Wayne J. Seiler, Ph.D., P.E.

Principal Engineer, All About Pavements, Inc.

API

Summary.

Dr. Seiler is a Principal Engineer with API, with responsibility for airport, highway, and port pavement engineering and construction projects. He is currently performing pavement evaluation and design work for several commercial hub airports and recently completed pavement design projects with AECOM LAX, Oakland, and Honolulu International Airports.

Prior to joining API in 2002, Dr. Seiler was employed with Applied Research Associates (ARA) from 1992 through 2001 where he was responsible for airport and highway pavement evaluation, design, management, and software development. While with ARA, Dr. Seiler also managed the development of DSS for Airports and RoadCare. RoadCare is a state-of-the-art highway pavement management software system that helps agencies better maintain their pavement infrastructure. Dr. Seiler was employed with Roy D. McQueen & Associates, Ltd., from October 2001 through May 2002 where he was the lead engineer for the preparation of the first draft of the draft update of the Federal Aviation Administration's Advisory Circular 150/5370-11B, "Use of Nondestructive Testing Devices in the Evaluation of Airport Pavements."

Dr. Seiler continues to be involved with ongoing FAA research through the FAA Pavement Working Group meetings in Atlantic City, NJ. He was a member of the IPRF technical panel for new wireless maturity meters that allow the engineer to decide when new Portland Cement Concrete (PCC) pavements can be opened to aircraft traffic and another technical panel that investigated additional methods of acceptance testing for PCC pavements that are constructed under a fast-track scenario. He was also a technical expert on the IPRF panel that evaluated PCC joint load transfer efficiency (LTE) and how LTE should be addressed in the FAA design circulars.

As a project manager, he has completed pavement evaluation, rehabilitation design, and pavement management work for several commercial airports, including BWI, Charlotte International Airport, Portland International Airport, Pittsburgh International Airport, O'Hare International Airport, Raleigh-Durham International Airport, Dayton International Airport, Wichita's Mid-Continental Airport, and Montreal's Mirabel and Dorval International Airports. These studies were accomplished through extensive records review, boring investigations, pavement condition index surveys, nondestructive deflection testing, remaining life analyses, rehabilitation design using FAA procedures and more advanced mechanistic analyses, and life cycle cost comparisons.

Education:

- Ph.D., Civil Engineering, 1991, University of Illinois
- MS, Civil Engineering, 1985, University of Illinois
- BS, Civil Engineering, 1979, U.S. Air Force Academy

Professional Registration:

- Minnesota & Illinois
- North Carolina & Florida
- Virginia & Maryland
- Mississippi

Activities:

- Member, FAA Pavement Working Group Committee
- Member, Airport Consultant's Council
- Past Chair of Airfield Pavement Committee, American Society of Civil Engineers
- Past Member, Transportation Research Board, Rigid Pavement Design Committee
- Past President, Illini Post of the Society of the American Military Engineers

API

REPRESENTATIVE EXPERIENCE

Dr. Seiler has been the Project Manager on the following airport pavement evaluation, design, and pavement management projects.

