



**Key Management Group**

*Fostering Partnerships*



# **Drone technology is the Next Big Tool for Claim Adjustment**

**KEY MANAGEMENT GROUP, INC**

## INTRODUCTION

Unmanned Aerial Vehicles (UAVS), also known as drones, are aircrafts either controlled by pilots from the ground or increasingly, autonomously following a pre-programmed mission. In recent years, drones, or unmanned aerial vehicles (UAVs), are leaving a footprint in our lives not just on a domestic but on an international scale as well. From filming the FIFA World Cup just above the field to producing vivid images of disaster-struck areas, drones have a multitude of potential uses that have just begun to be revealed. This is good news as it could help streamline and improve the claims and underwriting processes by making them more efficient.

Without doubt, drones could be the next important tool to reduce the cost of insurance-related processes; claims processing and risk-engineering, post-casualty settlements for customers and also reducing the fraudulent claims.

These UAVs have the capability to reduce human risk, while creating measurable efficiency not seen before. Multiple use of drones is now possible that help adjusters to follow-up on repairs progress for the purpose of claim updates that will eventually help in capturing additional data and an efficient claims process, previously not possible.



Source: [Marsh](#)

## Drones to Assess Claims

The insurance industry has already started to see immense benefits utilizing the technology in claims situations. Reducing or even eliminating the need to send inspectors into the field and inside dangerously damaged structures will have a huge impact on safety and efficiency. Capturing high-resolution, geographically referenced, accurate information and data is vital and requires the best cameras and technology used in the drones.

There are already many instances of possible uses of drones ranging from crop inspection, damage assessment and search & rescue in times of a natural disaster. Imagine that there is a deluge because of the floods, inaccessible roads, widespread destruction amidst homes and communities with incalculable property damage, loss of lives, cattle and of course the mental agony. It is the job of appraisers and adjusters to go and see damage first hand and try to evaluate and calculate claims. This is not only time-consuming and expensive, it's also dangerous. To say the least, it is definitely not the best environment for a living being, leave alone an insurance employee. With the help of a drone, the adjuster can access, assess and view the damage remotely, leaving real agents out of harm's way.



Source: [aia-aerospace](http://aia-aerospace)

