



## In The AIAA Atlanta Section

### Robert C. Loschke, Distinguished Lecturer

Mr. Loschke received two degrees from the University of Oklahoma in 1961; a B.S. in aeronautical engineering and a B.S. in electrical engineering. After joining Lockheed in 1961, he continued his formal education and received an M.S. in Control System Engineering from UCLA in 1967.

He began his 36-year career at Lockheed working on the flight control systems of the P3, F-104G, VTOL Test Bed, S3A carrier based ASW aircraft, and the control systems for variable geometry air inlets used on supersonic cruise aircraft. He was the lead engineer for the flight control systems on the Have Blue stealth technology demonstrator aircraft and on the F-117A, the world's first operational stealth aircraft.

Mr. Loschke is experienced in airplane configuration development, control system analysis and synthesis, fixed and moving base man-in-the-loop flight simulations, designing manned aircraft flight control systems to meet Handling Qualities requirements, laboratory development testing, and flight testing.

Elected a Lockheed Technical fellow in 1990, he has been working on the

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### *September Dinner Meeting - Thursday, September 27, 2001*

#### **Crowne Plaza Hotel, 6345 Powers Ferry Road**

Menu: Salad	5:30 PM	Social
Grilled Chicken & pasta w/alfredo sauce	6:30 PM	Dinner
Vegetable Medley	7:30 PM	Program
Dessert		

Members/Guests: \$17  
Non-Members: \$18  
Students: \$10  
RSVP to Booster by COB Mon.,  
Sept 24, 2001, or register online at  
the Atlanta Section web site.

#### Directions:

From I-285 E - take Exit 15  
(Powers Ferry Rd),  
turn right onto Northside Dr.,  
turn left at Powers Ferry Rd.  
You can see the Crowne Plaza  
Hotel once on Powers Ferry.

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### **The F-117A Flight Control System Distinguished Lecturer, Robert Loschke**

The F-117A was derived from the Have Blue technology demonstration aircraft that first flew in 1977. The emphasis on radar and TR signature reduction resulted in an aerodynamically unstable airframe, which requires full time stability augmentation for safety of flight. A Fly-By-Wire flight control system was mechanized with modified F-16 components, and special control laws were designed to tailor the handling qualities for each of the critical mission phases. A multi-mode 4-D flight management system was implemented to automate routine navigation tasks, thereby reducing pilot workload and improving mission effectiveness. The design criteria, design process, integration testing, and some of the unique features of the system are presented.

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development of new analytic techniques and improved aircraft design methodologies. Starting in 1990, he also led a team that developed and flight tested a flush mounted Acoustic Air Data Sensor which analyzes boundary layer noise to extract local true airspeed and local flow angle. He is a registered professional control system engineer, and has been a guest lecturer at California Institute of Technology graduate student seminars on aircraft design case studies. He retired from the Lockheed Martin Skunk Works as a Technical Fellow in 1998.