

Surveillance radar engineer

Surveillance radar engineering supports the systems that provide traffic-detection and tracking information. Jobs differ: some focus on field equipment and technical acceptance, others on performance analysis, standards or evaluation tools. Neither is the same as controlling aircraft. The examples show an experienced US field-engineering post and a European surveillance-performance role, not interchangeable entry qualifications.

Other titles to compare: Radar systems engineer, Surveillance performance engineer. Titles alone do not establish equivalent duties.

What the role does

- Analyse system-performance evidence and investigate engineering issues.
- Support verification, acceptance or improvement of surveillance equipment and tools.
- Maintain technical documentation and communicate limitations to stakeholders.
- Coordinate with suppliers, programme teams and operational-service representatives.

Where the work happens

Engineering offices, test environments and equipment sites; duties and travel depend on the contract; The US example supports FAA infrastructure through a contractor; the Belgian example is an international-organisation post.

Employer example 1

Leidos • United States • Sr Radar Optimization Engineer, R-00192211

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

Category	What this employer states
Essential in this source	Bachelor degree with twelve years relevant experience, or additional experience considered instead; relevant technical education or training. Recognised formal radar training, prior radar certification authority and substantial operational field experience. Advanced radar, interface, diagnostic and documentation competence; ability to obtain and maintain FAA Public Trust clearance.
Desirable in this source	Prior FAA radar specialist experience and FAA surveillance-modernisation knowledge.
Other stated conditions	Extensive travel is stated. No definite closing date was published; an accessible advertisement is not proof a position remains open.

This specific employer example is not a worldwide entry rule. A closed or undated example is not an invitation to apply.

Employer example 2

EUROCONTROL • Belgium • Communication, Navigation and Surveillance (CNS) Monitoring Expert

Closed vacancy historical example • Checked 2026-10-27 [EMP2]

Category	What this employer states
Essential in this source	Relevant EQF7 qualification plus three years experience, or EQF6 plus four years. CNS standards and performance-evaluation knowledge; English C1, French A1/A2 by probation end; Member State nationality.
Desirable in this source	ATM surveillance specialisation, manufacturer/ANSP surveillance training and SASS-C knowledge.

Category	What this employer states
Other stated conditions	This is a surveillance-performance engineering example, not a field radar-maintenance licence or technical-watch vacancy.

This specific employer example is not a worldwide entry rule. A closed or undated example is not an invitation to apply.
PREPARE AND VERIFY

Separate requirements from preparation

United States - FAA technical operations context: FAA maintains a technical training and personnel certification programme. The prior certification authority requested by Leidos is an experienced-hire condition, not permission a beginner obtains merely by buying a course. [REG1, EMP1]

EU-related operational technical duties: Where duties fall within the applicable ATSEP framework, provider training and competence controls matter. The job title alone does not establish legal authorisation or a universal licence. [REG2, REG3]

Still to verify: Current hiring status for the undated closing period of the Leidos advert remains unknown. A separate Astrion lead returned HTTP 403 on direct opening and was not used as evidence.

Explore a realistic entry route

- Separate field engineering, equipment design and surveillance-data analysis when searching. Compare the actual tasks rather than assuming every radar job requires the same degree, physical work pattern or prior operational authority.
- Build relevant engineering or technical foundations, then identify a realistic trainee or graduate route. The Leidos example is senior and cannot establish the minimum for a first job; the European example also expects professional experience.
- Before paying for specialist training, verify whether the intended employer recognises it and what supervised experience or assessment is still needed. A commercial radar course should not be described as a worldwide work licence.

Build evidence of your skills

- Analyse an invented, non-operational dataset and write a short report separating measurement error, assumptions and unanswered questions. A simple classroom signal example is sufficient; do not seek restricted surveillance data or equipment settings.
- Prepare a requirements-to-test matrix for a harmless software project. Show how each requirement has evidence, how a failed test is recorded and who would need to approve a change.

Prepare for an interview

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

- Explain a genuine example of finding that your initial technical assumption was wrong. Emphasise evidence, escalation and the distinction between analysis and authorised action.
- Ask which systems, training approvals, field duties and certification responsibilities the position actually covers. Do not claim prior operational certification unless you genuinely held it and can document its scope.

Investigate possible next roles

Possible adjacent directions include surveillance assurance, systems integration, technical project engineering or equipment specialisation. Investigate their requirements individually rather than assuming a guaranteed promotion ladder.

Sources and scope

[EMP1] [Leidos Sr Radar Optimization Engineer, R-00192211](#)

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

[\[EMP2\] EUROCONTROL Communication, Navigation and Surveillance \(CNS\) Monitoring Expert](#)

Closed vacancy historical example. Belgium. Checked 2026-10-27.

[\[REG1\] Federal Aviation Administration Order JO 3000.57B - Air Traffic Organization Technical Operations Training and Personnel Certification](#)

FAA technical operations training and personnel certification programme; order index marks status Active. This programme is not a global personal radar-engineer licence. The full operational procedures are outside this career guide. Checked 2026-10-27.

[\[REG2\] European Union Aviation Safety Agency Easy Access Rules for ATM/ANS - Provision of Services, Annex XIII Part-PERS](#)

Training and competence framework for personnel performing relevant ATSEP duties. March 2025 compilation. Later amendments are listed in the EASA index, including 2025/2293 and 2026/2031; this is not represented as a complete October 2026 consolidation. Checked 2026-10-27.

[\[REG3\] European Union Aviation Safety Agency ATM/ANS - Provision of Services regulation index](#)

Index includes amendments subsequent to March 2025. Individual legal applicability and amendment effects require competent-authority or specialist confirmation. Checked 2026-10-27.

Educational requirements guide, not operational instructions, professional approval or an employment guarantee. Verify current requirements with the relevant authority and employer. Examples are selective, dated and job-specific. Check the complete current vacancy and relevant authority before choosing paid training or assessing eligibility. No personal medical, nationality or immigration assessment is made here. No job guarantee.