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Cell Tower Inspection

Communication tower inspections are generally tall and complex structures that require a unique and highly specialist approach to inspection. With modern technology, communication and cell towers can be undertaken using drone tower inspection techniques to inspect 'remotely', using both UAVs (drones) and ground-based giga-pixel camera systems.

THE Applus+ SOLUTION

At Applus+, we have developed our own unique ground- and air-based capture method for **tower inspections with UAVs**, which allows our team of UAV inspection specialists to draw on the best imagery provided by the latest UAV and ground-based technologies. This expertise in aerial photogrammetry offers the most comprehensive and effective way of photographing and inspecting communication towers.

The **drone tower inspection** methodology at Applus+ has been extensively tried and tested over the last ten years. We use systems in UAV infrastructure inspection to capture top-down and horizontal viewpoints. These perspectives are only obtainable from the air, and we use 40 to 50-megapixel cameras to ensure maximum resolution is achieved. Applus+ then combines this data with extremely powerful giga-pixel camera technology, taking hundreds of consecutive images which we then seamlessly stitch together to produce ultra-high-resolution images of the entire communication tower from top to bottom.

The services from Applus+ can also deploy thermal imaging cameras to identify high-resistance joints and potential failure points as part of our communication and cell tower inspections.

Applus+ also provides a comprehensive and easy-to-use data-management system that allows a client to navigate the large volumes of data captured easily and efficiently. This data-management system can be tailored to the client's specific needs and requirements.

By utilizing state-of-the-art electromagnetically shielded UAV systems, we can fly around communication and cell towers without interference and in complete safety.

Target customers

The services in remote communication and cell tower inspection are ideal for pre-shutdown surveys to determine where there is a need for personnel to manually inspect a tower, which involves higher risk.

The use of remote-access technologies in routine structural surveys also removes the need for personnel to climb the structure, allowing tower owners to reduce their risks.

Key customer benefits

Applus+ has highly experienced teams of technicians to deliver UAV infrastructure inspections and aerial photogrammetry surveying. The services from Applus+ in communication and cell tower inspection can:

- provide the customer with massive cost-saving opportunities
- dramatically improve survey quality and resolution
- dramatically reduce the risk profile of such an inspection as no personnel are required to climb the structure
- provide a risk-free way of checking the true condition of a tower whose structural integrity is in question
- offer the ability to capture and document a structure in high resolution for future analysis and comparison, which is not the case with close visual inspections
- be used anywhere in the world, including in remote locations such as offshore platforms, with compact and easily transportable equipment and processes