

Annual Report of the OEOSC

The Year 2020 in Review

Introduction

The Optics and Electro-Optics Standards Council (OEOSC) is a private, non-profit organization that administers and coordinates the development and maintenance of standards in the field of optics. It is accredited by the American National Standards Institute (ANSI) as the Secretariat for the Accredited Standards Committee for Optics (ASC OP), which is source of American domestic standards – known as American National Standards – in general optics. The OEOSC also serves as the ANSI-accredited Administrator for the American Technical Advisory Group (TAG) to the International Standard Organization's Technical Committee 172 (ISO TC172), Optics and Photonics and its subcommittees. The OEOSC works closely with The Vision Council regarding the TAG's involvement in ophthalmic optics.

In 2020, about 120 individuals, representing about 85 companies and professional societies, contributed thousands of volunteer hours to support American domestic standardization and American representation at the ISO under the administrative guidance of the OEOSC. They drafted, reviewed, and voted on documents with a commitment to openness, balance, and consensus as required by ANSI to create meaningful voluntary standards.

The OEOSC accomplishes its administrative tasks with three part-time staffers. Its sources of revenue are participation fees collected from members of the standards committees, short-courses presented at conferences and at companies, the sale of American National Standards that it has developed or adopted from the ISO, and the reimbursement of services in support of the TAG's ophthalmic subcommittee by The Vision Council. Expenses are dues to ANSI, minimal compensation to the staffers, and other miscellaneous items, such as conferencing and website services. Total revenue for 2020 was about \$67,000. The total expenses amount to approximately \$66,500; about 50% was expended on ANSI dues.

Development of Standards

The exclusive purpose of the OEOSC is to administer and promote the development of standards in the fields of general optics, both domestically and at the ISO, and in the field of ophthalmics at the ISO. In 2020, there was activity in most of the ASC OP and TAG subcommittees; although, the COVID-19 lockdown across the globe slowed the rate of development work.

Fundamental Optical Standards

Attention in Fundamental Optics was focused on participation in ISO standards development. American requirements have been successfully added to many parts of the ISO 10110 drawing standards. Most will be adopted as American National Standards during the next year or two. Work on an American wavefront standard resumed, and initial steps were taken to revise ANS OP1.002-2017.

Materials and Coatings

The TAG's subcommittee SC3 has participated in several projects. The ASC OP approved ANS OP1.007-2020 and is available for sale on the ANSI website. It will be offered to ISO TC172 SC3 as the basis for an ISO Standard. Task Force 6 completed the approval of ANS OP1.007 and has presented it to ISO TC172 SC3 for the basis of an ISO standard.

The American IR refractive index project continues with support from NIST. Measurements of ZnSe were interrupted in the middle of the year by the COVID lockdown at NIST Gaithersburg. It resumed at a slow pace at the end of the year.

Telescopic Systems

There is no domestic standards activity in the area of telescopic systems, but the TAG subcommittee SC4 continues to provide American input to the ISO subcommittee. SC4 is working with the TC172's Ad Hoc Group on AR/VR to support and influence standards under development in the IEC.

Microscopes and Endoscopes

In ISO Subcommittee SC5, Microscopes and Endoscopes, the work on microscope standards slowed down during the year as work was completed on vocabulary standards. Another endoscope standard under American leadership was approved for publication. TAG subcommittee SC5 added two individuals to its roster in the microscope group.

Surveying Instruments

There is no domestic optical standards activity in the area of surveying instruments. Representatives from NOAA and UNCC continue to represent American interests in the business of SC6.

Ophthalmic Optics and Instruments

Domestic standards activity in the field of ophthalmics is administered by The Vision Council and the ASC Z80 committee. The OEOSC administers the TAG subcommittee SC7 which represents American interests in ophthalmics at the ISO. TAG subcommittee SC7 is the largest subcommittee in the whole TAG and is extremely active with about 50 individuals on the roster. Working groups within the subcommittee address ophthalmic instruments to measure the quality of vision and the anatomy of the eye, spectacle lenses and frames, contact lenses, intraocular lenses and surgical procedures, and data interchange.

Lasers and Electro-optics

Task Force 7 of the ASC OP continues to develop a new American laser damage standard, but its work was significantly interrupted by the COVID-19 lockdown. TC172 SC9, Lasers and Electro-optics still contributes to the American effort and will use the American standard to revise the ISO laser damage standard.

Augmented and Virtual Reality

Work on some aspects of standardization in the field of augmented and virtual reality displays proceeds in IEC committees dedicated to human factors and displays. The ISO technical committee TC172, the umbrella and parent committee for the Optics and Photonics subcommittees, continues to provide support to the IEC committees so as to leverage the optical components and systems knowledge in SC4 and the knowledge about ophthalmics in SC7.

Operations and Finances

Most members renewed during 2020. NIST rejoined as a regular after a two year absence.

Training remains a significant and important source of revenue. The cancellation of the physical meetings of the SPIE's Optics + Photonics conference and trade show in August reduced this year's training activity.

Sales of standards were down from the year before. About half the revenue for standards comes through ANSI's website; the other half comes from sales of standards as part of course offerings.

TC172 meetings in the USA

The TC172 meetings that had been planned for November 2020 in Clearwater Beach, FL were cancelled because of the COVID-19 pandemic. The OEOSC gave up a \$500 deposit and was able to cancel all contractual obligations with the hotel. Notice was relayed to the Secretariat of TC172 that the OEOSC will entertain the possibility of hosting a future meeting when the public health and economic environments return to normal. As the year closed, the ISO remained uncertain about when it might lift its moratorium on physical ISO meetings.

Conclusion

The standards committees administered by the OEOSC – the ASC OP and the TAG to ISO TC172 - are challenged in certain areas, but they are basically healthy and busy.

Respectfully Submitted,
Allen Krisiloff
Executive Director, OEOSC
2021 February 26