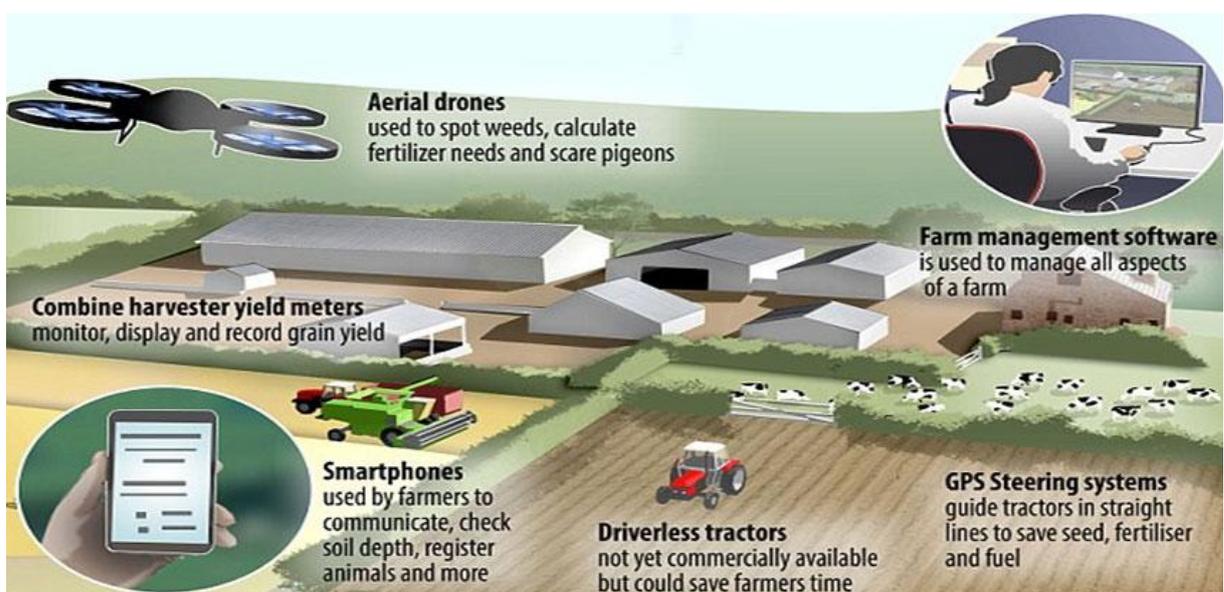


## Drones in Crop Insurance

Drones are very helpful in gathering information about the seasonal crops, weather, harvest and help in the claim processes in case of any damage or potential harm to crops. Drones can help survey the fields and also help detect any crop diseases while assisting insurance companies to decide the claims and expedite the process. The UAVs can gather data about crop damage from flooding, hailstorms and more so during drought, and upload the information automatically to the software handling the company's claims. Drones can be deployed to find and assess multiple areas of crop damage over a broad area. Currently, claims adjusters often have to physically go to a field to measure the extent of crop damage.

### Benefits of drones in crop insurance

1. Capability to figure out the crop height and growth ( they can also provide a 3 D image giving a better vantage view of the entire area)
2. Capture areas which require special attention including mapping those areas which could possibly have more chances of loss
3. Do a predictive analysis of the crops and also determine the loss
4. In case of floods/natural disasters or drought, the adjuster can easily assess the loss and figure out the reason for the loss
5. Ease in claim processing, as there is access to live pictures
6. Prevent fraudulent claims



Source: [Dailymail UK](#)



There is now a research being conducted by Researchers at University of California, Davis, in cooperation with the Yamaha Motor Corporation, is testing UAV crop dusting. Pesticides can be applied with greater accuracy, which reduces not only costs, but also exposure of farm workers as well as reducing the environmental impact. Lessening the chances of a spoiled crop and thereby reducing the risk

## **Drones in Property Insurance**

In the event of a natural disaster or a catastrophic event, it is impossible to physically go to such an area or neighborhood, either because of accumulation of rubble or due to a warning by local authorities. In a situation like this, with the help of a drone, claims professionals can carry out their work even in the presence of such restrictions. Bad weather could hamper or delay physical inspections of properties by claim adjusters whereas by the use of drones, they can easily access the place and start the process. The new FAA ruling requires the drone flights to be conducted over private property with permissions from the property owner and be operated by a pilot with a pilot's license and a FAA airman medical certificate or license and training "on the unmanned aerial vehicle system."

### Benefits of drones in property insurance

1. Ease in physical inspection by using drones, the insurance professional can have a bird's eye view of the property.
2. Access the risk and damage especially of hard to reach areas like rooftops etc.
3. Assess the value of the property as well as reduce the cost of physical resources.
4. In case of a natural calamity, drones can help to the damage easily and process a claim faster.



## **Drones in Natural Disasters**

Drones are of immense help during the times of a natural disaster, drones can help in the rescue operations without putting the lives of volunteers, rescue workers and media persons in danger. In times of conditions like bad weather and extreme conditions, the use of technology can be a lifesaver and be critical in monitoring and helping in a swift response. Drones have been appreciated for their use by the NGO's, NASA and the defense because of their indispensable help during a disaster relief operation.

After Haiti's devastating earthquake in 2010, the Air Force dispatched its "Global Hawk" drone to map the damage in Port-Au-Prince so NGOs could establish target areas for their relief work. And more recently, drones were deployed after Super Typhoon Haiyan hit the Philippines last December. Unlike helicopters, which can take up to an hour to arrive on the scene and gather information, drones are operational within 3 minutes. Not just that in times of an earthquake, the drones can help locate the people under the rubble or stuck at places not visible to the human eye because of the maneuvering and bird's eye view of the drone. They can also assess the damage to the structures and deliver required supplies and also help extinguish fire.

In case of a warning about a natural calamity, drones can provide an assessment of the areas and help in planning and provide help in better risk assessment. This can prevent damage and losses and also help in the easy recovery of the properties.

### **Benefit of drones in natural disasters**

1. Prevention of risk in case of a warning beforehand
2. Drones provide a better view of the situation in the time of disasters and provide a more detailed image of the place.
3. Adjusters can easily assess the damage and evaluate claims in areas which are physically impossible to reach in such situations
4. Drones would also allow for more accurate claims that can be easily fulfilled.

