Using Drone Data for Emergency Response Asset Inspections

With the news full of damaging weather events like the tornadoes in the US Midwest and the California floods that almost caused the Oroville Dam to collapse, it’s timely to revisit how drone data can be used in assessing damaged assets, particularly in flooded locations.

Large storms hitting South Australia cause flooding

Last September, large parts of South Australia were hit by one of those “once in a century” storms that seem to be happening more frequently. Many towns and farms were flooded, and high winds damaged the main power transmission towers, cutting off electricity to much of the state’s residents. Telecommunication towers were also damaged and taken offline by flooding.

The team responding to one of the flooded towers, in Port Wakefield, decided to use a DJI drone and upload its data to Propeller so they could safely inspect the damaged tower as well as perform a survey of the area in order to identify the safest access routes.

Accurate elevation data let responders measure water depth

Viewing the processed 3D maps, inspection views, and point clouds in the safety of an office, they were surprised that the elevation data was so accurate that they could accurately determine if the depth of water around the tower’s base was safe for their vehicles and personnel. They were so impressed with this and the overall results that they produced the below video.

As the video shows, while emergency inspections like this grab the headlines, more regular asset management workflows can be performed much faster, cheaper, and safer using drones and Propeller than traditional methods.

Rather than relying on secondhand data, Propeller creates a visual audit trail they can use for as-built audits, asset inventories, preconstruction surveys, and a wide range of other common tasks that normally require using expensive elevated platforms or riggers.
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