Airport and Port Technical Consulting—Forensic Analysis and Expert Witness

- *Evaluation of Early-Age PCC Distresses at XNA Airport (2015):* Runway 16-34 and its taxiway connectors at XNA were reconstructed in 2013 in Fayetteville, AR. Contractor quality control problems led to a finished surface that would lead to accelerated maintenance problems for the Airport. Dr. Seiler investigated design and construction work and provided recommendations to the XNA staff. A successful mediation effort has led to the opening of this new runway in the near future.
- *Evaluation of Dames Point Container Yard (2015):* This new Port Container Yard was constructed in Jacksonville, FL in 2008. Two years after construction was completed, localized heaving began to occur in this asphalt concrete (AC) pavement that included a proprietary stabilized base that consisted of a 50 percent mix of limestone and flyash and bottom ash from a local utility group. Dr. Seiler provided evaluation and technical expertise to document the extent of the repairs that were required for 160 acres of pavements. The vehicle mix included the use of Reach Stackers with loaded weights of well over 200,000 lbs.
- *Evaluation of Runway 16L-34R Reconstruction at JAN Airport (2014):* Runway 16-34 was in the process of being reconstructed in 2011 and 2012 at Jackson-Evers International Airport (JAN) when the parties disputed the asphalt concrete (AC) acceptance test results. Dr. Seiler evaluated the construction records and determined that a majority of all lower lift AC lots should be accepted as required in the FAA's P-401 specification. However, the Airport Authority directed the contractor to remove AC base course lifts that had been overlaid by additional AC base course lifts. The parties were not able to resolve their differences and the contractor left the project site with the construction of RW 16L-34R incomplete.
- *Evaluation of Early-Age PCC Distresses at XNA (2007):* Investigated the causes of early age PCC cracking that exist in Runway 16-34 at Northwest Arkansas Regional Airport (XNA). This is the only runway at XNA and it experienced early age cracking shortly after the XNA airport was opened in 1997. Under contract to Jacobs (Carter Burgess) Dr. Seiler led an extensive analysis of original construction history data, a detailed 100 percent mapping of all distresses on the runway in 2006, development of detailed coring and boring plan, laboratory testing, and nondestructive deflection testing in 2006. Analysis results and recommendations were provided to Carter Burgess and the XNA Airport Authority. Feasible rehabilitation alternatives were developed that considered the remaining functional and structural life of the pavement and the critical operational constraint that limits the amount of time that Runway 16-34 can be closed for construction. As a result of Carter Burgess and Dr. Seiler, the FAA now supports the construction of a new parallel taxiway to act as a temporary runway so that Runway 16-34 can be rehabilitated through an extended closure.

Airport and Port Technical Consulting—Forensic Analysis and Expert Witness

- *Evaluation of Taxiway J at RDU Airport (2004):* Investigated the causes of early age PCC pavement distresses that occurred on Taxiway J at the Raleigh-Durham International Airport (RDU). Taxiway was constructed from November 12, 2003 through January 21, 2004. Dr. Seiler conducted a review of project data that were provided by the RDU Airport Authority, conducted a visual inspection in June 2004, provided coring and laboratory test recommendations to RDU, and conducted non-destructive deflection testing (NDT) in August 2004. Analysis results and recommendations were provided to RDU's Legal Counsel in November 2004. Construction contractor is now providing an extended warranty for additional distresses that may occur during the warranty period.

- *Evaluation of Taxiway J Fuel Service Road at RDU Airport (2004):* Investigated the causes of early AC pavement failure that occurred on the service roads at the Raleigh-Durham International Airport (RDU). Roadways were constructed from November 12, 2003 through January 21, 2004. Dr. Seiler conducted a review of project data that were provided by the Raleigh Durham Airport (RDU) Authority, conducted a brief visual inspection in June 2004 and a detailed pavement condition index (PCI) survey in May 2005, provided coring and laboratory test recommendations to RDU, and conducted non-destructive deflection testing (NDT) in August 2004. Dr. Seiler concluded that the AC roads failed within one year because the existing cross section could not support the design vehicle (fuel trucks) traffic. Analysis results and recommendations were provided to RDU's Legal Counsel in November 2004. API provided new pavement designs that were used to reconstruct these roads which have no PCI distresses after two years of service.

- *Early Age Cracking of Taxiway F at Pittsburgh International Airport (2003)*: In a Case titled "A&L, Inc. v. Allegheny County Airport Authority" Dr. Seiler was retained by legal counsel for Allegheny County to evaluate the design of Taxiway F and address issues raised by the contractor's expert witness, Construction Technology Laboratories, Inc. (CTL), with respect to its theory that the design of Taxiway F caused the cracking that occurred within the taxiway within one year of construction. Dr. Seiler reviewed CTL's report, maps of cracked slabs, daily construction reports, and a complete set of Plans and P-501 specifications. Through Binding Arbitration, the Mediator awarded the Airport Authority two thirds of the damages and found that A&L caused the cracking and that a design defect had not caused the cracking.

