ENGINEERING CHALLENGES
FOR THE NEXT
GENERATION AIRCRAFT
I want to take this opportunity to wish all of our Chicago Section and Michiana Division members a Happy Holiday Season. I hope you each get a chance to relax and spend some joyous hours enjoying the company of your families and friends.

I also want to express my thanks to the Section Governing Board members for giving of their time and energy this past year to make the Chicago Section and Michiana Division strong and exciting organizations. You make the difference. The Section would not be anything without your dedicated support and involvement. Thank you all.

Don’t forget to mark your calendars and phone in your reservations today for our next meeting on Tuesday, Dec. 14. This will be our annual Family Night meeting, featuring an aerospace focus. Our main presentation will be about new plans from McDonnell Douglas for future airliners. The coffee talk presentation will be about aerobatics and stunt flying. I’m looking forward to this meeting and hope to see all of you plus your interested family members there.

We’ll begin the new year on Tuesday, Jan. 11, with a presentation on the new Caterpillar 990 Wheel Loader. This will be a joint meeting with the SAE Rockford Section. Look for more details next month.

Chuck Cornell
Chicago Section Chairman
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**Syminex** - High precision modular signal conditioning and filter systems.

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by

Joseph Schreiner

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Joseph Schreiner is the Area Manager of Field Services Engineering for McDonnell Douglas Corporation. His experience encompasses 14 years of aircraft development and field service. His current responsibilities include overseeing the MD-11 jumbo-jet transition into regular scheduled service by airlines around the world. The Field Service Engineering group works closely with the marketing, sales and engineering departments to identify and correct in-service discrepancies and provides operator and personal input for design changes to the cognizant design engineering department. Joseph holds an M.B.A. from Pepperdine University, Malibu, California, and a B.S. from the University of Illinois, Urbana.

COFFEE TALK: PREPAREDNESS

by

Gene and Cheryl Littlefield

Picture if you will: A pilot in a single engine plane, performing aerobatic stunts in front of hundreds of people, while his partner is precariously balanced on the wing. All eyes are glued to the aircraft while it maneuvers in mid-air. Suddenly, the engine sputters and then stops. Come and hear a firsthand account of this real-life encounter from Gene and Cheryl Littlefield.

Gene Littlefield has been flying for more than 25 years and performing airshows for 23 years. He holds Aircraft Single and Multiple Engine Land, Airline Transport Pilot, Certified Flight Instructor, Multiple Engine Instructor and Certified Flight Instructor Instrument ratings, and is an Aerobatic Competency Evaluator. Addi-
tionally, Gene has flown over 140 types of aircraft, served two consecutive terms as president of the Professional Airshow Performers Association and is a founding member of that organization.

Cheryl Littlefield is a licensed pilot and one of only ten wingwalkers in the world. Gene and Cheryl together have received the Rolly Cole award for airshow excellence and the Molly Heatler award from the Chicago area Sport Aviation Association.

CHAIRMAN

gies where he is responsible for development of control software for Navistar's Next Generation Diesel engine. His experience also includes flight control software for the F-15E and other military aircraft. Adam holds a B.S. in Electrical Engineering from the University of Iowa and has six years experience in automotive and aircraft control software.

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6:00 P.M. Dinner
7:00 P.M. MEETING

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MICHIANA MEETING SCHEDULE:

February
Program Chairman: A. E. McIntyre
Program: Engineers’ Week
Dinner: Notre Dame

March 24/April 26
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Program: Tour AE Piston
Dinner

May 24
Program Chairman: Richard Stran
Program: Tour Allied Signal Provin Grounds
Dinner: Heston Bar
Company Profile

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Elite Electronic Engineering Company was organized in 1954 and is the oldest and best equipped independent EMC test laboratory in the world. Elite conducts EMC testing and certification efforts at two test laboratories in Downers Grove, IL, and Cocoa Beach, FL, and also provides a variety of outdoor automotive EMC testing and antenna calibration at its remote site located in Waterman, IL.

In 1973, Elite added complete Environmental test services to its already extensive EMC test capabilities. These include, but are not necessarily limited to: sine, random and combined sine/random vibration; stress screening (vibration in temperature); shock; acceleration; high and low temperature; humidity; salt fog; dust; temperature/altitude; blowing rain; explosion; fungus and many others.

Elite Electronic Engineering Company’s main laboratory is located in Downers Grove, IL, and has 22,500 square feet of laboratory and test facilities housed in a modern, one-story concrete and steel building. Elite is equipped with 12 shielded rooms and has available multiple sets of RF generating and receiving equipment combinations. A fully enclosed, all-weather test chamber will be added to this site to enable Elite to provide for the whole vehicle radiated susceptibility testing at field strengths greater than 200V/m, allowing for complete susceptibility frequency sweeps from 10kHz-40GHz throughout the year.

Elite also has a remote test site at their disposal for providing several outdoor test procedures such as SAE-J551 emissions measurements, additional whole vehicle radiated immunity testing and vehicle antenna RF noise pattern measurements. This remote test site is located in Waterman, IL; a 45-minute drive west of Elite’s main laboratory.

Elite Electronic Engineering Company also has an EMC test laboratory in Cocoa Beach, FL. At this location, Elite can provide RF surveys, FCC certification and EMC testing to many specifications including Mil-Std-461/462, RTCA DO-160C and SAE J551. This laboratory is centrally located to conveniently serve Florida’s rapidly growing electronics industry with the same expertise that Elite provides its customers in the Northeast and Midwest industrial states.
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The September meeting, which was Student Night and included a tour of Argonne National Laboratory, had a very large attendance.

During the September meeting, Chuck Cornell, the Chicago Section 1993-1994 Chairman, presented Past Chairman (1992-1993) Jim King with a plaque from SAE International for his dedication and tireless effort in guiding the Section through a very successful year.
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Norm Hunt/Rich Danek
The October 1993 issue of the SAE UPdate had an excellent write-up on Dr. Al Dohner, our past chairman and currently a member of the SAE International Board of Directors. We are proud to have Al active on the Chicago Section Governing Board.

Alan R. Dohner, President, DAI Technologies, Inc., is in the first year of his three-year term on the SAE Board of Directors. Mr. Dohner earned his B.S., M.S., and Ph.D. degrees from the University of Michigan. He joined General Motors Research Laboratories in 1973, where he helped pioneer microprocessor-based control systems for automotive engine control applications. In 1980, he joined International Harvester as Manager of Electronic Control Systems responsible for product development and maintenance of electronic control systems for engines, trucks, and agricultural and construction equipment.

In 1983, Mr. Dohner founded DAI Technologies, Inc., to provide electronic systems and engineering services to heavy-duty automotive and industrial equipment OEMs.

He has been active in both the SAE Detroit and Chicago Sections, serving as chair, vice chair, secretary, and treasurer in Chicago. He has also served as a member of the Sections Board and the administration, finance, and computerization subcommittees. He was a member of the general planning committee for the 1991 SAE Truck & Bus Meeting & Exposition and has chaired sessions at the Off-Highway Congress for several years.

Mr. Dohner serves on the Executive Committee of the American Electronic Association in Chicago and is a member of the University of Michigan College of Engineering Alumni Board of Directors.
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