

PTSG Cornwall Spaceport Newquay



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Countdown to Launch: Delivering Critical Earthing Systems at Record Speed for the UK's First Spaceport

Spaceport Cornwall at Newquay Airport represents a significant advancement in the UK's space infrastructure, designed to become a key horizontal launch site for satellites and space missions.

This transformative project converted portions of a commercial airport into the UK's first operational spaceport, requiring substantial electrical infrastructure upgrades to support mission control facilities, integration hangars, and specialised launch equipment. As a critical national infrastructure project with strict timelines tied to planned launch schedules, the electrical systems - particularly the earthing systems - needed to meet exceptional standards of reliability and safety while accommodating extremely time-sensitive development phases.

The spaceport development team contacted PTSG's Power Earthing division with an urgent request after receiving a recommendation from previous clients who had worked with our team. With the project facing tight regulatory deadlines and imminent construction phases dependent on the electrical infrastructure being approved, they needed a trusted partner who could deliver a compliant earthing system design on an accelerated timeline without compromising on technical quality or safety standards.

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The Challenge

The Cornwall Spaceport in Newquay required a new substation earth electrode system with exceptional time constraints. The project demanded:

- Urgent design and implementation timeline
- Comprehensive solution covering design, testing, and installation
- High reliability standards appropriate for aerospace infrastructure
- Expert coordination with existing airport systems

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Our Solution

Understanding the critical timeline, Power Earthing implemented a rapid response strategy:

1. **Immediate Resource Allocation:** Within days of the client request, we rearranged our schedule to prioritise this urgent project, deploying our technical team to the site.
2. **Accelerated Site Assessment:** Our engineers promptly conducted comprehensive soil resistivity survey tests to gather the necessary environmental data for design considerations.
3. **Fast-Track Design Process:** The field data was quickly transferred to our in-house design team who developed the complete Design Study and associated AutoCAD layout drawings.
4. **Streamlined Project Delivery:** The entire design scope of works was completed and delivered to the client within just five days of initial contact, significantly exceeding the client's expectations.

Results and Benefits

- **Exceptional Turnaround:** Complete design documentation delivered within five days, meeting the client's urgent timeline requirements.
- **Quality Assurance:** Despite the accelerated schedule, we maintained our high standards for technical accuracy and compliance.
- **Client Satisfaction:** The project timeline substantially exceeded client expectations while maintaining quality standards.
- **Infrastructure Support:** Our rapid response helped maintain the spaceport development schedule for this significant regional infrastructure project.

Project Timeline Highlights

- **Day 1:** Initial client contact and scope definition
- **Day 2:** On-site soil resistivity testing completed
- **Days 3-4:** Design calculations and AutoCAD drawings preparation
- **Day 5:** Final design package delivered to client
- **Subsequent Phase:** Complete installation and commissioning of earth electrode system

Our Collaborative Approach

Working closely with the spaceport's electrical engineers and construction teams, we integrated our earthing system design with other critical infrastructure elements. This collaborative methodology enabled seamless coordination between above-ground electrical systems and the below-ground power earthing network, ensuring comprehensive protection across the entire facility.

“When we explained our urgent timeline requirements, the Power Earthing team's response was remarkable. Not only did they deliver a complete design package in just five days, but the quality and attention to detail exceeded what we would expect even on a standard timeline project.”

Lead Engineer, Spaceport Cornwall



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Ready to Ensure Your Power Earthing Compliance?

Whether you require a customised design for unique environments or need urgent assistance with compliance issues, our team has the technical knowledge and practical experience to protect your people, property, and reputation.

Take the Next Step Today:

- **Request a Site Survey:** Our technical specialists can assess your current earthing systems and identify any compliance issues or areas for improvement.
- **Schedule Your Compliance Testing:** Ensure your organisation meets all legal requirements under The Electricity at Work Regulations 1989.
- **Discuss Your Upcoming Project:** Let us help you design and implement the most effective earthing solution for your specific needs.

Contact our Power Earthing team today:

Call: 0115 9758 835

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Visit: www.ptsg.co.uk/power-earthing

Power Earthing Solutions: Technical expertise you can rely on, peace of mind you can count on.