- *Dover AFB Pavement Failure after Fuel Line Construction (2004)*: Dr. Seiler was retained by legal counsel after the General Contractor sought damages from one of his Subcontractors that provided compaction of the fill and each pavement layer during the backfill of a trench that was used to install a new fuelling system near a new AC apron. After an extensive review of the construction records and a site visit by Dr. Seiler, the case was halted after the General Contractor filed for bankruptcy.

Airport and Port Technical Consulting—Forensic Analysis and Expert Witness

- *Hailey Airport Load Restrictions (2003):* Dr. Seiler was retained by legal counsel in the Case "Ronald N. Tutor, etc., vs City of Hailey, Idaho, et al." The case stemmed from an individual who wanted to use his Boeing BBJ for occasional flights between California and Hailey, Idaho. Dr. Seiler conducted a site visit and a structural evaluation using construction history data and nondestructive deflection testing data that were collected by All About Pavements, Inc. Although the results showed that limited BBJ operations could be supported by the airport pavements, the courts ruled in favor of the City of Hailey.
- *Port Authority of NY and NJ – Teterboro Airport Load Restrictions (1999):* While employed with another firm, Dr. Seiler conducted a detailed investigation of the load-carrying capacity of the AC pavements at Teterboro. At the time, Boeing had clients that wanted to start operating the Boeing BBJ (B737-800) at the Airport. Dr. Seiler supported the Civil Section of the PANYNJ in their position that no BBJs would be allowed to operate at this airport. After joint meetings between the FAA, Boeing, and the PANYNJ; the FAA supported the PANYNJ's position. To this day, no BBJ have been allowed to operate at Teterboro.

Airport Technical Consulting—Pavement Evaluation & Design

- *Honolulu International Airport Runway 4R-22L Rehabilitation (2013*): Performed NDT, evaluation, and rehabilitation designs for rehabilitation of the Asphalt Concrete (AC) runway and connector taxiways. Under contract to Leo A Daly, API also conducted a 100 percent distress mapping and used the geotechnical, NDT, and distress data to identify AC mill depth and overlay requirements for RW 4R-22L and the taxiway connectors.

- *Lubbock International Airport Runway 17R-35L Rehabilitation in Lubbock, TX (2012):* Performed NDT, evaluation, and rehabilitation designs for rehabilitation of the Portland Cement Concrete (PCC) runway. The recommendation and design included the reconstruction of the outer PCC wings which are much older than the existing PCC keel. Under contract to Parkhill Smith and Cooper, API will continue to assist in the final rehabilitation design, including reviews of all pavement-related job submittals.

- *Honolulu International Airport Runway 8R-26L Rehabilitation (2012*): Performed NDT, evaluation, and rehabilitation designs for rehabilitation of the Asphalt Concrete (AC) runway, known as the "reef" runway at HNL. Under contract to URS, API also conducted a 100 percent distress mapping and used the geotechnical, NDT, and distress data to identify variable depth AC mill and overlay requirements for RW 8R-26L.

