



3 WAYS INSURERS ARE USING GEOSPATIAL INTEL TO MINIMIZE RISK EXPOSURE



HURRICANE IAN - SEPT 29, 2022

ACTIONABLE PROPERTY INSIGHTS FROM AN AERIAL VIEW

From high-resolution aerial imagery to advanced AI-based location intelligence to post-event data following a catastrophe, the right up-to-date geospatial intelligence provides insurers the full spectrum of information needed to make critical decisions more quickly and confidently - everything from mitigating risk and reducing premium leakage to more quickly triaging and assessing claims.

Aerial imagery, from a source like Nearmap, can deliver three layers of information. Vertical images provide a top-down view of the property and its surrounding neighborhood. Oblique images show each property from a 45-degree angle, providing a clear view of the sides of the structure and the surrounding features. A digital surface model (DSM), built with 3D data, provides the elevation of everything on the Earth's surface. For example, DSM can measure the height of surrounding vegetation to better assess fire risk.

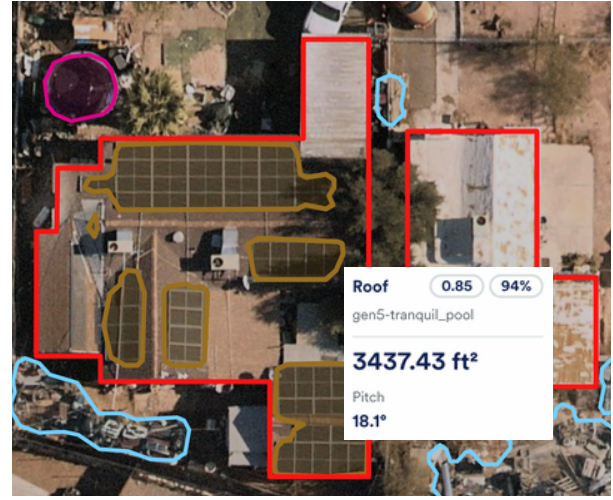
"There's an age old adage - a picture is worth a thousand words. We think it's worth more than a thousand words. We really rely on imagery to look back at a time series of information on a property - how it has changed, the condition of the roof or landscaping and even how close to the coast it may be. With aerial imagery, we are able to look at it all in real time and make more informed underwriting decisions."

- Bryan Adams, SVP of Catastrophe Analytics, Arch Insurance

In addition, artificial intelligence (AI) can extract property characteristics from an image to more quickly and accurately detail pertinent information for one or many locations at once. Does it have a pool? Are trees overhanging the roof? Combining that information with other data sources, such as regional weather trends, carriers can streamline the decision-making process on new policies, reduce premium leakage and ultimately price policies more accurately.



Oblique 45 Degree Angle View



Imagery with AI Extracted Property Characteristics
Trampoline, Solar Panels, Roof, and Junk & Debris

1 Understand the Full Condition of a Property

The level of detail provided by imagery is increasingly important as the industry undergoes a digital transformation automating underwriting decisions. For example, when the system rejects an application, the underwriting team can check an image to decide whether or not to send an inspector, especially with high-value residential or commercial properties

Imagery allows you to virtually explore a property and understand those characteristics that may not be so easy to identify even in-person, like roof complexities or distance to coastline and vegetation. Multi-perspective views allow you to easily see a property from all cardinal directions and accurately estimate potential repair costs by capturing precise structural measurements. In addition, leveraging an imagery source that captures imagery multiple times per year allows you to review change over time — like where new property additions have surfaced or if secondary structures have been built.

“Even if a risk was proposed to us, like someone’s holiday home that was a lower sum at \$1.5 million, I’ll get on Nearmap and work out roughly a size estimate, look at where it is situated . . . so every home we insure will get looked at in some way to make sure we’re comfy enough with the building sum ensured. Sometimes the information we get from brokers isn’t always accurate, so things like having that additional information and imagery is unbelievably helpful.”

– Risk Manager, Private Client Group, Tier 2 Insurance Carrier

One of the challenges to underwriting commercial properties in particular is that buildings are often spread out over a parcel of land. This spread of risk can often lead to blind spots if the primary and secondary structures aren’t correctly identified. Using detailed location intelligence, commercial property underwriters can reduce potential blind spots by verifying the location, state and surroundings of a primary structure, as well as account for any secondary structures that may inform whether or not risk criteria is being met.

