 13, 11:30 am
Please arrive between 11:30 am and Noon
(After Noon Phone 703-915-2828)
- PRICE:** \$15.00 CASH AT THE DOOR
- RESERVATIONS:** BRIAN CHADWICK 703-247-4489
BRAD LUSE 703-247-4491
(Make your reservation by 4PM Friday, Jan. 9, 2004)

ABOUT THE SPEAKER AND SUBJECT:

Ms. Rachelle Jezbera is a Senior Program Manager with the American Public Transportation Association (APTA). Her former background includes management work in marketing and sales with the WALL Street Journal and Baltimore Sun newspapers. She has been involved in advertising campaigns for clients such as The World Bank, U. S. Postal Service and Lockheed Martin. Currently she is Marketing Manager for APTA's TransportMAX, an internet portal specifically built to meet the procurement needs of the public transportation industry. The portal has eight agencies and over 500 suppliers operating as members of the e-market place... a phenomenal success.

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Invite you to our monthly luncheon meeting.

SPEAKER: **Arthur L. Guzzetti - Director of Policy and Advocacy
American Public Transportation Association**

TOPIC: **Status of Funding Reauthorization**

PLACE: **NASSIF Building (SW Plaza Level Entrance)
400 7th Street SW (Room 6200)
Washington, DC 20590**

DATE/TIME: **TUESDAY, February 10, 11:30 am
Please arrive between 11:30 am and Noon
(After Noon Phone 703-915-2828)**

PRICE: **\$15.00 CASH AT THE DOOR**

RESERVATIONS: **BRIAN CHADWICK 703-247-4489
GENE COX 202-493-6319
LANG NGUYEN 202-493-6349
(Make your reservation by 4PM Friday, Feb. 6, 2004)**

ABOUT THE SPEAKER:

Arthur Guzzetti has been Director of Policy and Advocacy for the American Public Transportation Association since 1997. He is responsible for activities and relationships that promote policies favorable to public transportation at the legislative and executive branches of all levels of government, and with other national associations and interest groups. He has particular expertise on transit rail issues. Mr. Guzzetti also directs APTA's extensive policy research agenda, and the policy and advocacy components of the largest outreach effort ever for public transportation, APTA's Public Transportation Partnership for Tomorrow initiative (PT)².

Prior to coming to APTA in June 1997, Mr. Guzzetti was Assistant Manager, Government Affairs for the Port Authority of Allegheny County, where he worked closely with current APTA President William W. Millar, on grants, government relations, policy and capital programming issues. Mr. Guzzetti held various government relations positions at New Jersey Transit from 1981 through 1987, and with the New Jersey Department of Transportation from 1979 through 1981.

He has a Political Science degree from Edinboro State University and a Master of Public Administration degree from the University of Pittsburgh. Mr. Guzzetti is 46 years old, married 24 years to Clare Frankiewicz Guzzetti, and is the father of four children.

Our March meeting will be held at NASSIF Building (Room 6244) on March 9, 2004. A representative of FTA will speak on policy and department direction.

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Invite you to our monthly luncheon meeting.

SPEAKER: Walter Kulyk, Director, Office of Mobility Innovation
U.S. Department of Transportation
Federal Transit Administration

TOPIC: Bus Rapid Transit

PLACE: NASSIF Building
400 7th Street SW (Room 6244)
Washington, DC 20590

DATE/TIME: TUESDAY, March 9, 11:30 am
Please Arrive Between 11:30AM and Noon (After Noon Phone 703-915-2828)

PRICE: \$15.00 CASH AT THE DOOR

RESERVATIONS: BRIAN CHADWICK 703-247-4489
LANG NGUYEN 202-493-6349
BRAD LUSE 703-247-4491

[Make your reservation by 4 PM on Friday, March 5, 2004]

Box


202-493-6319

ABOUT THE SPEAKER:

Mr. Walter Kulyk is Director, Office of Mobility Innovation, Federal Transit Administration. He is responsible for executing U.S. Federal programs of research, demonstration, as well as technical assistance involving transit fleet operations. This includes programs involving Bus and Urban Rail Transit, Intelligent Transportation Systems and Bus Rapid Transit. Mr. Kulyk is a registered Professional Engineer and holds both a Bachelor and Masters degrees in Civil Engineering. He is Chair of the Public Transport Committee of the American Society of Civil Engineers and Chair of the ITS Experts Group of Asian Pacific Economic Commission (APEC). He is actively involved in ITS America and the U.S. Academy of Sciences and the Transportation Research Board.

Our April meeting will be held on April 13, 2004, at the NASSIF Building, Room 6244. Mr. Chris Roberts will overview for us the Passenger Information Display System (PIDS).

