Minutes (Draft 1)
ASC-OP/TF7 – Laser Applications

Sunday, February 14, 2016
Potrero Hill Room, Intercontinental Hotel, San Francisco, CA
Meeting at Photonics West

Attendees

<table>
<thead>
<tr>
<th>NIST, Leonard Hanssen</th>
<th>Northrop Grumman, Donna Howland</th>
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<tbody>
<tr>
<td>Spica Technologies, Michael Thomas</td>
<td>HELM Dynamics, Jon McGuire</td>
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<tr>
<td>Northrop Grumman, Jon Arenberg</td>
<td>Sandia, John Bellum (phoned in)</td>
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<tr>
<td>NIST, Marla Dowell</td>
<td>Northrop Grumman, James Chung</td>
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<td>Triptar, Allen Krisiloff</td>
<td>REO, Trey Turner</td>
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Called to Order at 10:10 PST
Michael T., Facilitator

Motion to accept minutes
Motion/Second/Vote: Jon A. / Trey T. / 100%

Additional contributors and participants
All attendees support an advertising campaign to raise awareness about the activities of TF7. It can improve participation and overall interest in the future standard. The vagueness and confusion about specifying and measuring resistance to laser damage is common.

Supply Allen K. with ideas for advertising content and contact info for additional people who should be placed onto our distribution list.

ISO 21254
Trey T. reported a project to revise ISO 21254 has been approved. That will give us the opportunity to work directly on the ISO level as we draft a domestic standard. In the end, we might not need the domestic standard.

Marla D. will try to organize a meeting of our American TAG to SC9 at the Boulder Damage Symposium.
We are expecting that the German delegation to SC9 will be willing work closely with the American delegation in correcting the errors of ISO 21254.

**Presentation and Outline of Concerns and Opportunities**

Jon reviewed the basic mathematics that guide the assessment of a surface’s sensitivity to laser damage. He suggested that all users of laser damage specifications can be divided into two groups: those who want to pass or fail a particular surface (Type 1 users), and those who want to understand and improve the durability of those surfaces (Type 2 users).

The general consensus was that Type 1 users are the bigger and more critical audience. Current damage standards are just not fulfilling their needs for meaningful and repeatable assessments of pass and fail.

Type 2 users represent a more research and product development community who need to develop the probability function of laser damage at a specified fluence for a particular type of coating or bare surface or the manufacturing process used to create the coating or surface.

It was decided to address the needs of Type 1 users first by developing a vocabulary and testing procedure that addresses those their needs. We need to wean the community away from the concept of a laser damage threshold, and redirect attention to the fact that resistance to damage is a probability. Analogies exits in other disciplines of engineering, such as structural engineering. Specifications for bridges refer to the probability of failure at higher loads; they do not specify thresholds of failure.

By early April, Jon A. and Mike T. will create a first draft built upon ISO 21254 Part 3.

**Next Meeting**

Teleconference on April 5, 2016 (10:30 PDT, 13:30 EDT)

Motion/Second/Vote: Allen K. / Marla D. / 100%

**Adjourned at 12:50 PST**

Motion/Second/Vote: Jon M. / Jon A. / 100%