



Sloan Career Cornerstone Center

Profiles of Materials Science and Engineering Professionals



E.B. (Chip) Shane

**Staff Engineer/Materials Engineering Manager
Air Defense
Lockheed Martin Electronics and Missile Division
Orlando, FL**

Education:

1978 - BS Engineering (Option in Materials Engineering), University of Florida

Job Description:

Research & Development

Advice to Students:

"To concentrate on the engineering aspect of the profession - get good grades and work experience in the engineering field (part time, summer, internship, coop)."

Video Transcript:

"The metallurgical skills that I picked up and an awful lot of the metallurgical training has been very invaluable to me. Because most of my specialties at school were in metals. That's my area of expertise. However, in this particular job, we do everything in material, so we do a lot of plastics and we do a lot of elastomers and we do a refractory metals and glasses and items like this. The main thing that school taught me was to be able to bear down and study and become inquisitive and learn the right methodology for attacking a program. No one will ever know everything about every material that there is. But if you've got a good background in mechanical testing and in failure analysis and items like this, you can apply this other non-metallic areas and learn quite a lot. And the methodology is the same."

Interview:

- Typical Day

7:00 AM - Arrive at office- check e-mail & phone messages.

8:00 AM - Make entries/review engineering notebook.

9:00 AM - Review engineering design drawings; discuss technical issues with design team

10:00 AM - Visit laboratories and check status of tests,

11:00 AM - Visit production floor and review hardware.

12:00 PM - Lunch at desk and cruise the Internet.

1:00 PM - Meet with government customer representatives.

2:00 PM - Contact/discuss technical hardware issues with

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3:00 PM - Suppliers, write specifications, test plans/reports,
4:00 PM - Head for home.
5:00 PM - Family time- talk with bride, play with kids.
6:00 PM - Fixing/eating/clean-up dinner.
Evening - Bathing/putting kids to bed, reading, a little TV

- Career Experience

1978-Present: Lockheed Martin, Engineering Design Department.

- Internships & Coops

1977-1978: University of Florida Materials Science & Engineering Department, Student Work/Study Assist.

1975-1976: University of Florida Agricultural Engineering Department, Student Work/Study Asst.

- Honors & Awards

Graduated with honors, Lockheed Martin cash awards for cost-savings ideas (for refurbishment of the Hellfire missile laser gyro & identification of improperly heat-treated Patriot missile air vanes)

- Best Preparation

Top-notch academics, motivational professors, work/study experience.

- Getting First Job

Interviewed with University of Florida Materials Engineering alumni from Lockheed Martin when they were on a recruiting visit to our school department.

- Advice:

To concentrate on the engineering aspect of the profession - get good grades and work experience in the engineering field (part time, summer, internship, coop).

- Military Experience

1970-1974 - US Navy, Petty Officer 3rd Class Hospital Corpsman

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