

Charbonneaux Awards for 'Young Eagles' programs

Sharing with youngsters the experience of flying, with all the potential that might open, is the aim of the Young Eagles program. At the June 16 Annual Meeting, volunteers from six area chapters of the Experimental Aircraft Association, which runs the Young Eagles program, were given the 2008 Wilson Charbonneaux Award.

This award honors persons or organizations in the Miami Valley that have made a significant contribution to the public understanding of technology.

The Young Eagles program, currently chaired by Harrison Ford, is an effort by the EAA, through its member-volunteers, to give boys and girls between the ages of 8 and 17 their first general aviation airplane ride. Nationally, 1.4 million youngsters have flown, free of charge, since the 1992 inception

of the program. The volunteers provide the planes, the fuel, the piloting, and in some cases "ground school" basics of aviation. The chapters honored by the Charbonneaux Award have flown over 6500 youngsters.

Representing the Club's Technical Education Committee, **Frank Boensch** presented plaques to:

- Tom Murph, Moraine Chapter 48
- Bob Kissell, New Carlisle Chapter 610
- Marla Boone, Piqua Chapter 1335
- Dale Razor, Troy Vintage Aircraft Chapter 36
- Keith Schneider, Waynesville Chapter 284
- Wayne and Kay Moyer, Xenia Chapter 382.

Joe Desch's daughter presents award to John Janning

Editor's Note: These are Debbie Desch Anderson's remarks at her presentation of the first Joe Desch Award at the June 16 Annual Meeting. (For more, see Becky Smith's accompanying interview with John Janning on page 6.)

I have been excited since **Harry Seifert** first told me that the Engineers Club would institute an annual Joseph Desch InnoVention Award. I have worked to tell my father's story these last 15 years not so that the story would remain a dusty relic of the past but in the hope that people would find inspiration in his work and a story of the power of an engineer to improve the world. Now I find no more fitting setting for that story than here in the Engineers Club of Dayton.

That is also why it's so meaningful for me, personally, to present the inaugural award. And in its first year the Club has chosen to give it to a man who has exemplified, through his career and his insatiable curiosity, the best qualities of a dedicated engineer.

This person's career has many parallels to my father's: he was born in Dayton, he attended the University of Dayton and then went on to NCR. He worked in Advanced Development, where he conducted the cutting-edge work that we now celebrate.

One of his first developments, in the early 1960s, was advanced research on the processes to produce a thermal printing wafer, a familiar component of thermal printers. He found that by placing tiny heating elements side-by-side on the edge of a piece of glass or other insulator and then passing chemically treated heat sensitive paper over the elements while the selected elements were electrically energized, a printed page could be written quietly. I know of these thermal



John Janning with Debbie Desch Anderson

printers, because I believe my father installed some in the later Apollo space capsules.

This engineer was one of the pioneers in flat panel plasma displays in the late 1960s and early 1970s. He holds nine patents on this technology including the all silk-screened manufacturing process by which present plasma displays are made.

His early work with liquid crystals in the early 1970s included the discovery in 1971 that a thin film deposited at a very acute angle, by the oblique evaporation of silicon monoxide would give stable, repeatable, and permanent alignment to liquid crystals in displays. He holds five patents in this area.

In total he holds 250 patents, in the U.S. and internationally, and has authored numerous publications. He participated in many civic and professional groups, including our Engineers Club.

I believe, however, that above all, in his life, his family has the most importance. He has been married for 55 years and has four daughters and three sons.

In closing, I'd like to remark on the exceptional importance which makes him, in my eyes, a perfect first recipient for this Joe Desch Award. Several times, after talking about his own career and the cutting edge research that occurred at NCR during his lifetime, my father mentioned younger men whom he admired and felt deserved more recognition. One he always mentioned was Barrett Green, a good friend who died at an early age. But as he got older he told me of another exceptionally talented engineer who is here tonight.

And so, for Joe Desch, I'm honored to give this first award bearing his name to John Louis Janning.

