**CHAIRMAN’S CORNER**

**2004 OFF TO A GREAT START**

In spite of the Wintry weather, flu outbreaks, and holiday hangover, the New Year at AWS is off to a great start. We hosted Technology seminars on Metallurgy (Thanks Carl Spaeder) and Submerged Arc Welding by Miller Electric. Both seminars were well attended, probably setting the stage for more programs later in the year.

Our first March Speaker is Steve Hand, Senior Metrologist for MAGLEV, Inc. "Metrology IS NOT studying the weather or the stars...but rather high tech measuring of objects. MAGLEV is currently working on a Navy program to "Predict distortion in welding/fabrication". Only by accurately predicting distortion, can welding begin to control or minimize it.

Years ago, early in my career, I helped trailer and mobile home manufacturers weld "camber" into their long beams by welding on top of the beam with a 7/32 7024 Jet Rod. This would draw or shrink the beam, allowing it to then carry a load that bends it back to the straight plane. On another occasion, I recall an associate welding up a beam for one of our travel carriages and it shrunk, thus getting him the nickname "Dr. Shrink". If you did not make it to the MAGLEV Open House, this would be a great chance to see the progress and understand the technology behind the program.

Kerry Sabo 412-389-7154 • Kerry_Sabo@lincolnelectric.com

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**MARCH MEETINGS**

**MARCH 9 6:30PM METROLOGY MEASUREMENT SYSTEMS**
MAGLEV-McKeesport 1905 Building
STEVE HAND PIZZA/SODAS-$5

**MARCH 25 6:30PM UNDERWATER WELDING**
featuring DAVE GEDDES-SENECA COLLEGE
Steamfitters Local 449, Rt 51S
PIZZA/SUBS- SODAS-$10.00
STUDENTS FREE TO BOTH.
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**WEB-SITE**

AWS • Pittsburgh Chapter has a new web site.

Be sure to check it out for meeting notices.

www.aws.org/sections/pittsburgh
ADVERTISING IN Spark

It’s a great way to promote your products and services to fellow members of the American Welding Society. Without your support, the Pittsburgh Section of AWS would not be able to publish this newsletter. A variety of ad sizes are available. Please contact Dave Daugherty at 412-780-4620 for more information about advertising in this newsletter.

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M R. Hand has 30 years experience in high accuracy measurement for large components. He began his career in the early 1970’s using optical tooling and laser interferometry to calibrate large machine tools and through the years, has been a part of the evolution of metrology from the earliest theodolite systems to the latest sub-millimeter GPS techniques. A few specific projects include the Clinch River and Princeton’s Tokomak fusion reactors, the NOVA Target Sphere; NASA/Langley Hypersonic Wind Tunnel; Australian Submarine Corporation’s Collins Class Boat; the U.S. Navy’s Large Cavitation Channel (LCC); AEDC’s J-6 Rocket Test Facility, Caltech/MIT Laser Interferometer Gravitational-wave Observatory (LIGO) and Lawrence Livermore National Laboratory’s National Ignition Facility (NIF).

Currently, Steve is senior metrologist for MAGLEV, Inc. where he is responsible for developing the technology to fabricate and install large steel guideway beams for the Pennsylvania Maglev Project. Related to these efforts, the Office of Naval Research (ONR) has funded the demonstration of high accuracy measurement necessary to validate Finite Element Analysis (FEA) predictions of weld distortion in large “ship type” structures.

TOPICS FOR SEMINAR
1) Metrology and the technology today (discuss the current types of equipment and uses in the industry).
2) Demonstration of the Coherent Laser Radar (CLR) that Maglev, Inc. will incorporate into the weld distortion work at 1905.
3) Discuss the future of metrology for large component manufacturing.

AWS Pittsburgh Board News

Our Nominating Committee has selected a new Board for the coming year, but we still have some openings if you would like to help our section continue to grow. Please contact Kerry Sabo for more information at 412-389-7154 or kerry_sabo@lincolnelectric.com

CWI Exam/Seminar to Be Hosted in Pittsburgh

During the week of May 23-28, we will host a CWI Seminar and an Exam. For more info, contact AWS National to register at 1-800-443-9353-ext 313 Dorcas Gonzalez Troche, or visit the AWS National Website.

Generally, one has to sign up about 6-8 weeks ahead of time, so there is still time!