All in all, remote inspections can combat backlog, offering quick insight into whether or not your initial quote was sufficient and identify areas that require a closer look in-person.

2 Analyze and Mitigate Risk Conditions

As insurance carriers look to transform themselves from reactive “repair and replace” to proactive “predict and prevent,” agents and carriers can leverage detailed insight from imagery, and the analytics derived from that content, to proactively work with policyholders to protect their homes and businesses against damages. Access to photographic documentation provides agents and policyholders an accurate view into any potential issues on a property, and they can use the technology to reduce manual aggregation by importing the most relevant insights into loss control surveys.

In addition, top-tier carriers are leveraging the AI and analytics from post-catastrophe imagery to analyze trends in the before and after condition of a property or group of properties. After a major wildfire, it’s possible to extract information of the full area to see if vegetation played a role in the fire’s path. After a hurricane, carriers can analyze roof conditions and coastal distances.



SEPTEMBER 2021

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In one such instance, a major U.S. carrier worked with Nearmap to look for trends that led to the spread of a major wildfire in Boulder, CO and the eventual loss of life and property. Using a combination of pre-event digitized features and post-event imagery and loss data, analytics showed that 49 percent of the homes destroyed had tree overhang and 84 percent had medium to high vegetation. With this data, the carrier was able to identify specific actions their existing customers could take to lower fire risk and improve their underwriting processes.

3 Gain New Insights into Renewals

Mitigating the aforementioned risks helps protect both the underwriters and the homeowners when the policy is up for renewal. For the underwriters, regularly updated imagery flags any changes to the property that might have occurred during the term of the policy. That insight helps insurers prioritize renewal inspections. And, homeowners can potentially be rewarded with lower rates.

One of America's top homeowners insurance companies leveraged the Nearmap library of parcel level AI data to automate the process of determining how many homeowners were in need of an updated insurance policy due to an addition to their home. The insurers started the project looking at new pools that were built during the timeframe of the global pandemic in California.

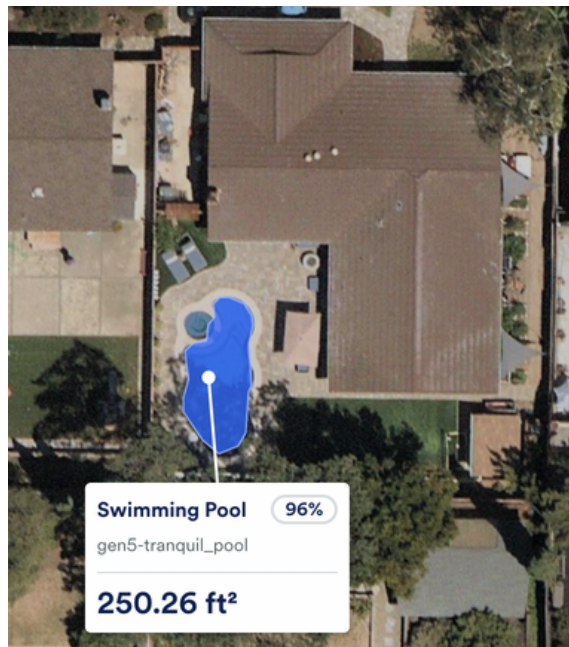
Focusing on the presence of pools, the team pulled multiple vintages of AI data for 810,000 homes to conduct a change detection exercise to determine how many new pools had been built. In total, the data found more than 90,000 new pools were built during the time period (11 percent of the sample set). By updating their policies, the homeowners reduced their risk of being underinsured in case disaster happens or having inadequate liability protection to cover legal and medical expenses in case of injury or death and provided the Carrier with an opportunity to engage with their Insureds in a proactive manner.



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At the point of renewal, it all comes full circle because risk modeling and risk mitigation are all part of the same ecosystem. The more current, accurate, and comprehensive the property intelligence, the better your selection of risk and relationship with those you insure.

For more information on how to incorporate the right geospatial intelligence stack in your workflows, visit www.nearmap.com/insurance.