

REQUEST FOR PROPOSALS
AERONAUTICAL SURVEY AND AIRPORT AIRSPACE ANALYSIS
FOR
TRUCKEE-TAHOE AIRPORT (KTRK), TRUCKEE, CA

The Truckee Tahoe Airport District, Truckee, California is seeking qualified firms to provide professional services for Aeronautical Survey and Airport Airspace Analysis at the Truckee Tahoe Airport (KTRK).

Bids and bidder's qualifications will be received until **5:00 PM PDT, July 28, 2017** at the Truckee Tahoe Airport District offices, 10356 Truckee Tahoe Airport Road, Truckee, CA 96161 or via email to hardy.bullock@truckee-tahoeairport.com. Proposals submitted by postal/parcel service must be labeled; ATTN: Hardy S. Bullock. Bidders shall ensure delivery/receipt confirmation for email submissions.

PROJECT DESCRIPTION:

The airport elevation of KTRK and surrounding terrain can present challenges for flight crews, particularly in Instrument Meteorological Conditions (IMC). In an effort to reduce environmental impacts to the community and improve safety, the Truckee Tahoe Airport District (herein referred to as The District) is requesting bids for Aeronautical Survey and Airport Airspace Analysis to assist in the development of vertically guided approach and departures procedures for KTRK Runways 11/29 and 02/20, and revisions/updates to the Airport Layout Plan (ALP) to support airport planning purposes. All survey and mapping services shall meet the standards outlined in the current version(s), as of bid due date, of FAA Advisory Circulars 150/5300 -16, -17 and -18 and submitted to the FAA Office of Airports, Airport Surveying-GIS Program.

Data providers should make maximum use of existing data for the airport which is traceable to the source to meet the requirements of this proposal before undertaking additional data collection. Data collected or proposed for use in this project must meet the tolerances specified in the above Advisory Circulars at the 95 percent confidence level (RMSE) before being used in the project or as part of the required deliverables.

The Consultant will be responsible for the submission, and subsequent acceptance, of all data to the FAA National Geodetic Survey (NGS) in the format(s) specified as outlined in the appropriate advisory circular. All data submissions to the FAA will be through the program's web site; <http://Airports-GIS.faa.gov>.

The Consultant will submit weekly project status reports on the project through the FAA Airports GIS web site. The reports will contain progress updates and any significant issues with the project including deviations from the planned schedule.

At the conclusion of this contract, a copy of all data collected will be turned over to The District, or its designee, in ESRI ArcGIS and CAD formats.

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The Consultant must submit, via the A-GIS website and have approved by the FAA/NGS the following required implementation plan(s) prior to commencing fieldwork.

- Imagery
- Survey and Quality Control
- Geodetic Control Plan

SCOPE OF SERVICES:

Specific services must include but are not limited to:

1. Prior to commencement of fieldwork, the Consultant will submit Survey and Quality Control Plans to the Airport Surveying – GIS Program Manager via the Airports Geographic Information System website for review and approval. No fieldwork will be performed prior to review and acceptance of the plan by the governing agencies. Consultants should identify any special circumstances or unusual conditions which may impact the team’s approach to completion of fieldwork.
2. The Consultant will tie the airport survey to the National Spatial Reference System (NSRS) using a permanent connection processed according to AC 150/5300-16. Consultants will provide the required deliverables identified in the appropriate AC through the AGIS web site.
 - a. The surveys shall be based on the North American Datum of 1983, 2011 adjustment at epoch 2010.0 (NAD83(2011)). Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88). Geoid heights will come from the NGS GEOID12B model. Grid coordinates will be reported in CA-2 zone (0402) in units of U.S. Survey Foot.
 - b. The District does not guarantee the existence, condition or accuracy of any Primary or Secondary Airport Control Station(s) (PACS/SACS). If it is determined that there are no existing PACS/SACS or they are found to be damaged or otherwise unusable, the Consultant will establish temporary geodetic control per AC 150/5300-16.
3. The Consultant will conduct an Airport Airspace Analysis to support the development of vertically guided approach and departure procedures servicing Truckee-Tahoe Airport (TRK) runways 11/29 and 2/20 in accordance with FAA Advisory Circulars 150/5300-16, -17 and -18,

AND

Obstruction Analysis per 14 Code of Federal Regulations Part 77 and AC 150/5070-6 “Airport Master Plans” for revisions/updates to the Airport Layout Plan.

4. Collect the position, elevation, and where required, the appropriate navigational aid perpendicular point of all electronic and visual navigational aids (NAVAIDS) on the airport and/or associated with a current instrument approach servicing the airport,

5. KTRK is not a 14 CFR 139 certified airport therefore the Consultant will collect runway profile data along the runway centerline at 50-foot stations for runways 11/29 and 2/20 according to the standards in AC 150/5300-18, paragraph 2.6.10.5.4.
6. Imagery
 - a. Per AC 150/5300-17, imagery will show full leaf coverage.
 - b. Minimum scale/resolution;

	Airport Property	Airspace Areas
Aerial Photography	1"=300'	1'=1,333'
Orthophoto Data	0.25' Digital color pixel	1.0' Digital color pixel

7. Appendix A of this document is provided as a reference to required task per AC 150/530-18.

SURVEY CONTRACTOR SELECTION CRITERIA:

In addition to pricing, the bidder shall submit their qualifications citing their capability to execute the work in this document. The Consultant shall include any licensing, certifications or other credentials indicating their eligibility to provide the required services in the State of California.