Airport Technical Consulting—Pavement Evaluation & Design

- *Kahului Airport Runway 2-20 Rehabilitation (2011) at Maui, HI:* Performed NDT, evaluation, and rehabilitation designs for rehabilitation of the Asphalt Concrete (AC) runway. Under contract to URS, API also conducted a distress mapping and used the geotechnical, NDT, and distress data to identify several feasible rehabilitation alternatives. The preferred alternative is to reconstruct the existing AC runway with a new and longer PCC runway because RW 2-20 has not been performing well as an AC runway.
- *Charlotte International Airport RW 18C-36C and TW E Keel Reconstruction (2011):* Performed NDT, evaluation, and rehabilitation designs for reconstruction of the Portland Cement Concrete (PCC) pavement with a new PCC pavement in the center 50-ft of the runway and taxiway. Under contract to WK Dickson, API assisted in the development of rehabilitation designs including reviews of all job submittals.
- *Dover Air Force Base RW 1-19 Reconstruction (2011):* Performed NDT, evaluation analysis, and rehabilitation designs for reconstruction of the Portland Cement Concrete (PCC) pavement with a new PCC pavement. Under contract to Atkins, API assisted in the development of rehabilitation designs including the development of a complete geotechnical plan, including data required for subgrade soil stabilization.
- *Reconstruction of RW 5-23 at Laurinburg-Maxton, North Carolina (2010):* Performed NDT, evaluation, and rehabilitation designs for the reconstruction of the World War II PCC pavement. The 150-ft wide runway was rubblized and a new AC overlay was constructed as the width of runway was decreased to 100 ft. Under contract to WK Dickson, API assisted in the development of rehabilitation designs including reviews of all job submittals. The NCDOT Aviation Office was extremely satisfied with this rubblization project on a subgrade of marginal strength.
- *Runway 16R-34L and Taxiway A Rehabilitation (2009) at Everett, WA:* Performed NDT, evaluation, and rehabilitation designs for repairs of the Asphalt Concrete (AC) runway and taxiway. Under contract to URS, API conducted pavement designs for several alternatives using all FAA Advisory Design Circulars for this critical runway at the Boeing Aircraft Production Plant.
- *Charleston International Airport Roadway Design (2007):* Performed NDT, evaluation, and rehabilitation designs for the primary access roads to the Airport Terminal. Under contract to WK Dickson, API assisted in the development of rehabilitation designs for these AC roadways.
- *Nashville International Airport (2006):* Under contract to PBS&J, provided pavement rehabilitation design support for the reconstruction of portions of Runway 13-31 and the associated taxiway connectors for the Metropolitan Nashville Airport Authority (MNAA).

Airport Technical Consulting—Pavement Evaluation & Design (cont)

- *U.S. Coast Guard Station at Elizabeth City (2004):* This project consisted of a detailed pavement condition index (PCI) survey and Micro PAVER implementation for all airside pavements for the U.S. Coast Guard. A comprehensive Maintenance & Repair (M&R) plan was developed using NDT data, PCI data, laboratory test results that were collected as part of this project. A void analysis was also conducted for storm drains located under airfield pavements.
- *Dulles International Airport (2002):* While with another firm in 2002, collected field data and assisted in engineering analysis and engineering design of Runway 12-30. The purpose of the study was to determine potential enhancements to future Portland Cement Concrete pavement designs at the airport and identify critical pavement repairs for the next two years before the runway is reconstructed.
- *Pittsburgh International Airport (2001)*: Led a comprehensive pavement investigation of Runway 10L-28R and associated connector taxiways, Taxiways F and P, and associated Taxiway F connectors to Runway 10R-28L. This study included pavement condition index (PCI) surveys, nondestructive deflection testing, and an extensive coring, DCP, and laboratory testing program.
- *Raleigh-Durham International Airport (2001)* Led an investigation of subsurface drainage problems that were causing a recently-constructed asphalt-concrete terminal apron to experience localized structural failures.
- *Palomar Airport (2001)*: Conducted a pavement of evaluation of Runway 6-24 and its parallel taxiway, Taxiway A, for Wadell Engineering Corporation. The client, San Diego County, wanted to investigate causes of localized structural failure on the taxiway and design feasible rehabilitation alternatives.
- *Toronto's Lester B. Pearson International Airport (2000):* Conducted an evaluation of asphalt concrete and Portland cement concrete design alternatives for a new runway, Runway 6R-24L.
- *O'Hare International Airport (1996):* Performed NDT, evaluation, and rehabilitation designs for Runway 4R-22L, the busiest runway at O'Hare International Airport, with over 100,000 annual departures. Rehabilitation options were limited because the runway could not be closed for more than 2 days.
- *Topeka's Forbes Field (1995):* Performed NDT, evaluation, and rehabilitation designs for Runway 13-31 at Forbes Field in Topeka, Kansas. This 12,800 ft by 200 ft runway was over 40 years old and had extensive structural problems due to severe D-cracking in the jointed PCC beneath the AC overlay.

