

# Understanding the Purpose of Unmanned Aerial Systems

There are things that we need to become more knowledgeable about, and UAS is one of them. UAS otherwise known as unmanned aerial systems have been around for quite some time.

They first started out as a method of warfare so that armies can gather information about their enemies without having to sacrifice a team of scouts. Over the years, additional purposes for these genius pieces of aerial technology appeared that are geared towards civilians. Now there are many reasons different industries use drones or unmanned aerial vehicles.

Picture 1 of Understanding the Purpose of Unmanned Aerial Systems

## 1- Scientific Research

One of the main purposes of UAS is to conduct scientific research, especially in fields such as astronomy, agriculture, or forestry. This is because unmanned vehicles can be utilized to go places that are unsafe for humans. In fact, in the Amazon, many tribes became known to scientists with the help of this aerial tech. Tribes can be quite defensive and savage when they find outsiders near their homes. Using systems that do not require people to put themselves in such danger has made it easier to get closer to these groups. They have also undoubtedly helped people working in agriculture with fertilizer application and surveying their crops to ensure that they are not in danger. These systems can also be used to garner information on the atmosphere.

## 2- Acts as Solution in Emergency Response Field

Another purpose that unmanned aerial systems have fulfilled is within the emergency response field. It can be quite hard for medical professionals and emergency responders to do their jobs without a clear view of what is going on. Aerial vehicles or drones can help these teams assess the situation as soon as possible and be prepared with all the necessary equipment to help survivors, as well as locate the injured. It is an extremely beneficial solution because it allows professionals to save as many people on the scene as possible.

## 3- Used for Surveillance

As mentioned above, UAS have been used by governmental defense and warfare to ensure that they can conduct missions as safely as possible, and protect civilians from external threats by surveying different places quickly and efficiently. Professionals state that UAS based solutions at CP Aeronautics enable countries to protect their borders, survey areas where threats are abundant, and keep track of factors using innovative technology. All of these tasks can be easily done without harm befalling any personnel or civilians in the area. Sometimes, UAS are

used in big events where there are large gatherings to ensure their security, and so that the proper authorities are notified if there is any threat detected.

## 4- Monitoring Linear Infrastructure

Linear infrastructures such as train tracks or mines can be very tricky to keep track of. Aerial technology can be used to monitor these different infrastructures easily and effectively. If you think about it, drones can cover a lot of space in a matter of minutes, unlike trying to monitor a large linear area on foot or by vehicles on the road, especially since these infrastructures may not have any safe roads around. Mines can be especially dangerous if monitored by people because if it is unsafe, deaths and injuries can occur. While these systems are pricey, human life is priceless and should not be endangered if there are other methods of monitoring available.

## 5- External Inspection of Aircraft for Maintenance

Aircraft, whether used by the military or by airlines can be hard to maintain properly. However, they need to be constantly checked for any external issues that may risk any lives on board. Drones can be used to help engineers inspect the exterior of aircraft thoroughly. This ensures that they are aware of any maintenance required and that they take the steps necessary to get the aircraft in the best shape.

## 6- Photography and Videography

Another purpose drones are used for is taking photographs of certain places or recording videos. This can be very useful to both the military and civilians. Production companies making movies can take scenic shots that would be impossible to capture without the assistance of aerial technology that is swiftly becoming more available to civilians. The military can use drones to take pictures or videos of locations or threats without having to unnecessarily risk their soldiers' lives.

### Picture 2 of Understanding the Purpose of Unmanned Aerial Systems

It is safe to say that unmanned aerial systems are becoming more crucial to guarantee the safety of people both nationally and internationally. They are extremely innovative and have a multitude of military and civilian purposes already. It is predicted that UAS is going to have even more purposes for governments and civilians worldwide.

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