Draft Minutes
ASC OP/TF 4- Committee for Optics and Electro-Optical Instruments – Optics Drawings
Photonics West
Intercontenental Hotel
Stocton Room, 5th floor
San Francisco, CA

February 2nd, 2020, 15:30-16:30 PST

1. Introductions and assign note taker

Dave Aikens opened the meeting at 15:34 PST. No introductions were necessary as everyone already knew each other. Adam Phenis volunteered to take notes during the meeting. Dave Aikens explained that the real purpose of meeting is to look at OP1.005 which sort of fell apart when TF3 fell apart. This will be addressed in section 5 below.

2. Adoption of the draft agenda.

Leonard Hanssen moved we adopt the agenda v2 without changes, Allen Krisiloff seconded the motion, which carried unanimously.

3. Approval of minutes of the previous meeting.

Adam Phenis moved we accept the meeting minutes from the last meeting (Feburary 2019). Patrick Augino seconded and the motion passed.

4. Review status of process to expedite release of ISO standards as American National Standards

Allen Krisiloff brought us up to speed on the new process and the status of the adoption of the ISO 10110 standards. He plans to send out the ballot for general strategy right after the meeting, and follow it with ballots for the other parts as they are completed. Dave Aikens suggested we add ISO 9211 to our list of ANS adoptions. Dave also proposed we change the numbering to match the ISO equivalent to improve name recognition. Names should be ANSI/OEOSC ISO 10110-xx. Allen to investigate and do what can be done within ANSI's rules.

There was a brief discussion about what to do about defunct standards that are referenced in the published versions. The consensus was to just publish the standards as-is, and revise at the ISO level.

The committee thanked Allen for the work he has done in moving this important initiative forward.

5. Review of draft OP1.005 for discussion

Dave Aikens presented the last updated version of OP1.005.

This project is being led by Elena Kasman (ANL) with support from Peter Takacs (BNL) and Dave Aikens.

To move forward we need to reconcile the different positions of Peter Takacs and Paul Murphy.

Waviness, texture, de-windowing, etc. are not defined anywhere for a guide how to use 10110-8. Definitions will need to be added.

Key points of contention that need to be agreed upon before some text is put down.

5.1.4 ROI – There was a thought that this was needed and now it seems to complicate things more and is not needed. Want instead to calculate over a square area because of the mathematics of a discreet Fourier Transform. If have round area, then identify calculation regions. This is a big issue that impacts the whole document. Elina Kasman offered a proposal to fill a circular dataset with multiple rectangles. To figure this out, we need to determine how much of the area needs to be filled in. But, small areas do not represent low frequency information well. Basically, by filling in the area with multiple rectangles, we may require as large of a rectangle as possible to get the low frequency information and the smaller rectangles at the edges then need to rely on the larger rectangles for this data. There was some concern about irregularly shaped data (like a snake), could mean that you do not have enough data to get the low frequency data. So, for someone using the standard, a note in the calculation to caution about extracting low frequency data.

We then discussed Paul's suggested Section 8 additions – Voids and holes – and how to deal with gaps in the data since this impacts the FT. This is a problem that needs to be addressed with suggestions as to what is acceptable.

Bullseye pattern – Currently being solved in Fizeau interferometers sold by Zygo (under patent) for their "ring of fire" geometry. Need to be clear about this problem because you cannot remove it in software. We will need to inform the user that there are ways to deal with this with hardware.

Windowing – There was general consensus that windowing is important to get rid of the edge effects. Need to decide if we should say what method of windowing is to be used or if multiple options can be offered with details of the impact of each option.

Slope error – We need to clarify that slope and height are not interchangeable and put in a note of caution for the user calculating height from slope data.

Test dataset in Annex c needs to be expanded to be 2D versus current 1D

The group discussed forming a subgroup to work on the next revision of the standard. As a minimum, we will need input from Dave Aikens, Elena Kasman, Paul Murphy, Peter Takacs, Valerie Yaschuk, Michael North-Morris, and Chris Evans, but others are welcome.

6. **Items not on the agenda**

Dave Aikens asked the group to reach out for any possible diffractive optics experts to help out on Part 16. Dave Aikens has identified David Cooke of SSI, and will contact other manufacturers.

7. **Action items review**

- Action: Elena Kasman write “one pager” for OP1.005 discussions
- Action: Dave Aikens to setup OP1.005 conference call
- Action: Allen Krisiloff to make ballot modifications as recommended
- Action: Allen Krisiloff to add 9211 to list
- Action: Allen Krisiloff to confirm that doc designation can change from OP1.0110 to ISO 10110
- Action: Allen Krisiloff to work with admin to work through the ISO parts in reverse release date order

8. **Time and place for next meeting of TF4**

Adam Phenis moved we next meet at Photonics West, unless the group makes enough progress that we could meet again it O&P. Elina Kasman seconded and the motion carried.

9. **Adjourn**

Adam Phenis moved we adjourn, Patrick Augino seconded, and the motion carried. We adjourned at 16:46 PST.