Airport Technical Consulting—Pavement Evaluation & Design (cont)

- *O'Hare International Airport (1994):* Performed NDT, evaluation, and rehabilitation designs for 150,000 square yards of existing taxiways on the north side of O'Hare International Airport, where a new deicing pad was constructed. The existing taxiway sections consisted of reinforced and jointed PCC, AC, and composite pavement. In addition, jointed PCC designs were developed for another 200,000 square yards of new pavement for the new deicing pad.

- *Chicago's Midway Airport (1993)*: Evaluated Runway 4L-22R at the Midway Airport in Chicago. This pavement consists of AC, PCC, and composite pavement sections that will require major rehabilitation work.

- *Laughlin Air Force Base (1994):* NDT, evaluation, and rehabilitation designs were conducted for Runway 13R-31L at Laughlin Air Force Base in Del Rio, Texas. This runway is 6,600 ft long and consists of an AC pavement throughout the runway.

- *Spirit of St. Louis Airport (1993):* Quickly responded to a pavement evaluation request from the Airport Authority at the Spirit of St. Louis Airport in Chesterfield, Missouri, after the airport was completely flooded in 1993. Three days after initially being contacted, our team was on site with a Heavy Weight Deflectometer, conducting testing throughout the airport. Provided continuous input to the Airport Authority as the pavement was evaluated so that the Airport knew what pavement could accept normal or emergency aircraft traffic operations

Airport Technical Consulting – Pavement Management

- *Maryland Aviation Administration (2012 and 2008)*: This project was a comprehensive update of the BWI and Martin State Airport pavement management program (PMP). The PMP included the addition of the landside pavement network at each of these airports and the conversion of the IAPMS to the Micro PAVER system. A web-enabled version of the Micro PAVER system was developed for use throughout MAA. Additional work included pavement condition index surveys (PCI), nondestructive deflection testing (NDT), ground penetrating radar (GPR), coring and laboratory testing, structural capacity analyses for each pavement section, and the development of multi-year capital improvement programs for BWI and Martin State airside and landside networks.

- *Florida Statewide Airport Pavement Management System (2011 and 2007)*: During this study, quality assurance Pavement Condition Index (PCI) surveys and technical recommendations were provided directly to the Florida Aviation Office. In addition, technical input was provided to the Aviation Office in the development of Capital Improvement Programs, Individual Airport Reports, and System Summary reports.

Airport Technical Consulting – Pavement Management (continued)

- *Nashville International Airport (2007)*: This project was a comprehensive update of the Nashville Airport pavement management system (APMS). The APMS included the conversion of AIRPAV software system to the Micro PAVER system. Additional work included pavement condition index surveys (PCI), coring and laboratory testing, structural capacity analyses for each pavement section, and the development of multi-year capital improvement programs for BNA airside pavements.
- *U.S. Air Reserve Bases (2004)*: This project consisted of a detailed pavement condition index (PCI) survey and MicroPAVER implementation for all airside pavements at Youngstown Air Reserve Station (ARS), Niagara Falls ARS, Westover ARS, and Grissom ARS. A comprehensive Maintenance & Repair (M&R) plan was developed for each base using nondestructive deflection testing (NDT) results from previous Air Force surveys, PCI data collected during this project, previous runway friction testing, and laboratory test results.
- *U.S. Air Force Bases (2003)*: This project consisted of a detailed pavement condition index (PCI) survey and MicroPAVER implementation for all airside pavements at Wright Patterson AFB, Kirtland AFB, and Eglin AFB. A comprehensive Maintenance & Repair (M&R) plan was developed for each base using nondestructive deflection testing (NDT) results from previous Air Force surveys, PCI data collected during this project, previous runway friction testing, and laboratory test results.
- *Port of Portland (2007, 2005, and 2002)*: This project was a comprehensive update in 2002 of the Port of Portland's (POP) pavement management system for the airside and landside pavements at Portland International Airport, Hillsboro Airport, Troutdale Airport, and the Marine Terminal Facilities The work consisted of pavement condition index surveys (PCI), nondestructive deflection testing (NDT), structural capacity analyses for each pavement section, and the development of a multi-year capital improvement program. In 2005, the DSS pavement management system was ported to the MicroPAVER system.
- *Teterboro Airport (1998)*: This project consisted of the initial implementation of an airport pavement management system (APMS) for the Port Authority of New York and New Jersey. Decision Support System for Airports (DSS), v3.0 was selected as the software of choice by the Port Authority, the consultant who manages the operations at the airport.
- *Miami Seaport (2000)*: This project consisted of the initial implementation of an airport pavement management system (APMS) for Miami Dade County. Decision Support System for Ports (DSS), v3.0 was selected as the software of choice for the container yard pavement facilities. GPS and GIS data were used with DSS and ArcView to develop a 5-year capital improvement program.
- *Montreal's Dorval International Airport (1997):* APMS implementation for all airside pavement facilities for Aeroports de Montreal, Quebec. This study included the development of a 5-year capital improvement program. Subsequent to this study, Dr. Seiler also conducted a rehabilitation design review for reconstruction of Runway 6L-24R.

