NGS Aeronautical Survey Program

NOAA’s National Geodetic Survey (NGS) has been performing aeronautical surveys since the 1920’s when it was known as the U.S. Coast and Geodetic Survey. The survey data provides the critical runway, obstruction, navigation-aid, and airport-feature information required to safely fly into airports nationwide.

The Federal Aviation Administration (FAA) uses the data to develop instrument approach and departure procedures, determine maximum takeoff weights, update aeronautical databases and publications, and prepare airport planning and engineering studies. NGS develops survey standards, guidelines, models, and tools designed to assist surveyors conducting aeronautical surveys.

To meet recent demands, the NGS Aeronautical Survey Program (ASP) has shifted from conducting surveys to providing quality assurance and guidance for airport surveys contracted by airport sponsors in support of the FAA Airports Surveying GIS Program. While the number of NGS aeronautical surveys is reduced, NGS’ expertise is greatly leveraged. NGS utilizes a combination of in-house photogrammetric analysis and field survey methods to ensure the airport safety-critical data is compliant with FAA advisory circulars.

Additionally, NGS participates in accuracy assessment studies of new and emerging technologies—such as Light Detection and Ranging (LiDAR) and satellite imagery—that can be leveraged to support the collection of aeronautical information.

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