Underwater Welding Program

MARCH 25, 6:30-pm
Dave Geddes of Seneca College
Steamfitter Local 449

This should be a great program. I strongly encourage instructors to bring their students to this program. The program at the Science Center is filled to capacity so if this program is of interest to you, please come Thursday night. Seneca College is located in Toronto, Canada and their program runs 34 weeks. Their website is www.senecac.on.ca/faculties-schools/underwater...the courses required for completion include: “College English, Diving Physics, Rigging Compressors and Tools, Salvage, Explosives, and Welding, Offshore Oilfield Diving Techniques, Construction Diving Techniques, and Deep Diving”...the deep diving portion of the course takes place in the Georgian Bay...also a pretty good walleye fishery!! Hope to see you there!!!!!!!!!

FIRST Robotics Competition Comes to Pittsburgh

Lincoln Electric and General Welding Supply Sponsor Grandview Heights High

The Pitt Petersen Event Center will be host to one of the twenty-six FIRST Robotics Competition Regionals on March 10-12. The actual competition rounds will be held on Friday and Saturday, March 12th and 13th. Friday’s competition schedule will run from 9:20 am until 4:15 pm while Saturday’s schedule, including the elimination matches, will run from 9:30 am until 3:00 pm. There is no charge for admission.

FIRST is the National Robotics Competition pairing high school students with engineering mentors from across the country to compete with 130-pound, remote-controlled robots. The teams have just six weeks to design and build their robots while being given a very limited kit of parts. For more information on this year’s competition, log on to www.usfirst.org and go to FIRST Robotics. There will be 37 teams competing in the Pittsburgh Regional, with over 800 participating teams in the United States, Canada, Brazil and Great Britain. The Championship Event will be held in Atlanta, Georgia from April 15 - 17th.

PLAN TO MAKE A TRIP TO SEE THIS EVENT!

Members in the News

PETER KINNEY of our section is presenting a paper at AWS National Convention. We will have Peter present this talk to us as well.

AWS Sustaining Members Pittsburgh Section

The following companies are Sustaining Members of the American Welding Society. Dues are $700 per year which includes up to 10 individual AWS memberships and an up-to-date library of current AWS publications. An initiation fee of $500 is also required once upon joining.

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TENTATIVE AWS AGENDA 2004

MARCH 9 - MAGLEV-STEVE HAND-METROLOGY
MARCH 11 - PLANT TOUR - TBA
MARCH 26 - UNDERWATER WELDING AT CARNEGIE SCIENCE CENTER
APRIL - TECH WEEK- 4 NIGHTS OF LEARNING(TOPICS TO BE ANNOUNCED)
OCT 17-23 - AWS CWI SEMINAR. EMBASSY SUITES-PITTSBURGH AIRPORT

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13 ☐ Inspector, tester
14 ☐ Supervisor, foreman
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16 ☐ Welder, welding or cutting operator
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- A Microsoft Word, Word Perfect, or other text file is preferred.
- Photos will be accepted for publication. Please provide captions when necessary.

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**SCHEDULE AT A GLANCE**

**MARCH 9**- MEETING ANNOUNCEMENT: METROLOGY-STEVE HAND-SR .METROLOGIST-MAGLEV INC.
- TIME: 6:00 Arrivals, 6:30 Pizza/Sodas ($10.00), 7:00 Speaker.
- Directions: 1100 Industrial Dr( RIDC Park) McKeesport. from Pittsburgh..Take Rt 30E 4.9 mi to Rt 148-right 3.5 mile to Lysle Blvd to RIDC Park to the 1905 Building

**MARCH 25**- UNDERWATER WELDING-Dave Geddes of Seneca College at Steamfitters Local 449 Auditorium- Arrivals 6:00-6:30 Dinner Pizza/Sodas ($10.00) -6:45-Speaker Students/Steamfitters-FREE
- Directions: Take Rt 51 south of the Parkway 1/4 mi..)look to the right..auditorium in back.)

**MARCH 26**- STUDENT WELD OFF AWARDS DAY at Carnegie Science Center featuring UNDERWATER WELDING by Key Speaker Dave Geddes of Seneca College.

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The purpose of AWS is to promote education within Welding. If your school teaches welding..for example a VoTech or Community College..please contact Dave Daugherty about listing your course offerings here and on our Website.