

## **1999**

### **Craig Zander – President**

#### March

- Dinner meeting at Exceptional Banquet Center
- Ron Gibson presented “ESD Controls in the Contract Manufacturing Environment”

#### June

- Itron in Waseca
- Merle Weight presented “Determining Factory Failure Levels due to ESD and the Justification of an ESD Protection Program”

#### September

- Lockheed Martin in Eagan
- Lary Haupt spoke about their ESD Training they have on their internal WEB page.
- Dale Parkin presented on, “Flooring / Footwear and ESD Standards”

#### December

- Honeywell, Inc. in Plymouth
- Greg Gregory presented “Focus on Learning: A Roadmap for the Design and Development of Effective Training Programs”

## **1998**

### **Keith Resvick – President**

#### March

- Dinner meeting at Maxa’s in Chaska
- ESD Panel discussion

#### June

- Manufacturing Services
- Roger Pierce spoke to members on variety of ESD related topics including ROI and an overview of various case studies he has been involved in.

#### September

- IBM
- Chapter members presented on 4 ESD Association Standards

#### December

- Control Data Systems
- Dr. Terry Welsher presented “ESD in the 21st Century”

## **1997**

### **Steve Painter – President**

#### **March**

- Dinner Meeting at Maxa's
- Steve Fowler presented on ESD flooring

#### **June**

- CPI/Guidant
- Al Breidegam presented on "ESD Grounding Networks and Constant Grounding"

#### **September**

- Red Wing Shoe Co.
- Red Wing Shoe Personnel presented on ESD Shoes

#### **December**

- MTS Systems Corporation
- Presentation by Kevin Wilds of MTS Systems

## **1996**

### **Curt Erickson – President**

#### **March**

- Dinner Meeting at Hennepin Technical College
- Presentation on "Left Brain Right Brain"

#### **June**

- BF Goodrich / Rosemount Aerospace
- Curt Erickson gave a presentation that described and demonstrated the ESD control training, certification and recertification program conducted at Rosemount Aero.

#### **September**

- Tricord Systems
- Carl Olson presented Tricord Systems ESD control program.

#### **December**

- Aetrium, Inc.

- Darrin Dickerson presented “ESD Control for Semiconductor Handling Equipment”

## **1995**

### **Craig Zander - President**

#### March

- Dinner Meeting at Hennepin Technical College
- Wayne Tan presented “ESD hazards and control methods associated with automatic handling equipment in semiconductor manufacturing environments”

#### June

- Riverside Electronics in Lewiston
- Plant Tour
- Review ESD Training Video

#### September

- Computing Devices International in Bloomington
- Steve Vanetta presented “Implementing ESD Controls in a small to medium size company.”
- Factory tour of the circuit assembly and bare board manufacturing.

#### December

- Cardiac Pacemaker/Guidant Corporation
- Joel Weidendorf presented “Tribocharging of Personnel as Influenced by Relative Humidity”

## **1994**

### **Dale Parkin – President**

#### March

- Dinner Meeting at Hennepin Technical College
- Ron Gibson presented “Packaging Fundamentals for ESD Sensitive Products”

#### June

- IBM
- Dr. Don Pierce spoke to the chapter about the subject or the local chapters with the National organization as well as other open topics

#### September

- Cray Research
- Terry Jacobson gave 3 presentations:

1. "3AQ Option Fallout"
2. "EPROM Failures" and
3. "I/O Cable/System Failures due to ESD"

#### December

- Unisys
- Chris Strand presented, "Is it ESD, EOS or Other"

#### **1993**

##### **Jack Chandler – President**

#### March

- Dinner Meeting at Hennepin County Technical College
- Ginger Hansel presented "ESD Control Programs and the Associations Educational Focus"
- Frank DuRocher, an Electronic Instructor at HCTC, spoke of EOS/ESD training in their curriculum.

#### June

- Zytec in Redwood Falls
- Factory tour of Zytec, Jeanne Wepplo and Dennis Brletilch, of Zytec, gave a presentation on Surface Mount Technology and how it relates to EOS/ESD at Zytec and industry wide.

#### August

- Federal Cartridge
- Presentation on What Federal Cartridge Does, Their safety, the ESD concerns, production.
- A Tour of Federal Cartridge facilities

#### December

- Loeffler Safety Shoes
- Discussion on ESD Footwear and its importance

#### **1992**

##### **Joel Weidendorf – President**

#### March

- Industrial Custom Products LTD in Mounds View
- Dr. Brian Corry gave a presentation on Carbon filled materials
- Following the meeting, Dinner was at Mermaid Supper Club

#### June

- Red Wing Shoe Co. in Red Wing / St. James Hotel
- Ken Dille of Red Wing Shoes addressed members regarding footwear

### August

- Lake Center Industries in Winona

### December

- 3M Sales Center in Eagan
- Dave Swenson gave a presentation on the EOS/ESD Association Standards Activities

## **1991**

### **Joel Weidendorf – President**

### March

- Dinner meeting at the BAKKEN Museum

### June

- IBM
- Ionization Measurement Tutorial was presented

### September

- Control Data, Grey Fox
- Tom Stechmann presented “Degraded Device Detection”
- Tim Jarrett presented “Evaluation of ESD Materials”

### December

- Rosemount Inc. Aerospace
- Tour of their production line and addressed the static control measures used.

## **1990**

### **Merle Weight – President**

### March

- Dinner Meeting at Tommy K’s
- Ronald Haugen of Zytec Corp. presented “Basic Elements of an ESD Control Program in a Manufacturing Environment”

### June

- Cray Research
- Terry Jacobson and others presented “ESD Grounding of a Workstation”

### September

- Zytec

#### October

- First Chapter Vendor Night

#### December

- Honeywell
- Steve Halperin presented

### **1989**

#### **Merle Weight – President**

##### March

- 3M Sales Office - Dave Swenson gave a presentation on Material Testing

##### June

- Medtronic - Merle Weight & Joel Weidendorf spoke on Return on Investment

##### September

- Baxter Scientific Products in Plymouth - First Common Ground Newsletter

##### December

- Control Data in Arden Hills
- Tour, Jack Chandler gave update on the Grounding Standard.
- Craig Zander gave status report on the Midwest Expo.
- Joel Weidendorf spoke on the ESD Association standards and EIA 541 standard.

### **1988**

#### **Dave Roop – President**

##### March

- Honeywell in St. Louis Park

##### September

- IBM - Presentation on - “A standard Test to Determine the Susceptibility of a Machine to ESD”

##### December

- Unisys in Roseville - Merle Weight spoke on Failure Analysis Defect Mechanisms from back to front. A Lab tour was provided as well.

### **1987**

## September

- First North Central Meeting, Holiday Inn Airport
- Merle Weight Presented “ESD - Causes and Control”
- 3M Sales office in Eagan