

Aerial survey sensor operator

Aerial-survey sensor operators collect and check geospatial information from equipment carried in an aircraft. They are distinct from the pilot, a licensed land surveyor and a military intelligence sensor operator. The two verified examples concern civilian mapping. Some duties occur in an office or at ground equipment, so the job is more than observing scenery from a flight.

Other titles to compare: Airborne sensor operator - civilian survey, Aerial data acquisition operator where duties align. Titles alone do not establish equivalent duties.

What the role does

- Collect and organise imagery or other survey data within trained responsibilities.
- Check data completeness, quality and file traceability.
- Coordinate with survey pilots, technical colleagues and clients without assuming the pilot's authority.

Where the work happens

Survey aircraft, remote project locations, company bases and data-processing offices; travel and variable schedules depend on employer.

Employer example 1

Kîsik Aerial Survey Inc. • Canada • Airborne Sensor Operator - Boundary Bay Airport

Vacancy status unconfirmed not an offer • Checked 2026-10-27 [EMP1]

Category	What this employer states
Essential in this source	Recognised GIS, geomatics or remote-sensing degree, diploma or certificate; hardware/software troubleshooting experience. Accuracy, communication, independent/team working and extended/irregular-hours availability. Canadian work eligibility, valid passport and reliable vehicle with the stated base-access commitment.
Desirable in this source	Survey technology, geospatial software, leadership, scripting or aviation exposure.
Other stated conditions	Undated document in a 2022 folder; current hiring is not established. Includes extended travel and work in small aircraft.

Selected conditions from this employer and role only; not a complete eligibility checklist or worldwide rule.

Employer example 2

Fugro • United States • Airborne Sensor Operator - Land, R0031004, Rapid City

Vacancy status unconfirmed not an offer • Checked 2026-10-27 [EMP2]

Category	What this employer states
Essential in this source	High-school diploma/equivalent and at least one year aerial-mapping/sensor-operation experience. US work authorisation, driving licence and ability to obtain passport; computing, map-reading and equipment skills.
Desirable in this source	Earth-science or technical bachelor degree.
Other stated conditions	The page also calls prior sensor experience ideal despite listing one year as required; confirm the employer's interpretation. Extended time in an aircraft is a stated work condition.

Selected conditions from this employer and role only; not a complete eligibility checklist or worldwide rule.

PREPARE AND VERIFY

Separate requirements from preparation

Occupational context; aircraft and survey-authority scope unresolved: BLS distinguishes technical mapping work from the separate progression to a licensed surveyor. Its broad guidance is not a determination of airborne-crew permissions. Pilot qualifications, company equipment authorisation and any professional sign-off on survey products must be checked separately for the operation and country. [REF1, EMP1, EMP2]

Still to verify: Two independent employers verified, with hiring status unconfirmed. Complete Canadian/US aircraft-crew and survey-profession applicability remains outside this guide.

Explore a realistic entry route

- Read the sensor and output scope before comparing vacancies. Civilian mapping, scientific remote sensing and defence surveillance can use similar titles but are not interchangeable employment or security pathways.
- Develop genuine geospatial, computing and data-quality skills through relevant study and supervised projects. Note that the Canadian example accepts several qualification types while the US example makes a bachelor degree desirable rather than compulsory.
- Ask how aircraft safety induction, equipment training, supervised deployment and quality checks are arranged. Clarify travel, variable hours and the boundary between sensor operation and pilot decisions before making a training commitment.

Build evidence of your skills

- Use a small public non-sensitive map dataset to document file names, coordinate-reference information and missing metadata. Do not claim that a classroom map is an approved aviation survey product.
- Create a data handover checklist for an invented research project: origin, date, version, known gaps and reviewer. This tests traceability, not live sensor-operating competence.

Prepare for an interview

Reflection prompts only, not questions claimed to be used by an employer.

- Preparation prompt: describe how you noticed and investigated a missing or inconsistent file. Explain how you preserved the original evidence and communicated uncertainty.
- Prepare questions about equipment training, data-quality responsibilities, deployment patterns and the division of responsibility with the survey pilot. These are not reported employer questions.

Investigate possible next roles

Explore data-quality supervision, geospatial processing or project coordination. Licensed surveying, aircraft piloting and specialised sensor engineering require separate preparation and authority where applicable.

Sources and scope

[EMP1] [Kîsik Aerial Survey Inc. Airborne Sensor Operator - Boundary Bay Airport](#)

Vacancy status unconfirmed not an offer. Canada. Checked 2026-10-27.

[EMP2] [Fugro Airborne Sensor Operator - Land, R0031004, Rapid City](#)

Vacancy status unconfirmed not an offer. United States. Checked 2026-10-27.

[REF1] [US Bureau of Labor Statistics Surveying and Mapping Technicians - Occupational Outlook Handbook](#)

Related technical occupation, education patterns and supervised learning. Broader occupation guidance, not an airborne-role personal licence or a Canadian qualification rule. It does not override either employer's selected requirements. Checked 2026-10-27.

Educational requirements guide, not operational training, a professional approval or an employment guarantee. Verify current requirements with the relevant authority and employer. Selected employer conditions are not worldwide eligibility rules. Read the complete current vacancy and competent authority requirements before choosing training or applying. No personal medical, immigration or employment eligibility assessment is made. No job guarantee.