An Interview with John Janning

By Becky Smith

Editor's Note: John L. Janning, research scientist, inventor, and public speaker, was born in Dayton, Ohio on March 30, 1928. The most renown of his 69 U.S. patents and over 250 patents worldwide is "Alignment Film for a Liquid Crystal Display Cell." Janning was a Sloan Fellow from MIT and is among one of the 83 honored on Dayton's historic "Walk of Fame" on West Third Street. Prior to being awarded the Joe Desch Award at the June 16 Annual Meeting, Janning sat down for an interview to discuss his impressive body of work. (Read the interview on page 5.)

• Among your many patents and inventions, what would you say you are most known for?

That would probably be LCD—liquid crystal display. It was actually invented by Jim Ferguson, but Ferguson's displays lasted only a couple weeks before moisture got in and ruined them. While I was working at National Cash Register in Dayton, I became intrigued with LCDs and out of curiosity I started working in my lab to create an LCD that would last. I had success at the first shot. My patent made it possible to seal displays hermetically, and ultimately led to the large-scale manufacturing of LCDs. I was able to perfect what Ferguson started; I created permanent alignment—alignment that can last for 1,000 years.

• What is something you've been working on more recently?

Staylit Christmas Lights. These Christmas lights will really make an impact. They don't require any maintenance; inside of every light socket there is a tiny microchip that, when the light string is operating properly, does nothing; however, as soon as something happens to the bulb the microchip activates and allows the rest of the string to continue to stay lit. Staylit lights are sold worldwide in four countries other than the U.S. My girls [Janning's daughters and wife] were able to see my lights displayed at Rockefeller Center in New York City.

• What are some of the roadblocks or struggles you have encountered in your career as an inventor?

I've had to go to court to settle the debate of who should get credit for some of my inventions. Unfortunately, there used to be a trend that led to an employer taking the credit for something his employee had actually conceived. For example, in 1961 I conceived the idea for thermal printing, but my boss's name ended up on the patent. It has taken much effort and several lawsuits, but I eventually received compensation and my due credit for all of my patents.

• You're retired from NCR, have you worked anywhere else?

I worked as an electronic technician for the University of Dayton for a couple of years before I was hired on to NCR. My work with UD was actually quite interesting. I participated in the Atomic and H-bomb testing in the Frechman Flats. I stood 14 miles away and was required to wear high-density goggles. They were all pre-dawn shots . . . I can remember the tremendous heat and the mushroom clouds.

• Where do you do all your creating and inventing now?

I have a lab on Wilmington Pike where I like to play and make things happen.

• What do you consider your best discovery?

My best discovery is right here; she's sitting right next to me [motioning toward Dolores Janning, his wife of 55 years]. We have seven children together. Each of my children has done well and we are both very proud.

At the Annual Meeting, outgoing President Harry Seifert expressed gratitude for untold "hours of dedicated help" to the Club, and mentioned some members specifically:

Ben Graham: For leading the Ideas Committee and ensuring continuous quality Friday night programs and other events as well as his emails reminding members of upcoming activities.

Chuck Stuart: For help with the Membership Committee, halting the gradual decline in our membership, turning it around, and bringing in members in all age groups.

Jim Papa: For help with several events and particularly his lead in planning and executing the February gala celebrating the 90th anniversary of our club building.

Leatha Stewart: For help with the holiday party, with the gala, and planting and tending the parking lot garden.

Phil Mowry: For his leadership of the many initiatives of the Marketing Committee.

Richard Palmer: For help getting out email notices to our members.

Bob Hocking: For help with the continually challenging maintenance of our building and grounds.

John Bosch: For help with the outstanding programming for our Barn Gang Tuesday Luncheon Programs.

David Drumm: For help with the House Committee and with our audiovisual systems.

Hap Cawood: For help with our newsletters and our Express.

Anne Stoops: For help with the finances of the foundation of our Engineers Club.

Chuck Allport: For help leading the board of our Engineers Club Foundation.

Fred Dudding: For help developing our Deeds, Kettering, and Wright Society "permanent giving campaign.