

Annual Report of the OEOSC

The Year 2018 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 2018, 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 two 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. The total expenses for 2018 amounted to approximately \$68,000; about 50% was expended on ANSI dues. Revenue was about \$64,000.

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 2018, there was activity in most of the ASC OP and TAG subcommittees.

Fundamental Optical Standards

Attention was focused on participation in ISO standards development. American suggestions were accepted in ISO 10110-18, ISO 12123, and several other ISO 10110 parts. Plans are to adopt ISO 10110-18 and ISO 12123 as American National Standards in 2019.

Materials and Coatings

The TAG's subcommittee SC3 submitted a proposal to start an ISO project to define infrared wavelength bands that is based on an American National Standard under development.

The Germanium index project was finished in 2018 and the results have been published. John Burnett, NIST, will measure ZnSe in 2019.

ANS OP1.007, IR Spectral Bands, is nearing completion.

Telescopic Systems

There is no domestic standards activity in the area of telescopic systems, but the ISO subcommittee SC4 is actively working on about 4 standards. The TAG subcommittee SC4 continues to provide American input to the ISO subcommittee; however, with just 2 active members, it is looking for more involvement from the American sport optics industry.

Microscopes and Endoscopes

There is no domestic standards activity in the area of microscopes and endoscopes. The ISO Subcommittee SC5 is quite busy, and the TAG subcommittee SC5 actively represents American interests. Several new endoscope projects are under the direction of the American TAG.

Surveying Instruments

There is no domestic optical standards activity in the area of surveying instruments. The NOAA joined the committee. We now have two members actively reading ISO drafts in TAG SC6. American industry's low level of interest in this subcommittee has been a challenge for many years.

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.

In 2018, ISO ophthalmic standards and technical reports were published or advanced with American leadership and input in the areas of testing visual acuity, labels for contact lenses, biological and chemical compatibility of contact lenses and solutions, guidance for surgery and intraocular implants, nickel release and measurement of frames, specifications for single and multi-power spectacle lenses, and the challenge of understanding the possible role of extended exposure to deep-blue light in retinal pathologies.

Lasers and Electro-optics

The TAG subcommittee SC9, Lasers and Electro-optics, introduced to the ISO the work under development in ASC OP on the development of an ANS for laser damage terminology and measurement. A member of the American TAG was designated project leader for an ISO project that will grow out of the American domestic effort. Members of the ISO subcommittee have become excited about the improvements suggested by the American TAG.

Augmented and Virtual Reality

Work on some aspects of standardization in the field proceeds in IEC and ISO committees dedicated to human factors and displays. The ISO technical committee TC172, the umbrella and parent committee for the Optics and Photonics subcommittees, initiated an investigation into the relevance of starting an AVR project with the possibility of creating a new subcommittee in the next several years. Liaisons with IEC TC124 and IEC TC110 have been established. Avenues of cooperation are being investigated.

Operations and Finances

We have lost the sponsorship of NIST, which pushed our P&L into the red in 2018. We are working to reverse that decision and to find new members. NOAA, Ball Aerospace, and Blue Ridge Optics became members in 2018.

Training remains a significant and important source of revenue. A number of technical presentations at conferences in 2018 were very well attended and are generating more interest in standards documents and training. A poster that maps MIL and ISO drawing specifications has been received very well. A PDF version is available for download from OEOSC's website. SPIE and Optimax are helping with its distribution.

Sales of standards in 2018 matched those of 2017. OEOSC's standards are sold through ANSI's website; ANSI takes a fee of 30% of the selling price.

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. The

OEOSC is challenged to replace lost membership revenue and increase training revenue over the next year.

Respectfully Submitted,
Allen Krisiloff
Executive Director, OEOSC
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