March 26, 2004

From: Gene Cox - Chairman 
To: Fellow IEEE/ASME members:
Subject: Update

The purpose of this "heads up" communication is to inform you that there will be nominations of IEEE/ASME Officers for the next calendar year September 2004 thru June 2005. The current list is as follows:

Chairman: Gene Cox Vice Chairman: Karl Berger
Secretary: Brad Luse Treasurer: Brian Chadwick
Public Relations: Lang Nguyen

Candidate nominations will be accepted from the floor at the June meeting, or via the U.S. Postal Service addressed to me at 10718 Oakenshaw Court, Burke, Va. 22015, or via e-mail Gene.Cox@fra.dot.gov.

Also, the program plan of Speakers/Presenters currently committed are:

April - Chris Roberts - President - Action Systems Corporation

In recent years, Chris has specialized in providing solutions for passenger information systems and operations-based wireless schedule adherence systems in North America. His engineered design has been technical, challenging and uniquely important to passengers and railroads. He is the kind of a guy that sees the need and creates a technological solution. Thought provoking, imaginative, and well accepted ! He will make a special trip from his West Coast base to overview with us one of his special project/creations. Please express your appreciation by a show of presence ... invite a associate !

May - David L. Gunn - President and Chief Executive Officer of Amtrak

It was good to receive the acceptance of Mr. Gunn to the IEEE/ASME Land Transportation Committee Luncheon Meeting scheduled on May 11. Mr. Gunn will give an Amtrak update and has agreed to provide open discussion and answers to questions posed. Ink-in this date on your calendar ! A copy of his biography will be provided in the monthly announcement !

June - Ted C. Giras -Ph.D. Maglev/Risk Assessment Simulation (ASCAP)

Dr. Giras is a Research Professor and the Director of the Center for Rail Safety-Critical Excellence with the University of Virginia's Electrical and Computer Engineering

2.

Department. He is engaged in research related to the modeling and simulation of large-scale and complex-critical systems for application such as processor-based statistical train control systems, nuclear reactor protection systems, power systems and intelligent ground transportation systems. Special fields of focus are safety-critical risk assessment processes, real-time agent-oriented safety critical command/control systems, formal proof-of-safety methods, and the quantification of risk-oriented safety metrics. An area of special interest is safety-critical human centric systems. Where the behavior of the human operator has a large impact on the safety level of the system and requires quantification.

The design for a safety risk assessment toolset developed by Professor Giras is called Axiomatic Safety-Critical Assessment Process (ASCAP) and provides a risk assessment that is compliant to the Federal Railroad Administration (FRA) Processor based Regularity Rule required for performance-based safety standard enforcement. Today the tool set is being used on the following major USA advanced control projects: (1) CSX: Communication-based Traffic Management (CBTM), (2) North American Joint Positive Train Control Project (NAJPTC), (3) New York City Transit (NYCT) Canarsie Line Communication -based Train Control (CBTC), and (4) the Transrapid Maglev, Inc. "Pennsylvania Project". Dr. Giras has also established collaboration with China Universities and German Universities to provide risk assessment technology to the global train safety-critical community to both Asia and Europe.

Dr. Giras has an extraordinary well developed educational base, has held leadership positions in Design for Safety & Risk Assessment Experience with: Ansaldo Signal, NV, Union Switch and Signal Inc., Optimal Robotics Corporation, Brown Boveri Control Systems, Inc., and Westinghouse Electric Corporation,

Dr. Giras has authored over 55 patent disclosures. He is an IEEE Fellow recognized for his work in process control, electrical utility and transportation control as well as safety-critical automation fields. His technical publications and major presentations are too numerous to list.

Dr. Giras is based at the University of Virginia.

The above Speakers/Presenters have scheduled to share with us their special engineering and management skills, projects and experiences, as well as their valuable time. Speakers/Presenters look at attendance as a key measure of our interest and appreciation. Let us build an increased level of attendance, and thereby develop and maintain advance scheduling. Speakers/Presenters do much for us: provide ideas, informational updates, as well as enhancing our vision ... a form of continuing education. Look forward to seeing you on the above dates !

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS AND THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Invite you to our monthly luncheon meeting.

- SPEAKER:** Chris Roberts
President of Axtion Systems Corporation
- TOPIC:** Passenger Information Display System (PIDS)
- PLACE:** NASSIF Building
400 7th Street SW (Room 4438-40)
Washington, DC 20590
- DATE/TIME:** **TUESDAY, April 13, 11:30 am**
Please Arrive Between 11:30AM and Noon
- PRICE:** \$15.00 CASH AT THE DOOR
- RESERVATIONS:**
- | | |
|----------------|--------------|
| GENE COX | 202-493-6319 |
| BRIAN CHADWICK | 703-247-4489 |
| LANG NGUYEN | 202-493-6349 |
| BRAD LUSE | 703-247-4491 |

[Make your reservation by 4 PM on Friday, April 9, 2004]

ABOUT THE SPEAKER:

Chris Roberts is the President of Axtion Systems Corporation. He holds a BS in Geomatics Engineering from the University of Calgary in Calgary, Alberta. He has been involved in the public transit industry for the past eight years providing solutions for passenger information systems and operations-based control software. In 1996, Chris developed the first commercial GPS-based wireless schedule adherence system in North America. Since then, he has implemented and consulted on several systems in the US and Canada with the Oregon PIDS being the most recent.