Airport Technical Consulting – Pavement Management (continued)

- *Montreal's Mirabel International Airport (1998):* APMS implementation for all airside pavement facilities for Aeroports de Montreal, Quebec. This study included the development of a 5-year capital improvement program.
- *Dayton International Airport (2001):* A project-level and network-level APMS update was conducted for airside pavements at the Airport. The APMS update included nondestructive deflection testing, pavement condition surveys, and coring to determine the benefit of the pavement infrastructure rehabilitation work that had been constructed since the 1992 capital improvement program.
- *Raleigh-Durham International Airport (1995):* Nondestructive deflection testing (NDT), evaluation, and rehabilitation designs were prepared for the Raleigh-Durham International (RDU) Airport Authority. This study provided a 5-year capital improvement program for all of the primary airside pavements at RDU.
- *Illinois Statewide Airport System (1996): A*PMS implementation for the Illinois Division of Aeronautics (DOA), Phase II. Their statewide system included 72 general aviation and reliever airports.
- *Dayton International Airport (1993):* Developed Pavement Classification Number (PCN) and Allowable Aircraft Load Charts and developed new jointed PCC designs for extension of Taxiway W at Dayton International Airport. Included two pavement design options that incorporated the latest technology in permeable base design.

PRESENTATIONS

- Taught a pavement management session for the FAA-AI workshop on asphalt pavement maintenance and evaluation in Seattle, Washington in October 2008.
- Presented the results of a study on airport pavement performance in the southeastern States of South Carolina, Georgia, and Florida at the annual ACPA Workshop in Atlanta, Georgia in October 2008.
- Taught a pavement management session for the FAA-AI workshop on asphalt pavement maintenance and evaluation in Orlando, Florida in April 2008.
- Taught a pavement design session for the American Association of Airport Executives (AAAE) course on pavement maintenance and evaluation in Austin, Texas in October 2007.
- Taught a pavement management session for the FAA-AI workshop on asphalt pavement maintenance and evaluation in Kansas City, Missouri in April 2007.
- Presented a paper on "Design and Acceptance Testing during Reconstruction of Terminal Apron Taxi Lanes at Hartsfield Jackson Atlanta International Airport" at the American Society of Civil Engineers (ASCE) Airfield and Highway Pavements Conference in Atlanta, Georgia, in May 2006.

