



**The Materials  
Information Society**

# Carolinas Central Chapter

## Annual Alumni Meeting

Sep. 20, 2007: Engineering Building 1, 3<sup>rd</sup> Floor Room 3035

### Aerospace Bearings: Applications and Failure Analysis

**Brian Boyette**

Bearings play a crucial role in military aircraft. From engines to transmission systems to airframes, any dynamic component contains bearings. DoD has an extensive program for the inspection of bearings from purchase to installation to aircraft overhaul. At Cherry Point, we have a bearing inspection shop that evaluates used bearings to determine their suitability for reuse. Bearings are inspected for a variety of defects. Engineering also evaluates bearings in support of failure investigations. This presentation will introduce the various types of aerospace bearings, discuss common defects found during bearing inspection, and provide a summary of several bearing failure analyses.

Brian is a Materials Engineer with NAVAIR (US Navy) at its aircraft overhaul facility at Cherry Point, NC. Since joining NAVAIR in 2003, he has worked in the areas of failure analysis and materials engineering processes including machining, welding, electroplating, thermal spray, and shot peening in support of aircraft component repair. He currently supports the bearing inspection shop and performs failure analyses of all types of aircraft bearings. He graduated from North Carolina State with BS (2001) and M. Eng. (2003) degrees in Materials Science and Engineering.

Officers Meeting.....6:00 pm  
Dinner .....6:15 pm  
Program.....7:30 pm

If you plan to attend, please RSVP by no later than Tuesday Sep. 18, 2007 by registering at the chapter website or contacting one of the officers listed.

Next Meeting: Oct 10<sup>th</sup>, Dr. Jim Marder, Trustee Visit, EB1 3035

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Accident Reconstruction