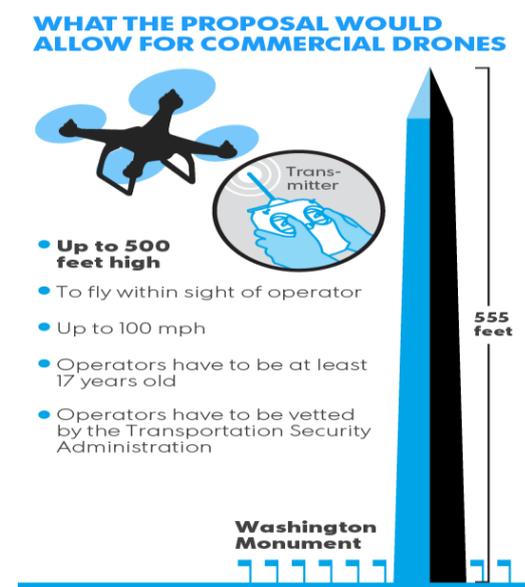
Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA) grants the Secretary of Transportation the authority to determine whether an airworthiness certificate is required for a UAS to operate safely in the National Airspace System (NAS).

## Challenges in Using Drones

Before any insurance drones can take to the skies, however, there are a few hurdles that must be overcome.

- First, the FAA is trying to limit the flight radius of these vehicles, to hinder their ability to operate freely.
- The vehicles are not permitted to operate above 400 feet from ground level, which presents issues in cities like New York where many structures soar much higher.
- To make matters more difficult, flights cannot be conducted over populated areas, again making claims and underwriting analysis difficult in large cities where this could be implemented.
- The size of drones must also be less than 55 pounds, thus limiting the amount and quality of equipment (such as multiple cameras) that the vehicles can carry, as well as the battery life.
- The FAA proposed rules on commercial drones in February that limit their use, but final regulations may not be in place for two years.

Such inhibiting rules would vastly limit the potential for insurance investment in drone technology in the high altitude New York real estate market. While industries such as Hollywood have received exemptions to these rules, it is uncertain whether other commercial industries will be able to attain similar exemptions.

