PRECISIONHAWK Munich RE

CASE STUDY

Drone Deployment Increases Efficiency of Post-Disaster Insurance Claims

MUNICH RE & PRECISIONHAWK

PrecisionHawk helped Munich Re, one of the world's largest reinsurers, use drones to accelerate their post-disaster response. The rapid deployment, precision data, and cost-effectiveness of unmanned aerial systems (UAS) deliver value for every stakeholder in the insurance claims management process.

As a reinsurer, Munich Re incurs the overflowing risk of property and casualty insurance companies that results from catastrophic losses. For this reason, the company's risk portfolio requires complex claims management, from the point of initial damage assessment through claims payouts. Efficiency on such a massive scale is a primary factor in cost-effectiveness, and a major reason that Munich Re sought out a partnership with PrecisionHawk.

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Tobias Büttner, Munich Re's Head of Corporate Claims, explained the value of collaborating with PrecisionHawk:

"Our clients will benefit not only from the high resolution of spatial data, but also from processing the data with algorithms. Combining these new algorithms and modeling methods with Munich Re's claim expertise will enhance and accelerate existing loss adjusting procedures."

Limitations to Traditional Loss Assessment

The efficiency of PrecisionHawk's UAS technology was tested in April 2016 when coastal Ecuador was devastated by a 7.8 magnitude earthquake. Damage was evident across Ecuador, including Pedernales, a popular tourist destination. Munich Re called on PrecisionHawk to engage in post-disaster assessment.

The first post-disaster activity for a reinsurer such as Munich Re is comprehensive loss investigation. An inability to rapidly and accurately gather intelligence creates costly delays throughout the claims management process. For years, reinsurers have relied on satellite data and field inspectors. Satellite data was often limited due to cloud cover, and when cloud cover was not an issue, the data collected was often too expansive to offer rapid assistance. On-the-ground inspectors faced tedious work that was complicated by lack of post-disaster access and the sheer volume of losses,

Munich Re recognized the deployment of UAS technology as a tool to enhance and accelerate existing loss adjustment procedures. The giant reinsurer reached out to PrecisionHawk to discuss robust UAS solutions, which would open the door to more efficient risk management..
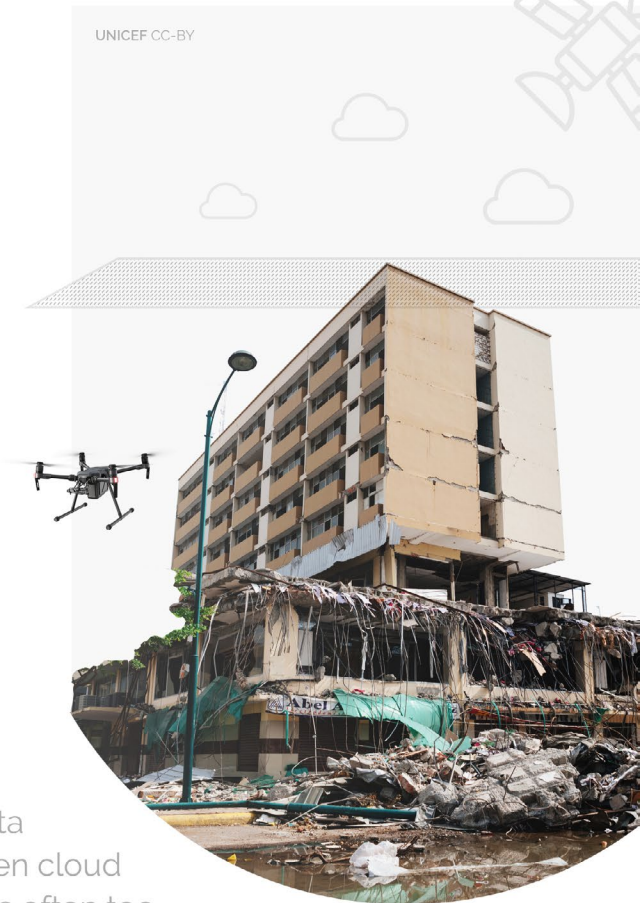
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Benefits of Post-disaster UAS Engagement

When Ecuador's 7.8 magnitude earthquake occurred, PrecisionHawk stepped into action, identifying potential regulatory roadblocks and safe points of access.

> *Within days, drones were deployed to assess widespread damage. PrecisionHawk was the first and only UAS provider on site; in a handful of flights, they accomplished what had previously taken weeks to complete.*

Drones were equipped with *visual and multispectral* sensors. The ability to remotely and digitally capture imagery reduced the threat to human safety and supported findings that were free of human error. The objective and accurate nature of data ensured integrity for future analysis and application.

PrecisionHawk's sensors provided extremely high-resolution, real-time imagery; once that imagery was processed by their *PrecisionMapper* software, it was used to create a single composite image that helped prioritize loss response. Beyond the big-picture view, PrecisionHawk's proprietary algorithmic-based software compiled accurate block-by-block and structure-by-structure damage reports.

One of the most important benefits was PrecisionHawk's ability to provide data that could be easily integrated into Munich Re's existing workflow. Without this benefit, insurance companies would likely have faced one of two options: scrap their internal system or remain reliant on outdated observation technology. PrecisionMapper software was purpose-built to integrate with a variety of enterprise solutions. From simple PDF outputs to complex three-dimensional point clouds and shape files, PrecisionHawk was able to capture and classify potential damage across the impacted area, then export those findings digitally in support of Munich Re's existing claims management process.

PrecisionHawk's UAS technology contributed to efficiency and cost-savings for all stakeholders: as a reinsurer, Munich Re was better equipped to estimate risk exposure and the scope of underwriting activities; direct insurers could more accurately assess their risk exposure and appropriately scale and expedite their post-catastrophe claims response; municipalities could prioritize clean up and repairs that would most quickly return the area to full function; and policy holders who incurred damages could receive more rapid claims payouts.

Transforming Insurance and Beyond

The post-loss deployment of UAS technology is suitable for every type of disaster, including hurricanes, earthquakes, tornadoes, hail, floods, and fires. For insurers, the rapid deployment and precision data creates efficiency and cost savings in every phase of the claims management process.

Because UAS technology offers greater safety, mobility, and scalability, its usefulness is piquing interest well beyond the agriculture and insurance industries. For many companies, this translates into a partnership with PrecisionHawk that will ensure rapid and global deployment and beginning-to-end-data analysis. For other companies, the potential lies in owning and deploying their own enterprise-wide UASs, while relying on PrecisionHawk to seamlessly integrate data analysis into the

Thanks to Munich Re
for sharing their experience with us!

Speak with us about adding aerial intelligence to your business
—email info@precisionhawk.com. Learn more about drones and aerial data in insurance at PrecisionHawk.com/insurance.

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