His background also includes design, development and implementation of a GPS-based training system for the British army, as well as numerous commercial vehicle tracking systems.

He is a Professional Engineer and is a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA).

Axtion Systems Corporation is a systems integration company specializing in advanced software and hardware development for the public transit industry. Axtion utilizes established, leading edge practices to design, develop, test, implement, and maintain client systems. Axtion's services include project management, development, consulting and support.

Our May meeting will be held on Tuesday, May 11, 2004, at NASSIF room 6200. The speaker will be Mr. David Gunn of Amtrak. The topic will be recent changes and the future of Amtrak

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Invite you to our monthly luncheon meeting.

SPEAKER: David L. Gunn
President and Chief Executive Officer of Amtrak

TOPIC: Amtrak Update

PLACE: NASSIF Building
400 7th Street SW (Room 3200)
Washington, DC 20590

DATE/TIME: **TUESDAY, May 11, 11:30 am**
Please Arrive Between 11:30AM and Noon (After Noon Phone 301-452-6139)

PRICE: \$15.00 CASH AT THE DOOR

RESERVATIONS: BRIAN CHADWICK 703-236-2780
LANG NGUYEN 202-493-6349
BRAD LUSE 703-247-4491

[Make your reservation by 4 PM on Friday, May 7, 2004]

ABOUT THE SPEAKER AND THE SUBJECT:

(See Attachment)

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Ted C. Giras - Ph.D., a Research Professor and the Director of the Center for Rail Safety-Critical Excellence with the University of Virginia's Electrical and Computer Engineering Department will be our guest speaker at the June meeting. He will overview the work UVA has been doing for Maglev Inc. of Pittsburgh, Pa. that will describe a Large-scale Rail Monte Carlo Risk Assessment Simulation developed for the Federal Railroad Administration called ASCAP.

David L. Gunn
President and Chief Executive Officer
National Railroad Passenger Corporation (Amtrak)

Having led the largest transit systems in the U.S. and Canada, David L. Gunn brings an international reputation of strong leadership and extensive experience in the rail industry as President and CEO of Amtrak. Appointed on May 15, 2002, Gunn directs America's intercity passenger rail system serving, on average every day, 65,000 guests in more than 500 communities across 46 states, on 265 daily trains through 22,000 miles of track.

Gunn most recently served as Chief General Manager of the Toronto Transit Commission from 1995 until 1999. Managing the largest transit system in Canada, he led 10,000 employees serving 1.3 million daily passengers within a system of 1,500 buses, 650 heavy rail cars and 250 streetcars. In this position, Gunn improved the system's cost recovery ratio from 66 percent to over 80 percent and implemented a State of Good Repair Capital Program.

Prior to leading the Toronto Transit Commission, Gunn was the General Manager for the Washington Metropolitan Area Transit Authority (WMATA) from 1991 to 1994. While at WMATA, Gunn developed an accelerated building plan and initiated construction of three of four remaining segments of the planned 103-mile rail system. The development and implementation of a multi-year \$1 billion capital rehabilitation program and strongly improved productivity at the agency were also significant achievements during his tenure.

As President of the New York City Transit Authority from 1984 to 1990, Gunn is credited for establishing strong fiscal controls, corporate goals and performance measures while rebuilding track, railcar and bus fleets at the nation's largest transit system.

From 1979 through 1984, Gunn was General Manager/Chief Operations Officer at the Southeastern Pennsylvania Transportation Authority (SEPTA). In this position, he reduced the system's operating costs from \$138 million to \$97 million while rebuilding and replacing its subway cars, buses, trackless trolleys, and fleets. He also planned and negotiated the takeover of Philadelphia's 400-mile, 800-train per day commuter rail system from Conrail and Amtrak.

Gunn's other executive positions span across the country. He worked for the Massachusetts Bay Transportation Authority as the Director of Operations from 1975 to 1979 and as Director of Commuter Rail from 1974 to 1975. From 1969 to 1974, Gunn was the Assistant Vice President for the Illinois Central Gulf Railroad. He also worked for the New York Central System from 1967 to 1968, and for the Atchison, Topeka and Santa Fe Railroad from 1964 to 1967 at the beginning of his career.

Gunn graduated from Harvard College in 1959 and continued his education at the Harvard Graduate School of Business, where he received his MBA in 1964. From 1959 to 1962, Mr. Gunn served in the US Naval Reserve. He is a member of the United Church of Canada, the Bras d'or Stewardship Society, and the Appalachian Mountain Club.

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ENGINEERS**

Invite you to our monthly luncheon meeting.

SPEAKER: Ted C. Giras, Ph.D.
Research Professor and Director of the Center for Rail Safety-
Critical Excellence, University of Virginia's Electrical and Computer
Engineering Department

TOPIC: The Work conducted at University of Virginia for Maglev, Inc. of
Pittsburgh, Pa. describing a large scale Rail Monte Carlo Risk
Assessment Simulation developed for FRA called ASCAP
(Axiomatic Safety-Critical Assessment Process).

PLACE: NASSIF Building
400 7th Street SW (Room 3200-04)
Washington, DC 20590

DATE/TIME: **TUESDAY, June 8, 11:30 am**
Please Arrive Between 11:30AM and Noon

PRICE: \$15.00 CASH AT THE DOOR

RESERVATIONS: GENE COX 202-493-6319
LANG NGUYEN 202-493-6349
BRAD LUSE 703-247-4491

[Make your reservation by 4 PM on Friday, June 4, 2003]

ABOUT THE SPEAKER AND THE SUBJECT:

Please see the attachment

Officer nominations for the 2004/2005 season beginning in September will be held. An Executive planning meeting is scheduled at 11 am in an APTA conference room (incl. lunch), located at 1666 K street, NW, WDC 2006. Attendance is open to members. Please inform Lang Nguyen in advance of the meeting.

On behalf of the Executive Committee, enjoy the summer recess and get ready for an informative and educational speaker program for the upcoming season.

Ted C. Giras

Biography

Education

Ph.D

Electrical & Computer Engineering

Carnegie Mellon University

Descriptive Biography

Dr. Giras is a Research Professor and the Director of the Center for Rail Safety-Critical Excellence with the University of Virginia's Electrical and Computer Engineering Department. He is engaged in research related to the modeling and simulation of large-scale and complex safety-critical systems for applications such as processor-based statistical train control systems, nuclear reactor protection systems, power systems and intelligent ground transportation systems. Special fields of focus are safety-critical risk assessment processes, real-time agent-oriented safety-critical command/control systems, formal proof-of-safety methods, and the quantification of risk-oriented safety metrics. An area of special interest is safety-critical human-centric systems, where the behavior of the human operator has a large impact on the safety level of the system and requires quantification.

Professor Giras participates as technology council to the Federal Railroad Administration (FRA) Railroad Safety Advisory Committee (RSAC). RSAC is charged with the responsibility of writing public policy safety enforcement regulations for the next generation of advanced processor-based communication-based train control systems that are implemented with Global Positioning System (GPS) technology to realize Positive Train Control (PTC). He also is a consultant to the Federal Transit Administration (FTA) for safety-critical transit railway communication-based train control (CBTC) systems implemented with wireless communication technology. In addition, Professor Giras works with Maglev, Inc. to provide the design for safety risk assessment required for the Transrapid Pennsylvania Maglev Project. Professor Giras was engaged with Carnegie Mellon University to bring the Transrapid maglev technology to the United States. Dr. Giras also is working with the Federal Railroad Administration (FRA) and the American Association of Railroads (AAR) to develop a WEB-based Safety-Critical Risk Assessment validated & verified tool set that supports the FRA Processor-based Regulatory Rule.

The design for safety risk assessment toolset developed by Professor Giras is called the Axiomatic Safety-Critical Assessment Process (ASCAP) and provides a risk assessment that is compliant to the Federal Railroad Administration (FRA) Processor-based Regulatory Rule required for performance-based safety standard enforcement. Today the toolset is being used on the following major USA advanced train control projects: (1) CSX: Communication-based Traffic Management (CBTM), (2) Lockheed Martin North American Positive Train Control Project, (3) New York City Transit (NYCT) Canarsie Line Communication-based Train Control (CBTC) and (4) the Transrapid Maglev, Inc. "Pennsylvania Project". Dr Giras has also established collaboration with China Universities and German Universities to provide risk assessment technology to the global train safety-critical community to both Asia and Europe.

Design for Safety & Risk Assessment Experience

Ansaldo Signal, NV: Global corporate vice-president and chief technology officer (CTO) of the Ansaldo, NV Signaling and Train Control worldwide research & development organizations located in the United States, Italy, France, Sweden and Australia. The research technology responsibilities included command/control, real-time safety-critical and high-integrity train control systems and the design for the safety-critical verification & validation for the European Train Control Systems (ETCS) and the USA CBTC systems. Extensive global responsibilities included the Numerical Assurance Safety train automatic protection system used by the French TGV high speed system. Signaling and train control research responsibilities included advanced microprocessor-based systems, railroad switch machines, on-board locomotive protection, control and automation. A special technology focus was the responsibility for formal proofs-of-safety related to the statistics of extreme events and safety-critical architectures to mitigate statistical extreme events, which result in passenger fatalities.

Union Switch & Signal Inc.: Corporate vice-president of the Advanced Technology Group (ATG) and later vice-president of the Vehicle Control Systems Division (VCSD). Professor Giras was engaged in the development and application of advanced on-board safety-critical automatic train protection (ATP) systems and CBTC systems with spread spectrum wireless communications for advanced train control systems. Focus was on the development and application of train control systems with quantifiable safety-critical software and hardware for intelligent locomotives and formal proofs-of-safety. Professor Giras provided the technical leadership to develop a Train Inertial Positioning System (TIPS) for railroad and transit railway applications for the Federal Transit Administration (FTA). In addition, Professor Giras was responsible for the introduction of the European civil over-speed technology used by high speed trains in the United States. The safety-critical development activities required extensive application of the methods required to characterize the risk assessment methods, processor-based Mean-Time-To-Hazardous Events (MTTHE) based on fault injection methods for the Los Angeles Green Line Heavy Transit Rail System, statistics of extreme events, along with the requirement that the control system must be implemented with a highly sophisticated driver-less automatic-centric approach. A special area of responsibility was the Maglev People Mover technology under development in the Pittsburgh area.

Optimal Robotics Corporation: Professor Giras was the President and CEO of a high technology company in collaboration with Carnegie Mellon University. Dr. Giras was responsible for the development of real-time safety-critical systems using wireless communication-based guided vehicles and mobile robotics to carry highly explosive rocket fuels to different processing stations and other related factory automation projects. Extensive research was conducted related to the quantification of safety for robotic systems.

Brown Boveri Control Systems, Inc. (ABB): The President and CEO responsible for real-time command/control for electrical utility and commercial building energy management systems that included extensive transit railway traction power applications. Electrical utility applications included optimization of power flow in the presence of large-scale turbine-generator, transmission lines and transformer faults. Applications included safety-critical and high availability building control and automation systems interconnected with wireless spread spectrum radio technology.

Westinghouse Electric Corporation: Professor Giras held senior executive positions in research, engineering and profit center General Management. The responsibilities over the years were centered on the startup of three advanced control-oriented technology divisions by transferring R&D concepts to industry as systems products. The major responsibilities included General Manager Responsibilities for the following divisions: (1) Turbine-Generator Control Systems Division, (2) System Development for Fossil and Nuclear Power Plant Safety-Critical Control and Protection Systems Division and (3) Bulk Power Transmission Energy Management Control Systems Division. The responsibilities focused on the development and industry introduction of advanced technology command/control real-time safety-critical and high-integrity safety-critical control-oriented software systems. Unique embedded controller and systems products were introduced to manage nuclear reactor protection systems, transmission networks that were contingency-constrained with transmission line, transformer, and substation and turbine-generator outages. Professor Giras also was engaged in the early development of the Bay Area Rapid Transit (BART) system that was developed for San Francisco.

Honors/Activities

Professor Giras has authored over 55 patent disclosures. In addition, Professor Giras has many publications related to safety-related automatic-centric and human-centric systems control systems. He is an IEEE Fellow recognized for his work in the process control, electrical utility and transportation control and safety-critical automation fields. He was selected as a Westinghouse Scholar to attend Carnegie Mellon University in the late 1970's to complete his Ph.D. in Electrical and Computer Engineering in the field of Large-scale Contingency-constrained Power Systems with parallel processing methods. Professor Giras is a frequent lecturer with the Technical University of Braunschweig and the Technical University of Dresden as an invited participant by the European Railway Research Forum. He has also lectured in the United Kingdom for various signaling and train control conferences.

Recent Publications and Presentations

- [1] Giras, T. C., Noffsinger, J. F., "A Safety-Critical Methodology for Train Control Systems", Association of Railroad Engineers and Maintenance, September 1997
- [2] Kaufman, L. M., Giras, T. C., "Axiomatic Safety-Critical Assessment Process (ASCAP): Simulation Methodology", Transportation 2000, Technical University of Braunschweig, September, 1999
- [3] Kaufman, L. M., Giras, T. C., Ghaly, Nabil, "Reliability of a Computer Based Transit Car Door System", Proceedings of the International Topical Meeting on Probabilistic Safety Assessment, Volume 2, August 1999, pp 941-946
- [4] Kaufman, L. M., Giras, T. C., "Axiomatic Safety-Critical Assessment Process (ASCAP) USE CASE: Requirements", Federal Railroad Administration Report, October 27, 1999
- [5] Kaufman, L. M., Reynolds, M., Giras, T. C., "Axiomatic Safety-Critical Assessment Process (ASCAP) USE CASE: Agents, Objects and Hazards", Federal Railroad Administration Report, October 27, 1999
- [6] Kaufman, L. M., Giras, T. C., "Axiomatic Safety-Critical Assessment Process (ASCAP) USE CASE: Methodology", Federal Railroad Administration Report, October 27, 1999

