10 Years Later – Evolution of the Workshop

10th Annual Department of Energy LSO Workshop
August 21, 2014

Jamie J. King, Workshop Chair
Historical Background (1990s)

- Ken Barat organizes Nonionizing Radiation Seminars at LBNL in early 90s
- Bay Area Laser Safety Officers is formed (1996)
  - Networking

The seeds of the workshop were planted more than 20 years ago
Historical Background (2000s)

- Many laser accidents begin to occur at different DOE facilities (early 2000s)
  - 7 total in just over 3 years (late 2001 – early 2005)
- Special Operations Report (SOR) on Laser Safety is released in February of 2005
  - LSO training is often generic in that it is one-time and “one size fits all.” This training is often insufficient to prepare LSOs for the types of lasers used and potential hazards. Many LSOs have not had refresher training sufficient to keep pace with laser technology and changes in regulations, which hinders proper hazard evaluation.
  - Currently, laser safety at each laboratory is independent, and no networking occurs between LSOs. Best practices must be rediscovered by each LSO. Hence, there is a need for an ongoing communication mechanism across the entire Department (e.g., a working group or coordinating committee).

SOR cited weaknesses in training and communication across the complex
LSO Workshop is Born

- Ken moves from LBNL to LLNL (2002)

- Idea for Workshop
  - Meeting with Ed Moses (NIF&PS PAD) early 2005
  - NIF provides 100% support to Ken’s efforts
  - Attendance of 93 (no fee)
  - Tours of NIF and Mercury
  - Success!!!
  - What now?

A citing from the SOR was remedied to an unimaginable level of success
- Jack Preses/Chris Weilandics offer to host the next workshop?
- Attendance is 80 with no fee (optional dinner $50)
- Tours:

The “Annual” DOE Laser Safety Officer Workshop is born
- Bruce Murdoch hosts
- Attendance 118
- Medical Lasers
- Tours
- Optional Dinner

Attendance increases by nearly 50%
- John Snell (SNL) cohosts with Connon Odom/Joanna Casson (LANL) (2008)
- First fee charged $50
- Attendance 161
- Evening BBQ
- Tours
- Karen Kelly hosts (2009)
- Laser Safety Subgroup reforms
- Medical Laser Sessions
- Attendance 88
- Phillies Game

Academia throws their hat in the ring
- Ken Barat hosts (2010)
- Charles Townes (our first Nobel Prize speaker)
  - Tour of Advanced Light Source
  - Laser turns 50
  - Attendance 165
  - Fee raised to $75
• Judy Reilly hosts (2011)
• Jeff Hecht (Keynote)
• Red Sox Game (Kentek)
• MIT Museum Night
Operation of Workshop transferred from Ken (retiring) to EFCOG late 2011
- Mike Woods hosts
- Attendance 153
- Tour LCLS

The Laser Safety Subgroup (EFCOG) gives Ken Appreciation Award
Excellent show put on by SLAC at first EFCOG run Workshop
• Josh Hadler hosts (2013)
  • Attendance 125
  • Keynote-Dave Wineland (2012 Nobel Laureate in Physics)
  • Brewery tour (Laservision)
  • Fee $150
• Mother Nature
- LLNL – Attendance
- Insert Class Photo ###
Have we met our Goal?

- Practical Laser Safety by and for Laser Safety Officers
- Hosted by different and unique facilities
- Chance to meet face-to-face with Exhibitors
- A forum for discussion
- Networking

- CEUs provided at most economical rate in the industry
Where do we go from here?

- Difficult to assemble every year
  - Competing with ILSC
  - Travel budgets are tight
- Will meet on off years of ILSC
- Next ILSC – March 2015 Albuquerque, NM
- Next LSO Workshop will be held in 2016
Acknowledgements

- Ken Barat
  - For the historical knowledge on the history

- Connon Odom
  - For photographic documentation of events

- All previous hosts
  - Considerable efforts made to put on great workshop and showcasing your particular Facilities.
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Fermilab’s Holometer experiment will use the most sensitive laser interferometer ever built.

Lasers are also an integral component in Fermilab’s work to develop the next generation of superconducting radio frequency accelerators.