

Approved
 ASC OP1 ASC OP/SC 1, BSR/OEOSC-OP1.002, Optics and Electro-Optical Instruments – Optical Elements and Assemblies —
 Appearance Imperfections Task Force Draft Standard Review
 Sunday, January 26, 2003
 8:30 a.m. — 4:30 p.m.
 Fairmont Hotel, Valley Room
 170 South Market Street
 San José, CA 95113

Attending

<input checked="" type="checkbox"/>	Committee Members(9/17)	Representing
<input checked="" type="checkbox"/>	David Aikens	Zygo Corporation
<input type="checkbox"/>	Sam Bailey	Davidson Optronics, Inc.
<input checked="" type="checkbox"/>	Gordon Boulton	OCLI
<input checked="" type="checkbox"/>	Walt Czajkowski	APOMA
<input type="checkbox"/>	Frank Dombrowski	Gage-Line Technology, Inc.
<input checked="" type="checkbox"/>	Lincoln Endelman	SPIE Standards Committee
<input checked="" type="checkbox"/>	John M. Hamilton	Northrop Grumman Corporation
<input checked="" type="checkbox"/>	Jonathan E. Hardis	NIST
<input type="checkbox"/>	Rudolf Hartmann	Retired
<input checked="" type="checkbox"/>	Hal Johnson	Harold Johnson Optical Lab.
<input type="checkbox"/>	Yajun Li	Symbol Technologies, Inc.
<input type="checkbox"/>	Bruce Netherton	Spectra-Physics
<input type="checkbox"/>	Joseph Oberheuser	OSA (ITT)
<input checked="" type="checkbox"/>	Harvey Pollicove	COM
<input type="checkbox"/>	Kathleen Richardson	Schott Glass Technologies
<input checked="" type="checkbox"/>	William Royall	Eastman Kodak Company
<input type="checkbox"/>	Peter Talke	Hikarai Glass Co., LTD.
Observers (4)		
<input checked="" type="checkbox"/>	Jean M. Bennett	Individual
<input checked="" type="checkbox"/>	Andrei Brunfeld	Individual
<input checked="" type="checkbox"/>	Gene Kohlenberg	OEOSC
<input checked="" type="checkbox"/>	George Nickel	Kaiser Electronics

Auditor’s Summary of Meeting

During this review session, section 2.2.1, **Clear Aperture**, was modified to eliminate reference to the diameter of a clear aperture because apertures are not always circular. Section 3.1, **General**, was reworded to make it clearer. Reference to the Army drawing for the scratch and dig reference samples was added to section 3.2.1, **Designation of Long (Scratch) and Round (Dig) Imperfections**, to make the new standard consistent with the old MIL-O-13830 specification. Section 3.5.3, **Coating Imperfections**, was changed so that the dig specification limits on the drawing apply to the coating imperfection. Alternative bullets in section 3.6.1, **Edge Chips**, were accepted and remarked with section numbers. W. Royall presented a draft based upon the former military specification for section 3.6.3, **Prisms**. Default specifications for prisms were dropped from the draft. Section 3.9 was renamed **Inspection** with new subsections 3.9.1, **Controlled Conditions** and 3.9.2, **Methods of Inspection**. Two methods of transmitted light inspection were described with illustrations, and one method of reflected light inspection was described with an illustration. John Hamilton agreed to provide gif files containing examples of imperfections for Section 4, **Examples**.

Welcome and Introductions

J. Hamilton opened the meeting at 8:39 a.m.

Adoption of Agenda

G. Kohlenberg noted that Revision C of the draft standard would be reviewed at this meeting. That draft was circulated by e-mail. W. Royall moved that the draft agenda be approved as amended. W. Czajkowski seconded the motion. The motion carried unanimously.

Approval of the September 30, 2002, ASC OP/SC 1, BSR/OEOSC-OP1.002, Optics and Electro-Optical Instruments – Optical Elements and Assemblies — Appearance Imperfections Draft Review minutes

The minutes had been distributed by e-mail. W. Royall moved that the draft minutes be approved. H. Pollicove seconded the motion, which carried unanimously.

