

Draft Minutes  
ASC OP/TF 5- Committee for Optics and Electro-Optical Instruments - Aspheric Optics

August 2<sup>nd</sup>, 2011, 11:00-12:00 EDT

Held by teleconference

**1. Welcome and Introductions**

R. Youngworth opened the meeting at 11:03 EDT with introductions. On the phone were D. Aikens, R. Williamson, S. Kiontke, C. Supranowitz, N. Smith, D. Howland, S. Bambrick, R. Youngworth, P. Takacs.

R. Youngworth also introduced the issues and scope of the group. New aspheric formalisms are available and being developed. How do we keep track of them, and make sure they are reflected in the standards.

**2. Adoption of Agenda**

D. Aikens moved we adopt the agenda, and P. Takacs seconded the motion, which carried. The group all had access to the meeting documents that have been placed online.

**3. Goals and TF5 Charter**

R. Youngworth opened the main discussion with some general guidance that we are likely going to be more advising other groups, rather than developing standards themselves. The goal will be to help coordinate the efforts in the US and the world to properly develop the standards for aspheric formalisms. TF5 should develop a position for the NWP for freeform optics standard, and provide experts for that effort.

*Action:* D. Aikens to circulate info about Freeform proposal and solicit ballot feedback.

*Action:* R. Youngworth to compose group goals and TF5 charter for guidance.

**4. Aspheres in Standards**

R. Youngworth solicited the group for places in standards where aspherics are an important consideration. Aspheres are an important consideration in ISO 10110-12 and the new effort for freeform optics. In addition, there is relevance for ISO 10110-8 (texture), ISO 10110-6 (centring), and ISOTR 14999-2.

*Action:* D. Aikens will provide R. Youngworth with contact information for M. Bray.

*Action:* R. Youngworth to reach out to M. Bray to expand our outreach to include the French delegation.

*Action:* R. Youngworth will start to track what is in standards and what needs to be edited or managed.

**5. Current Formalisms**

R. Youngworth asked everyone for a list of the different kinds of mathematical formalisms. There are Q-type or Forbes aspheres, Zernike polynomials, Graham polynomials, radial basis functions, Lagrange polynomials, Chebychev polynomials, and Tabor? Polynomials, which are orthogonal over an annulus. D. Aikens said that he thought we could use more Q-type polynomials that can be applied to rectangular and annular apertures.

*Action:* R. Youngworth will compose a starting list of current formalisms, circulate it, and solicit further input.

## **6. Known Meetings and Activities**

R. Youngworth noted that there are lots of conferences over time, through SPIE, ASPE and OSA. The next conference is SPIE O and P, followed by the European Optical Design Conference. This is an off-year for ASPE Freeform optics. There is now an OSA incubator meeting on Halloween in Washington DC, consisting mostly of academics. We have not been asked to give an invited paper.

R. Youngworth asked if anyone planned to attend the meeting in DC. No one seems to be able to attend.. P. Takacs pointed out that the x-ray community is very interested in grazing incidence toroids. There are usually sessions on aspheric optics at x-ray conferences.

*Action:* R. Youngworth to follow up with Jessica Nelson to find out if anyone from Optimax will be attending the DC conference.

*Action:* C. Supranowitz to let the group know who from QED will be going to DC.

*Action:* R. Youngworth will compose a running list of known meetings and activities, circulate and solicit further input.

## **7. Review of Action Items**

*Action:* D. Aikens to circulate info about Freeform proposal and solicit ballot feedback.

*Action:* R. Youngworth to compose group goals and TF5 charter for guidance.

*Action:* D. Aikens will provide R. Youngworth with contact information for M. Bray.

*Action:* R. Youngworth to reach out to M. Bray to expand our outreach to include the French delegation.

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*Action:* R. Youngworth will compose a running list of known meetings and activities, circulate and solicit further input.

## **8. Time and place for next meeting**

R. Youngworth committed to getting minutes out by the 16<sup>th</sup> Of August 2011. He also offered that any extra input was welcome up to the 12<sup>th</sup> of August 2011. D. Aikens moved that we meet again by teleconference 11:00 on Thursday, January 12<sup>th</sup>, 2012. P. Takacs seconded, and the motion carried.

## **9. Adjourn**

D. Howland moved to adjourn, seconded by P. Takacs , which carried. The meeting adjourned at 11:58 EDT.