



**Federal Aviation
Administration**

Airport Surveying-GIS Program

**Project Survey Plan for
AC 150/5300-16**

Airport Name	State	Location Identifier
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Submitting Organization Information

Name: _____

Address Line 1: _____

Address Line2: _____

City: _____

State: _____

Zip Code: _____

Telephone Number: _____

Fax Number: _____

Contact Person Name: _____

Contact Person Email Address: _____

Estimated Start Date	Estimated Completion Date
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Identify method will use to establish accurate connection to the National Spatial Reference System

Project will establish permanent Geodetic Control

Project will use existing permanent Geodetic Control

Project will establish and use temporary Geodetic Control

1. Project Summary: This section should describe the *WHAT* and *WHY* of the project. List the information from the statement of work describing what level of geodetic control should be used and how it will be processed. This section should also identify the following information.

- a. Airport contact and access information
- b. Whether airport is controlled or uncontrolled
- c. Whether or not an escort is required
- d. Airport radio frequencies
- e. Intervisibility conditions between the PACS and SACS
- f. Comments on any future construction, unusual circumstances, use of witness posts, and any other miscellaneous information.

2. Station Table: Fill out the Station Table and Reconnaissance Checklist, documenting the information regarding the stations in the project.

For new stations, include the proposed name in the "Name" column, identify them as "proposed" in the "Station Type" column, and indicate the proposed type of mark (rod, concrete, disk in bedrock) in the "Comments" column.

For existing stations, the name and PID must be used exactly as listed in the NGS database and must be this way in all survey records. For existing stations found but not proposed for use, state the reason(s) in the Comments and Recommendations" column. Identify the PACS, SACS, and all NSRS ties for the airport. Give status of marks not used and the reason.

3. Station Reconnaissance: Describe what methods the contractor will use to identify and reconnoiter existing control on and surrounding the airport. Summarize planned reconnaissance activities including the recovery of existing monuments and methods used to identify candidate stations for use in establishing a datum tie to the NSRS for the survey.

<p>4. Airport Control Plot: Plot all "suitable" control on or near each airport on an airport map. Label each station with its designation and indicate if it is a PACS, SACS, Bench Mark, HARN Tie, or subsidiary control. Refer to appendix 5 of AC 150/5300-16 for an example airport control plot.</p>
<p>5. Photographs: Submit photographs in accordance with AC 150/5300-16 section 8.2.10 for all suitable stations recovered during the survey, and for all new monuments that will be set.</p>
<p>6. Station Location Sketch and Visibility Diagrams: Submit a Location Sketch and Visibility Diagram form to provide information from the control reconnaissance on the station. Submit forms for all suitable stations recovered during the reconnaissance, and for all new monuments to be set</p>
<p>7. Station Descriptions: Submit a Survey Station Description and Recovery form for each station. The descriptions provided in each form should be verified by the field team as they travel to each station for occupation. Discuss who, when and how the stations will be described appropriately using the WINDESC software for entry into the national database.</p>
<p>8. GPS Observing Scheme: In this section discuss the length of sessions and number of occupations required to meet the requirements of AC 150/5300-16. This section should also identify the CORS, HARN, Benchmark and any A-order ties for the airport. Provide separate GPS observation schemes for the PACS and SACS. When establishing temporary control discuss the length of sessions and number of occupations used.</p>
<p>9. Project Vector Diagram: Provide two diagrams, one depicting all stations occupied throughout the project area (except the SACS).</p> <ol style="list-style-type: none"> Symbolically distinguish whether each station is a CORS, PACS, HARN Tie, Bench Mark or combination. Include 300km (or appropriate scale) dashed circles around CORS and CTCORS, and 50 km circles around PACS. Show the GPS vectors used for processing. <p>Provide a second larger scale diagram depicting the relationship of the PACS and SACS including GPS vectors used for processing.</p>
<p>10. Proposed Instrumentation List: Provide a complete listing of the survey equipment (GPS receivers, antennas, levels, etc.) to be used in the project. List the brand, model, and serial numbers for all survey equipment.</p>
<p>11. Data Processing Software: Specify software name and version for the data processing software proposed for use. Ensure the current version of all software is used</p>
<p>12. Quality Assurance – In this section describe HOW the contractor proposes to ensure the collection and delivery of quality data meeting the requirements. Describe the quality control measures that will be in place to ensure that all data will be checked, complete, and reliable and meet the accuracy requirements in these General Specifications (including error analysis).</p> <ol style="list-style-type: none"> Describe how the contractor will complete and document checking of all manual computations (including check marks and initials) Describe how the contractor will complete and document checking all manual data computer entries Describe how the contractor will complete and document checking of file formats Describe how the contractor will complete and document checking all reports and data prior to submission. Describe how the contractor will backed up the collected and processed data and how they will ensure original data is not modified.
<p>13. Data Format: The final required section should describe how the field and office data are combined into a final data set for delivery. It should discuss what software will be used to develop the data set and how the data, features and feature attribution will be compiled.</p>

14. Other information (Optional): In this section of the plan discuss any information the contractor feels is relevant to the project that is not described elsewhere in the plan. One potential use of this section is to describe potential challenges for the data collection efforts and how the contractor proposes to reduce or mitigate these challenges.