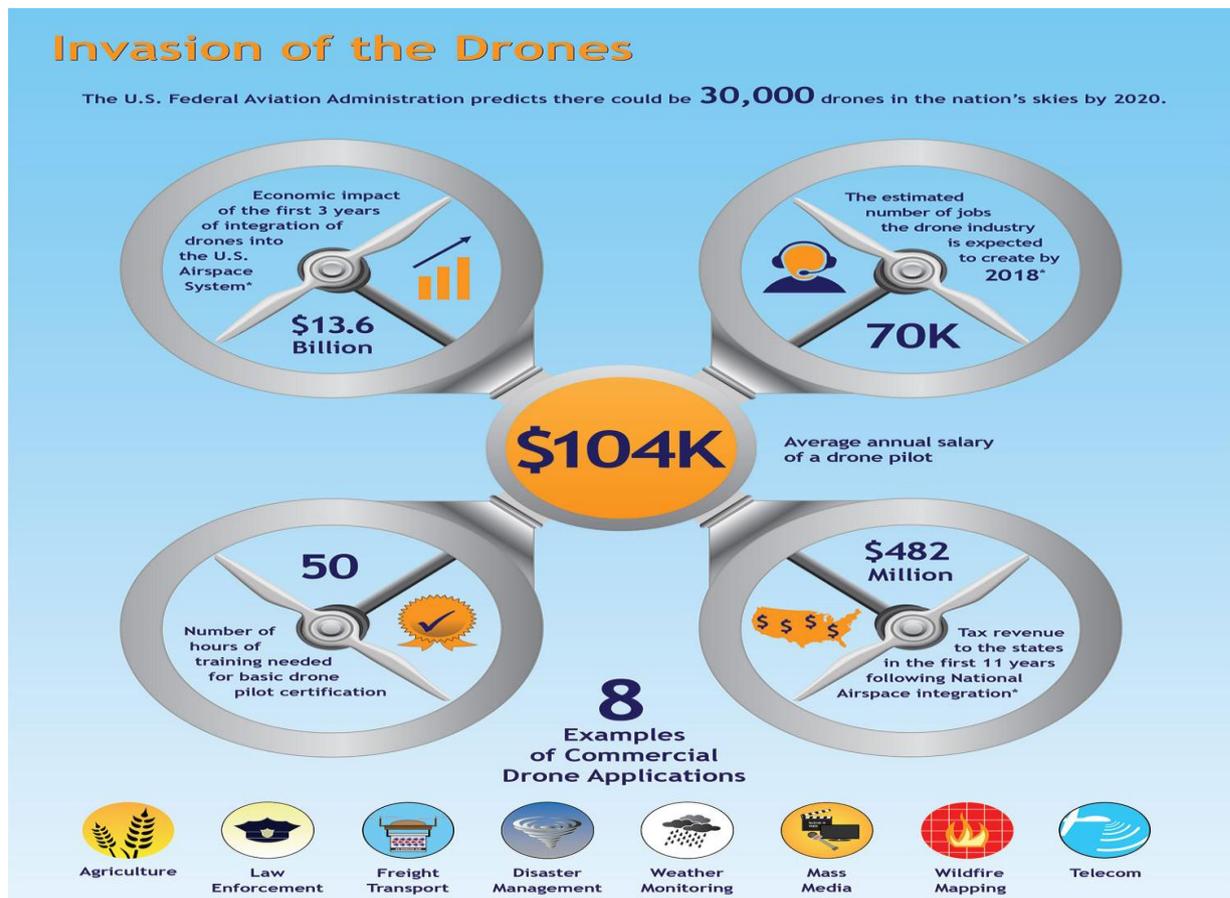


Source: [FAA USAtoday](#)

## Should there be a lift on the rules?

As per the prediction by the Association for Unmanned Vehicle Systems International, in the next 10 years starting 2015 to 2025, drones will contribute US\$ 82bn to the US economy and create approx. 100,000 new jobs. Drones are now equipped with newer capabilities like integrated audio and text with real-time feeds and not just this, they are able to overlay images over existing footage through computer-generated sensory inputs, next-generation drones could have a great commercial value for businesses across industry segments.

An estimated 30,000 commercial and civil drones could be circling the skies in the US by 2020, according to the Federal Aviation Administration (FAA). The insurers believe drones will help them inspect areas that are difficult for people to access, such as wind farms and condemned property. Specifically speaking, drones will help insurers to improve the ability to swiftly respond to claims from natural disasters like floods, typhoons, storms and hurricanes by providing aerial images of areas that are difficult to reach for claims adjusters. They also see drones as a way to reduce injuries from risky roof inspections.



Source: [dronetraininghq.com](http://dronetraininghq.com)



“Previously, we either wouldn’t have had access to this information, would have had to wait, or in some cases collect it with hands-on methods,” said Eric Martinez, an executive vice president at AIG in charge of claims and operations. [WSJ reported]

The U.S. insurance industry is one of several sectors in which the devices are poised to have a significant impact on how companies operate. Already, farmers, filmmakers, miners and construction firms are using unmanned aircraft to inspect crops, capture aerial footage and collect more data on job sites. Amazon.com Inc. wants to use unmanned aircraft to deliver small packages.

Yet, the FAA restrictions could hamper a rollout by insurers.



## CONCLUSION

KMG has been a partner of choice in providing technology solutions to insurance companies such as enterprise mobility, BI solutions and analytics, and legacy support and modernization among others. With its [Enterprise Mobility Solutions](#), KMG provides businesses with the right tools to stay competitive, efficient and maximize the potential of their mobile implementation.

Privacy advocates have shown their concern on the rise of camera-equipped drones in the U.S., saying that it is making it easier for neighbors and companies to spy. President Barack Obama in February sought to assuage privacy concerns by limiting how federal agencies can use drones and how long they can retain data gathered by the devices. Mr. Obama also ordered the Commerce Department to convene stakeholders to develop privacy guidelines for private and commercial drone use, though privacy advocates have criticized that effort because the guidelines would be voluntary.

### About Key Management Group, Inc.

KMG is a NY based Software Development company providing high-quality IT solutions to the Healthcare & P&C Insurance verticals worldwide. Leveraging a resource base that covers almost the entire spectrum of technology – right from the legacy systems (IBM i & Mainframe) to the very latest on Microsoft.NET & Java, KMG provides a wide range of services including, software development, application support & maintenance, legacy migration/web-enabling solutions, testing, business analysis support & even BPO/KPO.

KMG has its headquarters in NY with 3 Offshore Development Centers in India (Gurgaon, Mohali and Kolkata). KMG has around 30 professionals in the US and are supported by another 300 in India.

Website: [www.kmgus.com](http://www.kmgus.com)