

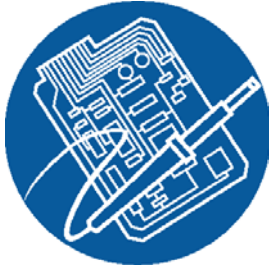
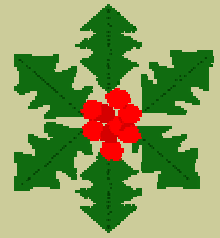
# Happy Holidays!

Volume 1, Issue 1

December 2001

## The Target Connection

*First Edition: Look for issues bi-monthly*



### Soldering Technology International, Inc.

#### New Soldering Technology Training Facility Opens

Soldering Technology International (STI) Inc., announces the opening of their new 4,500 square ft. training facility. This facility is located adjacent to the main STI facility and has three large classrooms with state-of-the-art equipment.

#### Special points of interest:

- New STI Facility Opens
- Meet our Training Team
- Jim's Corner

#### NEW COURSES AVAILABLE

*J-STD-001 C Registered Instructor and Operator Recertification*

#### Training Calendar

J-STD-001 Registered Instructor  
December 10-14  
January 28–February 1 (Atlanta)

MSFC/NASA Solder Certification  
Course  
January 7-11

MSFC/NASA Staking/Conformal  
Coating Course  
December 3-6

IPC-7711/21 Rework & Repair  
Registered Instructor Course  
January 14-18

IPC-A-610 Instructor Certification  
January 7-11

IPC-A-610 Instructor Recertification  
December 5 - 6  
January 16-17

J-STD-001 Registered Instructor  
Recertification  
December 3-4  
January 14-15

J-STD-001 Operator Proficiency  
Certification  
January 21-25



Master Instructor Robert Zimmermann instructs a J-STD-001C Operator Class.



Master Instructor Frank Honyotski discusses the finer points of rework.

#### News Flash

The J-STD-001C Recertification Course is now available. The J-STD-001 Certification Program Management Review Committee has reduced the certification term from three years to two years. For more details contact Mel Parrish at (256) 705-5530 or Dan Foster at (256) 705-5527.

### Introducing The Target Connection

Welcome to the first edition of *The Target Connection*. This newsletter will be a bi-monthly publication featuring STI's Training Department. Some additional topics to look for include technical perspectives, industry training updates, and profiles of other STI services. Each edition will also feature Jim's Corner. Jim D. Raby, STI founder and Technical Director, will focus on topics of current and upcoming interest to the industry. Future editions will profile other STI services such as Training Materials, Engineering Services, Distribution, Analytical & Prototype Lab.

If you would like to continue receiving upcoming issues please contact us at [training@solderingtech.com](mailto:training@solderingtech.com) or call us at (800) 858-0604 ext. 5512. If you would like to receive the newsletter by e-mail please make sure we have a current e-mail address. You may also download this newsletter electronically from our web site [www.solderingtech.com](http://www.solderingtech.com).



*Best Wishes for a Wonderful Holiday Season*

## Meet Our Training Team

### Mel Parrish



Mel Parrish joined the Soldering Technology International Training Team in July 2000. Mel has extensive experience in technical training, training development, and management in addition to his primary technical qualifications in electronic production, engineering, and quality practices.

Mel has over 20 years of experience in curriculum design and development for electronic manufacturing and technical courses.

He has received the coveted Chairman of the Board Award and Presidents Award from IPC, is recognized as a Master Instructor, Class "A" Instructor for IPC-A-610/600, and

was a Category C Instructor Examiner for MIL-STD-2000 as well as previous standards such as WS-6536 and DOD-STD-2000. Additional experience and accomplishments include General Chair of the IPC Product Assurance Committee, Member of the IPC Technical Advisory Executive Counsel (TAEC) and Committee Chairman Council (CCC).

Mel is currently participating in the creation of standardization for Optoelectronics technology application.

### Dan Foster



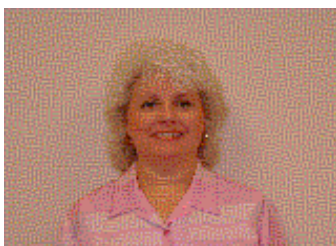
Dan Foster joined the Soldering Technology International Team in April 2001. Dan previously worked as a VP of Training for Electronics Training Advantage and for PACE, Inc. as a Government/Education Programs Representative. He has over 21 years experience in rework, repair and electronics training. Dan has been involved in the development of rework, repair and production techniques and education of customers and industry representatives on how to utilize these techniques.

Dan was a Category "A" Instructor for the 2M Repair Course at the Advanced Electronics School in San Diego.

Dan is accredited by the IPC as a Master Instructor for IPC-A-610, IPC J-STD-001 and IPC-7711/7721 and conducts IPC Certification Training Courses.

Dan serves as Chair of the IPC-7711 Rework of Electronics Assembly Committee and as Vice Chair of the IPC-7070 Component Mounting Guidelines Committee.