PRESENTATIONS (continued)

- Taught a pavement management session for the FAA-AI workshop on asphalt pavement maintenance and evaluation in Boston, Massachusetts in Nov 2006.
- Taught a pavement management session for the FAA-AI workshop on asphalt pavement maintenance and evaluation in Dallas, Texas in April 2006.
- Taught a pavement design session for the American Association of Airport Executives (AAAE) course on pavement maintenance and evaluation in Nashville, Tennessee in September 2005.
- Taught a pavement management session for the FAA-AI workshop on asphalt pavement maintenance and evaluation in Philadelphia, Pennsylvania in Oct 2005.
- Taught a pavement management session for the FAA-AI workshop on asphalt pavement maintenance and evaluation in Chicago, Illinois in April 2005.
- Taught a pavement design session for the American Association of Airport Executives (AAAE) course on pavement maintenance and evaluation in Naples, Florida in December 2001.
- Presented a paper on "Aviation Safety and Security – Impact on Construction Industry" at the National Airfield Concrete Pavement (ACPA) Conference in October 2001, in Hartford, Connecticut.
- Presented a paper on "A State-of-the-Art Proven Alternative to Elastic Layer Design and Evaluation of Jointed Concrete Pavements" at the American Society of Civil Engineers (ASCE) 25th International Air Transportation Conference in Austin, Texas, in June 1998.
- Presented a paper on "The Benefits of Cement-Treated Permeable Bases in Concrete Pavements" at the FAA Great Lakes Region Conference in Chicago, Illinois, in November 1996.
- Directed and taught the AAAE course on pavement maintenance and evaluation in Orlando, Florida, in March 1996 and 1994.
- Presented a paper on "What is the Aircraft and Pavement Classification Number (ACN-PCN) System and How Should Airports Use It?" at the Federal Aviation Administration's (FAA) Eastern Region Conference in Hershey, Pennsylvania, in March 1994.
- Presented a paper on "Expedient Stress Analysis of Jointed Concrete Pavements Loaded By Aircraft With Multi-wheel Gear", at the 71st Annual Meetings of the Transportation Research Board, Washington, DC, in January 1992.
- Presented a paper on "An Airfield Pavement Consultant System (AIRPACS) for Rehabilitation of Concrete Pavements", at the ASCE Specialty Conference on Aircraft/Pavement Interaction in Kansas City, MO in September 1991.
- Presented a paper on the "Evaluation of Runway 4R-22L at O'Hare International Airport" at the ASCE pavement specialty conference in Vicksburg, Mississippi, in June 1994.

PUBLICATIONS

Seiler, W.J., T. Gambino, S. Nazarian, F. Hayes, and Q. Watkins (2006). Paper on "Design and Acceptance Testing during Reconstruction of Terminal Apron Taxi Lanes at Hartsfield Jackson Atlanta International Airport." American Society of Civil Engineers (ASCE) Airfield and Highway Pavements Conference in Atlanta, Georgia, May 2006.

Seiler, W.J., J.A. Pires, M.A. Plamondon, W.E. Tabet, and J.K. Ambroz. (2001) Assessment of Concrete Girder at the Holloman High Speed Test Track (HHST). Final report prepared for the Department of the Air Force, Air Combat Command, Holloman AFB, NM.

Seiler, W.J., W.E. Tabet, and J.K. Ambroz. (2001) Pavement Evaluation and Rehabilitation Design of Runway 10L-28R and Taxiways B, F, & P at Pittsburgh International Airport. Final report prepared for CTE Engineers Inc., Pittsburgh, PA.
Seiler, W.J., and W. Hutchinson. (2001) Value Analysis of Cargo Area Pavement Systems in the Cargo Area of the Port of Miami. Final report prepared for Miami-Dade Seaport Department, Miami, FL.

Weiss, W.R. and W.J. Seiler. (2001) DSS Upgrade for Montreal's Dorval and Mirabel Airports. Final report prepared for Aeroports de Montreal, Montreal, Quebec.

Weiss, W.R. and W.J. Seiler. (2000) Inspection of the Shuttle Landing Facility (SLF) Runway at Kennedy Space Center, Florida. Final report prepared for Space Gateway Support (SGS), Kennedy Space Center, Florida.

