# The strength of Aerial photography for annotation purpose

## Introduction

Drones become more popular day after day. At the beginning, people fly drones for fun only. Now, companies started to use these drones for 3D mapping and modeling. However, there are many other applications that companies can use to make their work more efficient and precise.

## Old Waste Dump location

Our Team decided to get some worthy shots of an old waste dump in Oman to see the workability of our drone and data analysis. The flight attitude was chosen to be about 40 m above the ground to produce images suitable for annotation purposes.

The flight period took around 15 minutes. The duration depends on the altitude set, overlap percentage and other minor changes. As a result, drone mapping can cover large areas much faster than traditional surveying. And for this reason, many industries like to use this technique as reason of dramatic cost saving on labor, work, machines, and many others.

This example explains how drones can be the best choice to use for companies that need to efficiently analyze data. Waste dumps contain a variety of objects which could be difficult to see or search for. For instance, if a company desires to recycle rubber present in a waste dump, using aerial photography could prove to be beneficial. In view of that, rubber is usually difficult to spot and scanning large areas by traditional means can be very time consuming.

In addition, Figure 2 reveals a similar example presented in Figure 1. Both figures highlight the effectiveness of scanning areas such as waste dumps with the use of drones. The images can also be zoomed to show the specific dimensions and shapes of these objects. Also, if a waste dump contains hazardous materials the use of drones could help avoid severe injuries and even casualties.



**Figure 1: annotation for tires**



**Figure 2: Annotation for dead palm trees**

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