The following criteria may be used in the evaluation of Request for Proposals (RFPs) and in developing a list of qualified contracting firms. The evaluation items are listed in order of relative importance:

1. Qualifications of the Project Manager and Project Team

Project Managers and Project Teams should have:

- Demonstrated all necessary professional engineering, architectural, surveying, planning and project management services related to performing and meeting the requirements as specified in AC 150/5300-16, AC 150/5300-17, and AC 150/5300-18;
- Strong managerial capabilities, specifically the ability to integrate data obtained using various collection methods and integrating it into project specific deliverables;
- Previous experience in similar or related work;
- Recent experience in airport projects, including special project areas (e.g., airport obstruction surveys).
- Capability to conduct obstruction surveys that are particularly complex or have unique features and evaluate obstacles relative to FAA-defined Airport Airspace Analysis Surfaces (OIS);
- Qualified key personnel with surveying backgrounds and experience, to include resumes for the Project and Site Manager(s) to be included in the proposal;

- Familiarity with Federal, State and Local conditions, codes, ordinances, laws, and regulations;
- Demonstrated understanding of the project's potential problems and the airport owner's special concerns;
- Demonstrated ability to implement quality control measures, identify problems completely, and implement corrective action promptly in order to meet contract schedule requirements; and
- Timeliness in meeting requirements for review, reports, meetings with staff and regulating agencies.

2. Qualifications of the Contracting Firm

The contracting firm, including sub-contractors and special consultants, should have:

- Adequate personnel to complete to the scope of all contracted work;
- Depth, variety, and availability of required staff disciplines;
- Insurance coverage;
- Information from references;
- Demonstrated ability to complete work within budget;
- Familiarity with applicable regulations governing the work as specified in AC 150/5300-16, AC 150/5300-17, and AC 150/5300-18;
- Previous related experience;
- Capability to provide various professional disciplines (e.g., planning, environmental evaluations, financial analysis, architectural design; and mechanical, electrical, and civil engineering) for numerous airports-related capital projects;
- Capability to complete projects on time and without having major cost escalations or overruns; and
- Qualified and experienced sub-contractors regularly engaged by the offeror for similar work.

3. Pricing

Bidders proposal shall include lump sum price for the tasks specified in this document, as well as, an hourly rate schedule in the event the District elects to add related work under the RFP.

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Appendix A
AC-150/5300-18 Task

Intended End Use of the Data ⇨	AC Reference	Airport Layout Plan (ALP)	Instrument Procedure Development
Required Tasks ↓			
Provide a Survey and Quality Control Plan	150/5300-16/17/18	•	•
Establish or validate Airport Geodetic Control	150/5300-16	•	•
Perform, document and report the tie to National Spatial Reference System (NSRS)	150/5300-16	•	•
Survey runway end(s)/threshold(s)	150/5300-18	•	•
Monument runway end(s)/threshold(s)	150/5300-18	•	•
Document runway end(s)/threshold location(s)	150/5300-18	•	•[1]
Identify and survey any displaced threshold(s)	150/5300-18	•	•
Monument displaced threshold(s)	150/5300-18	•[1]	•
Document displaced threshold(s) location	150/5300-18	•	•
Determine or validate runway length	150/5300-18	•	•
Determine or validate runway width	150/5300-18	•	•
Determine runway profile using 50 foot stations	150/5300-18	•[1]	•
Determine runway profile using 10 foot stations	150/5300-18	•[2]	NA
Determine the touchdown zone elevation (TDZE)	150/5300-18	•	•
Determine and document the intersection point of all specially prepared hard surface (SPHS) runways	150/5300-18	•	
Determine and document the horizontal extents of any Stopways	150/5300-18	•	•
Determine any Stopway profiles	150/5300-18	•	•
Determine if the runway has an associated clearway	150/5300-18	•	
Survey clearway to determine objects penetrating the slope	150/5300-18	•	•
Determine and document the taxiway intersection to threshold distance	150/5300-18	•	
Determine runway true azimuth	150/5300-18	•	•
Determine or validate and document the position of navigational aids	150/5300-18	•	•
Determine or validate and document the position of runway abeam points of navigational aids	150/5300-18		•
Perform or validate and document an airport airspace analysis	150/5300-18	•	•
Collect and document helicopter touchdown lift off area (TLOF)	150/5300-18	•	•
Collect and document helicopter final approach and takeoff area (FATO)	150/5300-18	•	•
Collect or validate and document airport planimetric data	150/5300-18	•	
Determine or validate the elevation of the Air Traffic Control Tower Cab Floor (if one is on the airport)	150/5300-18	•	
Perform or validate a topographic survey	150/5300-18	•	•[1]
Collect and document runway and taxiway lighting	150/5300-18	•	
Collect cultural and natural features of landmark value	150/5300-18	•	

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Appendix A
AC-150/5300-18 Task cont'd

Intended End Use of the Data ⇔	AC Reference	Airport Layout Plan (ALP)	Instrument Procedure Development
Required Tasks ↓			
Determine elevation of roadways at the intersecting point of the Runway Protection Zone (RPZ) or the runway centerline extended	150/5300-18	•	
Determine all Land Use to 65 DNL contour	150/5300-18	•	
Document features requiring digital photographs	150/5300-18	•	•
Document features requiring sketches	150/5300-18	•	•
Collect position and type of runway markings	150/5300-18	•	
Identify collect, and document wetlands or environmentally sensitive areas	150/5300-18	•	
Collect imagery	150/5300-17	•	•
Provide a final Project Report	150/5300-16/18	•	•

[1] Only when runway construction is involved.

[2] All 14 CFR Part 139 airports require 10 foot stations. At all other airports the distance between stations is between 10 and 50 feet to meet local requirements.