# Position Details

## Technical Services- CSOF4

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| The following information is for applicants | |
| Advertised Job Title | Mechanical or Electronics Technician |
| Job Reference | 99797 |
| Tenure | Specified Term of 5 years, Full-time. |
| Salary Range | AU$96,811.00 - AU$109,527 per annum (pro-rata for part-time)  plus, up to 15.4% superannuation |
| Location(s) | New Norcia Ground Station, Western Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian Citizens * Australian Permanent Residents |
| Position reports to the | Maintenance and Operations Manager |
| Client Focus – Internal | 10% |
| Client Focus – External | 90% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Colin Cassidy via email at Colin.Cassidy@csiro.au |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

The New Norcia Ground Station supports ground-based spacecraft telecommunications as part of the European Space Agency’s Tracking Stations Network (ESTRACK), under proposed contractual arrangements between ESA and Commonwealth Scientific Industrial Research Organisation (CSIRO).

New Norcia operations are expanding significantly with the construction of a second 35m antenna (NNO3) currently underway. The new antenna will significantly extend the S-band and X-band capabilities of New Norcia to include K-band and Ka-bands, with cryogenic feeds and high-power klystron amplifiers.

The Mechanical or Electronics Technician works under broad supervision and guidance to provide technical support of equipment for spacecraft communications, including antenna control systems (ACU & FEC), or antenna drive systems (electric motors, servo amplifiers, PLC), or water cooling systems (PLC, Siemens Desigo, Chillers & Pumps), or antenna electrical systems, or RF equipment assemblies (LNA, HPA, Up & Down Converter). This includes systems maintenance activities and technical planning as well as providing basic level technical back up, fault finding and support to the station manager and other technical specialists.

Additionally, the position requires support of Launch and Early Orbit (LEOP) activities, including assisting with configuration, testing and operation of telemetry processing and recording systems and front-end control systems prior to and during LEOP activities, and reporting of results.

This position is being offered at full-time or part-time basis. CSIRO are flexible to create an attendance pattern that suits the successful applicant. Note that due to the nature of the work, significant on-site presence will be required. The position requires support of launch activities, which generally occur overnight.

### Duties and Key Result Areas

* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work as part of a multi-disciplinary, often regionally dispersed team, to carry out tasks under limited direction in support of scientific research.
* Assist with maintenance and installation activities, to ESA or manufacturers’ specifications, including:
* Commissioning, upgrading, testing, calibration and repair of equipment and subsystems associated with antenna control systems, antenna cooling systems, antenna RF systems, antenna electrical systems.
* Operational software programme maintenance and system administration in a secure networked computer environment.
* Provide out of hours emergency support via telephone analysis where possible and attend onsite for diagnostics and repairs where necessary.
* Provide support to operations of either front end control systems or telemetry processing and recording systems during launch and early orbit activities.
* Utilise UNIX and Windows based tools in support of relevant ground station systems.
* Provide support for configuration management, including:
* Assist in the management of system drawings and schematics to reflect as-installed configurations
* Maintain appropriate recordkeeping and other tools for version control of hardware/software in use in the systems.
* Assist in maintenance and technical planning, including:
* Under supervision participate in and provide support for system performance testing, data capture and analysis to assist with ESA development work and anomaly resolution.
* Provide local support and facilitate the coordination, implementation and testing of ESA engineered solutions.
* Use Computerised Maintenance and Management System (CMMS) based tools to maintain and improve where possible maintenance efficiencies and reliability of systems.
* Participate in planning meetings.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

***Pre-Requisites:***

* **Education/Qualifications:** Diploma or Associate Diploma in Mechanical Engineering, Electronics & Communications or Electronics Engineering (or substantial progress towards attainment), with 2 years plus relevant electronics or mechanical experience, or mechanical or electronics trade qualifications with 5 years relevant experience.
* **Other Certifications:** Current Driver’s License.

***Please note:*** *Under CSIRO policy only those who meet all essential criteria can be appointed.*

***Essential Criteria:***

* Knowledge of complex mechanical or, control or, electrical or electronic systems.
* Work experience in mechanical or, control or, electrical or electronic diagnostics and significant demonstrated aptitude for advancing system knowledge.
* The ability to work effectively as part of a multi-disciplinary, regionally dispersed team, and carry out tasks autonomously.
* Excellent communication skills, both written and oral, including the ability to anticipate the interests and knowledge level of an audience and present information and feedback accordingly.
* Demonstrated ability to effectively manage several competing priorities simultaneously and carry out non-routine tasks under broad direction from Senior Technical staff.

**Desirable Criteria:**

* Willingness to work at heights on antenna structures.
* Experience in signal reception and transmission at a satellite ground station.
* Hands-on mechanical skills, including use of hand tools and high reliability soldering.
* Adherence to safety requirements and develop job safety analyses for specific tasks.

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognises and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

Special Requirements

Appointment to this role is subject to the provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* As the station is some distance from Perth, a generous site allowance and assistance with commute is provided. The normal working week is spread across four on-site days with some work from home.
* Support pre-planned out of hours launch and early orbit activities*.*
* *If you have any queries regarding finalising the Duties and Key Result Areas or the Special Requirements for this position, please consult with In-business HR or the Talent Acquisition Team.*

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO Astronomy and Space Science](https://www.csiro.au/en/Research/Astronomy) for more information.

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted