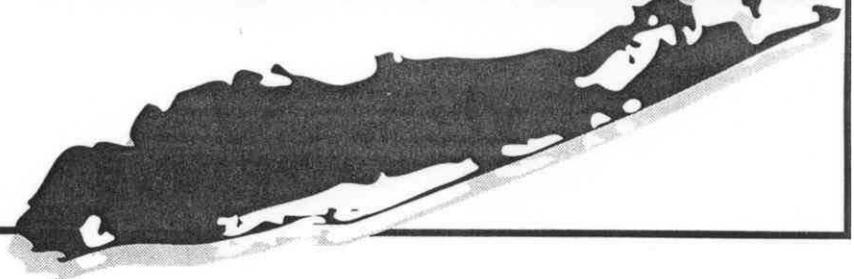




The Materials Information Society

LONG ISLAND CHAPTER

METALLAGRAM



Volume 45 Issue 5

Editor: Carl Czajkowski

PAST CHAIRS NIGHT

Wednesday, February 18, 2004

**Topic: Corrosion Fatigue in Life Extension Strategies
for Aging Aircraft Components**

**Speaker: Dr. Atul Gokhale
Dayton T. Brown, Inc.**

Location . . . *Weeping Willow Restaurant, Farmingdale, NY*

Social hour ... 6:00 pm Dinner ... 7:00 pm Meeting ... 8:00 pm.

Members ... \$22 Guests ... \$25 ASM 25 years ... \$20 Students ... \$12

(New and recently transferred-in members free!)

Reservations - call John Coyle (631-589-6666, ext. 2619)

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Take the Long Island Expressway to Exit 49 and go south on Route 110. About 2 miles south of the Expressway, turn left onto Smith Street - the intersection has a stoplight, there is a Hess gas station on the left side of the highway and an entrance to the SUNY Farmingdale campus on the right. The restaurant is at 25 Smith Street, on your left just past the gas station. Their phone number is (631) 293-0059.

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THE TOPIC

A targeted and focused approach to extend the service life and inspection intervals of aging aircraft structural components is described. The approach is based on the selection of components that are not only susceptible to corrosion-fatigue damage, but also use replacement and inspection schedules that may have been developed from incomplete test data. The methodology is illustrated by data from full-scale fatigue/corrosion-fatigue testing, and metallurgical failure analysis for the EA6B and E-2C/C-2A arresting trusses, and the F-18 arresting hook shank. It will be shown that fatigue initiation can be used to define the safe life while the crack growth rate is used to define the inspection interval.

OUR SPEAKER

Dr. Atul Gokhale received his M.S. and Ph.D. degrees in Materials Science and Engineering from the University of Florida and B.E. in Metallurgical Engineering from Poona University, India. Atul holds the position of Senior Metallurgist/Technical Specialist at Dayton T. Brown, Inc. He has co-authored over 60 refereed technical and scientific publications and has given over 25 technical presentations at various national and international meetings. Atul is the recipient of two Special Achievement awards by NASA and is a member of the joint ASM/MSD committee on Materials Processing and Synthesis. He holds one patent on the reactive synthesis of intermetallic matrix composites. Atul has worked in many areas of metallurgy and materials science, including thermomechanical processing of metals and alloys, critical evaluation and thermodynamic modeling of phase equilibria, rapid solidification via containerless processing, microgravity crystal growth, melt infiltration processing of intermetallic matrix composites, and metallurgical failure analysis.

WELCOME TO THE CHAPTER!

Charlotte Eng, Stony Brook University

Lionel King, Stony Brook University

Paul Shaw, Grumman Aerospace

All new members, including those who have transferred in from another Chapter, are invited to dine free at a regular meeting of their choice. Please take us up on this offer - come along to the meeting and introduce yourself. This is an excellent way to meet with other Chapter members and establish new business and social relationships in the area. Our meeting locations range from Manhattan to Mattituck so there's likely to be one not too far from you at some point during the year.

The Electronic Metallagram

The Metallagram is also available in PDF format. If you would like to have future issues emailed directly to you (thereby saving the Chapter the cost and effort of regular mailing), please contact Biays Bowerman (email bowerman@bnl.gov or phone (631) 344-2946).

AVAILABLE LATER THIS MONTH

Applications for the 2004 John R. Weeks college scholarship program – contact Biays Bowerman.

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CHAPTER MEETING SCHEDULE

Long Island Chapter

3/17/04 Sustaining Members Night. Speaker: Andrew Gouldstone. Topic: TBA

4/21/04 Annual General Meeting/Plant tour of Sulzer Metco/speaker Jason Trelewicz

Metro NY-NJ Chapter
 (contact Rich Lynch @ 201-891-8399)

2/11/04 L'Affaire Restaurant, Springfield, NJ.
 Speaker Sheldon Cytron
 Topic: How Materials Technology has changed Military Weaponry

3/17/04 San Carlo Restaurant, Lyndhurst, NJ.
 Speaker Toni Bailey (Structural Testing Systems) and Ed Dukich (Level III Resources)

4/21/04 L'Affaire Restaurant, Springfield, NJ.
 Speaker: Stuart Nichols
 Topic: Stealth Technology