Seiler, W.J. and M. Jones. (1998) A state-of-the-art proven alternative to elastic layer design and evaluation of jointed concrete pavements." American Society of Civil Engineer's 25th International Air Transportation Conference, Austin, Texas, June 1998

Weiss, W.R. and W.J. Seiler. (1996). Implementation of a Statewide Airport Pavement Management System. Final report prepared for the State of New Jersey Division of Aeronautics.

Seiler, W.J. and D.A. Steele. (1996). Pavement Evaluation for Aprons and Taxiways at Edmonton Municipal Airport. Final report prepared for Edmonton Municipal Airport Authority, Edmonton, Alberta.

Pletcher, R., L.D. Evans, and W.J. Seiler. (1996). Reconstruction of Runway 1R-19L and Associated Taxiways at Wichita's Mid Continent Airport. Project manual prepared for the Wichita Airport Authority, Wichita, Kansas.

Seiler, W.J., D.A. Steele, and R.K. Kumapley. (1995). Evaluation of Runways 12-30 and 16-34 at Edmonton Municipal Airport. Final report prepared for Edmonton Municipal Airport Authority, Edmonton, Alberta.

PUBLICATIONS (continued)

Seiler, W.J., D.A. Steele, and R.K. Kumapley. (1995). Evaluation of the Airside Pavement at Raleigh-Durham International Airport. Final report prepared for the Raleigh-Durham Airport Authority, Morrisville, North Carolina.

Seiler, W.J. (1994). Evaluation of Taxiways F and N at Birmingham International Airport. Final report prepared for the Birmingham Airport Authority, Birmingham, Alabama.

Seiler, W.J. and L.D. Evans. (1994). Pavement Evaluation of the Bulls Eye in Runway 13C-31C and Pavement Design of the New General Aviation Apron for Midway Airport. Final report prepared for Howard Needles Tammen and Bergendoff, Chicago, Illinois.

Seiler, W.J. (1994). Pavement Engineer's Design Report for the Extension of Taxiway W at Dayton International Airport. Final report prepared for Shaw Weiss and DeNaples, Huber Heights, Ohio.

Smith, K.L. and W.J. Seiler. (1994). Evaluation and Design of the Scenic Hold Pad Expansion Projects at O'Hare International Airport. Final report prepared for Howard Needles Tammen and Bergendoff, Chicago, Illinois.

Evans, L.D. and W.J. Seiler. (1993). Pavement Evaluation and Overlay Design of Runway 13R-31L at Laughlin AFB, Del Rio, Texas. Final report prepared for Crawford, Murphy, & Tilly, Inc., Springfield, Illinois.

Seiler, W.J. (1993). Airport Pavement Evaluation of Runway 13-31 at Forbes Field, Topeka, Kansas. Final report prepared for Bartlett & West Engineers, Inc., Topeka, Kansas.

Beckemeyer, C.A. and W.J. Seiler. (1993). Airport Pavement Evaluation of Runway 14-32 and the Intersection of Runways 14-32 and 1-19 at Republic Airport, Farmingdale, New York. Final report prepared for Clough, Harbour & Associates, Albany, New York.

Seiler, W.J. (1992). Development of PCN and Allowable Aircraft Load Charts at Dayton International Airport, Dayton, Ohio. Final report prepared for the City of Dayton, Dayton, Ohio.

Seiler, W.J. (1992). Evaluation and Design of the 9R and 27L Hold Pad Expansion Projects at O'Hare International Airport, Chicago, Illinois. Final report prepared for Howard Needles Tammen and Bergendoff, Chicago, Illinois.

Seiler, W.J. (1994). What is the aircraft and pavement classification number (ACN-PCN) system and how should airports use it? Paper presented at the 17th Annual Airports Conference (March 8-10, Hershey, Pennsylvania).

Seiler, W.J. (1992). Expedient stress analysis of jointed concrete pavements loaded by aircraft with multi-wheel gear. Paper presented at the 71st Annual Meetings of the Transportation Research Board (January 12-16, Washington, DC).