

Approved
ASC OP1 ‘Scratch and Dig’ Draft Standard Review
Monday, September 30, 2002
8:30 a.m. — 4:30 p.m.
Hyatt Orlando – Kissimmee, Pelican B Room
Kissimmee, FL

Attending

<input checked="" type="checkbox"/>	Committee Members (11/18)	Representing
<input type="checkbox"/>	David Aikens	Zygo Corporation
<input type="checkbox"/>	Sam Bailey	Davidson Optronics, Inc.
<input checked="" type="checkbox"/>	Gordon Boulton	OCLI
<input type="checkbox"/>	Andrei Brunfeld	Xyrtex
<input type="checkbox"/>	Walt Czajkowski	APOMA
<input type="checkbox"/>	Frank Dombrowski	Gage-Line Technology, Inc.
<input 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 checked="" type="checkbox"/>	Rudolf Hartmann	Honorary
<input checked="" type="checkbox"/>	Hal Johnson	Harold Johnson Optical Lab.
<input checked="" 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 checked="" type="checkbox"/>	Kathleen Richardson	Schott Glass Technologies, Inc.
<input checked="" type="checkbox"/>	William Royall	Eastman Kodak Company
<input type="checkbox"/>	Peter Talke	Hikarai Glass Co., LTD.
<hr/> Observers (3)		
<input checked="" type="checkbox"/>	Jean M. Bennett	Individual
<input checked="" type="checkbox"/>	Gene Kohlenberg	OEOSC
<input checked="" type="checkbox"/>	Alan Tourtlotte	OSA

Auditor’s Summary of Meeting

This session concentrated upon the definitions contained in this draft standard. The alternate list of definitions provided by H. Pollicove and reviewed by W. Royall were examined, edited and entered into the draft. The committee instructed the secretary to determine if all of the terms defined were actually used in the standard. Any that are not used are to be moved to the future optical terminology standard. The suggested changes by D. Aikens to the sections discussing scratch tolerances and dig tolerances were examined and accepted.

Welcome and Introductions

J. Hamilton opened the meeting at 8:35 a.m. and called for a round of introductions.

Adoption of Agenda

W. Royall moved that the draft agenda be approved. H. Pollicove seconded the motion. The motion carried unanimously.

Approval of the January 20-21, 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. G. Boulton moved that the draft minutes be approved. W. Royall seconded the motion, which carried unanimously.

Review surface imperfection standards schedule

The project schedule prepared by D. Aikens covering both the appearance standard and the future performance standard was distributed by e-mail. The schedule requires updating, but G. Boulton moved that the update of the schedule be tabled so that most of the meeting time could be devoted to editing the current document. H. Pollicove seconded the motion; the motion carried unanimously.

Report on validation measurements

J. Hamilton stated that this work has been put on hold because of changing business requirements following the events of 9/11/01.

Review experimental campaign to test magnification, lighting, and artifact

No work was completed on this project either.

Funding memo, review of results

G. Kohlenberg listed those who responded to the letter. Most of them offered either equipment or personnel to help move the project forward. H. Pollicove suggested that the committee ask all of the respondents to attend the ASC OP meeting held in conjunction with the January 2003 Photonics West conference so that the volunteers and the committee can work together to determine how each volunteer can help. He also suggested that the committee send the updated draft to them.

Re-plan experimental campaign number two, rest of project

The group agreed to table this topic until the schedule is updated.

Review of BSR/OEOSC OP1.002 language

It was noted that this is an appearance standard and many want a performance standard. The committee concluded that it first needs to update MIL-O-13830, and then proceed to a measurement-based standard.

The committee decided to check to see if the changes made during the development of this draft will affect those who are still using the former MIL-O-13830.

The group agreed to use the definition document supplied by H. Pollicove rather than the list of definitions that appear in the revision 3a draft of the new document.

Following the 25-minute recess at 10:00 a.m., the committee discussed how many of the definitions should be included. The committee decided that definitions approved during this meeting will be merged into the draft if the individual item being defined is referenced in the draft. Those that are not discussed in the draft will be moved to the future optical dictionary. J. Hardis noted that the committee needs to make sure that these changes do not cause users of the original MIL-O-13830 problems. G. Boulton had a concern about dropping the classifications of imperfections because shops may list imperfections by types. The group decided to table the discussion of the inclusion of a classification table.

G. Boulton moved that the first sentence of the definition of scratch remain as written in H. Pollicove's draft. The following sentences should be deleted. J. Hamilton proposed that the meeting be recessed for lunch to avoid the OSA attendee crowd. The motion concerning the wording was placed on hold until the meeting reconvened.

Meeting recessed at 11:38 a.m. for lunch and reconvened at 12:12p.m. The first two sentences of the Pollicove definition of scratch were kept.

The term **pullout** was added to the list of definitions. There was no definition listed for **clear aperture**, so it will have to be written including the proper description of the symbol ϕ_c .

The G. Boulton suggested edit of 3.1.2, **Conflict**, was accepted.

After reviewing the definition of **roof prism** the committee voted to preserve the definition, and not include **corner cube** in the definition.

The terms **supplier** and **user** were eliminated.

Item 3.1.5, **Default Specification**, was moved and became item 3.2.1.3 under **Notation of Imperfection tolerances**.

The meeting recessed at 1:38 p.m. and reconvened at 1:48 p.m. The review of the draft continued at item 3.1.6, **True Roof Surfaces**, with W. Royall suggesting that scratch and dig nomenclature be replaced with long and round imperfections to make

the standard more general. The wording in this item and the accompanying figure were changed to include the long and round terms.

When the committee turned its attention to section 3.2, **Notation of Imperfection Tolerances**, they discussed a concern about using the current military reference standard because some companies reject it. H. Pollicove stated that the committee is replacing the old military specification, and must reference the reference standard for completeness. The future OP performance standard will deal with the problems that result from using the military reference standard. The reference to the US Army Armament Research, Development And Engineering Center (ARDEC) drawing C7641866 was added.

The review of section 3.4, **Scratches (Long Imperfections)**, resulted in the acceptance of all of the editorial changes suggested by D. Aikens in his May 9, 2002 edits.

Recessed at 3:40 p.m.; reconvened at 3:50 p.m.

The review of section 3.5, **Digs (Round Imperfections)**, also resulted in accepting D. Aikens May 9, 2002 suggested edits. Item 3.5.3, **Other Round Surface Imperfections**, was renamed **Coating Imperfections**, and the definition rewritten. The suggested new definition must be compared to what appears in Appendix C in MIL-PRF-13830B before it is accepted. (The draft standard distributed with these draft minutes has been reedited to comply with MIL-PRF-13830B.)

The committee decided to end the draft review session before tackling section 3.6, **Edge Imperfections**.

Time and Place for next OP Meeting

H. Pollicove moved that the next draft review meeting be held in San José, CA on Sunday, January 26, 2002. G. Boulbee seconded the motion, which carried unanimously.

Adjournment

W. Royall moved that the meeting be adjourned. H. Johnson seconded the motion. The meeting was adjourned at 4:42 p.m.