

Jetty Inspections – Marine NDT

Marine NDT and inspection on a complex asset such as a loading jetty has traditionally been extremely labour-intensive and time consuming. As part of our UAV inspection capabilities, Applus+ now deploys remotely operated aerial vehicles coupled with extendable robotic-pole cameras to cover almost every aspect of this type of asset integrity inspection. Difficult-to-access places such as the undersides of a loading jetty no longer need to be a slow, expensive and cumbersome project as the use of modern technology allows for fast and easy visual condition inspections.



THE Applus+ SOLUTION

Applus+ is pushing the boundaries of remote access inspection with the latest aerial inspection drone technology to substitute or complement existing jetty-inspection methodologies. UAV and robotic-pole camera inspections are fast and efficient and only require a small amount of highly specialist equipment and a small inspection team. This improved marine NDT method is scalable to meet the requirements of the scope and can be tailored to provide a quick general overview or a more comprehensive and detailed infrastructure integrity inspection.

The technology used by Applus+ in our services for remote visual inspection includes extremely high-quality cameras capture the entire length of a jetty uniformly, in a fraction of the time of other more conventional methods. The images captured are collated and organised into a simple database, along with annotated asset drawings and map files to ensure ease of use. The high-resolution images captured allow for a close visual inspection of difficult-to-access areas, allowing inspection crews to target areas for further inspection or marine NDT testing. The use of Giga-pixel stitching technology to stitch together multiple images into one single image allows for simple review and reporting.

By drawing on a wide range of new technologies, Applus+ has developed a fast and efficient remote visual inspection technique to capture large complex assets such as jetties. Only a small inspection crew is required, with 2 or 3 technicians in the field capturing data and one collating, editing and reporting back in the office. All equipment can be transported via normal commercial airlines and can be deployed at short notice in emergency or time-critical situations with very minimal set-up or preparation time required once on site.

Target customers

UAV inspection services and robotic-camera inspections can be carried out at any time during a jetty-inspection campaign but are particularly suited to providing an initial overview of an asset to identify target areas.

Key customer benefits

The UAV infrastructure inspections delivered by Applus+ provide a number of significant advantages over conventional jetty-inspection methodologies:

- Solutions with remote visual inspection are much safer operations as the human risk factors are all but eliminated as the operators never need to leave normal walkways or safe areas
- The inspection time is greatly reduced thanks to remote-access techniques
- There is no need to set up safety gear or designated work areas as images are captured extremely quickly
- Due to a smaller team, less equipment and fast working pace, these new methodologies are extremely cost efficient and can result in significant cost savings to the client whilst still providing excellent inspection quality