- [7] Joseph A. Profeta, Daniele Bozzolo, Ted C. Giras, "Safety Analysis for Real Time Computing Systems Using Petri Nets", Presented at American Association of Railroads (AAR) 1992 Southern, Eastern and Northern Regional Meetings.
- [8] Joseph A. Profeta III, Ted C. Giras, Robert A. Peterson, "Dynamic Train Modeling: Speed Regulation and Station Stopping Control Strategies", presented at 1992 Columbus Celebration in Genoa.
- [9] Daniele Bozzolo, Joseph A. Profeta III, Ted C. Giras, Barry W. Johnson, Kishor Trivedi, Cristian Constantinescu, Varsha Mainkar, "Comparative Safety Analysis of Simplex, Duplex and Triplex Hardware Designs Using Petri Nets", presented at 1992 Columbus Celebration in Genoa.
- [10] Ted C. Giras, Joseph A. Profeta III, Daniele Bozzolo, Barry W. Johnson, James H. Aylor, Kishor S. Trivedi, Varsha Mainkar, Cristian Constantinescu, "D_RAMP: An Integrated Environment for the Design of Dependable, Real-Time Systems", presented at Comrail '92.
- [11] Ted C. Giras, Joseph A. Profeta III, Daniele Bozzolo, Barry W. Johnson, James H. Aylor, Charles Choi, "Safety Issues in the Comparative Analysis of Redundant Architectures", presented at Comrail '92.
- [12] Daniele Bozzolo, Joseph A. Profeta III, Ted C. Giras, Donald E. Brown, James J. Pomykalski, Barry W. Johnson, James H. Aylor, "Using Knowledge-Based Systems to Aid in the Design of the Next Generation of Advanced Train Control Systems", presented at Comrail '92.
- [13] Ted C. Giras, "A multilevel variable-metric method for contingency-constrained power flow optimization," Ph.D. Thesis, Carnegie-Mellon University, April 1981.
- [14] Ted C. Giras, S. N. Talukdar, "Quasi-Newton method for optimal power flows," Elec. Power Energy System., vol. 3. no. 2, p. 59-64, April 1981.
- [15] Ted C. Giras, "Quasi-Newton method for optimal power flow solutions - a feasibility study," MS Thesis, Carnegie-Mellon University, Pittsburgh, PA, May 1980.

**IEEE Election of Officers
for the
2004/2005 Year**

Nominees for Office

| | |
|-----------------------------|--------------------|
| Chairman: | Gene Cox |
| Assistant Chairman: | Karl Berger |
| Publications: | Lang Nguyen |
| Treasurer/Secretary: | Brad Luse |

Note: Program planning meeting for the 2004/2005 year is scheduled for 11:00 a.m. on 22 June 2004 at APTA. APTA is located at 1666 K Street, NW; Washington, DC 20006. APTA contact is Lew Sanders. Attendance is open to members. Since lunch will be provided and for planning purposes, please let Lang Nguyen know by 18 June 2004.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS AND THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Invite you to our monthly luncheon meeting.

- SPEAKER:** Grady C. Cothen, Jr.
Acting Associate Administrator for Safety at FRA
- TOPIC:** Integrated Electronics Systems in Surface Transportation:
Is there a future for PTC?
What does PTC have to do with ITS?
- PLACE:** NASSIF Building
400 7th Street SW (Rooms 6332 – 6336)
Washington, DC 20590
- DATE/TIME:** **TUESDAY, September 14, 11:30 am**
Please Arrive Between 11:30AM and Noon (After Noon Phone 703-915-2828)
- PRICE:** \$15.00 CASH AT THE DOOR
- RESERVATIONS:** GENE COX ~~703~~²⁰²-493-6319
LANG NGUYEN 202-493-6349
BRAD LUSE 703-247-4491

[Make your reservation by 4 PM on Friday, Sept 10, 2003]

ABOUT THE SPEAKERS AND THE SUBJECT:

Grady C. Cothen, Jr. is the Acting Associate Administrator for Safety at the Federal Railroad Administration (FRA). Grady has served with FRA since 1973 in various legal and program positions, including Special Counsel for various projects, Acting Associate Administrator for Policy, Deputy Associate Administrator for Safety Standards, and Associate Administrator for Safety.

In his current "Acting" role, Mr. Cothen is responsible for executive direction of the railroad safety program nationwide. He also retains responsibility for management of agency teams participating in working groups of the Railroad Safety Advisory Committee, a collaborative forum for safety rulemaking that enlists the participation of railroad labor organizations, passenger and commuter railroads, suppliers, States and other stakeholders; and he manages other regulatory projects. Over his years at FRA, Grady has been pivotally involved in development of the alcohol/drug regulations, Passenger Equipment Safety Standards, Grade Crossing Signal System Safety requirements, and many other safety programs.

Mr. Cothen is a member of the District of Columbia bar and a 1975 graduate of the Georgetown University Law Center. He received his undergraduate degree from Oklahoma Baptist University in 1968, and served in the United States Army during 1969-70. He and his wife, Lelia Routh Cothen, live in Cheverly, Maryland, where he formerly chaired the town election board and the redistricting commission.

Our October meeting will be held on Tuesday, October 12, 2004, at NASSIF building, rooms 6332-6336, speaker to be announced.

**THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
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Invite you to our monthly luncheon meeting.

- SPEAKER:** Michael Burshtin, PE
Director, Systems Engineering
Bureau of Rolling Stock
Amtrak
- TOPIC:** Current Systems Engineering Projects
- PLACE:** NASSIF Building
400 7th Street SW (Rooms 6332-6336)
Washington, DC 20590
- DAY/TIME:** **Tuesday, October 12, 12:00 Noon**
Please arrive between 11.30am-Noon (later call 703-915-2828)
- LUNCH:** \$15.00 CASH AT THE DOOR
- RESERVATIONS:** GENE COX Gene.Cox@fra.dot.gov 202-493-6319
BRAD LUSE LuseB@ctcmetro.com 703-247-4491
(Please make your reservations by 4pm on Friday, October 8)

ABOUT THE SPEAKER:

Michael L. Burshtin, PE is the Director, Systems Engineering within the Bureau of Rolling Stock Engineering, Mechanical Department. He together with his professional staff of 19 are responsible for engineering support of air brake, electrical, mechanical, software, train control, and non-revenue vehicle systems, as well as maintaining the Mechanical Department's drawings and specifications data base.

Mr. Burshtin earned his BSME and MSCE degrees at Drexel University and completed additional course study at the University of Pennsylvania. He is a Professional Engineer. He was initially employed at Amtrak. He later joined Louis T Klauder and Associates. He spent five years with the NJ DOT as its Manager of MU car Engineering and Manager of Equipment Acquisition with its successor.... NJ Transit. He joined SEPTA in 1984 as a project engineer in its rail vehicle acquisition division and later managed the Rail Vehicle Engineering responsibilities and acquisitions programs. He is Vice Chairman of the ASME "RT" codes and standards committee on rail transit vehicles, and serves as Amtrak's representative on FRA's Rail Safety Advisory Committee.

2.

Both Michael and his wife Lynn are transportation historians and participants in the National Railway Historical Society activities. He serves as a 911 Coordinator and Fire Commissioner for his rural southern New Jersey hometown, and is a co-owner of two Budd Rail Diesel Passenger Cars.

ABOUT THE SUBJECT:

Michael will overview the past...how things were, briefly discuss how things are, and look ahead as related to rolling stock. He will review Amtrak's engineering projects in progress as well as briefly focus on the High Speed Trainsets. As always, the speaker will provide answers to your questions as time permits.

The November meeting will be held on Tuesday, November 9. The guest speaker is expected to be Fred Hansen, General Manager, Tri-County Metropolitan Transportation District of Oregon — TriMet ... a public transit system.

NEWS ITEM:

After his many years of dedication, Lang Nguyen, our Public Affairs Officer and member of the Executive Committee, has accepted an assignment with the field staff of the Federal Railroad Administration. On the behalf of the membership and for myself, I have wished Lang well in his changing opportunities. He has made energetic contributions....he will be missed.

He asked me to express to you all that he enjoyed the professional exposure and support. When in WDC on work related matters, he will visit with us.

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**THE INSTITUTE OF ELECTRICAL AND ELECTRONICS
ENGINEERS
AND
THE AMERICAN SOCIETY OF MECHANICAL
ENGINEERS**

Invite you to our monthly luncheon meeting

SPEAKER: Paul D. Elman, P.E.
Deputy Project Director
Dulles Corridor Metrorail Project
Virginia Department of Rail and Public Transportation (DRPT)

TOPIC: The Dulles Project

PLACE: NASSIF Building
400 7th Street SW (Room 4438)
Washington, DC 20590
(Enter at SW inside corner)

DATE/TIME: **TUESDAY, November 9, 11:30 am**
(After Noon call 703-915-2829)

LUNCH: **\$15.00 CASH AT THE DOOR**

RESERVATIONS: Gene Cox Gene.Cox@fra.dot.gov or 202-493-6319
Brad Use LuseB@ctcmetro.com or 703-247-4491
(Reservations by 4pm Friday, Nov. 5)

ABOUT THE TOPIC:

Through a carefully prepared visual presentation Mr. Paul D. Elman will summarize the engineering design of the Dulles Metrorail project and emphasize the importance of getting it right. The presentation will address projected traffic and growth factors in the near and long terms including the public benefit anticipated. Mr. Elman will share information not otherwise reported in the media. The presentation is designed to help us become more aware of the program plan and its estimated time line of implementation. The program will conclude with a question and answer period.

ABOUT THE SPEAKER :

Paul D. Elman, P.E. currently manages all facets of the preliminary engineering development in progress for the 23-mile extension of Metrorail in Northern Virginia. Prior to joining DRPT, he

11/3/04 Meeting Notice Edit

SPEAKER: Add "DRPT" after "Virginia Department of Rail and Public Transportation."

TOPIC: No Change (NC)

PLACE: NC

DATE/TIME: Change time to 11:30.

Lunch: Change to following:

LUNCH: \$15.00 CASH AT THE DOOR. (Comment: same as previous)

ABOUT THE SPEAKER: Comment: Rearrange with "ABOUT THE TOPIC" first followed by "ABOUT THE SPEAKER." Comment: I feel we should first address the subject then details about the speaker to validate his credentials to speak on the subject.

ABOUT THE TOPIC: Consider the following paragraph:

Through a carefully prepared visual presentation, Mr. Paul D. Elman will summarize the engineering design of the Dulles Corridor Metrorail Project and emphasize the importance of getting it right. The presentation will address projected traffic and growth factors in the near and long terms including the public benefit anticipated. Mr. Elman will also share information not otherwise reported by the media. The presentation is designed to help us become more aware of the program plan and its estimated time line of implementation. The program will conclude with a question and answer period.

ABOUT THE SPEAKER:

Recommend the following minor changes:

0th line, after "performs" delete the word, "all."

8th line, after "for" insert the word, "the",

9th line, after "contractor" delete "or" and insert "for".

12th line, add an "s" to the word "jurisdiction".

Special Notes:

In second paragraph, recommend that emphasis be on cost reduction vice speedy delivery. On this basis, delete phrase "expedite delivery of" and insert, "reduce expenses for".

IEEE/ASME –Nov. 9th

Welcome members and guests.

In order to have our guest better understand who we are, I would like each of you to introduce yourself and your affiliation.

In order to design and build a passenger rail link of any magnitude, is a big time challenge. Multi-disciplined in experience and skills are a must. The Project Director is the key guy. He is responsible for getting it right no second chances. The person chosen to do the heavy lifting in this project is such a person. He has the experience, and is a multi-disciplined person. He is a registered professional engineer in four jurisdictions, holds a Bachelors of Science in Civil Engineering from George Washington University and a Masters in Engineering Administration from Virginia Tech.... and a key leader in the planning and implementation of rail passenger systems. Some talents do things very well this talent does them superbly please help me welcome Paul D. Elman !

Now, Paul will take a few questions !

Thank Paul for coming.

Close !

**THE INSTITUTE OF ELECTRICAL/ELECTRONICS ENGINEERS
AND
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS**

Invite you to our monthly luncheon meeting

SPEAKER: Greg Hull
Director - Operations, Safety & Security Programs
American Public Transportation Association

TOPIC: Initiatives, Needs, and the Systems Approach

PLACE: Nassif Building
400 Seventh Street SW (Rooms 6332-36)
Washington, DC 20590
(Enter SW corner - Inside Quadrangle)

DATE/TIME: **TUESDAY, December 14, 11.30am**
(If late call 703-915-2829 from security desk)

LUNCH: **\$15.00 CASH AT THE DOOR**

RESERVATIONS: Gene Cox Gene.Cox@fra.dot.gov or 202-493-6319
Brad Luse 301-332-8163
(Intentions by 4pm Friday, December 10)

ABOUT THE SPEAKER:

Greg Hull, is Director of Operations, Safety and Security Programs -American Public Transportation Association (APTA) in Washington, DC. He has been with APTA since 1999. In this capacity, Greg is responsible for APTA's Rail, Bus and Commuter Rail Safety Audit Programs, Peer Review services, and industry committees. He also acts as industry liaison with the various Administrations of the Department of Transportation, Department of Homeland Security, Transportation Security Administration, and National Transportation Safety Board on matters regarding safety and security.

Greg has over 27 years of experience in public transit operations management. He is a graduate of the University of Manitoba and the University of Calgary, and also attended the Management Development Program at the Banff school of Management. Greg is a registered safety professional with additional credentialing in system security and safety program auditing.

2.

ABOUT THE TOPIC:

Greg will provide a brief look at the past, overview initiatives developed and implemented, as well as those contributing continued progress in the overall positive trending in transit systems. He will reference near term needs and a look at the future, and provide emphasis on Transportation Safety and Security as being high in value and a full-time focus of reasoned responsibility.... without compromise.

Special Notes:

- * Monthly announcements – For those who have access to e-mail for quick-delivery of the announcement ... and have not made such available please do so. For those who do not, and prefer postal delivery, please request that it be continued.
- * Louis S. Thompson, Principal - Thompson, Galenson and Associates, LLC our Scheduled Presenter on January 11th, 2005.... Privatizing British Railways: Lessons to be learned !
- * Relocation of our monthly meeting under consideration ?
- * Guests are welcomed !

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