

Editorial | ASCE 7-16 and Beyond



ASCE 7-16 Now Available

By Ronald O. Hamburger, S.E., P.E., SECB, F.SEI

After six years of intensive effort by nearly 350 volunteers, the 2016 edition of the ASCE 7 *Standard on Minimum Design Loads and Associated Criteria for Buildings and Other Structures* (ASCE/SEI 7-16) is now complete and available for purchase through the ASCE bookstore (www.asce.org/asce-7). The new standard incorporates many improvements over the previous edition, including: updated hazard maps for atmospheric icing, earthquake, snow and wind; a new appendix on performance-based fire resistive design of structures; a new chapter on design for tsunami effects; new criteria for linear and nonlinear dynamic seismic analysis; new criteria for mounting PV units on roofs; and, significantly improved rain load criteria. The updated standard has been formally adopted for reference in the 2018 *International Building Code* (IBC) but is already being used by some designers to take advantage of the improved criteria and, in some cases, to reduce loading below levels currently specified. The IBC adoption of ASCE 7-16 also eliminates much of the redundancy and differences between the code and the standard.

The traditional paper edition is available in a 2-volume set, Volume 1 containing the provisions and Volume 2 the extensive commentary. As an alternative to the paper copy, many users will prefer the new web-based electronic access to the standard: *ASCE 7 Online*. This platform allows users to make custom notes, either on a company or individual basis, to view standards requirements and commentary side by side, to copy and paste provisions to facilitate reference to the standard in project documents and other useful features. Also new and available separately, the *ASCE 7 Hazard Tool* is a web-based tool that provides geo-based lookup of all hazard data – seismic, ice, snow, tsunami, flood, and wind parameters – based on user input of latitude and longitude or selection from a map. For tsunami loads, the new ASCE Tsunami Design Geodatabase application provides users with the necessary data required by the provisions, including the ability to draw transects through project sites.

Call for New Members

Even as the ink dries on ASCE 7-16, we are starting work to produce the 2022 edition. Over the years, the engineering community has demanded simplification of the standard to make it easier to use on routine projects. As

the continuing Chair of the committee, I hope to make this a focus of the committee's work. Other important goals include continued reduction in the duplication and contradictions between IBC and the standard; coordination with ACI, AISC, AWC and TMS to further harmonize our standards; and further facilitation of performance-based procedures. Of note, there is significant interest in formulating performance-based wind design procedures paralleling those already available for earthquake, fire, and tsunami.

In addition to these technical goals, we hope to significantly broaden the structural engineering profession's access and impact on the standards development process. Following completion of ASCE 7-16, we dismissed the committee, with thanks for their efforts, and put forward a call for volunteers to serve on the reconstituted committee. To produce the ASCE 7-22 standard, we will need a large group of practicing engineers with broad experience and technical backgrounds including designers, building officials, researchers, contractors, and product suppliers. In particular, SEI has made engagement of younger engineers in the process a priority and has established a fund to provide financial support for younger participants. I encourage all engineers with interest in improving the standard and having an impact on the profession's future to apply online for membership at <http://bit.ly/2wAjqjB>. The membership application is available in two grades, including voting and associate membership of the main committee as well as each of the subcommittees on General Requirements, Load Combinations, Dead & Live Loads; Flood, Tsunami; Rain & Snow; Atmospheric Icing; Seismic; and Wind. Typically, the committee membership includes several hundred participants in the process including persons with broad experience and background, as well as those with expertise in specialized areas. Applications will be accepted through September 30, 2017.

Theme Sessions at Summit and Congress

As we start the new cycle, we will also seek input from the profession on improvements to the standard at the 2017 NCSEA Summit in Washington D.C., October 11-14 (www.ncsea.com/meetings/annual-conference/) and also during the 2018 SEI Structures Congress in Fort Worth. The Summit technical program will include a 2-hour panel discussion on means by which use of the standard can be simplified on Thursday, October 12. Committee leadership will put forward ideas and solicit direct feedback from NCSEA Summit session attendees. A similar session will be held next April at the SEI Structures Congress (www.structurescongress.org).

Conclusion

As ASCE 7 Chair for both the 2016 and 2022 cycles, I wish to note my personal appreciation of the extraordinary efforts of the more than 300 volunteers who contributed to the development of ASCE 7-16. I also hope that each of you reading this article will seriously consider becoming involved in the important work of producing ASCE 7-22, either by participating on the committee, joining us in one of the upcoming sessions at the NCSEA Summit and SEI Structures Congress, and submitting proposals for change to the standard online. For any questions regarding ASCE 7, contact Jennifer Goupil at jgoupil@asce.org.



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