Review surface imperfection standards schedule

J. Hamilton suggested that the committee post pone the review of the schedule until D. Aikens arrived after lunch.

Report on validation measurements

J. Hamilton stated that his company has not pursued this because of other demands for product by the government. He stated that he would not be looking at validation for at least six months.

Review experimental campaign to test magnification, lighting, and artifact

J. Hamilton said that this item would be delayed for the same reasons as the previous item.

Re-plan experimental campaign number two, rest of project

This is another item that could not be reviewed until D. Aikens arrived.

Review of BSR/OEOSC OP1.002, Rev 4c language

Discussion began with Clear Aperture. It was noted that the draft description assumed a round aperture, which is not always the case. After some discussion H. Pollicove suggested that the terms “diameter of the” be deleted from 2.2.1. G. Boulbee moved that the new wording be approved. W. Royall seconded the motion. Motion carried.

J. Hamilton asked that the wording of 3.1 General be revisited. After some discussion, it was reworded.

3.2.1 addition of Army drawing. G. Boulbee noted the John Salerno’s message reported that Brysen Optical Corp. is a source for the samples. J. Hamilton stated that the new samples are difficult to use. A general discussion concerning the standard followed. H. Pollicove stated that if this draft standard is to replace 13830, reference to the Army drawing must be included. G. Boulbee moved that reference to the Army drawing be included in the draft standards. H. Pollicove seconded the motion. The motion carried.

3.5.3 G. Boulbee moved that wording be added to the section to limit coating imperfections by the dig tolerance on the component or procurement drawings, H. Pollicove seconded the motion; the motion carried.

3.6.1 J. Hamilton read the introductory paragraph from 13830, and asked if it need to be include in this draft. After some discussion it was decided that it was instructive and was not needed. J. Hamilton proposed alternative bullets, which after some discussion, the suggestion was accepted. G. Boulbee moved that the proposed alternative bullets be accepted; J. Hardis seconded the motion. The motion carried.

The committee recessed at 10:24 am, and reconvened at 10:42 a.m.

W. Royall distributed a draft for section 3.6.3 Prisms based upon the former military specification. After some discussion it was decided to drop default specifications for prisms.

The group agreed to go buy their lunches and work through the lunch hour.

There was a lengthy discussion concerning the methods of inspection. J. Hamilton suggested that this be tabled until he and G. Boulbee can develop a proposal for reworking this section, which may be ready for the ASC OP meeting on Monday, January 27, 2003.

J. Hamilton agreed to provide the example images of imperfections for section 4.

There was a discussion about the schedule. D. Aikens volunteered to update the proposed schedule and distribute it at the ASC OP meeting on Monday, January 27, 2003.

D. Aikens said that finances are such that it would be difficult to fund R. Novak at the Monroe Community College in Rochester, NY to develop magnification, lighting, and artifact tests. D. Aikens said that he would contact R. Novak to determine what might be accomplished.

D. Aikens asked if an SBIR could be developed to get the measurements done. J. Hardis said that the SBIR route is not appropriate for this project. J. Hamilton said that he doesn't think that we really know what project we want to develop.

Time and Place for next OP Meeting

The committee will attempt to complete the draft by e-mail and will meet in Orlando at the end of the week if it cannot come to agreement by e-mail. The next scheduled meeting will be in San Diego.

Adjournment

H. Pollicove moved that the meeting be adjourned. H. Johnson seconded the motion. The meeting was adjourned at 1:42 p.m.

Meeting Continuation

On Tuesday morning, January 27, 2003, the group agreed to look at the reworking of section 3.9 prepared by J. Hamilton the previous evening before starting the scheduled ASC OP business meeting. This review lasted until 11:00 am. Section 3.9 was revised with a new title "inspection." Subsections covering "Controlled Conditions" and "Methods of Inspection" were created. "Methods of Inspection" was divided into "Transmitted Light Inspection" and "Reflected Light Inspection." Two methods of transmitted light inspection were described with illustrations, and one method of reflected light inspection was described with an illustration. J. Hamilton agreed to modify one the illustrations to make it more accurately reflect actual practice in the industry.

G. Kohlenberg said that he would distribute the draft by e-mail after he returned home from the meeting. However, first he would e-mail the edited draft to J. Hamilton for a quick confirmation that the draft represents the agreed upon changes from the San Jose meeting.