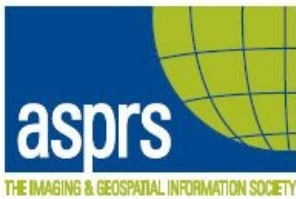


ASPRS Releases Positional Accuracy Standards for Digital Geospatial Data



The American Society for Photogrammetry and Remote Sensing (ASPRS) has announced the release of the new Positional Accuracy Standards for Digital Geospatial Data. The new ASPRS accuracy standards fulfil a critical need for map users and map makers alike. For centuries, map scale and contour interval have been used as an indication of map accuracy. Users want to know how accurately they can measure different things on a map, and map makers want to know how accurate maps need to be in order to satisfy user requirements.

Those contracting for new maps depend on some form of map accuracy standard to evaluate the trade-off between the accuracy required vs. how much time and expense are justified in achieving it, and then to describe the accuracy of the result in a uniform way

that is reliable, defensible and repeatable.

The new ASPRS standards address recent innovations in digital imaging and non-imaging sensors, airborne GPS, inertial measurement units (IMU) and aerial triangulation (AT) technologies. Unlike prior standards, the new standards are independent of scale and contour interval, they address higher levels of accuracies achievable by the latest technologies (e.g. unmanned aerial systems and Lidar mobile mapping systems), and they provide enough flexibility to be applicable to future technologies as they are developed. Finally, the new standards provide cross references to older standards, as well as detailed guidance for a wide range of potential applications.

Mapping technology

No prior US accuracy standard comprehensively addresses the current state of mapping technology, which is why the new ASPRS standards were developed. The National Map Accuracy Standards (NMAS), developed in 1947, are still used because they are simple, but there is no scientific correlation between those standards and current mapping methodologies. The ASPRS 1990 Standards were an improvement over NMAS; however, they did not do well in representing the capabilities of Lidar, orthoimagery, digital mapping cameras or other current technologies in wide-spread use today. The National Standard for Spatial Data Accuracy (NSSDA) is a reporting standard that references the old ASPRS 1990 standards and is cross-referenced in the new ASPRS standards. NSSDA provides no accuracy thresholds and does not by itself provide any new or updated guidance on how to select or specify an appropriate accuracy for intended applications.

Working group

The new ASPRS standards were developed by the ASPRS Map Accuracy Standards Working Group, a joint committee under the Photogrammetric Applications Division, Primary Data Acquisition Division and Lidar Division, which was formed for the purpose of reviewing and updating ASPRS map accuracy standards to reflect current technologies. A subcommittee of this group, consisting of Dr. Qassim Abdullah, Dr. David Maune, Doug Smith, and Hans Karl Heidemann, was responsible for drafting the document. Draft versions of the standard underwent extensive review, both within ASPRS as well as through public review by other key geospatial mapping organisations, prior to final approval by the ASPRS Board of Directors on 17 November 2014.

The new standards are available at: <http://www.asprs.org/Standards-Activities.html>. Readers can navigate to the ASPRS Positional Accuracy Standards for Digital Geospatial Data.