### Jennifer Day



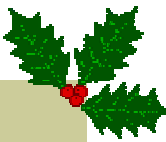
Jennifer Day joined the Soldering Technology International Training Team in December 1999. Jennifer serves as co-chairperson to the IPC-A-610 Technical Committee and received the IPC President's award in March of 2000. Jennifer is additionally serving on the J-STD-001 and IPC-7711/21 Documents & Training Committees. She possesses over 22 years of experience in the electronics indus-

try, holding previous positions at SCI Systems, Metric Systems, and Accutek/IEC Electronics.

Jennifer is accredited by the IPC as a Registered Instructor for J-STD-001 and IPC-A 610.

### Trade Show Schedule

**APEX · Exhibition: Jan 22-24, 2002 · San Diego Convention Center, San Diego, CA**  
**Visit us at Booth 210**



## Robert Zimmermann

Robert Zimmermann joined the Soldering Technology International Training Team in July 1998 coming from Motorola as a Senior Training Specialist. Robert's responsibilities included coordinating Motorola's pre-hire training, development and delivery of Basic Electronic Assembly Courses. He has also assisted with the implementation of ISO 9000 and created and maintained labor standards for various products.

Robert is accredited by the IPC as a Master

Instructor for IPC-A-610, J-STD-001 and IPC-A-600 and conducts IPC Certification Training at the STI training site located in Madison, Alabama. He is also responsible for conducting on-site training classes for our customers and coordinating the materials and equipment needs and shipment of equipment when required by customers.



## Frank Honyotski

Frank Honyotski joined the Soldering Technology International Training Team in May 2000 coming from Pace Inc. as a Training Manager where he was involved in the development and teaching of rework, repair and production techniques and education of customers and industry representatives on how to utilize these techniques.

Frank served as an Instructor and as a Senior Electronics Technician for the Navy's Miniature/Microminiature Repair (2M) Pro-

gram from 1993 until 1997.

Frank is accredited by the IPC as a Master Instructor for IPC-A-610, IPC-7711/21 and is a Registered Instructor for J-STD-001. He conducts IPC Certification Training at the STI training site located in Madison, Alabama. He is also responsible for conducting on-site training classes for our customers and coordinating the materials and equipment needs and shipment of equipment when required by the customer.



## Ann Duncan

Ann Duncan joined the Soldering Technology International Training Team in August 1997 and is responsible for the coordinating of materials, supplies, equipment, and shipping requirements for the STI Training Department. Ann also maintains required training records, course enrollments, confirmations, and assists students with information neces-

sary for class attendance.

Ann is an IPC-A-610 Class A Instructor and J-STD-001 Registered Instructor. She also conducts company specific training at STI's training site located in Madison, Alabama.



## Pat Scott

Pat Scott joined the Soldering Technology International Training Team in January 2001 coming from Electronics Training Advantage (ETA) as Director of Training. Pat has twenty years of experience in Electronics Manufacturing, Technical Instruction, and Instructional Systems Development.

Pat gained her experience at Hughes Aircraft Co., Soldering Technology Training Facility (China Lake), and the Electronics

Manufacturing Productivity Facility (EMPF).

Pat is accredited by the IPC as a Master Instructor for IPC J-STD-001, IPC-A-610 and IPC 7711/21. She conducts IPC Certification Training at the STI training site located in Madison, Alabama. She is also responsible for conducting NASA/MSFC certification courses such as Soldering, Cable/Harness, and Conformal Coating. Pat's responsibilities also include curriculum development.





## *Soldering Technology International, Inc.*

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## **Jim’s Corner**

**By: Jim D. Raby, PE**

**Lead-free** solders are coming and one should not be overly concerned about them. There are many good alloys on the market and, with a little planning, one can be quite successful right out of the starting blocks.

Many people are afraid of using lead-free solders because they have not taken the time to understand the pros and cons. Think about this:

- Lead-free solders, in most cases, require more time and temperature and one must understand the reasons why.
  - The melting point of the solder alloy is higher.
  - Milder fluxes are being used.
  - Solderability and wetting times are slower.
  - Higher temperatures and longer dwell times grow more oxides.
- To get started, one must use parts that are lead-free. This is not too difficult since many part suppliers already build parts that have matte-tin as the finish. The chemical supplier “Shipley” produces a chemical bath for board plating. With these two items being compatible this means that the only other choice is the alloy to use.

Now how does one choose this alloy?

- Look at your needs. If a lot of strength is not needed and one desires a lower temperature, then an indium loaded alloy may be right for you. If your needs are for greater strength and higher reliability, then a tin/silver alloy may be just what you need. I am a little older and not so bold, therefore I still like a little antimony in my alloy. Antimony keeps down tin pest, that is where tin turns to a white powdery substance under slight stress and extreme cold.
- I use nitrogen in my oven and approximately 240°C as measured on the surface of the board under my Ball-Grid-Array (BGA). Why do I use nitrogen you may ask? Well, since today we use a milder flux, we have a tendency to overheat it at these temperatures and dwell times which means that we now have an opportunity to grow oxides in the oven. This increases surface tensions and slows down the process of wetting. With nitrogen, I don’t grow these oxides.
- Solder joints look a little different now than those made with Sn60 or Sn63, so we need to train our people that this is okay. Use micro-sections of each to show that they are both good joints.



*Thanks for making 2001 Great!*