



## Where do inventive ideas come from?

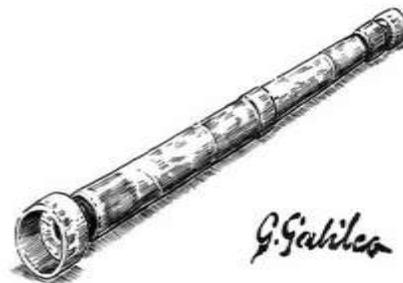
Lacy G. Cook

Raytheon Space and Airborne Systems, El Segundo, CA

Using a number of optics inventions from his patent portfolio as examples, Mr. Cook has looked back and determined the initial key underlying thoughts and considerations that most strongly influenced the generation of the inventions. He found that these invariably fell into general categories including:

- “Intend to invent” (don’t ask permission)
- “Invent what you need” (or what others request/need)
- “What does an equation say, and not say” (let it speak)
- “Recognize the restrictions of your environment and try to surmount them” (hard)
- “Minimum complexity increase to fix the problem is best” (always)
- “Give up something to get something” (weigh the trade-off)
- “Know and understand the basics” (this is the preparation and perspiration part)
- “Learn what doesn’t work and why” (also the history of your craft)
- “Accept the inevitable” (you still don’t have to like it)
- “If you can’t fix it ... feature it” (this is very rewarding)

He will expand on these and other concepts that have guided and aided him in creating novel optical designs over his career.



**About our speaker: Lacy G. Cook** is Principal Fellow at Raytheon SAS in El Segundo, CA. He has 39 years’ experience in conceptual and detailed optical systems design of major strategic and tactical product lines at Hughes Aircraft (24 years) and Raytheon (15 years). He holds 75 US Patents in the field of optical design and all-reflective optics. He is a winner of the Hughes Group Patent Award, the Hughes Hyland Award, the 1993 Optical Society of America Engineering Excellence Award, the Lifetime Achievement Raytheon Technology Excellence Award, the 1997 Hughes SCS Patent Award, and the 2000 Raytheon Corporate Technology Excellence Award. In 2009 he was awarded National Reconnaissance Office (NRO) Pioneer status and in 2012 was elected Fellow by the Optical Society of Southern California.



**Wednesday, June 12, 2013**

**Reception: 6:00; Dinner: 7:00; Annual Business Meeting and Talk: 8:00**

**Meal: Buffet Style**

**Cost: \$30 (OSSC Student Members are Free!)**

**Hacienda Hotel**

**525 N. Sepulveda**  
**El Segundo, CA 90245**

**(310) 615-0015**

On-line Registration: [www.osscc.org](http://www.osscc.org) or

Contact: Joseph Diep, **OSSC** Arrangements Chair,  
[Events@osscc.org](mailto:Events@osscc.org), 951-926-2994

Please Register by June 10, 2013

**Please post this notice and invite your friends & colleagues to attend!**